THE FORT VANCOUVER FARM

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CHAPTER I

A SUMMARY HISTORY

From the beginning of the inland fur trade in North America the procurement of food for the personnel was a serious problem. While small parties of roving traders or trappers could exist for long periods by hunting, fishing, and occasional bartering with the Indians, such living off the land was impracticable at most fixed trading posts, particularly those with large staffs or those so long established that most of the nearby game had been exterminated or scared away. And as lines of communication and supply stretched farther across the continent, food had to be provided

for the canoemen and boatmen as well, since there was little time for more than occasional hunting as the craft hurried to their destinations before ice closed the waterways.

The amounts of provisions required to maintain health, especially during the long winters of much of North America, were sometimes prodigious. It has been estimated that in New Caledonia -- the present northern inland British Columbia -- each man needed four salmon a day, which at one of the more important posts might amount to 25,000 for the year.[1] The basic daily ration for each "servant" or common employee at Fort Vancouver in 1841 was 3 pounds of salt salmon and 1-1/2 pounds of biscuit (or one bushel of potatoes a week in place of biscuit).[2] Since there were then as many as 149 employees at the post on occasion, the quantity of foodstuffs handed out weekly was formidable.[3]

Such large amounts of provisions could not be obtained through local hunting and fishing by employees. Traditionally they were procured by importing food from Europe and by trading with the natives for game, fish, roots, berries, and other produce of the land. Each of these sources had serious drawbacks. Transporting provisions by ship from Europe was expensive and often uncertain, and the costs grew greater as the food had to be carried farther and farther inland. Bartering with the natives, though it minimized transportation expense, made the traders dependent on the Indians to a great extent than was comfortable, particularly after the natives learned to become hard bargainers. Also, supplies from this source

were likely to be interrupted by periodic scarcities of fish and game and by the occasional failure of the Indians to hunt due to migrations, epidemics, hostility toward the traders, warfare with other tribes, and similar causes incident to native life.

For these reasons, the traders sometimes attempted to obtain cheaper, more dependable, and more varied foodstuffs by planting gardens and even by laying out small farms at their posts. As early as 1670, for its first assay at founding a permanent post on Hudson Bay, the Hudson's Bay Company provided garden seeds, hogs, and hens. Peas and mustard were "sown and reaped" at Charles Fort, but the place was abandoned temporarily the next year. The firm continued to send seeds and livestock to its American posts with periodic exhortations to grow as much fresh produce as possible, with the dual object of avoiding scurvey and reducing costs. On at least one occasion in 1694 a gratuity was awarded for "industrious gardening," and a special gardener was hired four years later. But despite such encouragement many traders remained apathetic toward agriculture. They appeared to agree with the manager of York Fort who said his "Time and thoughts" were "Sufficiently Employed in what is more condusive [to fur trade profits]."[4]

When the fur trade expanded to the Pacific Slope lines of supply were greatly lengthened, with resultant increased costs. The first firms to operate in that region soon found it advisable to attempt farming. In 1811, for example, Daniel Harmon, in charge

of the North West Company's post at Stuart Lake in New Caledonia, planted potatoes and sowed "barley, turnips, &c. which are the first that we ever sowed, on this west side of the mountain [Rocky Mountains]."[5] During that same year John Jacob Astor's Pacific Fur Company established Fort Astoria at the mouth of the Columbia River. With much difficulty a plot of land was cleared and planted with potatoes and other vegetables. The small scale of the effort is shown by the fact that by the third year only fifty bushels of potatoes were harvested. Seeds were sent to Astor's other posts inland, but apparently the only results recorded were at Spokane House, where potatoes, cabbage, turnips, and other vegetables were raised.[6] When the North West Company took over Astor's enterprise in 1813 these agricultural efforts were continued and even expanded.

But gardens and small farms, while they augmented food supplies and provided variety in the diet, did not by any means meet the demands for vast quantities of provisions. Records clearly demonstrate how far the early efforts at agriculture fell short of solving the problem. In 1827, for instance, Chief Trader Joseph McGillivray at the Hudson's Bay Company's Fort Alexandria in New Caledonia reported: "Our means of Subsistence are principally on Salmon -- and in fact when this fails, as it happened this year we have no other substitute."[7] Even in 1829 two-thirds of the provisions at the same firm's Fort Prince of Wales on Hudson Bay consisted of such "country produce" as geese, partridges, venison, and fish,

partly traded from the Indians and partly gathered by employees. The remaining one-third, largely flour and oatmeal, was obtained from England.[8]

The difficulty did not lie entirely in the small scale of the effort. Many trading posts were situated in regions where the soil or the climate or both were unfavorable for agriculture. In the far north frosts were frequent even in summer, and sufficient experimenting had not been conducted to determine which crops or varieties were suitable for northern latitudes. There was also the fact that most fur traders were not trained farmers. The staffs at many posts were not large enough to permit extensive agricultural operations, and in many localities the Indians seldom could be induced to work in the fields. And perhaps most important, many traders had little enthusiasm for farming; they had taken up life on the frontier to escape such unglamorous pursuits. Governor George Simpson, principal manager of the Hudson's Bay Company's operations in North America, well described the situation when he wrote in 1824: ". . . it unfortunately happens that in these savage regions, Gentlemen [the Company's officers and clerks] sometimes imbibe the exalted notions of Indian Chiefs who consider that to Slaves or inferiors alone belong the less important yet useful and necessary duties of providing for their Daily wants by their own personal exertions."[9]

By the opening of the nineteenth century the Hudson's Bay Company had concluded that for its part at least a more comprehensive solution than post gardens must be found. "The servants of

the Hudson's Bay Company employed in the fur trade, have hitherto been fed with provisions exported from England," the firm told the British government, with some exaggeration, in 1815. "Of late years," the letter continued, "this expense has been so enormous, that it has become very desirable to try the practicability of raising provisions within the territory itself."[10]

As part of a general retrenchment in 1810 the Company sent cattle to Hudson Bay and offered cash awards to officers for efficiency in raising livestock and grain. But the reform did not stop with these measures. For some time there had been pressure from employees for a settlement where they and their families could live after retirement, and the Company had been seeking means of attracting more recruits from Europe. The London directors had already decided that an agricultural settlement along the lower Red River -- in the vicinity of the present Winnipeg -- where retirees could be helped in establishing farms would serve both purposes. What was more, the produce raised in the colony would go part way to reduce the dependence of the fur trade on imported provisions.[11]

This plan was soon merged into a project of the Earl of Selkirk to establish agricultural settlements in America as refuges for distressed Europeans. Through the purchase of stock and family connections Selkirk had obtained a powerful position in the Company, and in 1811 he took control of the Red River project, obtaining a

vast grant of the Company's land in that region.[12]

The firm told the British government four years later that it was "induced" to make this arrangement because "it did not appear probable that agriculture would be carried on with sufficient care and attention by servants in the immediate employment of the company, but by establishing independent settlers . . . the company expected to obtain a certain supply of provisions at a moderate price."[13] In actuality there were other reasons for the transfer which may have been more compelling than the desire for a local food source, and in any case various obstacles long prevented the colony from fulfilling the Company's hopes that it would solve the provision problem. It was not until about 1825-1827 that Red River settlement began to play a significant part in victualing the firm's posts east of the Rocky Mountains.[14]

When energetic, ambitious George Simpson was appointed governor of the Company's Northern Department in 1822 the matter of reducing the amount of imported provisions received increased attention as a key part of his program to rehabilitate the fur trade after the coalition of the North West Company and the Hudson's Bay Company during the previous year.[15] His observation of the fine garden at Cumberland House on the Saskatchewan River in 1820 and his knowledge of the advantages the North West Company derived from agriculture at its posts on Peace River during the same year had already convinced him that increased cultivation would "lighten the consumption of

animal Food materially, and guard against the dangers of Starvation."[16]

In July, 1822, he informed the Company's London directors that by obtaining more food "in the Country" it might soon be possible to cut the importation of provisions in the Columbia District "to a small scale."[17] But progress in this direction was slow until Simpson could give the matter his personal attention.

In the fall of 1824, while descending the Columbia River on his first inspection tour west of the Rockies, Governor Simpson was shocked to discover how much reliance was still placed on imported foodstuffs. "The good people of Spokane District and I believe of the interior of the Columbia generally have since its first establishment shewn an extraordinary predilection for European Provisions without once looking at or considering the enormous price it costs," he wrote in his journal; "if they had taken that trouble they would have had little difficulty in discovering that all this time they may be said to have been eating Gold."[18] Simpson was determined to end this extravagance. It was not the first cost of the provisions that bothered him, but he found "the Expence of conveying them to their destination a "matter of very serious consideration."[19]

By the time the "Little Emperor" reached Fort Okanogan he was convinced that grain "in any quantity" could be grown in the Columbia District. He found the potatoes harvested at that post to be the "finest . . . I have seen in the Country," and he decried the past failure to produce the corn which might have been raised in abundance. "It has been said," he added, "that Farming is no branch

of the Fur Trade but I consider that every pursuit tending to leighten the Expence of the Trade is a branch thereof."[20]

Soon after he reached Fort George, the district headquarters on the south shore of the Columbia near its mouth, Simpson expanded his concept of the role agriculture might play in the fur trade of the Pacific Slope. No longer did he see farming only as a means of supplying grain, vegetables, and fruits to augment the abundant quantities of fish, potatoes, and game -- "in short every thing that is good or necessary for an Indian trader" -- already available in the region.[21] In his enthusiasm he envisioned the development of a profitable export trade in farm produce. "Provisions for which there has been such a hue and cry from Fort George since its first Establishment," he told the Governor and Committee, "is not only not required but by attention I am of opinion that we might actually make it an article of Trade from this Coast say Beef Pork Fish Corn Butter &c &c."[22]

Simpson quickly determined that the neighborhood of Fort George was not suitable for agricultural operations on the large scale he now planned. He found the soil "poor." The ground was so uneven that only fifteen or twenty acres could be plowed, and the heavy stand of timber made it difficult to clear more land. He believed the sea air precluded the successful raising of Indian corn and grain, though he admitted that the potatoes, cabbages, and turnips produced there were excellent.[23]

Only "a few Days" after he reached Fort George on November 8, 1824, Simpson began a search for a new site for the Columbia headquarters and depot. There were several reasons for this decision, chief of which was the desire of the British government and the Company's directors to move all fur posts south of the Columbia to the north shore in order to strengthen British claims to the region between that stream and the forty-ninth parallel. It is not entirely certain, however, that Simpson knew of the Company's orders of June and July, 1824, to this effect prior to his departure for the West Coast, although he surely was aware of the political desirability of such an action.[24] From Simpson's own correspondence of the period it would appear that he acted more from conclusions derived from his own thoughts and observations than from any directions he might have received from London.

Outweighing all other considerations in Simpson's mind was his desire to find a suitable site for the large agricultural establishment he planned. The "main object" in abandoning Fort George and relocating the headquarters, he told the Committee on March 1, 1829, was "that of rendering ourselves independent of foreign aid in regard to the means of Subsistance."[25] Chief Factor John McLoughlin, who had accompanied Simpson to the West Coast and who remained there as manager of the Columbia District, wrote many years later that the move was made because the new site "was a place where we could cultivate the soil and raise our own provisions."[26]

McLoughlin should have known the truth of the situation, since he and Chief Factor Alexander Kennedy were dispatched to search for a suitable location along the north shore of the Columbia. They did not find a satisfactory site for both a depot and a farm until they reached a place known as "the Jolie Prairie" or "Belle Vue Point," about one hundred miles upstream from the sea and about five miles above the mouth of the Willamette River. Here a grass-covered plain, sweeping back from the Columbia for as much as a mile at its greatest width and somewhat more elevated than the swampy lands immediately to the west, seemed to offer an ideal situation for cultivation and stock raising. But mindful of the river's frequent floods and the need for a good defensive position, the two chief factors decided to locate the stockade off the prairie and about a mile back from the stream on the brow of a bench about sixty feet above the river plain.[27]

Even though the new site was somewhat inconvenient for a depot, being far from the sea and at an awkward distance from the river and from a water supply, Governor Simpson was delighted with it. "A Farm to any extent may be made there," he told the London directors, "the pasture is good and innumerable herds of Swine can fatten so as to be fit for the Knife merely on nutricious Roots that are found here in any quantity and the Climate so fine that Indian Corn and other Grain cannot fail of thriving."[28] He anticipated that hunting as a source of provisions could soon be eliminated, since "with a little attention to our Farm we shall be enabled to rear more Beef

and Pork than will be required for the business of the whole Department."[29]

Construction of the new post began sometime between late November or early December, 1824, and the end of January, 1825. By March 19 of the latter year, when Governor Simpson christened it "Fort Vancouver," the stockade was up and several buildings were in various stages of completion.[30] The "Little Emperor" departed for the east side of the mountains on that same day, leaving Chief Factor McLoughlin in charge of the depot and the Columbia District. Work on the new fort almost came to a halt very shortly thereafter, because most of the personnel, already reduced in number by Simpson's reforms, were required for a variety of duties elsewhere.

This same cause resulted in a delay in starting the farm Governor Simpson so urgently desired. "It was the 21st April before we could put a plough in the ground," McLoughlin apologetically reported to the governor on June 20, 1825. He noted with some pride, however, that he had one hundred bushels of seed potatoes planted and had sown a quarter acre in beans and three acres in peas. He expected these crops to yield enough for seed the next year, and he believed the potatoes would "supply our wants."[31]

Despite an infestation of "moles" which did "great injury" to the potatoes, McLoughlin's prediction was fulfilled.[32] The three bushels of peas sown yielded 9-1/2 bushels, all of which were put in store as seed for the next crop. This result, said the "Big Doctor" on October 6, 1825, was "very well considering the Bad

quality of the Seed."[33] Nine hundred barrels of potatoes also were raised that first year, along with "a few" beans for seed.[34]

The first fields appear to have been laid out on the higher ground near the stockade. Such, at least, is the inference which perhaps can be drawn from the somewhat ambiguous words of a visitor during 1825. Fort Vancouver, Dr. John Scouler wrote on May 4, "is situated in the middle of a beautifull prairie, containing about 300 acres of excellent land, on which potatoes & other vegetables are cultivated; while a large plain between the fort and river affords abundance of pasture . . . ."[35] On the other hand, McLoughlin reported in or about 1825 that the soil "on the Hill" where the fort was located was "light and covered with very large trees." On the plain below the post, he added, the soil was "alluvial" though the ground in both places was "infested" with moles.[36] Because of this somewhat conflicting evidence it seems the better part of wisdom to conclude that the location of the earliest cultivated fields is still undetermined.

Except for the pigs, the livestock also thrived that first year. The initial stock was brought from Fort George during the spring of 1825. John Work, who was in charge of transferring the property from the old depot to the new, mentioned in his journal entry for May 14 that the pigs would be loaded on the boats the next morning.[37] There are discrepancies in accounts of the numbers of animals available for the start of the Fort Vancouver farm. In

1829 Governor Simpson declared that the original stock consisted of 31 head of cattle and 17 hogs.[38] Four years later McLoughlin wrote that there were only 17 "cows" in 1824, and on another occasion he said that the original herd of cattle at the new depot totaled only 27 head, large and small.[39] In 1837 the "Big Doctor" wrote: "it must be recollected that in 1825, when I took charge of this place, we had only 3 Bulls, 23 Cows, 5 Heifers, and 9 Steers."[40] It is also likely, as shall be seen later, that there was a small herd of goats. And probably there were some chickens and a few "Spanish cats," since the Astorians had acquired several of each at Monterey, California, as early as 1814.[41] The hogs at Fort George had been imported originally from the Hawaiian Islands, while the cattle came from California.[42]

In order to increase the size of the herd as rapidly as possible, Simpson and McLoughlin determined, before the former's departure, that no cattle should be killed for food until there were 400 head in the depot herd.[43] This policy caused McLoughlin some difficulty almost at once, since early in 1825 he had to refuse a request from the Company's vessel, William & Ann, for a cow to provide fresh provisions for the crew. To have yielded, he wrote to Simpson during June, "would be breaking our plans."[44] The only exception permitted by McLoughlin was the slaughter of an occasional bull to supply rennet for making cheese. The general policy was rigidly adhered to, despite occasional grumbling from the employees

and the sometimes vehement protests of visiting seamen, until 1836, when the first cow was killed for food.[45]

Fort Vancouver quickly proved to be an ideal location for raising cattle, which were grazed with the horses on the lower plain between the fort and the river.[46] By March, 1826, McLoughlin could report to Simpson that the cattle amounted to 27 cows, 5 three-year-old heifers, 3 bulls, 11 steers, 2 oxen, 11 year-old heifers, and 2 "this Spring calves."[47] From these figures it appears possible that a few head had been imported during the year, perhaps by the William & Ann from England.

The hogs, on the other hand, got off to a poor start. Four of them died during the first year from eating "a kind of poisonous Camas," and wolves devoured several more during the next season. In September, 1826, McLoughlin told Simpson, "I am afraid we will scarce be able to have the Quantity of Pork we Expect for 1828."[48] But after 1826 the rate of increase gave no grounds for complaint.

One of the greatest necessities of the far western fur trade was horses. Not only were they required for work about the depot and farm and for the transport of furs and goods between the fort and the river, but they were needed as pack animals to carry supplies to several of the inland posts as well as in large numbers for the trapping and trading parties which ranged east far into the Snake Country and south toward California. In the case of the fur brigades and even on occasion at inland posts, the horses served as

an emergency food supply as well as a means of transport.

The principal source of horses was the native tribes of the Columbia Plateau, particularly the Nez Percés. But the Indians usually exacted high prices, and their supply was unreliable. Thus it behooved McLoughlin to build up a herd of his own as quickly as possible. On April 22, 1825, he noted the arrival of "Mr. [Thomas] McKay" with 73 horses, "including those belonging to the men."[49] Perhaps these animals were driven from Fort George, but more must soon have been obtained from other posts or from the natives, because early the next month a visitor observed 120 horses grazing on the plain below the fort.[50]

According to Governor Simpson, this agricultural progress was accomplished "independent of the usual routine business of the Establishment, with a regular compliment of 20 men."[51] Since there were 76 "servants" on the Fort Vancouver roll during Outfit 1826 (the business year June 1, 1826, to May 31, 1827), this statement is somewhat difficult to understand until one studies the correspondence and realizes that during much of the year the majority of these men were on detached service such as manning the boat brigades, participating in the Umpqa and other expeditions, and conducting the express parties.[52] In fact during October, 1825, McLoughlin told the London directors that after the departure of the various brigades only eleven men, including himself, remained at the depot.[53]

No evidence has yet been found to indicate that Indians were employed as farm hands during this initial stage.

Records thus far examined do not reveal who was in immediate charge of the farm during its earliest years. Later it was customary to designate one of the clerks for this assignment, although periodically qualified farmers and shepherds from Britain were employed to supervise the more technical aspects of the business. But in the beginning it is quite likely that Chief Factor McLoughlin personally directed operations, though he may not have conducted the everyday routine supervision of the workers. William Bruce, who later and for many years was the gardener at Fort Vancouver, first appears in the depot employee lists during Outfit 1826 as a laborer at £15 a year.[54] When he began working primarily on the farm is not apparent, but he was not specifically mentioned as gardener until 1833.[55]

Even though McLoughlin may often have left the daily oversight of the workers to others, he was by nature a man who insisted on involving himself in the most minute details of administration. Thus it is highly probable that he not only planned the development of the farm but gave it his close attention, not merely at the beginning but in later years as well. Certainly, as is shown by his requisitions for seeds and farm machinery, he studied agricultural methods and was anxious to experiment with new strains, new new crops, and new equipment in order to increase production and profitability.

Although McLoughlin wrote in 1837 that he did "not understand" about farming, the large increases in acres under cultivation, in crop yields, and the size of the livestock herds during the period he managed Fort Vancouver and the Columbia Department attest to how well he learned his lessons, for his skill in agriculture was largely acquired after his arrival on the Pacific Slope.[56] While born on a farm in Canada, he had moved to Quebec while still a young boy, and his subsequent activities as a medical student and fur trader had provided little agricultural experience.

The accounts of many later visitors to Fort Vancouver, as well as his official reports, bear witness to the pride the "Big Doctor" took in the depot farm and its flourishing fields, herds, and gardens. Yet, underneath, there seems to have lingered a remnant of the age-old fur-trader prejudice against farming. As shall be seen, certain agricultural practices at Fort Vancouver reflected a degree of carelessness and lack of enthusiasm on the part of management. In late 1845, on the eve of his retirement from active service with the Company, McLoughlin admitted to the Governor and Committee in London: "if it had not been for the great expense of importing Flour from Europe, the serious injury it received on the voyage, and the absolute necessity of being independent of Indians for provisions, I never would have encouraged our farming in this Country, but it was impossible to carry on the trade without it."[57]

But during the early years of his regime, the "King of Oregon" energetically carried out Governor Simpson's plans for agricultural

expansion, not only at Fort Vancouver but at other posts widely scattered throughout the vast Columbia Department. In 1826 a farm was begun at the newly established Fort Colvile, far up the Columbia River northwest of the present Spokane. Governor Simpson had personally selected the site for the post garden in 1824 and had ordered the immediate planting of a few bushels of potatoes there.[58] When he paid Colvile a return visit in 1829 he was so impressed by the success of the farm that he reported: "it supplies all the Grain required for the interior, rendering it unnecessary to furnish any Provisions at the coast [Fort Vancouver] except for consumption on the voyage [of the supply brigades up the Columbia]."[59] The fact that Fort Colvile could provide the flour required by the New Caledonia posts resulted in large savings in transportation costs.

Another new post, Fort Langley, was erected in 1827 near the mouth of Fraser River, not far from today's Vancouver, British Columbia. The rich alluvial soil of the Fraser flood plain produced potatoes in abundance. In 1828 two thousand bushels were harvested, and Governor Simpson believed that corn and other grains could be successfully grown there.[60] This prediction proved to be only partially correct, but by 1841 the "excellent farm" at Fort Langley produced enough to satisfy the needs of that post and to assist in provisioning other forts on the Northwest Coast.[61]

Crops, except for potatoes and certain other vegetables, never were particularly successful at the New Caledonia posts. But

farming continued to be encouraged in that "Siberia of the fur-traders," and by the mid 1840s Fort Alexandria was producing enough wheat to somewhat reduce its dependence on Fort Colvile for flour.[62] The Columbia Department increased its agricultural production significantly as farms at Fort Nisqually, Cowlitz, and Fort Victoria came on stream during the 1830s and 1840s.

These growing yields at other posts must be borne in mind when assessing the significance of the Fort Vancouver farm. During its first few years the depot provided practically all the grain, butter, and pork required for departmental operations. Then, after about 1828, Colvile took over much of the provisioning of the interior posts, except for fish and game which were acquired locally at the individual stations. Then farms at Langley, Cowlitz, and Nisqually, especially, began to contribute to feeding the Company's personnel on its shipping and on the Northwest Coast.

By 1843 Cowlitz Farm, operated under McLoughlin's general supervision by the subsidiary Puget's Sound Agricultural Company, was producing 5000 bushels of wheat annually, while the wheat crop at Vancouver during the same year was only 3000 bushels. What was more, in order to meet the Company's domestic requirements and its export obligations, McLoughlin expected to purchase 10,000 bushels of wheat that season from the independent settlers who by then had developed farms in the Willamette Valley.[63] The Fort Vancouver farm, until about 1849, was a very substantial and flourishing

institution for its time and place, but it was not the whole story of Hudson's Bay Company agriculture on the Pacific Slope nor could it alone satisfy the firm's needs for large quantities of provisions.

The Fort Vancouver fields and garden were the scenes of several important contributions to agriculture in the Pacific Northwest, and most visitors were profuse in their praise of the farm's beauty and efficiency -- facts which sometimes tend to obscure the reality that agricultural progress also went ahead, sometimes on an even larger scale, at other Columbia Department posts. With these general observations to provide a degree of perspective, the history of the depot farm can be resumed with more understanding.

Agriculture at Fort Vancouver was scarcely more than an experiment during 1825. As McLoughlin later said, the three bushels of peas then planted constituted the "only grain we had and all we had."[64] Thus, in a sense, the farm really got its start the next year when more resources were available. Late in 1825 the fall express from Hudson Bay brought a generous freight of seeds from Governor Simpson. Although some of the seed was of poor quality to start with and although much of it was "greatly injured" in transit, McLoughlin now had the wherewithal to begin farming on a more extended scale.[65]

Evidently it was early in 1826 when the "Big Doctor" planted two bushels of spring wheat, an act which is generally held to mark the beginning of wheat growing in the present State of Washington.

Also sown were 200 barrels of potatoes, 9-1/2 bushels of peas, two bushels of barley, one bushel of oats, a bushel of Indian corn, and a quart of timothy. The potato crop "failed" that year, yielding only 600 barrels. The Indian corn also did poorly, producing a mere 1-1/2 bushels. "I am certain," McLoughlin told the London directors, "the Soil about this place is not so well adapted to it as for the other Kinds of Grain." But he had no complaint about the rest of the crops. He pronounced the wheat, oats, and barley to be "the finest I ever saw in any Country." The peas yielded 114 bushels, the barley 27, the oats 6, and the wheat 12.

After the harvest McLoughlin was able to tell the Committee that it would no longer be necessary to import Indian corn into the Columbia Department, since the locally grown peas could be used as a substitute if necessary. He also could predict that after 1828 the wheat grown at Fort Vancouver would supply all the flour needed in the Company's establishments west of the Rockies.[66]

Except for a good part of the potatoes and half of the barley, McLoughlin intended to use all of the 1826 harvest as seed to be planted in the spring of 1827.[67] Also, the supply ship William & Ann reached the Columbia River from London on April 28, 1827, and in her cargo was a supply of seeds, including "Red Wheat," "White Wheat," oats, and barley. This English seed came to naught, some because it did not sprout and the rest because it was planted too late. McLoughlin's other crops were only moderately successful that year, due largely to the heat and "Excessive Drought" experienced

during the summer. On August 11, 1827, he told the Governor and Committee in London that he expected the yield to amount to 150 bushels of wheat, 500 or 600 bushels of peas, 300 bushels of barley, and 50 bushels of oats.[68] Earlier in the year he complained to Governor Simpson that it was "a pity" the pumpkin seed he requested had not been sent, because in a region where potatoes and turnips were "subject to fail" a good supply of pumpkins "would enable us to feed our Pigs,. in house all Winter [;] they would thrive better and none would be devoured by Wolves."[69]

Although McLoughlin believed that his harvest at the end of 1827, together with provisions he had ordered from England, would be sufficient for the needs of the department, he still felt it necessary to send a Company vessel to California and the Hawaiian Islands to purchase Indian corn, salted provisions, flour, and butter in order to have a "small stock" on hand in case of a crop failure in 1828.[70] And in the fall of 1827 provisions at Fort Vancouver were so low that he found it desirable to send all the spare hands off to hunt for furs.[71]

As it turned out, McLoughlin need not have worried about the 1828 harvest. During February of that year "new ground" was plowed, and more "large timber" was cleared.[72] That spring 76 bushels of wheat, 18 of "Grey Pease," 7 of "Early Pease," 30 of barley, 22 of oats, and 3 of Indian corn were planted.[73] The yield was "very abundant," except for the "white Pease" and even they were better

than at the previous harvest.[74] During August McLoughlin told the London directors he expected to reap 1000 bushels of wheat, 400 of peas, 500 of barley, 200 of oats, and 200 of Indian corn.[75] According to Governor Simpson, who revisited Fort Vancouver in the fall of 1828, the results were even better in some respects than McLoughlin had anticipated: 1300 bushels of wheat, 300 of peas, 1000 of barley, 100 of oats, and 400 of Indian corn. In addition, there were 4000 bushels of potatoes and the produce of "extensive Gardens."[76] With considerable pride, McLoughlin was able to announce: "we shall not require Flour or Grain from England in future." Not only did he have a year's stock of these items on hand but he also had provisions for a year in advance, except for salt meat.[77]

A somewhat different and perhaps more meaningful view of the Fort Vancouver farm as it was about the end of 1828 is given by Jedediah Smith, the famous American fur trader who sought refuge at the post after the massacre of most of his party by Indians on the Umpqua River. Two years later he described the farm to the United States Secretary of War as follows:

> The crop of 1828 was seven hundred bushels of wheat; the grain full and plump, and making good flour; fourteen acres of corn, the same number of acres in peas, eight acres of oats, four or five acres of barley, a fine garden, some small apple trees and vines. The ensuing spring eighty bushels of seed wheat were sown: about two hundred head of cattle, fifty horses and breeding mares, three hundred head of hogs, fourteen goats, the usual domestic fowls.[78]

Smith's account was published in a Congressional document and thus tended to give credibility to favorable reports on the

agricultural potentialities of the Oregon Country which were already circulating in the United States. Other descriptions by visitors and missionaries during the next few years served to increase the "Oregon fever." Thus the Fort Vancouver farm played a part in determining the political future of the region.

From the words of Governor Simpson and Jedediah Smith it is clear that a garden and young orchard were in existence at the depot as early as the fall of 1828; it is probable that the garden, at least, dated from 1825. Various accounts, including one dating back to 1836, also place the beginning of the orchard as early as 1825 or even 1824. It is probable, however, that fruit seeds were first brought to Fort Vancouver by Lieutenant AEmilius Simpson, who did not reach the depot from London until November 2, 1826.

In 1828 or early 1829 Lieutenant Simpson told a missionary in Hawaii that he personally had planted grapes and apples at Fort Vancouver. Many years later a descendant of Chief Factor McLoughlin said that the "Big Doctor," Pierre Pambrun, and Lieutenant Simpson planted the apple and grape seeds that Simpson had carried from London in his vest pocket. The seeds were first sown in "little boxes" according to this story. The boxes were placed in the store (warehouse) and covered with glass until the trees were large enough to be planted outdoors.[79] The inference of this story seems to be that these apples and grapes were the first fruits planted at Fort Vancouver.

If such was the case, the "small" trees and vines seen by Jedediah Smith must have been very young indeed. It is sometimes claimed that these plantings marked the beginning of fruit culture in the Pacific Northwest. Strictly speaking such was not the case, since peach stones were planted by the crew of the ship Ruby on the lower Columbia in 1795 or 1796; but, left untended, the trees died.[80] Thus the orchard at Fort Vancouver seems better described as being almost certainly the first successful fruit-growing venture in the region.

The variety of vegetables in the garden and perhaps of crops in the fields must have been considerably increased by seeds received in 1827 and 1828 from the Horticultural Society of London. David Douglas, the Scottish botanist, made Fort Vancouver his headquarters while he scoured the Northwest for new species of plants from 1825 to 1827, and on October 3, 1825, he wrote to his sponsors suggesting that they send his kindly host, Dr. McLoughlin, a selection of seeds which he considered would "be useful at the Company's settlements on the Western Coast." One "parcel" of seeds was sent to York Factory in June, 1826, for carriage across the continent by the firm's express, and a duplicate went by the annual supply ship which reached the Columbia in 1827. Whether the first packet reached Hudson Bay in time to be transmitted by the fall express in 1826 is not yet clear. Another "Packet of seeds for the Farm at Fort Vancouver" was shipped from London in 1828. The Governor and Committee thanked the Society for this "assistance in furthering

the comforts of the people at their establishments."[81]

The years 1827 and 1828 were also prosperous ones for the livestock herds. During February of the former year a Fort Vancouver resident noted in his journal: "Cows calving in every direction."[82] Late in 1828 Governor Simpson said that the number of cattle at the depot "now Exceeds 150 Head."[83] He was somewhat more specific a few months later when he told the Committee "our Stock of Cattle is 153 Head (independent of calves) of Hogs 200 odd head, besides the consumption of the Establishment of fresh Pork and about 6000 lbs. Salted Pork -- of Goats 50 head."[84] Thus far no hint has been found in the records as to the source of the goats, but there had been some at Astoria in 1813.[85]

When he reached Fort Vancouver in the fall of 1828 on his second inspection trip to the Columbia Department, Governor Simpson was delighted with the progress of the farm. "The Farming operations at this Establishment are of vital importance to the whole of the business of this side of the Continent," he told McLoughlin on March 15, 1829, "and the rapid progress you have already made in that object far supasses the most sanguine expectations which could have been formed respecting it." But Simpson, being Simpson, was not entirely satisfied. "That branch of our business however," he continued, "cannot be considered as brought to the extent required, until our Fields yield 8000 Bushels of Grain p Annum, our Stock of Cattle amounts to 600 head and our Piggery enables us to cure 10,000 lb of Pork pr Annum."[86]

The "Little Emperor" was thinking ahead to the possibility of trading foodstuffs from Fort Vancouver to the Russians in Alaska, thereby helping to drive the American maritime traders from that market and from the fur trade along the Northwest Coast. "We could," he told the Committee, . . . "furnish them with Provisions, say Grain, Beef & Pork, as the Farm at Vancouver can be made to produce, much more than we require: indeed, we know that they now pay 3$ p. Bushel for wheat in California, which we can raise at 2/- [shillings] p. Bushel."[87] He even went so far as to propose an agreement to the Russian governor at Sitka under which the Company would supply a large amount of grain and salted meat "for a term of years," but the Russians refused the offer at that time.[88]

A major step in the development of the Fort Vancouver farm came very early in 1829 when the post stockade and the main buildings were moved about a mile west from their location on the bluff to a new site on the lower plain. The new fort was about 300 feet square before its later enlargements. What was evidently a new garden was laid out directly behind the stockade, on its north side.[89] If the main farm fields were ever located on the bluff, they apparently were also transferred about the same time to the low prairie along the river which became known as Fort Plain. At least little more appears in the record about fields on the hill, although a part of the slope leading up to the bluff rim was cultivated for many years.

From this time the development of the garden, which term seems to have included the orchard for a decade or more, can be followed with some assurance. According to one apparently authentic story, the first peach trees in the Pacific Northwest to achieve bearing age were set out in the depot garden in 1829. In the spring of that year the American trading vessel Owyhee went aground in the lower Columbia, and McLoughlin sent a boat's crew and food to her assistance. Francis A. Lemont, an apprentice on the Owyhee, repaid the kindness by giving the "Big Doctor" three young peach trees he had acquired at the Islands of San Juan Fernández off the coast of Chile.[90] At any rate, there definitely were peach trees at Fort Vancouver by 1832, and they apparently were bearing by 1834.[91]

The first fruit trees to bear were the apples. McLoughlin had guarded the young trees carefully to see that no one damaged them, and at last, according to one of his descendants, the day came when he told his family, "Now, come and see, we are going to have some apples." The "apples" proved to be a single fruit, green in color. The "Big Doctor" sliced the fruit thinly with his penknife and gave a piece to everyone present. The next year there were plenty of apples, and they were red.[92] The harvesting of the first apple seems to have taken place in 1832 or earlier, since a new employee at the depot found the "young apples" in "rich blossom" during May, 1833.[93]

The seeds of the apples and grapes -- and presumably those of other fruits as they came along -- served to officers, clerks, their

families, and guests at Fort Vancouver were carefully saved and planted. ."This is a rule of Vancouver," noted Narcissa Whitman in 1836.[94] Because of this custom of growing trees from seed most of the apples, at least, were not consistent in variety. George Gibbs, a trained observer, believed that the apples growing behind the fort in 1849 were "natural and not grafted trees."[95] However, a visitor of 1841 noted the presence of a few "approved varieties" imported from England, but otherwise, he said, the apples at Fort Vancouver "to my taste were better adapted for baking than for a dessert."[96]

Dr. McLoughlin was an eager experimenter in the field of fruit culture. Evidently his aim was to see what kinds of fruits would grow well in the Columbia Department. A visitor in 1832 noted only apples, peaches, and grapes in the garden, but soon witnesses began to record the presence of other varities also. Jason Lee observed pears in 1834.[97] The Reverend Samuel Parker spent some time at the depot during the next year, and in his journal stated that he saw "various tropical fruits such as figs, oranges, and lemons."[98] The presence of these "tropical fruits" was confirmed during 1836 by the Reverend H. H. Spalding, who also observed citrons, quinces, pomegranates, cherries, plums, and prunes.[99] A visiting scientist in 1841 found nectarines "of the finest sorts" growing at the depot.[100]

The precise sources of the fruits other than the first apples, grapes, and peaches are not entirely clear. As has been seen, some of the apples were imported from England. According to Clerk George B. Roberts a number of fruit trees from Chiswick, the estate of the

Duke of Devonshire near London, were brought out "under glass" by William Bruce the gardener when he returned to the depot by sea in October, 1839.[101] Undoubtedly the Company's ship captains, when making calls at the Hawaiian Islands and California, gathered in a few young trees and seeds to please the "Big Doctor."

From the accounts of a number of observers it is clear that apples were the fruit which flourished best at Vancouver. The young American ornithologist, John Kirk Townsend, in 1834 found the apples to be "the greatest curiosity" in the Fort Vancouver garden. "So profuse is the quantity of fruit that the limbs are covered with it," he noted in his journal, "and it is actually packed together precisely in the same manner that onions are attached to ropes when they are exposed for sale in our markets." He said the branches would have broken had it not been for the props.[102] Jason Lee, another visitor of 1834, remarked that the apples were "fine" and said he had never seen trees of the same size so heavily laden with fruit.[103] Visitors of 1836 found "everything" producing well, with apples and grapes "in great abundance."[104]

In fact, the apples did so well that by 1841 there were four or five hundred trees in a bearing state.[105] Obviously, the fruit trees had already become too numerous to be contained in the garden, and about 1839 there appears to be evidence that a separate orchard "of apple trees" was in existence.[106] This orchard immediately adjoined the garden on the west, and it is even possible that for a time in the 1850s a part of it extended southward adjacent to the

entire west wall of the fort stockade.[107] A considerable part of the orchard was burned in the great fire of September, 1844, and it is possible that it was replaced by cultivated fields for several years.[108] It may be significant that Clerk Thomas Lowe in his journal entry during the fire mentioned "the orchard adjoining the Fort garden," while during 1845 he merely mentioned apples and other fruit trees "in" the garden.[109]

In any case, the cultivation of peaches, pears, apples, grapes, and perhaps other fruits continued in the garden for many years. Clerk Thomas Lowe mentioned these fruits as abounding in the garden during September, 1845.[110] However, as certain fruits were found not to thrive in the Vancouver climate, their numbers were not expanded, and evidently some were eliminated altogether. Peaches, for instance, while they produced well were said by one fort resident to have "seldom ripened."[111] A visitor was told in 1841 that grapes "had succeeded well but of late years their cultivation had been neglected."[112] By the 1850s the only grapevines mentioned were those growing over the veranda on the front of the manager's residence, and there were many who attested to their vigor and the high quality of their fruit.[113] A board of United States Army officers which assessed the value of the Company improvements in January, 1854, counted only eighty "fruit trees," which they valued at $20 each.[114]

It has been said that as late as 1906 apple and pear trees and grapevines from the depot farm were still bearing on the Vancouver

Barracks reservation.[115] But after 1849 the apples dominated the scene. One observer, speaking of the period 1849-1859, apparently could only remember "a field enclosed and planted in apple trees directly back of the fort."[116]

As has been seen, a new garden was laid out north of the stockade, evidently early in 1829. An employee at the depot in 1833 described the garden as containing young apple trees. "Extensive beds sowed with culinary vegetables are laid out in nice order," he continued, "& under a long range of frames, melons are sown."[117] Two years later the Reverend Samuel Parker estimated that the garden enclosure included about five acres, "laid out with regularity and good taste." In addition to several varieties of fruit trees he found that "while a large part is appropriated to the common esculent vegetables, ornamental plants and floweres are not neglected." Among the small fruits he noted were strawberries."[118]

Perhaps the best overall description of the garden is that given by Narcissa Whitman in 1836. Very shortly after the arrival of the American Board missionary party, she wrote, "we were invited to a walk in the garden. And what a delightful place this . . . . Here we find fruit of every description . . . . Cucumbers melons beans peas beats [sic] cabbage, taumatoes and every kind of vegitable to numerous to be mentioned. Every part is very neat & tastefully arranged with fine walks each side lined with strawberry vines. On the opposite [north] end of the garden is a good Summer house covered with grape vines."[119]

When the stockade was doubled in size about 1836 the garden seems to have been expanded to the east also, and probably to the west as well. At least the "Line of Fire" map of 1844 shows the garden extending along the north stockade wall from the north gate, which was in the new or east section of the fort, westward for perhaps one hundred feet beyond the northwest stockade corner. To the north the garden extended to the present East Fifth Street.[120] Very roughly, the garden in 1844 would thus have measured about 600 by 500 feet and would have contained somewhat less than seven acres.

Apparently by about 1846 the garden had been reduced in size on the west so that its west fence was about on line with the west stockade wall.[121] Evidently this condition endured until the post was abandoned in 1860, although it is doubtful that all of the enclosure was intensively cultivated by that time.[122]

At the height of its development, about 1844, the garden, as shown by the "Line of Fire" map, was divided into nine rectangular plots, each bordered by a path. In addition, there were long, narrow plots extending along the south and west sides of the garden. The "summer house" appears to have been near the north fence, somewhat west of its center.[123]

In addition to the larger fruit trees and the grapes already noted, the writings of visitors and residents mention a number of smaller fruits and berries found in the garden. These included strawberries, gooseberries, currants, muskmelons, watermelons, and blackberries. Vegetables were said to have included "almost every

species." Among those specifically recorded as having been grown in the garden were pumkins, "squashes," beets, cucumbers, beans, peas, cabbages, tomatoes, potatoes, carrots, onions, turnips, parsnips, Indian corn, hops, and radishes. Even cotten plants were being raised in 1836.[124] The garden at Fort Nisqually had "brown corn," lettuce, and "cresses"; and since the seed came from Fort Vancouver it is reasonable to assume that these vegetables were found in the depot garden also.[125]

The first mention of flowers in the garden appears to be in 1834.[126] "Ornamental plants and flowers" were seen by Samuel Parker during the next year, and "flowers" were mentioned by H. H. Spalding in 1836.[127] Undoubtedly, however, the beginnings of floriculture at Fort Vancouver went back several years prior to 1834. It is known, for example, that Dr. William Fraser Tolmie brought dahlia seeds with him to Fort Vancouver from the Hawaiian Islands. These were planted under a frame on May 7, 1833, and a short time later the "Dahlia bed" contained "numerous" plants nearly one inch tall. Tolmie also gave McLoughlin some acacia seeds he had picked up in Hawaii.[128] There is clear evidence that there were roses at Fort Vancouver by 1841.[129]

Practically nothing is known about other specific varieties of flowers grown at the depot. According to tradition James Allan Scarborough, one of the Company's ship captains, "took pains" to bring "ornamental shrubbery" from various ports of call, and he

"perhaps" introduced the "Mission Rose." But there is no certainty as to the time of these introductions or even that they were to Fort Vancouver, since the good captain had a farm of his own at Chinook Point.[130] It may be safe to assume, however, that the garden at Fort Vancouver was not too much different from that at Fort Victoria on Vancouver Island during the 1850s. In 1850 the garden at the latter post contained mignonette, stock, wallflower, eschscholtzia, mallow, hollyhock, marigold, candytuft, sweet William, and other "old-fashioned flowers."[131] White daisies, single daisies, and shamrock were growing in private gardens at Victoria during the same general period.[132]

According to Dr. McLoughlin's daughter the first gardener at Fort Vancouver was an Indian. Then, she said, "they got a good gardener and we did not need an Indian after that."[133] Be this as it may, there was a European gardener at the depot as early as 1827. During that year an Indian, seeking revenge for the supposed imprisonment of a relative by Company employees, took a shot at the gardener from behind the garden fence, but fortunately the ball only went through the gardener's hat.[134]

Possibly this gardener was William Bruce, a Scot from Dornoch who had entered the Company's service as a laborer in 1825. He first appeared on the Fort Vancouver rolls in that capacity for Outfit 1826. Although the earliest known specific mention of him as a gardener does not appear until early 1833, he perhaps had been working in the garden for some time. After 1833 he was regularly listed as gardener.[135]

Bruce retired in 1838 and returned to England, where he arrived on October 20 of that year. The story is that he was so homesick for Fort Vancouver by then that, meeting Dr. McLoughlin on a London street, he begged to be taken back into the service. The directors agreed and arranged to return him to the Columbia in the next ship, but meanwhile he was sent to Chiswick, the beautiful seat of the Duke of Devonshire, to learn some of the finer points of horticulture. He went back on the Fort Vancouver rolls on October 1, 1839.[136]

"Billy Bruce," as he was familiarly known, had a black mark against his character, but he was a favorite of Dr. McLoughlin and was permitted to frequent the kitchen and to bring in the postprandial snuff to the mess hall table.[137] George B. Roberts, who was in charge of the outdoor work at the depot from about 1838 until November, 1842, said that "lots of things" about horticulture "were lost upon our old gardener Bruce."[138] But Lieutenant Charles Wilkes of the United States Exploring Expedition had nothing but praise for Bruce, with whom he had many chats during his visit in 1841. "All his success here," wrote the American naval officer, "continues to be compared with Chiswick, which he endeavours to surpass." After his return to the United States, Wilkes sent Bruce some seeds, but he worried that the gardener might class him "with those who have sent 'trash' to Vancouver, for him to waste his time and experience on in attempting to cultivate."[139] Bruce continued to serve as gardener until he died on August 25, 1849, in "a state of insanity."[140]

During Outfit 1838, while Bruce was absent in England, an employee named Farquhar McDonald served as gardener. After Bruce's death no gardener is listed on the depot rolls until Outfit 1851, when François Bouché served for that year.[141] Apparently Bouché was the last person to be employed specifically as a gardener, although it would appear that a garden of some sort was maintained for several more years -- probably until the post was abandoned in 1860.

Bruce and the other gardeners did not tend the garden entirely by themselves. Although there seems to be no specific record to that effect, general laborers and Indian employees undoubtedly were assigned to the garden as other duties permitted. As long as there was a school at Fort Vancouver the boys worked a part of each school day -- and sometimes, evidently, all day for weeks at a time -- "in the field and garden."[142] McLoughlin could not tolerate idleness, and he boasted of the fact that the pupils earned their keep.[143]

The garden was the particular pride of the "Big Doctor." On one occasion he sent a "huge beet" to the Methodist mission in the Willamette Valley with a challenge to the missionaries to produce its equal.[144] The garden often was almost the first feature of the depot that he showed to visitors, especially if there were women among them. Favored guests were given permission to visit there whenever they wished.[145] "The principal exercise our situation here affords us is walking in the garden, to which place we frequently resort to feast on apples and grapes, and riding

occasionally on horseback," wrote Mrs. H. H. Spalding in 1836.[146] This custom was maintained even after McLoughlin's retirement. In 1848, when Chief Factor Peter Skene Ogden was depot manager, he had scarcely shown his guests, the Reverend and Mrs. George Atkinson, to their room when he offered to walk with them in the garden or to let them walk in it by themselves.[147]

A nursery was maintained for the garden and orchard, and from it young fruit trees and plants were sent to other posts and to settlers throughout the Pacific Northwest. In 1836, for example, both Marcus Whitman and H. H. Spalding obtained stock for the orchards and gardens of their new missions from this source.[148] Mrs. Whitman said she intended taking with her "an assortment of garden seeds" and "some young sprouts of apple peach & grapes & some strawberry vines &c from the nursery here."[149] As late as 1851 Chief Factor Ogden was giving cuttings to American farmers in the Willamette Valley.[150]

Despite the fact that Governor Simpson told McLoughlin in 1829, when urging him to stand fast and not kill any cattle for meat, that the Company's seamen had no cause to complain of a lack of fresh provisions because they had "the run of our Gardens & Fields in Fruits and Vegetables," it is quite unlikely that the common sailors and the "servants" at Fort Vancouver enjoyed many of the choice products of the depot garden and orchard.[151] Vegetables and fruit may have been issued occasionally in times of surplus as a supplement to the weekly ration, but in 1838 the provisions

distributed to the men of the depot still consisted mainly of salmon, bread or potatoes, and tallow, with four quarts of peas weekly.[152] These latter most probably were dried "field" peas and not "garden" peas, a distinction which appears in the writings of the period.[153] As late as 1841 Governor Simpson described the ration as salted salmon, potatoes, and "also venison and wild fowl, with occasionally a little beef and pork."[154] No luscious peaches or nectarines or garden-fresh beans were mentioned!

The truth is that Governor Simpson and, evidently, many Chief Factors and Chief Traders considered fort gardens as a weapon against scurvy at stations where fresh provisions were periodically lacking but chiefly in the light of sources of delicacies for the officers' tables.[155] At least at Fort Vancouver there is little evidence that the products of the orchard and garden were enjoyed by many except those officers, clerks, and guests who ate at the mess table or those employees and visitors who were fed from the Big House kitchen. And if any member of the latter classes had the ill fortune to incur Dr. McLoughlin's displeasure, the treats were few and far between. The Reverend Herbert Beaver, chaplain at Fort Vancouver from 1836 to 1838, and his wife, for example, were frequently short-changed in this regard. Mrs. Beaver once complained of being forgotten in a distribution of berries. On another occasion she called attention to her "great want of vegetables . . . having only had a very few pease three times [that season] & but little of any other sort, potatoes excepted." In her wrath she

took the Doctor to task: "If the garden belongs to the Company, she must request to be supplied with more necessaries from its produce, while so much labour is expended upon its cultivation without benefit to those entitled to them."[156] Evidently this situation did not improve greatly until McLoughlin left the Columbia on furlough.

Since it is not known for certain where the first cultivated fields at Fort Vancouver were located, it is difficult to assess the impact of moving the depot from the bluff to the plain upon the development of the farm. It is clear, however, that for several years after the spring of 1829 the principal area of cultivation was on the "beautiful plain" east of the new stockade.[157] As fields there and in the immediate vicinity of the fort were expanded and fenced, the livestock which earlier visitors had noticed grazing on the Fort Plain were shifted farther west.

Although McLoughlin reported during August, 1829, that the crops looked "uncommonly fine," the final harvest that year was not much better than that of 1828, and the yield of barley was strikingly lower. According to McLoughlin, the figures were 1500 bushels of wheat, 396 bushels of white peas, 191 bushels of grey peas, 200 bushels of barley, and 250 bushels of Indian corn. In addition, the farm produced 20 tierces of pork (as used at Fort Vancouver, the term "tierce" meant a cask holding 300 pounds of liquid).[158] McLoughlin's figures do not correspond very closely

with those given by another fort resident, John Warren Dease. In November, 1829, Dease noted in his journal: "Crop of Wheat 25 Kegs Pease 26 & Barley a good deal."[159]

During the summer of 1830 a serious drawback to cultivation on Fort Plain was revealed, evidently for the first time. The Columbia River rose to an "extraordinary height," and the flood waters "very much" injured the growing crops.[160] Nevertheless, McLoughlin reported to the directors that he had been able to thresh a harvest of 927 bushels of wheat, 609 bushels of peas, 600 bushels of Indian corn, 150 bushels of oats, and 86 bushels of barley. He had also sown 36 bushels of barley after the waters had receded.[161] The final figures, as reported to Governor Simpson, were the same as regards the corn, but he said the harvest of wheat amounted to 1260 bushels, of peas 583, and of barley 183, plus 9000 bushels of potatoes.[162] The reasons for discrepancies are not clear, but it should be noted that estimates of crop yields at Fort Vancouver for any given year often vary widely not only as made by different observers but sometimes as made by one person to two or more correspondents.

With the grain and flour he already had on hand, McLoughlin estimated that the 1830 crop was still enough to provide wheat and flour for two years and peas and corn for more than one year. "Hereafter," he told the Governor and Committee, "we will not endeavour to do more than Keep up the quantity of Wheat but to increase our Pease and Corn till we have two years Stock."[163]

Another cause for the rather disappointing 1830 harvest was the malaria epidemic which swept through much of the Pacific Northwest that year, virtually wiping out many native groups and placing numerous Europeans on the sick list. McLoughlin said that at one time seventy-five men at Fort Vancouver were incapacitated.[164]

The next year, 1831, the "remittent fever" again wreaked its havoc. "Every man on this Establishment except seven has been ill," McLoughlin reported, and at one time as many as sixty-three employees were sick at once. A drought during the summer reduced the yields of corn and potatoes; but the wheat, peas, and barley produced heavier crops than in 1830, although due to the lack of manpower less of the grain could be threshed.[165]

Because of this "failure" of the corn and peas, McLoughlin could not send any of those commodities to the posts on the Northwest Coast nor had he the quantity required for the Company's shipping. He advised using rice, hulled barley, or ground wheat as a substitute. Experience at Vancouver, he told the Chief Trader at Fort Simpson, showed that hulled barley made an "excellent soup" and that "wheat when ground will serve you as a substitute for Indian Corn."[166]

Fortunately, the harvest of 1832 was abundant despite another severe epidemic of malaria. During October of that year the "Big Doctor" told the London directors that the year's crop would exceed 3000 bushels of wheat, 2000 or 3000 of peas, 2000 of barley, 1500 of oats, 800 of Indian corn, 50 of buckwheat, and 6000 of potatoes.[167]

In addition, a visitor reported that "a large quantity" of pumkins was raised that year.[168] McLoughlin told Governor Simpson that, barring accident, these amounts would be sufficient "for all our demands" for two years, "so that we now have 2 years in advance, which I consider important to us."[169]

Accounts differ as to how many acres were under cultivation by 1832. Nathaniel Wyeth, the New England ice merchant turned fur trader, first reached Fort Vancouver on October 29 of that year. "They have 200 acres of land under cultivation," he noted in his diary that same day; "the land is of the finest quality."[170] But strangely enough, George T. Allan, a clerk at the establishment, told his brother reputedly during the same year that there were then "about seven hundred acres of land under cultivation."[171]

However many acres were being farmed, McLoughlin did not consider them enough. In September, 1832, he told Governor Simpson that the Russians in Alaska had offered to buy 4000 pounds or more of wheat, but that "afflicted as we have been these three years with the fever," he would not undertake anything beyond the regular business of the depot. He added that he would raise all the grain he could, and when he had a surplus he "might then sell it."[172]

Evidently he was as good as his word, because according to one version of a letter written by John Ball on January 1, 1833, McLoughlin that year was "extending his operations."[173] Where these extensions were made is not evident. By 1833, seemingly influenced by the periodic flooding of the Fort Plain and by the

declining fertility of the soil there, McLoughlin had explored the agricultural possibilities of the openings or plains which were found at intervals in the dense woods north and east of the post, and two of these "pretty small plains" had actually been cultivated.[174] One of them possibly was what was later known as Mill Plain, about six miles away, although it could scarcely have been described as "small."

These moves were only one phase of an intensified interest in agricultural expansion which seems to have gripped McLoughlin at about that time. On October 28, 1829, the Governor and Committee commended him for "the success which has attended your exertions in Agricultural pursuits and raising Stock."[175] But by then McLoughlin already had realized that Fort Vancouver was not as favorable a location for farming as had at first been believed, and he gradually became convinced that better results could be obtained in the Willamette Valley or on the shores of Puget Sound.[176]

In 1832 reports reached Fort Vancouver that a Boston group was organizing an expedition to send colonists overland to the Willamette Valley. Apparently these rumors stirred McLoughlin to forestall the Americans by occupying the best farming lands before the newcomers should arrive. Chief Factor Duncan Finlayson, who was serving in the Columbia at the time, saw the reported settlers as a potential source of profit. Because the Fort Vancouver farm could not yet meet even the Company's needs, he purchased extra meat on Oahu and sent it to the depot to be sold to the Americans.[177]

As it turned out, McLoughlin did not direct his expansionist efforts toward the Willamette Valley. In 1832 he for the first time visited that region above the falls and pronounced it "the finest country I have ever seen." But he was convinced that the valley was destined to be settled by individual farmers, and it lay in the region which, in any case, probably would fall to the United States.[178] His attention, therefore, was focused on the Puget Sound area, and late in 1832 he sent Chief Trader Archibald McDonald, then in charge of Fort Langley, to assess the agricutural potential of that region and to acertain if there was a suitable site for a new post which would serve the needs of the shipping, agriculture, and the fur trade.[179]

McDonald's report was enthusiastic, and early in the next year, while on a trading expedition in the vicinity, he established a temporary trading station at the southern end of the sound and left three men there to plant "a couple kegs potatoes and small garden seeds."[180] McLoughlin was so impressed by McDonald's recommendation that in May, 1833, he sent a party with a few oxen and horses to start building a permanent new post, Fort Nisqually, and laying out a farm near the temporary establishment.[181]

Unfortunately for McLoughlin's dream of developing a grain farm at Nisqually, Chief Trader Francis Heron reached the new site late in June to take charge and quickly became convinced that the soil was too poor for large-scale cultivation, though the grasslands

there would serve admirably for raising cattle. In August Heron examined Whidbey Island farther to the north and reported finding a large plain of "excellent soil," but despite orders from the London directors McLoughlin, for reasons little concerned with agriculture, did not follow up on this lead. Instead, he sent cattle to Nisqually and continued attempts to make farming a success there.[182]

McLoughlin's quickened interest in farming during 1832 is further illustrated by his proposal to form an independent Hide and Tallow Company to raise cattle on a large scale in the Willamette Valley, at Nisqually, and at the Cowlitz Portage. The Hudson's Bay Company firmly vetoed this scheme, but as shall be seen in a later discussion of stock raising at Fort Vancouver, the offshoot of this project was to have a major impact on the depot farm.

The harvest of 1833 at Fort Vancouver was highly satisfactory to the "Big Doctor," although actually it was about the same as that of the previous year. He reported that he expected to take in 3000 bushels of wheat, more than 3000 of peas, about 1500 of barley, about 1000 of oats, and about 1000 of buckwheat.[183]

Statistics on the crop of 1834 do not seem to be readily available, but McLoughlin told the Governor and Committee that the yield of wheat was about the same as in 1833, while the barley, peas, and oats produced less.[184] Two visitors during that year left enthusiastic but not highly enlightening descriptions of the

farm. Missionary Jason Lee was "much delighted" by "the improvements of the farm, etc."[185] Naturalist John Kirk Townsend was escorted over the establishment by McLoughlin himself. He noted that "several hundred acres" were fenced and under cultivation. The abundant crops, he said, required no manure. "Wheat thrives astonishingly; I never saw better in any country," he commented, but he learned that Indian corn did less well. "On the farm," he continued, "is a grist mill, a threshing mill, and a saw mill, the two first, [operated] by horse, and the last, by water power; besides many minor improvements in agricultural and other matters, which cannot but astonish the stranger from a civilized land, and which reflect great credit upon the liberal and enlightened chief factor."[186]

During 1835 the crops "suffered greatly" from drought. Nevertheless, McLoughlin was able to tell the directors on September 30 that the yield would be 4000 bushels of wheat, 1500 of peas, 1200 of barley, and 1000 of oats, though there would be only about one third of the usual quantity of potatoes.[187] The final figures appear to have been somewhat different, since the Reverend Samuel Parker, who spent the winter at Fort Vancouver, reported that the crop amounted to 5000 bushels of wheat "of the best quality I ever saw," 2000 bushels of peas, 1000 of barley, 1000 of oats, and 1300 of potatoes.[188]

If McLoughlin had contented himself with giving the crop yield he might have been better off, but he went on to say that though he

could provide the annual supply vessel from England with peas and biscuit, the production of pork and beef was sufficient only for "our own Establishments." There was, he added, "a weed in our plains, which poisons a great number of our Pigs but it will get extirpated."[189] Undoubtedly he later regretted having made this admission..

Early in 1836, however, McLoughlin was still enthusiastically pushing ahead with plans for farm improvements. He had read in the Encyclopaedia of Agriculture about a new type of labor-saving "reaping machine" which had been tried out in Scotland , and he asked the Company's secretary to investigate the matter. If the devices were as represented, he wished to obtain two. "Even if they cost £50 each," he urged, "it is no object in comparison with the advantages we would derive from having them to cut down our crop." He added that any wooden parts could be manufactured at Fort Vancouver if the plans were provided.[190]

McLoughlin did not have much to say about the farm in his annual report to the Governor and Committee written in November, 1836. "Our Crops are as good as usual," he stated, "and I have the pleasure to inform you that we have had fewer cases of fever than any year since its first appearance in 1830."[191] Fortunately, the American Board missionary party from the United States reached Fort Vancouver during September, 1836, and at least two of its members jotted down some farm statistics. H. H. Spalding told a correspondent a few days after his arrival that the crop amounted

to 4500 bushels of wheat, 4000 of peas, 1700 of barley, and 1500 of oats. The potatoes had not yet been gathered.[192] The figures as noted in Narcissa Whitman's diary were roughly the same, but she added: "The potatoes & turnips fields are large and fine."[193] Another observer, Purser William A. Slacum of the United States Navy, recorded the yield of 1836 but in such an exaggerated manner that his figures cannot be credited.[194]

The reason for McLoughlin's apparent loss of zeal for farming between early April, 1836, and November of that year is not difficult to discover. In the latter part of March two Company vessels from London reached the Columbia and brought a dispatch from the Governor and Committee dated August 28, 1835. From it the "Big Doctor" learned that the directors were dissatisfied with the results of agriculture at Fort Vancouver, particularly, in this instance, with the fact that McLoughlin could not guarantee to provision the firm's vessels with pork.

"In order to give the farming establishment a fair trial," the directors wrote, "we have engaged a well informed practical agriculturalist, William Capendal and his Wife; the one as Bailiff, the other to manage the Dairy Department, they bear most excellent characters, and have been strongly recommended to us as thoro'ly understanding the breeding and management of cattle of every description . . . they are supplied with various articles for their respective departments . . . , and we hope under their management this branch of the Concern will prosper."[195]

These words must have been a severe blow to McLoughlin. He was proud of the manner in which he had developed the Fort Vancouver farm from nothing to a flourishing institution. Almost certainly he did not relish the prospect of having a farm manager at his elbow telling him how to handle the stock. Under the circumstances and given his temperament, it probably was asking too much of human nature to expect him to welcome with open arms William Capendale and his wife, who arrived in one of the ships that carried the directors' dispatch, and to follow instructions to provide the newcomers "with house and suitable accomodation."

In any case, McLoughlin acted as if he gave little heed to the Committee's orders. The Capendales were not placed in a house of their own but in "only one miserable room" in a shared dwelling.[196] The "Big Doctor's" excuse was that he could not build a separate house without neglecting other important work.[197] Neither William Capendale nor his wife was allowed to assume fully the responsible positions for which they had been engaged. In fact, it appeared that McLoughlin "could find no use for them."[198] Discouraged by this neglect, the Capendales sailed for England in November, 1836, ending an unhappy residence of only eight months.

McLoughlin viewed their departure with a remarkable outward complacency -- a dangerous gamble in view of the fact that the Capendales had come with high endorsement from the estate of Sir John Henry Pelly, Governor of the Hudson's Bay Company.[199] "I dare say you will be surprised at seeing Mr. Capendal back in England,"

he told the Company's secretary, . . . "but his wife finds things she says, different to what she expected."[200]

The real reasons for McLoughlin's failure to permit the Capendales to assume the positions intended for them probably never will be known with certainty. The Columbia manager himself said he did not put William Capendale in charge of the farm at once because he wanted him first to learn the language of the people he would be supervising -- evidently the French Canadians largely -- and to gain a knowledge of all aspects of his duties.[201] Clerk George B. Roberts, on the other hand, said that the Capendales "had been accustomed to high farming & were quite out of their element in a new country & . . . couldn't get into our ways nor we into theirs."[202] But it also seems evident that the "Big Doctor" resented the manner in which Mrs. Capendale held herself aloof from the Indian and mixed-blood wives of the fort residents, one of whom was Mrs. McLoughlin. It was poor judgment to display racial prejudice on the fur-trade frontier.

Perhaps McLoughlin's interest in agriculture revived after the departure of the Capendales. Purser William A. Slacum reached the depot in December, 1836, and was greatly impressed by the farm. "And," he reported, "it will be much increased in the ensuing year." He said there were about 3000 acres "fenced and under cultivation" -- far too high an estimate; but he undoubtedly was correct when he stated: "the farm is abundantly supplied with all the requisite utensils for a much larger establishment." Among the equipment he

observed was "a large threshing machine." He gained the impression that one hundred men, "chiefly Canadians and half-breed Iroquois," were generally employed in agricultural pursuits.[203]

If the "Big Doctor" actually did experience a renewed interest in farming after getting rid of the Capendales, his enthusiasm soon expired. In the fall of 1837 he received a dispatch dated January 25 of that year from the Governor and Committee which must have struck him as sheer ingratitude for his years of effort to develop agriculture at Fort Vancouver and at other Columbia Department posts. "In reference to the Farm," the directors wrote, "we are surprised, that with all the advantages of soil and climate with which the country is favoured, and the means and facility you possess for extending the cultivation, a sufficient quantity of Beef and Pork to provision the Ships on their homeward passage cannot as yet be afforded, and that you had not been able to make a Shipment of Flour or Grain to New Archangel, alth' the Farm has been Established upwards of Ten Years."

McLoughlin made a vigorous defense of his record. He pointed out that of all the lands on the Fort Plain, on the Lower Plain west of the fort, and on the back plains there were only about 500 to 600 acres of "dry miserable soil" or sandy soil which were not subject to overflow. In addition to these areas, he added, about 400 acres of the plain subject to flooding had been cultivated, but there the labor was often lost due to high water. He claimed that

recurrent fever epidemics and the need to oppose American traders had limited the manpower available for farming. Poisonous weeds had killed many of the pigs, and almost no cattle had been slaughtered until 1836 due to the necessity of building up the herds. "We require a Hundred Oxen to do the Work of the Farm and Saw Mill," he declared.

Then the departmental manager went on the offensive. He pointed out that in spite of these obstacles, the farm had "supplied all the Provisions required at this place, along the Coast, and for the Shipping in the country," to the extent of about £2000 annually. "I thought it would be seen at once," he blasted, that the profits of the depot were "entirely owing to the produce of our Farm and the Timber we sent to Oahu." He was so discouraged that he maintained it was more profitable to export timber than to seek markets for grain.[204]

The Governor and Committee could not have been entirely reassured by this reply in view of a letter dated March 19, 1838, to one of their number from the chaplain at Fort Vancouver. The Reverend Herbert Beaver had reached the Columbia in 1836 and was almost immediately involved in a bitter quarrel with Chief Factor McLoughlin. Soon his correspondence and reports were filled with complaints against the departmental manager. The gentleman of the cloth attacked McLoughlin from every angle he could think of with a view to discrediting him in the eyes of the directors.

One of his points concerned agricultural practices at the depot. "If I were to be asked where our farm is," he wrote, "I really could not tell, a stockyard redolent with mice, and a considerable quantity of dilapidated fences, being the only symptoms of it; for, although a large piece of ground was sown, last autumn, with wheat, it looks anything but a wheatfield."

"The land is never properly cleaned, or prepared, for the seed," he continued. "But much more produce might be raised by more careful farming: that is, with the same labour properly applied." Beaver added that it was no use for McLoughlin to boast of having "so many thousand bushels in store" when much of the storage was "in stack," exposed to dirt and vermin.[205]

Fortunately for McLoughlin, Beaver's conduct and his exaggerated accusations alienated not only the "Big Doctor" but many other Company officers and, finally, the Governor and Committee themselves. There undoubtedly was some truth in his assertions about McLoughlin's farming methods, but the accuser had lost much of his credibility by the time his complaints reached London.

The directors' disappointment in the slow pace of agricultural progress at Fort Vancouver is understandable. Not only were they bombarded by complaints from their ship captains about the lack of fresh provisions at the depot, but they were counting on a good showing at the farm to bolster their cause in a political contest of vital importance to the concern. The Company's license granting

it the exclusive right to British trade with the Indians west of the Rockies was not due to expire until 1842; but the monopoly privileges of the firm in British North America had long been under fire in Parliament, and the directors feared that a change of the party in power might give their opponents more influence. Thus it was decided to request a renewal of the license in 1837.

Early in February of that year the Company sent its petition to the colonial secretary and the Committe of the Privy Council for Trade. Among the other arguments presented the firm stressed its intention to promote agriculture and British settlement "by forming the nucleus of a colony through the establishment of farms." In a letter intended for the eyes of the proper officials George Simpson wrote: "On the banks of the Columbia River . . . where the soil and climate are favourable to cultivation, we are directing our attention to agriculture on a large scale, and there is every prospect that we shall soon be able to establish important branches of export trade from thence in the articles of wool, tallow, hides, tobacco, and grain of various kinds."[206] When McLoughlin expressed his doubts as to the prospects of profitably exporting grain, he was contradicting Company policy to a much more important extent than he was aware.

The firm's petition, particularly because of the references to agriculture, colonization, and export trade, was well received, and a new license was granted during May, 1838. Thereafter the Hudson's

Bay Company was committed, at least in theory, to promoting British political interests in the Oregon Country not merely by continuing its traditional fur-trade competition but by expanding agriculture and British settlement.[207] One astute historian has pointed out, however, that whereas colonization was the somewhat vague objective of the government, "the Company had actually been given a renewed grant of the fur trade, which might well conflict with settlement."[208] In any case, the Fort Vancouver farm and its offshoots were now more than ever elements in the international contest for the Oregon Country.

McLoughlin seems not to have made a detailed report to the Governor and Committee on the harvest of 1837. In March of the next year he left Fort Vancouver for an extended furlough in Canada and Europe. Active, conscientious Chief Trader James Douglas was placed in charge of the depot during the "Big Doctor's" absence. Before departing, McLoughlin assured Douglas: "I have always considered the farm an object of primary consideration as without provisions the different branches of business cannot be carried on." He urged his subordinate to make sure that each fall there were 5000 bushels of wheat, 4000 of peas, 2000 of oats, and 1500 of barley on hand.[209] Douglas's orderly mind and systematic management -- to say nothing of his ambition to make a good showing -- made McLoughlin's instructions largely superfluous and soon resulted not only in more meaningful agricultural records but in many farm improvements as well.

According to Douglas, the seed placed in the ground at Fort Vancouver during the 1837 season amounted to 139 bushels of wheat, 130 of oats, 51 of barley, 176 of peas, and 270 of potatoes, all of which produced a "fair average crop." In March, 1838, he assured Governor Simpson he would plant as much grain as possible that season "and otherwise devote every attention to promote the interests of this very important branch of our affairs."[210]

Despite the most vigorous efforts, however, the harvest of 1838 was again only a "fair average one." An unusual early rise in the Columbia River was followed by a "second flush" during May. Douglas attempted to stave off inundation by throwing up "repeated embankments," but the water merely seeped up behind the levees through the porous soil. Finally an "irresistable flood" swept over all barriers and destroyed eighty acres of the best crop. As luck would have it, the river dropped much more quickly than expected, and Douglas was able to put the plow and harrow "in requisition" and to sow a second crop of peas, barley, buckwheat, and potatoes. Favorable weather permitted these late plantings to mature and, perhaps mindful of Chaplain Beaver's complaints, he assured the directors that all the harvest, except for a few acres of peas, was under cover.

By October Douglas was "breaking up the summer fallows" with the intention of planting one hundred acres of wheat before the end of November. He also had built the machinery and gathered the building materials for a new and more efficient water-powered grist

mill "adapted for two run of 54 inch stones."[211] It soon supplanted an old horse-driven mill and possibly another hand-powered mill as well. Construction of a threshing machine was also planned for the coming winter.[212]

Douglas was a realist, and he had the ability to describe problems in a more orderly and persuasive manner than did Dr. McLoughlin. In the fall of 1838 he warned the London directors not to expect too much in the way of profits from the Columbia Department farms. In such an isolated region, he pointed out, there were no factories or shops to provide such essentials as wheels, cart, harness, and other equipment. Most of such items had to be manufactured locally, with a consequent increase in the number of blacksmiths and other mechanics on the payroll. Furthermore, the need for large crews to harvest the crops meant that extra hands had to be maintained even in seasons when their services were not urgently required. Thus Douglas believed that even without any costs for the land, wheat could not be furnised from the depot for less than five shillings per bushel without incurring a loss. The "system" at the depot, he said, was designed to keep all the laborers busy at other tasks in the warehouses, at the sawmill, or elsewhere whenever they could not be "profitably employed" on the farm.[213]

Like McLoughlin before him, Douglas pointed out that the soil at Fort Vancouver was not ideal for agriculture. Even with the

rotation of crops and with "fallowing and manures," he told Governor Simpson in the spring of 1838, "the average produce from an acre of our best ground seldom exceeds 20 Bus. Wheat or 30 Bus. Pease or 50 Bus. Oats or 40 Bus. Barley and the poorer soils yield 100 p. Cent less."[214]

At that time, he continued, the farm included nearly all the arable land near the depot. The Fort Plain, he said, provided 76 acres of good land "always available," 203 acres of good land subject to flooding, and 178 acres of "poor shingly" land never flooded. The "West Plain," from two to three miles from the fort, consisted of 95 acres of good land always available, 52 acres of good land subject to flooding, and 37 acres of poor land never flooded. The First North Plain, three miles from the fort, provided 100 acres of poor land never flooded; while the Second North Plain, six miles away, consisted of 120 acres of poor land never flooded. Thus the Fort Vancouver farm in 1838 encompassed about 861 acres of cultivable land, about half of which were planted each year.[215]

This detailed inventory of the cultivated lands at Fort Vancouver contrasts strongly with the description given by John Dunn, a postmaster at the depot who left for England in the fall of 1838. Writing several years later, Dunn said:

> Attached to the fort there is a magnificent farm, consisting of about three thousand acres; of which about fifteen hundred have been already brought to the highest state of tillage. It stretches behind the fort, and on both sides, along the banks of the river. It is fenced into beautiful corn-fields -- vegetable-fields -- orchards -- gardens -- and pasture-fields, which are interspersed with dairy-houses, shepherds' and herdsmen's cottages. It is placed under the

> most judicious management; and neither expense nor labour has been spared to bring it to the most perfect cultivation. There is a large grist-mill, and a threshing-mill, which are worked by horse-power . . . . All kinds of grain and vegetables, and many species of fruits, are produced there in abundance and of superior quality. The grain crops are produced without manure; and the wheat crop, especially, is represented by practical farmers to be wonderful. It must, however, be observed, that Indian corn does not thrive there so well as in other soils.[216]

It is clear that in preparing this description Dunn relied more upon the writings of other visitors to Fort Vancouver than upon his personal observations. He thus missed an opportunity to make a valuable contribution to knowledge of agricultural practices on the Columbia.

Despite a severe drought which afflicted much of the Pacific Northwest during the summer of 1839, Douglas was able to report that the season's harvest at Fort Vancouver was abundant. He attributed this happy result to the fact that the crops were sown early and to the lack of a flood that year. "Every acre of land about the place that could bear cropping was put under seed," he informed the directors.[217]

Douglas told the Governor and Committee that about ten acres of "oak land" had been cleared during the year and given "the first furrow" with a view to planting them the next season. Otherwise, he said, the farm had not been extended despite a close search of the entire vicinity for arable land. The area examined was either subject to flooding or else so densely wooded that it could not

be cleared with the means at hand. He stated his belief that any further expansion would have to be made at Cowlitz Portage, where he had, at the suggestion of the directors and McLoughlin, started a new farm late in 1838.[218]

Other improvements made in 1839 included the new flour mill, which was placed in operation during May; the completion of a new granary, capable of holding 18,000 bushels, within the fort; and the construction of a "moveable threshing machine, on the excellent model sent us this year [from England] by the Vancouver."[219]

Thomas Jefferson Farnham, an American overland traveller, wrote a brief description of the Fort Vancouver farm as he saw it during the latter part of 1839:

> At the back, and a little east of the fort, is a barn containing a mammoth threshing machine; and near this are a number of log sheds, used for storing grain in the sheaf. And behold the Vancouver farm, sretching up and down the river (3,000 acres, fenced into beautiful fields) sprinkled with dairy houses, and herdsmen and shepherds' cottages! A busy place . . . . The grist mill is not idle . . . . And its deep music is heard daily and nightly half the year.[220]

Chief Factor McLoughlin returned to Fort Vancouver from furlough during October, 1839. With him he brought news and instructions which were to bring about a considerable change in the depot farm, particularly as regards livestock. The animals in the Vancouver herds and flocks had by that time increased vastly over the 27 cows, 16 heifer, 3 bulls, 11 steers, 2 oxen, and 2 calves listed by McLoughlin in 1826. As has been seen, only two years later Jedediah Smith observed about 200 head of cattle, 50 horses, 300

hogs, 14 goats, and "the usual domestic fowls" at the depot. Governor Simpson's count early in 1829, already noted, differed somewhat, but it was in rough agreement. In August, 1829, McLoughlin reported that he would salt more than 40 barrels of pork that season and that he had 200 cattle, "young and old," on hand.[221]

By the beginning of the latter year pressure from the officers and crews of the Company's shipping for fresh meat from Vancouver was becoming severe. Governor Simpson told McLoughlin to hold firm to the policy of not slaughtering any cattle until the herds were sufficiently large to meet all demands on a self-sustaining basis. "If any of the English Seamen put their threat in execution of killing Cattle in defiance of your authority," the Governor wrote, "do me the favor to send the offender across the Mountains to be dealt with as may be considered advisable."[222]

Simpson's visit during the winter of 1828-1829 seems to have been the spur which instilled new vigor into the drive to increase the livestock herds. At least evidence of more activity in this respect becomes evident shortly thereafter.

The Boston trader, Captain John Dominis, and his vessel, the brig Owhyhee, appeared in the Columbia River during February, 1829, and remained, with one long interruption for a voyage to the Northwest Coast, until July of the next year.[223] Tradition maintains that McLoughlin asked Captain Dominis to bring him some

sheep from California and that the mariner complied. "The Captain was a better sailor than a stock raiser," runs one version of the story. "True, he brought the sheep according to orders, a fine large lot of them, and in good condition, but when they were turned ashore and told to multiply, it was discovered that they were all wethers."[224]

Unfortunately for this story, the Owyhee's log proves that she did not visit California or even Hawaii during the period in question. One expert on Pacific Coast maritime affairs has proposed that the "allegation" be revised or abandoned.[225] But a companion vessel, the Convoy under the command of Captain D. W. Thompson, did make a voyage from the Columbia to Hawaii and return late in 1829, and it is possible that she obtained some sheep in the islands for the "Big Doctor."[226] In any case, sheep were present at Fort Vancouver not long thereafter. New Englander Nathaniel Wyeth, in his journal entry for October 29, 1832, noted the presence of sheep, hogs, horses, and cattle, but then he said, if his punctuation was correct, that there were "600 goats" -- seemingly an impossible figure.[227] John Ball, who reached the depot with Wyeth in 1832, mentioned in a letter dated February 23, 1833, that the Company was then raising "cattle, sheep, and hogs."[228]

As McLoughlin had reported, there were two oxen at Vancouver in 1826. Many years later Dr. William McKay, who had lived at the first fort on the hill as a very young child, remembered that "old

La Pierre" hauled water from the Columbia to the post in a wagon pulled by Lion and Brandy, two huge oxen.[229] And there undoubtedly were more of these useful animals by 1828, since they were almost essential for the operation of the sawmill which was functioning by that date. The first indication that oxen were being imported seems not to be until 1830, however. During the spring of that year the supply vessel Dryad stopped at the Falkland Islands on its way from England and took on board four oxen. But there appears to be no record that these anumals were actually landed at Fort Vancouver; they may have been consumed during the voyage.[230]

Since the goals set by Governor Simpson for the size of the livestock herds -- 600 cattle and enough pigs to permit the curing of 10,000 pounds of pork each year -- would take a considerable time to achieve through natural increase alone, McLoughlin cast about for other sources of stock. Late in 1830 Captain AEmelius Simpson was sent southward in the Dryad to Monterey in California to test the market there for lumber and salted salmon produced at Fort Vancouver. Among other instructions, McLoughlin directed him to "endeavor to learn if we would be allowed to take Cattle Horses and Mules out of California by Land."[231] The results of this inquiry have not yet been revealed by sources thus far examined, but it is evident that McLoughlin was thinking on a large scale.

There was good reason for McLoughlin's sense of urgency. No cattle were being killed for food, although beginning in 1829 some were lent to retired employees and freemen settling in the

Willamette Valley, upon condition that the increase should belong to the Company. The number of hogs slaughtered was not sufficient to meet the demands of both the posts and the shipping. In the fall of 1830 Captain Simpson was instructed to buy 40 to 80 barrels of beef, 30 barrels of pork, and a quantity of "Monterrey Fat" in California, and another of the Company's ship masters was told to buy 15 barrels each of pork and beef in Honolulu.[232]

Two years later the situation as regards livestock was considerably improved. John Ball recorded that there were 300 or 400 head of cattle at the depot.[233] Early in 1833 McLoughlin told an associate that his herds included 400 to 450 cattle in addition to the number he had supplied to other posts.[234] There is no clear indication as to the source of the increased number of cattle, but according to one version of John Ball's correspondence, McLoughlin had succeeded in obtaining a "few" cattle from California.[235]

Nevertheless, McLoughlin was still far from being able to satisfy all the demands of the Columbia Department for meat. During June, 1832, he sent Chief Factor Duncan Finlayson to Honolulu on a trading voyage. "Our present Establishment for the Coast requires seventy barrels of Salted Provisions," he told Finlayson; "of this we will be able to supply thirty this year and if we could procure the remainder on the usual terms we would prefer to get it than to kill our stock." A month later the "Big Doctor" told Finlayson it would be advisable to buy up to one hundred barrels of salted

provisions as "we can hardly have too much" and while "it is true we can kill some of our stock . . . I think its number is rather small to begin before two years hence."[236]

For some time the Company had been interested in the possibility of developing a profitable trade by picking up hides and tallow in the Hawaiian Islands and shipping them to market in England on board its homeward-bound Columbia supply vessels. It occurred to John McLoughlin and some of his fellow officers that the Willamette Valley and the Puget Sound region would be ideal locations to raise cattle for such an enterprised, but they saw no reason why the Company should reap the profits from the extra effort which would be required on their part. Also, McLoughlin was beginning to suspect that the fur trade would soon be "knocked up" and that the cattle business would take its place.[237] Thus on March 10, 1832, a group headed by the "Big Doctor" issued a prospectus for "The Oragon Beef & Tallow Company," an independent concern not associated with the Honourable Company. They intended to raise funds through the sale of stock and to buy cattle in California.[238]

The prospectus was sent to Governor Simpson, who found much merit in the proposal, but as a Company undertaking and not as a private venture by the firm's employees. "I therefore beg leave strongly to recommend that cattle rearing on a large scale on the banks of the Wilhamet, on the Cowlitz Portage, or elsewhere . . . be established by the Honble. Company, as a branch of the Fur Trade," he wrote to the London directors on August 27, 1834. The Governor

and Committee firmly vetoed the scheme as far as being a private enterprise was concerned, saying that the fur trade had "a right to the best exertions, and to the undivided time and attention" of every officer and servant. But they did agree to consider the merits of large-scale cattle raising as a Company enterprise, and in December, 1834, they told McLoughlin they were sending him "in the meantime" £300 to be used for the purchase of cattle if Simpson approved and on condition that all operations be confined to the area north of the Columbia River.[239] The next summer McLoughlin was authorized to buy 5,000 cows and a number of bulls. Governor Simpson maintained that it would be almost as easy to drive a large herd as a small one, and thus it would be preferable to start on a grand scale.[240]

The "Big Doctor" was not at all pleased by this usurpation of his idea. In September, 1835, he told the directors that he saw "nothing in the Deed Poll that deprives me of the Right of investing my means in any business I think proper" except for trading with the Indians. "As for my part," he added, "I cannot afford to carry it [the cattle business] on for the Fur Trade, and give 99/100 of my labour to others."[241]

The rebuff, followed not long afterwards by the Governor and Committee's criticism of his farming methods, was quite enough to cause McLoughlin to lose his enthusiasm for agricultural pursuits, at least temporarily. He largely ignored the instructions to expand the livestock herds on a "grand scale." Fortunately for him a dispute with the Russians on the Northwest Coast diverted the Company's

attention from the proposed hide and tallow trade, and the matter was dropped for the time being.[242]

Nevertheless, the expansion of Fort Vancouver's livestock herds continued, though at a moderate pace for several years. Late in 1833 Clerk and Surgeon William F. Tolmie heard that Captain Ryan was to be sent to California in a Company vessel to obtain cattle, but records thus far searched have not revealed whether any animals were actually obtained at that time.[243]

John Kirk Townsend, the American naturalist, recorded that there were "near seven hundred" neat cattle at the depot when he arrived in September, 1834. They were of California origin, he said, and were "a large framed, long horned breed, inferior in their milch qualities to those of the United States, but the beef is excellent, and in consequence of the mildness of the climate, it is never necessary to provide them with fodder during the winter, an abundant supply of excellent pasture being always found."[244]

Townsend's estimate, though evidently based upon conversations with the Columbia manager himself, may have been too high. The Reverend Samuel Parker, who visited Fort Vancouver during the winter of 1835-1836, seems to have been more careful. "In the year 1835, at this post," he noted in his journal, "there were four hundred and fifty neat cattle, one hundred horses, two hundred sheep, forty goats, and three hundred hogs."[245]

On the other hand, visitors of 1836 reported the herds, in some respects at least, to have been considerably expanded. In a letter

written on September 20 of that year H. H. Spalding said that the stock on Dr. McLoughlin's farm amounted to 750 cattle, 400 hogs, and 200 or 300 horses.[246] Narcissa Whitman did not throw light upon the numbers of the cattle, sheep, and goats she mentioned, but she remarked that the sheep were "of an inferior kind." The domestic fowls, she added, included hens, turkeys, and pigeons, but no geese.[247]

During April, 1836, McLoughlin told the London directors that he could now supply beef and pork "for our own Establishments" but not for the shipping. "There is a weed on our plains, which poisons a great number of our Pigs but it will get extirpated," he promised.[248] These words demonstrate that he now felt able to slaughter a few cattle for meat, and he soon did so. "I killed 40 Head cattle last summer, so you can see the tabou is broken," he wrote to a friend on March 3, 1837.[249]

If the account of a Californian who came to Fort Vancouver as a boy early in 1837 is accurate, as it seems to be in general outline at least, about 200 sheep were shipped from San Francisco to the Columbia at that time. The four-week winter voyage was hard on the animals as well as the passengers, and about half of the sheep are said to have died <u>en route</u>.[250]

In October, 1837, McLoughlin made a careful count of the livestock at the depot. He reported that there were 507 cows, bulls, heifers, and calves, together with 178 "Oxen and Steers." He told the directors he planned to kill about forty oxen and "cows which bear no calves" during that year, a number which would provide "enough

of Beef for our Vessels in the Country." He had not begun to kill cattle sooner, he said, because one hundred oxen were required for work on the farm and at the sawmill.[251] McLoughlin's figures undoubtedly were more accurate than those of Purser William A. Slacum, who a few months earlier wrote that the stock on the depot farm consisted "of about 1,000 head of neat cattle, 700 hogs, 200 sheep, 450 to 500 horses, and 40 yoke of working oxen.[252]

By November, 1836, McLoughlin had learned that the Governor and Committee had approved a gratuity of £1,100 to him for his past services as manager of the Columbia Department. If this grant was intended to mollify the "Big Doctor" after the veto of his cattle-raising scheme, it seems to have succeeded.[253] The recognition, he told the directors, was "soothing to my feelings," and thereafter he appears to have devoted more attention to building up the Company's herds.[254] He was still of the opinion, however, that cattle raising could be profitable if conducted by private individuals but that "the Hudson's Bay Company will make nothing by it."[255]

The possibility that he imported sheep early in 1837 has already been mentioned. In February, 1837, he sent Clerk James Birnie south to California in the Lama to trade merchandise and, reportedly, to buy cattle.[256] The results of this attempt, if indeed it was made, have not been revealed by records thus far examined. Perhaps, as has been suggested above, Birnie's actual objective was to obtain the sheep brought from California that year.

In January, 1837, the independent settlers in the Willamette Valley, impatient at what they considered the Hudson's Bay Company's monopoly on cattle, organized the Willamette Cattle Company to purchase livestock in California and to drive it overland to Oregon. William A. Slacum, a purser in the United States Navy who had been sent to the Pacific Northwest to gather information on conditions there, was chiefly responsible for making this enterprise possible through his large financial donation and his permitting the use of his vessel to carry the cattle buyers to California. But Chief Factor McLoughlin contributed $558 to the cause, and Chief Factor Duncan Finlayson and Chief Trader James Douglas donated $300 between them.[257]

McLoughlin's motives in supporting the project are not clear; his report to the Governor and Committee on the subject apparently has been lost.[258] Since he and his fellow officers were forbidden to acquire cattle on their own, it is possible that their donations, which seemingly entitled them to a share of the stock reaching Oregon, were made on behalf of the Company, but no records confirming such a conclusion have yet been found by the present writer. On the other hand, it would have been quite in keeping with McLoughlin's generous character and his basic sympathy with the settlers for him to have made an outright gift.

In any case, the Company did obtain some of the cattle which reached the Willamette Valley in October, 1837, as a result of this daring project. McLoughlin permitted the settlers to keep some of

the oxen and perhaps other animals he had lent them and agreed to take the wild California cattle in exchange.[259] According to Herbert Beaver, these animals were temporarily kept at the farm of Thomas McKay, McLoughlin's stepson, where they were so neglected that they died of starvation during the winter.[260] In 1841 McLoughlin acquired 63 more of these California cattle when he bought them from one of Slacum's heirs for $860.[261]

Meanwhile, the interest of the London directors in large-scale cattle raising had revived after their distraction due to the dispute with the Russian American Company. In 1837 they instructed McLoughlin to buy from 500 to 1000 animals in California -- a much more reasonable number than their previously ordered 5000 -- and to begin a farm in the Cowlitz region. This move was largely motivated by the desire to make a good impression upon the British government at a time when they were asking for a renewal of the Licence for Exclusive Trade.[262] Also, by then relations with the Russian American Company had improved, and it appeared that an agreement to furnish the Russian settlements in Alaska with agricultural products could be achieved.[263] The determination to greatly increase farming and stock-raising operations north of the Columbia was further strengthened a few months later when news of Slacum's activities -- and hence of United States interest in Oregon -- reached London.[264]

"Forseeing you would wish to send for Cattle," McLoughlin wrote to the Governor and Committee on November 2, 1837, "I desired Laframboise [who had been sent to California with his band of

trappers earlier in the year] . . . if he had found no place to hunt, he would have to bring a band of Cattle with his party." The trappers were the only employees qualified or disposable for such a drive, he added. "I presume it is not your desire to loose the chance of a valuable hunt from Thirty men, for to bring about Six Hundred head of Cattle, however as soon as we can, we will get them," he promised.[265] But Laframboise found rich hunting in the Central Valley of California, and he returned with no livestock that year.[266]

Before he left on furlough during the spring of 1838, McLoughlin sent the Company's vessel Nereide to Honolulu with a load of lumber and other local produce. Her master, Captain William Brotchie, was instructed to buy sheep for the return cargo, but not finding the requisite number available there he sought them in California. After many vexations, principally caused by the desire of General M. G. Vallejo to control the trade, 800 sheep were obtained at Sonoma and San Rafael. By the time the Nereide reached Fort Nisqually on July 26 only 634 animals had survived the voyage. While these sheep did not swell the Fort Vancouver flocks, their arrival pointed to future large-scale importations. Captain Brotchie also obtained Vallejo's permission for the future purchase of "horned cattle," but only at the high price of seven dollars a head.[267]

While the "Big Doctor" was in Europe, Chief Trader James Douglas acted in his stead and enthusiastically pushed ahead with the Committee's plans for increased stock raising. His reports give a reasonably good picture of livestock management at the depot.

Seven men were constantly employed tending the cattle, he told the directors on October 18, 1838, and additional laborers were used temporarily as required to drive the herds to fresh pastures. He pointed out that the lands near the fort were "not adapted for herding, on a large scale." The only "tolerable" pasturage was found in the marsh lands near the river, where the cattle "like the native deer" took refuge in clumps of forest when attempts were made to round them up. Not only were the pastures subject to flooding, but the grass there was so beaten down by winter rains and snows that it was useless as feed. In such cases the cattle fled "to the evergreens of the forest" on the bluff, or had to be fed with straw from the barns, or were driven to "an extensive arrid plain" ten miles back from the river.

For these reasons the cattle had to be divided into three separate herds. About 250 animals were pastured on "Multoma Island" (the present Sauvie Island), where feed was abundant year round but where flooding could occur. From another herd, located eighteen miles west of the fort on the south side of the river, some animals were driven to the Cowlitz during the summer of 1838, and the remaining 150 were sent to the Tualatin Plains in the Willamette Valley. Douglas considered the latter area "superior to any other" in the vicinity of the fort, and if the cattle thrived there during the winter he intended to keep them there until other disposition became desirable. Apparently this move marked the beginning of the Company's cattle farm on the Tualatin Plains.

Horses were also kept there, probably starting at a still earlier date. A third herd of cattle continued to be maintained near the post to the extent permitted by "the limited pasture" there. Douglas said that the natural increase of all the depot herds since March, 1838, did not exceed 180 calves, "of which number 80 have been raised here."[268]

He reported that the dairy produced 58 kegs of butter during the season and in addition supplied the needs of the depot. The sheep and hogs were more prolific, "being more under our eye." One variety of sheep produced fine wool and another coarse wool, while Douglas surmised that "middling" wool came from "a cross of the two former." "From the plan now followed of keeping the ewes in a separate flock, and permitting only the fine wool rams to have access to them, the coarse wool varieties will soon entirely disappear," he added.[269] In March, 1838, Douglas recommended that a few rams "of the Merino, or Cheviot or other valuable wool breeds" be sent from England. At that time the flocks at Fort Vancouver consisted of 15 rams, 361 ewes and wethers, and 142 lambs.[270]

Douglas's plea for thoroughbred rams evidently was heeded, and the directors also sent out a flock of ewes and two sheep dogs. These animals reached the depot on May 15, 1839, "in remarkably fine condition" and with an increase of four lambs born during the voyage.[271] On October 14, 1839, Douglas reported back to the Governor and Committee as follows:

> The Stock sheep received from England keep in fine condition, and will be of lasting benefit to the Country; in order to preserve the different breeds distinct, the ewes are separated into three flocks, each attended by two of the English rams, and will remain so until winter, when the ewes distinguished by different marks will be reunited into one flock, apart from the rams, with a view of diminishing the expense of keep and the dangers arising from the neglect of careless herdsmen. The sheep dogs are very useful; Gether unfortunately died shortly after arrival from the effects of distemper; but Bell having now a numerous progeny, the stock is in a manner secure.

Douglas at the same time reported that the cattle appeared in a "thriving state" but that, except for the milch cows, they were becoming "unapproachably wild." The increase in the flocks and herds for 1839 amounted to 225 calves, 284 lambs, 300 pigs, and 47 colts.[272]

In London, McLoughlin met with Governor Simpson and members of the Committee at conferences during the summer and fall of 1838. By that time the directors were even more anxious to promote agricultural settlement and cattle raising as a counter to a bill introduced in Congress by Senator Lewis F. Linn to extend United States authority over the Oregon Country.[273] For legal reasons it was believed that the Company should not itself engage in the large-scale raising of cattle, sheep, and foodstuffs for an export trade, so it was decided to establish a "separate Association," a company theoretically independent but actually controlled by the Hudson's Bay Company. Shares were to be sold only to Hudson's Bay stockholders and to the field officers. The organizational meeting of this new concern, named the Puget's Sound Agricultural Company, was held in London during February, 1839.[274]

McLoughlin, commanding in presence and frank in manner, made a favorable impression upon the London directors. He must have convinced them that he was quite capable of managing a major agricultural enterprise. Thus, in spite of his personal conviction that the new concern must fail and despite the complaints which had been lodged against his direction of the Fort Vancouver farm, he was appointed manager of Puget's Sound operations in Oregon. He retained his position as Chief Factor and manager of the Hudson's Bay Company's Columbia Department and was granted a salary of £500 a year for his new responsibilities. The Cowlitz Farm, established by James Douglas in the fall of 1838 upon earlier instructions from the Committee, was turned over to the Puget's Sound Company, and later in 1839 Fort Nisqually became jointly owned by the two firms.[275]

A further impetus for increased agricultural production also came in February, 1839, when the long-anticipated agreement with the Russian American Company was concluded. Under it the H.B.C. leased the mainland portion of the Alaskan coast from Cape Spencer south to latitude 54°40' for ten years for an annual rental paid largely in furs. Among other provisions, the Hudson's Bay Company also agreed to sell to the Russian settlements 2000 fanegas (126 pounds or about 1.6 bushels each) of wheat in 1840 and 4000 fanegas annually thereafter. Also to be provided each year at fixed prices for nine years were 160 hundredweight of wheat flour, 130 cwt. peas, 130 cwt. grits and hulled pot barley, 300 cwt. salted beef, 160 cwt. salted butter, and 30 cwt. pork hams.[276] It was agreed later in 1839

that only 30 cwt. butter need be supplied in 1840 and only such amount as might be convenient thereafter, "which for the present is limited to 30 Cwt. annually."[277] During the mid 1840s, assorted pickles and dried apples were among the foodstuffs shipped to Sitka from Vancouver, but it is not known if these items were produced locally or imported from England.[278]

As can be seen from production figures already given, the commitments for several items, at least, were quite beyond what Fort Vancouver could supply at the time.[279] It was clear that yields at Vancouver and Cowlitz would have to be increased considerably. Additional livestock would also have to be acquired quickly, though most of these were to be owned by the Puget's Sound Company.

When Chief Factor McLoughlin left London and the "Civilized World" during the spring of 1839 it was with the knowledge that he was, in the words of George Simpson, "now about to enter on Farming on a Scale proportionate to which all that was previously done amounted to little more than . . . experiment."[280] The directors decided that the good doctor would need a little expert help for such a large expansion of agricultural pursuits, and they provided four laborers -- dairymen and their families -- together with James Steel, a clerk and farmer hired for five years at £100 annually, all of whom accompanied McLoughlin on the long trip across the Atlantic and then overland to Fort Vancouver.[281]

When the "Big Doctor" reached his headquarters on October 17, 1839, his first object, he told Governor Simpson, was to make

preparations to satisfy the terms of the contract with the Russians. There was little he needed to do as far as crops were concerned, since James Douglas was already in the process of sowing as much fall wheat as "the means of the place afforded." By March, 1840, 168 bushels of fall wheat were in the ground, and 160 more would soon be sown. McLoughlin quickly erected three dairies on Wapatoo Island (Sauvie Island) and placed one of the "English families" on the depot dairy farm. The remaining families were sent to Cowlitz, Fort Nisqually, and Fort Langley to take charge of dairies at those places.[282]

It was McLoughlin's intention to maintain five dairies at Vancouver in addition to those elsewhere. He was worried about his ability to provide all the butter called for by the Russian contract. The depot cows, he said, were "very bad milkers," but he had previously thought that at least part of the trouble was due to the fact that the Canadians, Hawaiians, and other employees at the fort did not know how to milk them. Now he found that his imported English dairymen could get no better results.[283]

Evidently the Committee had intended to transfer most of the cattle and sheep at Fort Vancouver to the Puget's Sound Company, but in March, 1840, McLoughlin reported that this had not yet been accomplished because a winter drive north to Cowlitz Prairie and Nisqually would have weakened the animals and killed many calves and lambs. He promised to move them as soon as the depot inventory was completed.[284]

During the summer of 1840 McLoughlin sent Clerk Alexander Simpson, a relative of Governor Simpson and a young man of rather difficult disposition, in the barque Columbia to California to explore trade possibilities there, to buy wheat, and to purchase sheep for the Puget's Sound Agricultural Company. James Steel accompanied him to select the animals, and at the Hawaiian Islands en route seven men were hired to help manage the sheep. Simpson learned that sheep were not as plentiful in California as the Company had anticipated. "I do not think that a number of Ewes anything near Ten Thousand could be procured there next year," he told McLoughlin. It is evident that the "Big Doctor" was indeed planning on a grand scale.

By purchasing from the governor of California, Simpson was able to obtain 700 ewes at a price of $1.50 each, payable half in cash and half in goods. The animals were "embarked" in San Francisco Bay, and the Columbia sailed for the north on September 25. Since the vessel returned to Fort Vancouver it is probable that the sheep were landed there and held until they could be driven to Cowlitz or Nisqually.[285]

Despite Alexander Simpson's rather pessimistic report, McLoughlin still dreamed of buying "even ten thousand" sheep in California.[286] In December, 1840, he dispatched James Douglas, who had recently been commissioned a Chief Factor, to the Mexican province in the Columbia on a mission of considerable importance to the Company's business. In addition to matters of trade and diplomacy

he was instructed to purchase some cattle and as many sheep as possible and to start them overland for the Columbia. James Steel again went south to select the animals and to oversee their care. Trouble-shooter Thomas McKay and about thirty Company employees were also along to drive the herds northward.

Once more the governor of California, Juan. B. Alvarado, would permit no stock to be purchased from private individuals. He insisted that all animals be obtained from the government -- meaning largely himself and General M. G. Vallejo, commander of the northern frontier -- and the herds and flocks of Mission Santa Clara and other missions about San Francisco Bay were raided for the purpose. Douglas was able to buy 661 cows at $5 and $6 a head and 3670 "choice" ewes at $2 each. "I probably could have made a cheaper purchase from other persons," Douglas confided in his journal, but "I had no alternative." As it turned out, however, he was in the end able to acquire a relatively small number of animals from individual ranchers. He also bought a few horses to mount the herders, but he forgot to void the brands, and when some of these animals later returned to California with a detachment of the Wilkes expedition they were reclaimed by their former owners.

After a great deal of trouble and some loss of animals, Douglas and his assistants got the stock into the Central Valley and headed for Oregon. Douglas returned north by sea, but McKay and Steel, later assisted part way by the Company's Southern Brigade of trappers under Michel Laframboise, continued the drive. If the evidence

noted by Wilkes's men in the fall of 1841 was correctly interpreted, attrition was fairly heavy on the trail, but about 3000 sheep and a number of the cattle reached the Tualatin Plains during June of that year.

These animals were intended for the Puget's Sound Company, but the Columbia River was so high at that season that they could not be crossed to the north shore. About the end of August or early September Clerk George B. Roberts was sent from the depot to the Tualatin Plains to "receive them." He "distributed some," perhaps to the Fort Vancouver herds and flocks, and conducted the rest across the river. "We simply swam them over in bands from Sauvie's Island to the Fishery on the North side," he related many years afterwards. The animals were, in due time, driven to Nisqually.[287]

It is difficult to determine the number of livestock belonging to the Fort Vancouver farm for some years after about 1839. Inventories, if they exist, have not yet been examined by the present writer. Estimates by Company employees and by visitors vary widely, and a distinction between the animals belonging to the Hudson's Bay Company and the Puget's Sound Agricultural Company was seldom indicated.

The divergences are revealed by citing only a few of the available narratives. Lieutenant Charles Wilkes of the United States Exploring Expedition, who visited Fort Vancouver during the spring of 1841, reported that the stock on the depot farm amounted to about 3000 head of cattle, 2500 sheep, and about 300 brood mares.[288]

Chief Factor James Douglas told Governor Simpson during August of that year, after the arrival of the California sheep: "We have a total stock of about 4500 ewes."[289] But when the latter dignitary reached the depot the very next day after Douglas's letter was written, he reported that there were only 1500 sheep and between 400 and 500 head of cattle.[290]

Differences are also found in appraisals of the quality of the livestock. Captain Josiah Spaulding, master of the American vessel Lausanne, visited Fort Vancouver during 1840. He saw a flock of 1000 sheep (out of a total of about 2000 at the depot) and pronounced them "the finest and fattest I ever saw." He was particularly impressed by some of these animals, which he said were of the "Merino and Saxony breeds."[291] On the other hand, J. W. Nesmith, an American settler who had an opportunity to see some sheep driven from California in 1842-1843, claimed such animals "were as low in quality as they could well be, light in color and bone, coarse and light of fleece, of all colors . . . having in an eminent degree the tenacity of life common to all scrub stock."[292]

Lieutenant Wilkes agreed that the California sheep yielded "a very inferior kind of wool," but he noted that cross breeding with Leicester, Bakewell, and other English rams had already brought much improvement. Fleeces of the "mixed breed," he said, were "very heavy, weighing generally eight pounds, and some as many as twelve." He reported that the Merinao rams had not thrived on the Columbia.[293]

In October, 1839, Chief Factor Douglas sent 2435 pounds of wool, evidently produced at Fort Vancouver, to London, and additional

shipments were made, probably all on behalf of the Puget's Sound Company, in later years.[294] But the product was not a commercial success, being uneven in grade and contaminated with dirt.[295]

If there was some disagreement as to the quality of the sheep, there was almost none concerning that of the cattle. The "Spanish cattle" from California were light in body with "clean, bony limbs," and their "handsome" heads were crowned with long and dangerous horns. When angered or alarmed a herd of them was as "terrible as an army with banners." They were resistant to disease and prolific, but they gave relatively little meat, and the cows produced "a very small quantity of milk."[296] But Wilkes noticed in 1841 that two or three "very fine" bulls from England were already bringing an improvement. California cows crossed with these splendid specimens were said to do "very well" as far as milk production was concerned.[297]

A rather notable event in the development of the Fort Vancouver farm occurred in 1841 with the arrival by sea of Daniel Harvey. From Deptford in Kent, Harvey was recruited by the Company in August, 1840, as a miller and farmer, but when he reached the Columbia he was ranked among the clerks. He brought with him "a new kind of draining plough" then finding favor in England for use in light soils, and he was entrusted with the care of "Six Merino and six Leicester Rams and Ewes" being shipped to the Columbia.[298]

He had been employed largely because McLoughlin had said he needed a good miller at the depot, and upon his arrival he seems to

have gone almost at once to the new gristmill about six miles east of the fort. There he was also placed in charge of the Mill Plain farm. As his wife later wrote, he "raised wheat & sheep & turnips & everything on the plain back of the grist mill." There is solid evidence to support this statement, but the available record does not confirm her further claim that Harvey "had general charge of the Farm & all around the Fort."[299] While Harvey may have superintended the entire depot farm periodically, the record is quite clear, as shall be seen in a later chapter, that for most of the term of Harvey's residence, other employees were responsible for overseeing the broad agricultural activities. But in any case, Harvey was an important element in the farm picture until his retirement at the close of 1849.[300]

The year 1841 was marked by visits from a number of well-educated and highly literate individuals. From the descriptions they have left it can be clearly observed that the Fort Vancouver farm was by then a large and impressive establishment. Assistant Surgeon Silas Holmes of the United States Exploring Expedition remarked in his journal that the farming operations were conducted on a "stupendous" scale.[301] His superior, Lieutenant Charles Wilkes, reported that the farm was about nine miles square.[302] Of this area, said Governor Simpson, more than 1200 acres were under cultivation. That season, he added, the harvest amounted to 4000 bushels of wheat, 3500 "of barley, oats and pease, and a very large quantity of potatoes and other vegetables." The wheat was "of very

fine quality, weighing from sixty-five to sixty-eight pounds and a half a bushel."[303] Wilkes was told that buckwheat yielded well in some years but was uncertain due to early frosts; oats did not "thrive well."[304]

The farm area not cultivated was employed for the pasturing of livestock. In May or June, 1841, Lieutenant Wilkes visited the Company's gristmill and the sawmill, both located about six or seven miles east of the fort. On the return trip he observed one of the "sheep-walks" situated on the high prairie north of the river. He also saw herds of horses and cattle being driven to the "upper prairie" bacause the periodic high water had flooded the low ground near the Columbia.[305]

It is interesting to note that because these inundations made the wheat crop uncertain, McLoughlin at that time was contemplating turning the Fort Plain into meadow for grazing and planting the wheat on the upland prairies.[306] Evidently this move was never made, at least to the extent contemplated, since the plain about the fort long continued to be at least partly cultivated.

Another officer of the Exploring Expedition was shown a small "bed" of wheat that Dr. McLoughlin had planted adjoining the fort as an experiment. "Among this," the officer wrote in his journal, "I saw <u>88</u> distinct shoots or spears of wheat springing from <u>one seed</u> -- & upon counting the kernels in one head, found that they would average about 60, making a total increase of <u>5279 kernels</u>!!"[307] Be this as it may, it is quite evident that the "Big Doctor's"

inquiring mind was still at work to improve agriculture in Oregon.[308]

The dairies were of particular interest to the visitors of 1841. Lieutenant Wilkes observed one of the two "dairy-farms" west of the fort, this one evidently on the present Lewis River. The American officer found "the whole establishment well managed by a Canadian and his wife." He noted the presence of several "barrel-machines" for churning. More than one hundred cows were milked at the two dairies on the Lower Plain, and the one visited by Wilkes, at least, was moved every year to assure better pasturage and to fertilize the soil.[309]

There were then at least two additional dairies on Sauvie Island. Wilkes was told that the milk from about 150 cows was there turned into butter and cheese for the Russians by "imported dairymen."[310] Governor Simpson visited the Sauvie Island establishment while he was in the Columbia Department in 1841-1842. He found the dairies situated on one of the "higher ridges" not subject to overflow, although "ridges" would seem a somewhat inappropriate term for the slightly elevated portions of a low-lying terrain. He reported that about a hundred cows served the "dairy," although there were two or three hundred other cattle left to roam at will over the island "merely with a view to their breeding."[311]

By early 1841 the Governor and Committee appear to have renewed their doubts concerning McLoughlin's ability to manage the farm, and in particular they wanted to have the affairs of the Hudson's Bay Company and the Puget's Sound Agricultural Company more carefully

distinguished in the departmental accounts. On March 1 of that year they told Governor Simpson that farming should not be expanded at Fort Vancouver or at other posts beyond the needs of the fur trade, that is beyond what was needed to provision the Company's establishments and vessels. Produce to meet the Russian contract, the trade with the Hawaiian Islands, and other commercial requirements should be the responsibility of the Puget's Sound Company, which should be under a separate management.[312]

In actuality, this decision had little effect upon the Fort Vancouver farm. McLoughlin continued as superintendent of both concerns, and all of the officers and a majority of the men who worked the farm and much of the equipment used continued to be carried on the Hudson's Bay books. Even those men listed as Puget's Sound employees seem to have had their wages advanced by the Hudson's Bay Company.[313] And at least as late as Outfit 1844 the "Fort Vancouver Depot" shipped beef, butter, flour, hops, peas, salt pork, pickles, wheat, and dried apples to Sitka. These items were charged on the account books as being supplied by the "Columbia District" of the Hudson's Bay Company, although whether any of them were actually the property of the Puget's Sound Company has not yet been determined by this writer.[314] Evidently the PSA Company "sold" its produce to the HBC in an accounting transaction. and then the HBC made the sale to the final customer. Until further research is accomplished, it is impossible to be positive about these matters, but apparently by 1844 and 1845, at least, activities of the Puget's

Sound Company at Vancouver were largely confined to operating a "sheep farm" attached to the depot.

Although the London directors were dismayed by the failure of the Puget's Sound Company to develop a successful agricultural colony at Cowlitz, by the slow natural increase of the cattle and sheep, and by the substandard wool produced, and although they considered McLoughlin guilty of "gross mismanagement," they continued to treat their Columbia superintendent quite gently. "The softer way of putting this," wrote the Company's historian, "was to explain to McLoughlin that the disasters seemed to be in part due to the way in which he was tied to the business of his post and department at Fort Vancouver, and to emphasise the need for handing over the farms to good resident managers." In accord with this policy they sent out two Scottish shepherds to improve wool production.[315]

The Governor and Committee were not alone in their estimate of McLoughlin's abilities as an agriculturist. Outspoken Chief Factor John Tod wrote to a friend from New Caledonia in 1842 that the Puget's Sound Company would never succeed "under a person of such an anomalous character as the Doctor."[316] Governor Simpson was also in accord with the directors on this matter.[317]

In March, 1842, Simpson instructed McLoughlin to import no more cattle or sheep from California. "I think we now have a sufficient number of these animals, if they be properly attended to," he said.[318] This apparently veiled criticism was followed the next year by a scolding from the directors for "the heavy outlay incurred of late years in the purchase of Agricultural Implements, thrashing

machines, horse tackle, &c." It was suggested that one means of reducing these costs should be through manufacturing the woodwork for ploughs at the depot. This was an unfair blow, because McLoughlin had long offered to make the wooden parts of his agricultural machinery in Fort Vancouver's shops.[319]

Despite Simpson's order to the contrary, McLoughlin continued to acquire livestock from California. In his own mind, these purchases were in the best interest of the Company, but they seem to reflect his growing disenchantment with his position. His stepson, Tom McKay, had established a farm south of the Columbia, and McLoughlin's own thoughts were turning more and more in that direction. After the murder of John McLoughlin, Jr., by some of the employees of Fort Stikine in April, 1842, the "Big Doctor" became almost obsessed by his campaign to lay the blame onto Governor Simpson and to bring the murderers to justice. For this and other reasons he and Simpson gave up all pretense of friendly relations. Torn by stress and distracted by his other affairs, McLoughlin gave less attention to the business of the depot, and his loyalty to the Company began to waver.

Clerk Francis Ermatinger commanded the Company's Southern Brigade of trappers which operated in California in 1841-1842. When he returned in the summer of the latter year he brought with him 83 head of cattle which he then sold on his own account before McLoughlin knew the animals had arrived. When he learned of this transaction the "Big Doctor" pronounced it "irregular" and required

Ermatinger to assign the proceeds of the sale, less his expenses, to the Company.[320]

Governor Simpson was incensed at Ermatinger's action, maintaining that the clerk must have wasted a good deal of the Company's time in collecting the animals, and he pointed out that under the Deed Poll no employee could conduct private business. "With regard to the cattle transaction," he told McLoughlin, "you did right in assuming it for the Company."[321] While these animals evidently did not join the Fort Vancouver herds, the affair may have encouraged McLoughlin to take a more dubious step the next year.

In the fall of 1842 a group of Willamette Valley settlers under the leadership of Joseph Gale went to California and returned overland the next summer with cattle, horses, mules, and -- according to some sources at least -- sheep. Traveling north with Gale or a short distance behind him was Jacob P. Leese, an American resident of California. He brought with him as a speculation a flock of sheep variously estimated by historians to have numbered between 900 and "nearly 3000 head" and possibly as many as 1250 cattle.[322] McLoughlin on the other hand stated that Leese brought between 400 and 500 cows and about the same number of sheep.[323]

McLoughlin claimed to have heard that "persons" wanted to buy Leese's stock to form a cattle company, "which would have interfered with us." Therefore he bought up the cattle to the amount of £400 or £500 (copies of McLoughlin's account differ). He later admitted to Governor Simpson that he had no orders for such a purchase and that the Company did not actually need the animals. Therefore, he

said, he had drawn on his own private funds to make the payment but would transfer the stock to the Company if requested to do so.[324]

Governor Simpson did not approve this transaction in line with his belief that the firm already had as many cattle as it could "keep in a domesticated state." The London directors also strongly disapproved on the same grounds, but as the cattle were already bought they agreed to have them "assumed by the Fur Trade," and they recommended that McLoughlin's money be returned to him.[325]

McLoughlin did not make a good showing on other aspects of farm management during this period. Interpreting the agreement that the Russians would require only as much butter as the Company could conveniently supply to mean that Governor Etholene would need "only a few Kegs Butter for his table," the Columbia manager "broke up" the Fort Vancouver "Dairy Establishment" during the spring of 1842. Unfortunately for him, shortly thereafter he received notice from Governor Simpson that the Russians would take all the butter that could be sent. McLoughlin immediately took steps to produce thirty hundredweight to ship the next year, but he doubted that he could supply a desired 160 cwt. any time in the near future. He thought it was more advantageous "to allow the Calf [to] run after the Cow, than to milk her to make butter to sell for 6d. p. lb."[326] The reaction of his superiors to such a statement can well be imagined.

McLoughlin reported to the London directors that, due to high water, the crops for 1842 were "not so good as usual."[327] This was all he said concerning the matter; no statistics were supplied. The Governor and Committee were not pleased with McLoughlin's spare remarks. "Beyond the fact of the failure of the crops . . . ," they scolded, "you have afforded us no information respecting the state of the farming establishment. We wish in future to have details on this important subject."[328]

Matters were not helped when the Russians complained that the "white" wheat received in 1842 was "moist," although they did state that the "yellow" variety was of excellent quality. They also found the amounts of wheat and flour deficient, and they begged that the salt meat be provided in "exactly the quantity we want according to our contract." The wheat delivered the next year was dry enough, but it was contaminated with dust "and other impurities." Some of the butter was so bitter that it could hardly be used, and each keg was about nine pounds underweight. Also, late delivery of the provisions was causing much inconvenience.[329]

Such complaints are eloquent testimony to McLoughlin's rather slipshod farming techniques and to his distraction from agricultural affairs at this critical period in his career. They can only have strengthened the growing feeling among his superiors that a change in the management of the Columbia Department was due.

The "Big Doctor" was able to send the directors more cheering news in 1843. "I am happy to be able to state that our crops have

been more abundant, than I ever knew them at this place," he wrote on November 15, 1843.[330] But he provided precious little in the way of figures. When itemizing the amount of wheat in storage, he indicated that the Vancouver crop was 3000 bushels, actually less than in some previous years and far less than the Cowlitz crop of 5000 bushels. Neverthless, he optimistically predicted that the depot could be counted on to produce 4000 bushels annually thereafter.[331]

When writing to Governor Simpson in March, 1844, McLoughlin provided additional details concerning the 1843 harvest at Vancouver. The yield, he said, was 3800 bushels of wheat, 90 tierces of pork, 100 tierces of beef, 100 hides, 30 cwt. butter, and 180 cwt. peas. These items were transferred to the depot account. "We have still in the farm store," he added, "1000 bushels pease, 1200 bushels barley, 2000 bushels oats."[332] Presumably these retained crops were also part of the 1843 harvest.

The yields of 1844 were equally satisfactory. Due to good weather and "fine growing showers," wrote McLoughlin, "the Crops, thank God, were abundant throughout the whole Country." The depot farm produced 4000 bushels of wheat, 2500 of peas, 3000 of oats, and 1200 of barley.[333]

The annual inventory taken in the spring of 1844 provides a detailed account of the livestock at the depot and reveals a healthy state of affairs in that phase of farming operations. Attached directly to the fort itself were 594 horses of all types, 10 mules, and 1 donkey; 662 cows, heifers, bulls, and calves; 128 oxen, with 22 more on duty at Willamette Falls; 727 pigs, 3 Berkshire

boars, 6 Berkshire sows, 11 Berkshire suckling pigs, and 35 pigs "fattening." On Sauvie Island the Company kept 124 horses of all types and 4 mules; 437 cows, bulls, steers, heifers, and calves; 44 oxen, and 49 pigs of all types and ages. No sheep were mentioned in this inventory, which listed only "Property of the Honble. Hudson's Bay Company." Thus it is assumed that all of the sheep observed by visitors to the depot and probably many of the cattle as well belonged to the Puget's Sound Agricultural Company.[334]

But in other respects the year 1844 was a disaster for the Fort Vancouver farm. Late in September a forest fire raged through the woods north and east of the post, advancing from Camas Plain, "North by East" of the fort, toward Mill Plain, the Lower Plain, and the depot itself. Evidently the first farm land to be charred was the "First Back Plain," but the flames soon reached the Lower Plain, destroying the entire "lower line of fence" there and threatening the cattle, sheep, and horses grazing south of the "Big Lake" [the present Vancouver Lake]. With the help of Indians a fire line was established, and the flames were held north of the lake.

Next the fire burst out of the woods behind the fort and descended onto the Fort Plain, destroying the large barn east of the pickets and the clover field. The fences "burnt fiercely," and all vegetation on much of the plain was consumed. About half of the orchard almost immediately northwest of the stockade was set on fire. Indeed, it was only through the utmost exertion that the fort was saved. The farm at Mill Plain escaped destruction due to strenuous efforts on the part of employees and Indian volunteers.

About 3000 bushels of oats, peas, and other grains stored in the barn were lost.[335]

McLoughlin tried to make the best of the disaster by saying that the fire would be "beneficial" because it cleared out a lot of brush and down timber, but there is little doubt that serious harm was done. Evidently much of the orchard west of the garden was never replaced.[336] One settler who was in the vicinity during the fall of 1844 and for a number of years thereafter testified that the fences on one portion of the farm were never restored after being burned. He said, further, that as far as he knew no attempt was made to rebuild the destroyed improvements back of the fort.[337]

To make matters worse, the winter of 1844-1845, while not unusually cold, was, according to James Douglas, one of the "most rainy and boisterous" ever experienced along the Columbia. "The cattle," he told Governor Simpson in March, 1845, "have suffered dreadfully . . . being all poor and many dead. The sheep having been fed all winter on turnips have suffered less, and are now in good condition."[338]

Another tribulation was visited upon the farm by early 1845, and it was one which in the long run was never overcome. In March of that year Douglas reported that American squatters had attempted to establish claims upon lands considered part of the depot farm at Prairie du Thé "above" the sawmill, on Sauvie Island, and west of the fort as far as the Lower Plain. The claimant in the last

instance was the persistent Henry Williamson, who tried to lay out building lots not far from the village where the depot "servants" lived.[339] McLoughlin and Douglas were determined to eject these invaders, "otherwise they will go on with their encroachments until they take possession of our very garden."[340]

By appealing to the Oregon Provisional Government, by showing a determination to evict the trespassers, and by having officers and other employees take out claims in their individual names, the authorities at Fort Vancouver were able to repel this first assault. And in fact they were for a time fairly successful in keeping squatters off the lands claimed by the Company. Until about 1849 only a few settlers were able to maintain a show of occupation in the face of evictions performed under legal process or, sometimes, by force. But the deluge came eventually, and it helped to destroy the farm.

For a number of reasons, among which was dissatisfaction with McLoughlin's management of the Fort Vancouver farm and, especially, the Puget's Sound Agricultural Company, the Governor and Committee late in 1844 decided to terminate his general superintendency, to discontinue his £500 special salary, and to split the Columbia Department into two sections. Beginning on June 1, 1845, the Columbia Department was to be administered by a Board of Management, which for Outfit 1845 was to be composed of McLoughlin, James Douglas, and Peter Skene Ogden.[341]

McLoughlin received the news concerning his special salary sometime between June 1 and July 19, 1845; word that he was to be

replaced as sole superintendent by a Board of Management, a decision made by the Council of the Northern Department at Red River in June, evidently was carried by the express which reached Vancouver in the fall. These measures were a severe shock to the "Big Doctor," who had ruled supreme on the Columbia for twenty years, subject only to the control of the London directors and Governor Simpson. His retirement now became inevitable, and he devoted even less attention to the depot farm.

When writing to the directors on July 19, 1845, all McLoughlin had to say about agricultural affairs was that the "Crops at this place, Cowelitz, & Nisqually are about as usual."[342] During November he was a bit more specific, reporting that the harvest at Fort Vancouver amounted to about 4000 bushels of wheat, 4000 of peas, and about 5000 of oats.[343] It was left for James Douglas and Peter Skene Ogden to break the bad news of the true state of the harvest to Governor Simpson. The crops of 1845, they said, were "deficient in weight and scarcely amounted to an average yield." Much grain was lost by unfavorable weather during harvest.[344]

Embittered, McLoughlin moved to Oregon City in the Willamette Valley during January, 1846, and for all practical purposes his participation in the superintendency of Fort Vancouver was at an end. To an extent, however, this did not involve a change in the management of the farm, since James Douglas, who succeeded him in the immediate control of affairs on the lower Columbia, had for

about five years supervised the routine operations of the depot under McLoughlin's general direction.[345]

The great event of 1846 for British interests in the Oregon Country and for the Fort Vancouver depot and farm was the conclusion of the Oregon Treaty between the United States and Great Britain on June 15. This agreement fixed the boundary between the two nations west of the Rocky Mountains at the forty-ninth parallel. Thus Fort Vancouver fell within the limits of the United States, though the treaty guaranteed that the "possessory rights" -- including "farms, lands, and other property of every description" -- of the Hudson's Bay Company and the Puget's Sound Agricultural Company would be confirmed.[346] It took some months for news of the treaty to reach the Pacific Coast, and it was about two years before the United States got a Federal territorial government in operation, but beginning in 1847 it became more and more difficult for the Company to resist encroachments on its lands and to enforce discipline over its own employees.

Governor Simpson very early grasped the significance of the agreement and looked ahead to the time when the Company could sell its property south of the boundary to the United States. Upon his instructions the firm's officers on the Columbia made an inventory late in 1846 and early in 1847 of the holdings and improvements belonging to the Hudson's Bay Company and the Puget's Sound Agricultural Company. This detailed compilation provides a good,

though perhaps not entirely accurate, picture of the Fort Vancouver farm at the time of its peak production and nearly its highest development.[347]

According to the inventory, the land claimed at Vancouver was 8960 acres, of which 1419-1/2 acres were under cultivation. The latter category consisted largely of the 457 acres of cultivated land in the immediate vicinity of the fort and the 958-3/4 acres enclosed by boundary fences at the Mill Plain.[348] Over this large area were scattered a number of farm dwellings, barns, storehouses, stables, dairies, "piggeries," an ox byre, granaries, fences, and other improvements which will be listed in detail in a subsequent chapter. It is worth noting here, however, that the extent of land claimed at Vancouver was later considerably increased when the Company was pressing the United States for payment for the surrender of its possessory rights.

A somewhat different view of the farm's extent is given by the testimony of several employees and visitors during the same general period. These descriptions, while sometimes differing widely, provide a picture which may be more comprehensible than that given by the bare statistics. Late in 1843 James Douglas told Governor Simpson that the Company's claim at Vancouver extended four miles in depth along the north bank of the Columbia "from Vivet's River to a point opposite the center of Deer Island."[349]

When interviewed in 1852, John McLoughlin said that when he was in charge of the post, the cattle roamed at large in winter along

the Columbia from the "Cathlapootle River" (Lewis River) up to "river Duthé (sometimes called Vivet)," a distance of about twenty miles. At times of flooding the stock was driven north from the river for from one-half mile to five or six miles.[350] Another long-time resident, William F. Crate, said that the cattle ranged above the sawmill as far as "Prairie de Thé," a distance of about ten miles, and down the Columbia below the "Cath-la-pootl," to near the Cowlitz River. According to him, the cattle roamed as far as about ten miles back from the river.[351]

But perhaps the most detailed description was that given by M. T. Simmons, who "first" settled in the Vancouver vicinity in 1844. He later testified that the Company's farm actually consisted of four farms: the Mill Plain, about six miles above the fort and under good cultivation; the immediate fort vicinity, where the fields were "laid down principally in timothy"; the area along the river below the fort; and a fourth area, location not specified, where the fences had been destroyed by the fire of 1844. He threw in the information that there were good wagon roads leading from the fort to these farms.[352] Joel Palmer, a visitor of 1845, reported that due to the washing away of fencing a three-mile stretch of the prairie along the river had been abandoned for cultivation. North of this stretch the prairie extending "nearly down to the fort" was extensively farmed.[353]

Joseph L. Meek, a former American trapper intimately acquainted with Fort Vancouver, later stated that in 1846 the farms at the post

were "rather out of repair," with the out-buildings going to decay. Conditions at the fort, he said, did "not compare with 1840 at all."[354] Nevertheless, the harvest of 1846 was "abundant" the new Board of Management proudly announced to Governor Simpson and the directors. It amounted to 5000 bushels of wheat, 2000 of peas, 1500 of oats, 300 of barley, and 6000 of potatoes. In addition turnips and colewort were left in the ground on about 240 acres as winter feed for sheep and other stock, a measure which would both fertilize the soil and keep the animals in thriving condition. To cap all, agriculture was a paying business that year. Several large "produce transactions" were completed, including sales to American ship captains and to the Russians.[355]

As Ogden and Douglas later reported, it was fortunate they had made "such extensive preparation" for feeding the livestock, because all the straw, hay, and "green food" available was required to pull the animals through the winter of 1846-1847, which was marked by intense cold and deep snow. As many as 3400 head of sheep, horses, and cattle were "kept about the straw sheds for weeks together," but despite such measures many horses and neat cattle perished.[356]

But the winter was not a complete disaster. In the spring of 1847 the livestock included 1915 head of neat cattle (an increase of 272 over the number in the spring of 1846), 517 horses, between 700 and 800 pigs, and about 3000 sheep. These numbers were exclusive of 263 cattle sold or slaughtered for salting and current use. In

fact, the managers declared, there were too many cattle for the range available, especially during flood seasons, and when the animals were "driven into the woods" to escape the high water they soon became "unmanageably wild" and many undoubtedly were lost. For this reason and because American settlers were "crowding in upon our pasture and restricting us to narrower limits every year," Ogden and Douglas believed it would soon be necessary to drive most of the Company's stock to interior posts and, eventually, to Fort Langley.[357]

Unfortunately, the prosperity of 1846 did not repeat itself the next year. Due to an "arrid, unfavorable spring," the grain crops in 1847 were "indifferent," and the entire harvest was only about one-third of what it had been in 1846. Ogden and Douglas gave the figures as 1500 bushels of wheat, 1200 of peas, 1300 of oats, 100 of barley, and 2420 of potatoes. Shortly after the end of the year there were about 1600 head of neat cattle, 240 horses, and about 800 pigs on hand. During August of 1847 about 300 neat cattle and horses had been driven far inland to Thompson's River to stock a farm being established at that post. The crop failure had been general throughout the Oregon Country, and as a result less wheat was available from the Willamette settlers, and the fort's sales of grain were curtailed even though there had been a large stock on hand.[358]

Agricultural production was back on track in 1848. The harvest as reported by the managers on October 1 amounted to 6000 bushels

wheat, 1500 of peas, and 2000 of oats. The barley and potatoes had not been estimated by that date. Since March of that year 3017 pounds of butter had been exported to the Hawaiian Islands. Douglas and Ogden were buying all the wheat available from the settlers in order to build a large stock to meet future demands. News of the California gold discovery had reached the Pacific Northwest during the summer, and already Oregonians were streaming toward the new Eldorado. The Fort Vancouver managers anticipated that the rush would bring higher prices for produce in 1849, but they do not seem to have foreseen the difficulties which soon hampered their agricultural efforts.[359]

The diary of a visitor to the fort during the summer of 1848 provides an interesting glimpse of one phase of farm operations. He noted a number of Hawaiians, Scottish, Indian, and other employees shearing sheep in one of the large but still unfinished school buildings not far north of the garden. There were three separate flocks he was told, the first "pure Merino" kept by a Scottish shepherd, the second a mixture of Leicester and an unnamed breed, and the third of a breed not specified. He was informed that the Company was selling sheep to settlers at five dollars each, and somehow he received the impression that the Company had 15,000 to 20,000 head at Vancouver, surely a great exaggeration.[360] One thing at least is certain: the number was considerably smaller by the end of that year. In September James McKay, one of the Fort Vancouver shepherds, arrived at Cowlitz Farm with 1000 sheep sent there from the depot.[361]

After 1848 statistics on farm production are scarce, in fact almost nonexistent, at least in sources thus far searched by the present writer. Chief Factor James Douglas moved to Fort Victoria during May, 1849, and evidently his successors in command at Vancouver did not consider it necessary to keep their superiors fully informed in this respect. But there is ample other evidence to demonstrate that agricultural activity declined rapidly after the effects of the gold rush made themselves felt in 1849.

The most immediate and obvious blow was the wholesale desertion of employees, who decamped in droves for California. A number were given leaves of absence in hope of preventing their permanent desertion. The extent of the drain is shown by the fact that according to James Douglas, there were 16 officers, 215 servants under articles of agreement, and a large number of Indian employees not under formal contract at Fort Vancouver in 1846, while on June 1, 1849, there were 10 officers and clerks (of whom 2 died or resigned before the end of the outfit) and 74 servants at the post (of whom 37 died or deserted before the end of the outfit).[362] The number of Indians at work in 1849 is not known.

The Company found it impossible to hold employees to their contracts, since under United States laws the officers could no longer legally inflict corporal punishment upon offenders or send them to Canada for trial. And the American authorities showed little interest in apprehending deserters and enforcing agreements of British subjects. As early as May, 1849, a visitor remarked:

"The old and rigid discipline is relaxing."[363]

A United States Army officer who reached Fort Vancouver also in May, 1849, quickly grasped the situation. "It is next to impossible to get a white person to work steadily, for the highest wages," he wrote. "The H. B. Company have lost nearly all their employees being obliged to hire Indians and even they charge 4 and 5$ a day for their paltry services."[364] By November James Douglas was telling friends that most of the Canadians at Vancouver had left for the mines and that it was necessary to "eke out" the staff with Indians.[365] During that same month Eden Colvile, temporary Governor of Rupert's Land, came to the opinion that the provisions needed at Fort Vancouver and the posts supplied from it could be bought for much less than the cost of raising them "at the present exorbitant rate of wages." He recommended that all the Puget's Sound Company sheep on the Columbia that could not be accommodated on Vancouver Island should be sold.[366]

There seems to be little information available on the harvest of 1849, but evidently the managers were able to produce a respectable crop despite the difficulties facing them. General Persifor F. Smith, of the United States Army, noted in October of that year that the Vancouver farms were "in good cultivation." He added: "The largest potatoes, turnips, onions, beets, and radishes I have ever seen" were grown along the Columbia River, though he did not specifically state that he observed these superior vegetables at Fort Vancouver.[367]

The Company had been reasonably successful in keeping squatters off its land through 1849, but by 1850 the pressures were too strong to be entirely resisted. One of the first major assaults on the farm came from the United States Army. In May, 1849, Peter Skene Ogden had given the military permission to establish a camp and erect a few buildings on the high ground north of the fort. By July, 1850, the Army wished to erect barracks in this area, an action involving the occupation of about eight acres planted in oats and the destruction of a considerable amount of fencing. Once more the fort's officers capitulated, but on condition that $1000 be paid for the crop and that the Company's ultimate right to the soil be acknowledged.[368]

On October 31, 1850, the Army formally proclaimed the establishment of a military reservation about four miles square on the north bank of the Columbia River. It included the fort and the improvements for about two miles to the east and two miles to the west.[369] Ogden gave his approval because he knew that only the military could protect the Company's property from squatters, but he waived no rights guaranteed by the Oregon Treaty.[370]

It was well that he acquiesced, since settlers were by that time not only asserting their rights to the lands claimed by the Company but had actually occupied a good portion of the area. During the year Clark County, Oregon Territory, went so far as to lay out its county seat on the river bank virtually next door to

the fort. Although this and other claims were made to lands within the military reservation, the Army was able to expel settlers who intruded within its jurisdiction. As for the lands outside the reserve, the Company could only rely upon protests to the government and upon suits in the courts. In view of the American prejudice against the Hudson's Bay "monopoly," however, the Company's officers despaired of receiving fair treatment before the local tribunals. They could only protest and retreat.[371]

As each settler took up his claim on the Company's lands he appropriated to his own use such of the firm's buildings, fences, and other improvements as he happened to find there. Particularly galling to the officers at Fort Vancouver was the loss of much of the timothy crop. A "good deal" of land both above and below the post had been planted in timothy grass, a crop which required several years "before it came to anything." The yields were at their peak when the settlers moved in, cut the hay, and sold it for twenty-five dollars a ton in summer and fifty dollars in winter. During one period of deep snow the timothy was disposed of for "at least" one hundred dollars a ton.[372]

Despite the testimony of several witnesses that "comparatively very little land" around the fort was cultivated after 1849, Chief Factor Ogden was able to report that the crops of 1850 were "most favorable." As for several years past, however, the large amounts of grain required for commercial sales were chiefly obtained through purchases from Willamette Valley settlers.[373]

By March, 1851, Ogden had sown 500 bushels of wheat, 200 of oats, and 50 of barley. The heavy demands on Fort Vancouver for provisions and the high prices obtainable for wheat, he said, "make us make every exertion to sow." He told Governor Simpson: "My means are slender, but if we do not sow we cannot expect to reap & we must hope to be enabled to devise ways & means of securing the Harvest." He intended to use Indian labor again.[374]

The amount of the harvest of 1851 is not known, but Ogden reported that crops in general were "most abundant" in Oregon that year. Fort Vancouver evidently reaped its share, but only through extraordinary good fortune. About half the servants at the post were confined to their beds by fever during the late summer, and the day after the reduced crew got the harvest under cover it started to rain and rained continuously for at least two weeks thereafter.[375]

Chief Factor Ogden left Fort Vancouver on December 6, 1851, and was replaced by Chief Factor John Ballenden, an officer with long experience as an accountant with the Company. Certainly he had no love for farming. Ballenden quickly decided that agriculture at Vancouver was a losing proposition. He found that wheat sold in Oregon for $1.00 or $1.25 a bushel, while "that raised by the Company costs at least $3." For this reason and because he anticipated that most of the servants would run off to the newly discovered gold mines on Queen Charlotte Island he, as he said, "gradually" contracted out to others the "outdoor operations" at

Vancouver.

The moves may have seemed gradual to him, but within a short four months he had leased the Mill Plain Farm to three settlers for one-half of the produce, and he had "broken up" the dairy on Sauvie Island "as being both useless and expensive," though a man was left in residence to protect the Company's property. He planned to turn the fields near the fort into "grazing parks." The crops at both the Mill Plain and at the post were, he reported, "not up to expectations" due to the soil being poor "to start, & impoverished by over-cropping." He found that the "immense" herds of cattle formerly kept on the farm had disappeared or become so wild from being hunted by American settlers that they could not be depended on for beef. "I believe we only had 3 or 4 animals during the past winter," he told Governor Colvile on March 22, 1852.[376]

Until this time the Puget's Sound Agricultural Company had maintained a "Sheep Farm" at Vancouver. During Outfit 1845 there were six Hudson's Bay employees carried on the rolls as "On Account of Pugets Sound Co." They consisted of two shepherds and four Hawaiian laborers. By Outfit 1851 only one man was listed as being on the account of the P. S. A. C. He was Richard McDonald, shepherd; and he deserted on February 23, 1852.[377] In 1845 Clerk Thomas Lowe remarked in his journal that the sheep at Vancouver belonging to the Puget's Sound Company numbered "about 750 Ewes."[378] As has been seen, other estimates were usually considerably higher, but no accurate statistics seem to be available. At any rate, by October,

1852, Ballenden had decided to discontinue all sheep breeding at Vancouver, and before the end of the year he sent the entire flock to Nisqually.[379]

Among other measures taken by Ballendedn to get rid of the farm was the shipment to Fort Victoria in July, 1852, of "some Agricultural Implements as they are of no use here" and all of the machinery and other property belonging to the Puget's Sound Company at Vancouver.[380] And, in October of the same year, he leased a parcel known as the "Island Farm," situated about one mile east of the fort, to an army officer named U. S. Grant.

These precipitous actions were not looked upon with favor by Ballenden's superiors. On July 21, 1852, Eden Colvile wrote to the Governor and Committee questioning whether the Company's posts on the Columbia should be left dependent on American farmers for provisions. He agreed with Ballenden, however, that agriculture at Fort Vancouver could not be profitable.[381] Governor Simpson instructed Ballenden to continue farming, and the London directors early in 1853 supported this view. They feared that the "desultory habits" of the Oregon settlers would not permit them to be a reliable source of supply and that "by ceasing to cultivate the ground, we might afford a handle to ill disposed persons to dispute our right to it." Therefore, the ordered agricultural operations to continue "for the present at least."[382]

Ballenden had to bow to these orders, but he did so with reluctance. The grain raised at Vancouver was not the "salvation"

of the Company's trade "but purchased grain was," he told Governor Simpson on July 6, 1852. "I will carry on farming if you say so," he added, "although neither I nor the Indians on whom I must principally depend for labor can be expected to know much of agriculture." During the last few years, he continued, not more than one hundred acres were under cultivation exclusive of Mill Plain. The remainder of the farm was "squatted on" both above and below the fort "long before I arrived."[383]

On August 3, 1852, Ballenden told Simpson, "today we have finished cutting the last of our wheat."[384] This crop, produced from seed sown before Ballenden "came to a decision" about closing out the farm, seems to have been quite satisfactory despite summer floods.[385] But he did not expect this success to continue, since there were no cattle or sheep to fertilize the "very niggardly soil of the plains in the neighborhood of Vancouver."[386]

Toward the end of 1852 Ballenden became ill, and he went east in March of the next year. Peter Skene Ogden returned to take over management of the fort, and one of his first discoveries was that Ballenden had left little more than ten days' rations in the establishment. He was forced to scour the country in search of food.[387]

The situation was eased by the harvest of 1853, but serious difficulties had to be overcome before the crops were safely placed in store. The Columbia rose two feet higher than in the previous year, when Ballenden said the flood was greater than any year since 1843; and about one-fourth of the grain crop was lost. To make

matters worse, twelve servants out of a total force of twenty came down with smallpox during the summer, just at harvest time. No settlers were available for hire, though Colonel B. L. E. Bonneville, commander of the military establishment, promised to provide the services of twelve men.[388] Whether they actually materialized has not yet been determined. In the end, however, Ogden pronounced the yield "good," and he believed that with a "little augmentation" he would have sufficient grain for two years' consumption.[389]

A difficult question is raised by a description of Fort Vancouver given in a diary-letter written by Bradford Ripley Alden, an army officer who was quartered at Columbia Barracks in the spring of 1853. Under date of April 13 he wrote: "This [Fort Vancouver] is a very pretty spot. The long meadows of the Hudson's Bay Company stretch away towards Mount Hood very nicely skirted with tufts of trees on the river bank and dotted with the Company's herds of sheep, cows & horses."[390] On the other hand there is, as has been seen, the very clear contemporary evidence that the firm's livestock had largely vanished from the Vancouver scene by the end of 1852. When a military escort for a railroad survey party was being organized and supplied at Columbia Barracks during 1853, Ogden authorized the officer in charge to hunt in the woods and kill any of the Company's cattle he could find. But although "two experienced professional hunters" searched diligently they "never saw horn or hoof mark" in the vicinity. When this same party

wished to obtain horses from the Company Ogden was forced to "send over" and purchase them from the Indians.[391] One can only conclude that Alden was mistaken as to the ownership of the stock or that he was embroidering his description for the comfort of his distant family.

Toward the end of 1853 an event occurred which practically sounded the death knell of the Fort Vancouver farm. American settlers had protested vigorously against the boundaries of the military reservation as established in 1850, and on October 29, 1853, the Secretary of War in conformity with an earlier act of Congress, ordered the reserve reduced to 640 acres.[392] Now only the fields in the immediate fort vicinity could be protected by the mantle of the military. Squatters moved in right up to the reserve boundaries, although the Company was able to preserve most of its enclosures on Mill Plain and, evidently, to assert its rights with some success to a few fenced fields immediately west of the reservation for a few years longer.

The extent of the farm in 1854 is difficult to determine. A board of army officers assembled at Fort Vancouver in January of that year to report on the extent and condition of the Company's improvements within the reduced reservation had relatively little to say about the farm. They found 80 fruit trees, valued at $20 each, 8 acres of wheat "in the ground," valued at $15 per acre, and 3 miles of fence, valued at $300 per mile.[393] Six months later I. I. Stevens reported to the Secretary of War that the Company's

cultivated lands and enclosures amounted to about 1000 acres, while the farm buildings were in "decay."[394] Undoubtedly many more than eight acres had been planted since January, but the estimate of 1000 acres of both cultivated and merely fenced lands seems high even if the Mill Plain farm is included.

At any rate, Ogden and Chief Factor Dugald Mactavish, who had joined Ogden in the administration of Fort Vancouver in September, 1853, pushed agricultural operations during 1854 as vigorously as their limited staff would permit. In fact, they told Governor Simpson, the necessity of keeping up the farm was one reason the Oregon Department suffered a loss during Outfit 1853.[395]

By April, 1854, a herd of cattle had been brought down from Fort Walla Walla and pastured at Vancouver. The crops escaped flooding that spring, and in late July the two managers started the harvest and anticipated good results.[396]

Peter Skene Ogden, a pillar of the Columbia fur trade for more than two decades, died during September, 1854, and Chief Factor Mactavish became sole manager of Fort Vancouver and served as such until about the end of June, 1858. He was assisted by a rising young clerk, James Allan Grahame, who handled the routine supervision of the post. After Outfit 1853 Grahame was promoted to the rank of Chief Trader, and he periodically served as manager during Mactavish's absences. Between about June, 1859, and June, 1860, he was manager in his own right.[397]

Mactavish and Grahame continued to operate the farm, but they did so under great difficulty. In June, 1855, Grahame wrote that encroachments by squatters continued. If the military were not here, he said, the Company would not have one inch of ground left. A flood during the same month placed all of the Fort Plain under water and threatened the oat field, but whether any actual crop damage occurred is not evident.[398]

Mactavish sold 200 head of cattle during the summer of 1855, but the receipts were not enough to prevent the depot suffering a "very large loss" for the year. The need to erect several new buildings at the "Mill Plain Farm" was one of the principal causes of the deficit.[399] All that is known about agricultural operations during 1856 is that the expense of the farm, "though still great," was somewhat less.[400]

For a number of years after 1849 the officers of the Hudson's Bay Company had looked upon the presence of the United States Army at Vancouver if not with pleasure at least with the knowledge that without it there would have been nothing left of the post except the occupied buildings. On the other hand, the military authorities tended in time to forget that they had occupied the site of the reservation with the permission of the Company, and they came to believe they held it by right. They began to regard the structures and other improvements of the Company as encumbrances which should be cleared from the reserve.

This changed attitude began to be evident about 1856. In September of that year Captain Rufus Ingalls, army quartermaster, requested permission to demolish an abandoned and very dilapidated corral belonging to the Company and to occupy the site for the public service. Chief Trader Gahame politely but firmly protested against this "evident trespass."[401] The controversy grew more bitter in 1857 when Captain Ingalls built a wharf despite the Company's refusal to grant permission, and in December Ingalls wanted to "move back" the fence at the corner of the fort orchard "some distance" in order to make a wider road between the barracks and the river. Grahame protested and replaced a part of the fence that had already been taken down.[402]

During the next two years the controversy dragged along with ever-increasing acrimony. The military authorities continued to erect buildings and fences almost where they pleased despite Grahame's objections. These developments only served to reduce still further the Company's already constricted agricultural activities.

In 1857 Mactavish gloomily reported that the "usual expenses" of the farm were incurred.[403] For Outfit 1858 the "Vancouver Farm" suffered a loss of £333.17.9, and the "Mill Plain Farm" lost £84.17.9.[404] Grahame managed to save a little money in 1858 by persuading the local authorities to lower the assessed value of the livestock.[405] This gain was offset during the summer, however, when a group of army recruits passing through Vancouver to the

interior "devastated" the orchard and garden during the few days of their sojourn.[406]

But worse was to come in 1859. The Mill Plain farm had not been cultivated for some time, but the Company had been able to maintain possession of most of the prairie by keeping its fields fenced and by having an employee live there. In February Grahame learned that a squatter was placing his own fences through the Company's claim at Mill Plain. This attack was repulsed, and little more about Mill Plain appeared in the fort correspondence for a few months. By September, however, another "party" had run his fences through the Mill Plain farm. Grahame protested and threatened to take legal measures, but this time to no avail. During November he complained of a "continued system of trespass" there. One neighbor had gone so far as to tear down a Company fence and use the rails to build his own fence inside one of the firm's fields. Grahame's counter measures were in vain.[407]

Conditions were no better closer to the main post. Beginning in August, 1859, William Ryan, a settler who had long been a thorn in the Company's side, attempted to take possession of a field on Fort Plain which the firm had enclosed and cultivated since before 1830. He even began to plough the land. Grahame obtained a "partial injunction" which prohibited Ryan from destroying or throwing open the Company's enclosures, but the trespasser defied Grahame and kept right on plowing.[408] Since it was not the military authorities but the civil courts that dealt with Ryan, the inference

is that as late as 1859 the Company had been able to keep possession of at least some agricultural land outside the reservation boundaries on the Fort Plain. By January 26, 1860, however, Clerk John M. Wark could say: "All the land we have under cultivation here is on the Military Reservation."[409]

Faced with such persistent attacks, it is little wonder that Grahame, fearing "a general rising against us," felt as if he were sitting on a volcano. And it is also little wonder that for 1859 the farms only "resulted in more outlay."[410]

The demise of both the farm and the fort came quickly in 1860. Early in that year, needing land for, among other things, a drill ground for a battery of light artillery, Brigadier General W. S. Harney, commanding the Department of Oregon, ordered a board of officers to appraise the Company's improvements in the area south and west of the stockade. A line of stakes was set up beginning about eighty yards east of the Catholic church and running to the river. It was Harney's intention to clear all the ground in the reservation west of this line. The board made its examination on March 1 and reported that the tract in question contained 400 or 500 yards of fence and 8 or 9 dilapidated buildings claimed by the Company. The buildings, the officers found, were "mere shells," rapidly going to decay and propped up to prevent their falling down.[411]

Informed of General Harney's plans, John M. Wark, in charge of the trading post in the absence of Chief Trader Grahame, protested

most vigorously. To clear the ground, he said, would deprive the Company of the use of several fields then actually under cultivation and already leased out for the year.[412] Harney promptly replied that the Company was "not recognized as having any possessory rights in the soil of the military reserve at this place," and on March 5 Captain Ingalls told Wark that all enclosures and structures on the land in question must be removed "without delay" or the government would "police the area." Wark refused to obey this order, and between March 12 and March 26 the improvements within the tract, including fences (made up of 5000 rails), three stables, the "cow-house," a pig stye, and a hay shed were "remorselessly" burned by the army.[413]

The details of the Company's protests against these actions and of the decision to withdraw from the region south of the forty-ninth parallel are not a concern of the present study. Suffice it to say that once the determination was made to endure General Harney's attitude no longer the firm wasted little time in winding up the affairs of Fort Vancouver. Goods in shops and stores and all moveable equipment were prepared for transport to Victoria. The steamer Otter left with the first "full freight" of goods on May 7, and she evidently made two subsequent trips. Among the items shipped were the few remaining pieces of farm machinery and implements, and on at least one of the voyages the Otter carried a deck load of cattle and, presumably, other livestock.[414]

At the time of the Company's departure the farm had dwindled to a miserable remnant of its former self. East of the fort the

firm cultivated two fields containing about fifty acres. In front of the stockade were two small enclosures containing about twelve acres. The garden, or "orchard" as it was then called, consisted of about four acres.[415] The post staff consisted of eleven or twelve employees of all grades, including one at the Mill Plain Farm. Only three of these were specifically listed on the rolls as being assigned to agricultural duties.[416]

On June 14, 1860, the Otter sailed for Victoria taking with her all the Company's Vancouver employees except two, who remained behind at their own request. The Fort Vancouver farm, which was started with such grand hopes in 1825 had come to an inglorious end.

CHAPTER II

THE FORT VANCOUVER FARM -- A DESCRIPTION, c.1846

There seems to be no really satisfactory, detailed description of the Fort Vancouver farm as it existed on any particular date. But for the period of about 1845 to 1847, when agricultural operations at the depot were still flourishing, there is a considerable body of data available from which a reasonably complete picture can be assembled.

The present chapter deals with the extent of the farm, the areas cultivated or otherwise utilized, and the physical improvements. Such matters as the numbers of livestock, types of crops raised, farm implements, and personnel are treated elsewhere.

Extent of the farm

There is no agreement among witnesses -- either Company employees, visitors, or government officials -- as to the exact area considered to be the "Fort Vancouver Farm" or even as to the exact extent of the firm's claim at Vancouver. In fact, until American settlers began to move north of the Columbia about 1844 and 1845 there was no real need to define boundaries, and the Company's officers appear to have thought of their land holdings in the most general terms as, for instance, when they described their cattle range as extending from five to ten miles back from

the river. The appearance of squatters and the need to clarify the firm's possessory rights under the Oregon Treaty made it necessary to be more precise, but the amount of land claimed at Vancouver varied considerably from time to time.

In 1841 Lieutenant Charles Wilkes was told that the Company's farm at Vancouver was about nine miles square.[1] If Wilkes reported correctly, this was almost the last occasion on which the firm's representatives made such a modest claim. Two years later Chief Factor James Douglas advised Governor Simpson that the Company's land constituted a strip four miles deep on the north bank of the Columbia extending from "Vivet's River" westward and northward to a point opposite the center of Deer Island.[2] The present writer has not located "Vivet's River" exactly on modern maps, but it was several miles east of the depot mills. Deer Island was near the mouth of the Lewis River about opposite the present settlement of Deer Island, Oregon, which is about six miles downstream from St. Helens. Thus the farm stretched along the Columbia for about thirty miles.

In 1852 the Chief Justice of the "United States Supreme Court for Washington Territory" interviewed retired Chief Factor John McLoughlin and received a somewhat similar description. In his day, said the former Columbia Department manager, the farm extended along the Columbia River from the "Cathlapootle River" [today's Lewis River] upstream to the "River Duthé (sometimes called Vivet)." McLoughlin estimated this distance to be about twenty miles, considerably short of the actual number. The cattle, he said,

roamed as far as five or six miles back from the Columbia.[3]

Significantly, McLoughlin said that during his time as manager the Hudson's Bay Company never claimed the present Sauvie Island, then known as Multnomah Island or "Wappatoo Island." McLoughlin said he had occupied it for Nathaniel Wyeth, who first settled on it during the 1830s but left after the collapse of his various enterprises. The buildings on the island, claimed McLoughlin, were "put up by the Company for Wyeth."[4] Strange as this statement seems, it apparently was true. It will be noted that in the description of the Company's claim given by Douglas in 1843, only land on the north bank of the Columbia was mentioned.[5]

On the other hand, there appears to be little doubt that Governor Simpson and other visitors during the 1840s considered the Company's dairies and pasture lands on Sauvie Island to be part of the Fort Vancouver farm. In 1857, when preparing a "rough sketch" of the Company's possessory rights in Oregon, Simpson included "Sauve's Island, farm and dairy," valued at £1000.[6] In 1865, when claiming compensation from the United States for the loss of its improvements and trade south of the forty-ninth parallel, the Company included in the list of its properties at Vancouver at least the structures on Sauvie Island. This version of the claim also included the present Hayden Island, which lies in the Columbia River opposite Vancouver. Known as Menzie's Island or Vancouver Island by the Company, it was used occasionally for grazing cattle.[7]

William F. Crate, who for a number of years was in charge of Fort Vancouver's mills, later testified that when the farm was at its peak the cattle grazed as far as about ten miles above the sawmill to "Prairie de Thé" and down the Columbia below the "Cath-la-pootl" to near the Cowlitz River. He stated that the stock ranged as far as about ten miles north of the Columbia.[8]

In the fall of 1849 Chief Factor Peter Skene Ogden sought the aid of General Persifor F. Smith, commanding general of the Department of the Pacific, in protecting the Company's lands from squatters. At Vancouver, Ogden said, the Hudson's Bay claim extended for about twenty-five miles along the Columbia River, from the Company's sawmill on the east to or nearly to the "Cathlapootle River" on the west, and it extended "inland" from the Columbia for some eight or ten miles."[9]

Thomas Lowe, a clerk at Fort Vancouver from 1843 to 1850, seems to have given the most accurate description of the Company's farm as its extent was understood at that time. He later testified that about the end of 1846 the lands used for farming and grazing lay along the Columbia River from a point one or two miles above the sawmill to "a small stream falling into the Columbia opposite the present town of St. Helens," a frontage of about thirty-one miles. He said the lands extended back from the river for three or four miles in some places and for twelve to fifteen miles in others. The "small stream" he mentioned evidently was the Cathlapootl (the present Lewis River). The Company, he added, also had dairies "and farms" on Sauvie Island.[10]

From these descriptions it seems clear that before news of the Oregon Treaty reached the Pacific Coast and even for some time afterwards the Company had not attempted to fix exact boundaries for the lands it occupied at Vancouver. On the other hand, it is equally evident that the firm's officers had a rather firm general concept of the area they considered to be covered by the Company's farm and grazing lands. The property of which they claimed ownership extended along the north shore of the Columbia from several miles above the sawmill down to about the mouth of the present Lewis River. It reached north of the Columbia for between about three miles in some places and about ten miles in others, or as far as the cattle ordinarily ranged and included those small openings in the forest, known as "plains," that were occasionally cultivated or used to pasture livestock. Today's Hayden Island evidently was included in the lands claimed, but dairies, pastures, and grazing lands on Sauvie Island and the Tualatin Plains, while part of the farm, were not at localities where the Company asserted ownership of the land.

The farm as described above appears to represent the situation as understood by the Company about 1846. No attempt is made in this paper to follow the changes in the claim as it was formulated for presentation to the United States between 1847 and 1869, the year final settlement for the Company's possessory rights was made. Suffice it to say that when the firm presented the perfected map of its claim in 1867, the area extended along the river for about the same distance as claimed in 1846 but went back from the river for only about three miles as far west as Vancouver Lake and then

dwindled to include only the narrow flood plain along the river. Hayden Island was embraced within the claim, but Sauvie Island was not.[11] No mention was made of the Tualatin Plains, which had long since been covered by the donation land claims of individual settlers.

It has already been seen that during the winter of 1846-1847, when the Company made a detailed inventory of its improvements at Vancouver, the lands claimed, as included in Oregon Provisional Government land claims taken in the names of fourteen individual employees, amounted to 8960 acres. Since a corporation could not hold donation land claims under Oregon law, it had been considered necessary to have each of the fourteen employees take a claim of the maximum size permitted -- one square mile or 640 acres. These claims, McLoughlin told the Governor and Committee during November, 1845, were intended to "cover . . . the Company's ground here."[12]

Obviously these 8960 acres did not even come close to covering the Company's claim as described by James Douglas in 1843, by Thomas Lowe, and by McLoughlin himself in 1852. The discrepancy is even more puzzling when it is realized that Thomas Lowe was the accountant chiefly responsible for preparing the 1846-1847 inventory.[13] Perhaps at that time the officers at Vancouver believed the individual claims covered the most valuable lands or at least the lands there was some hope of keeping in view of the pressures from settlers; or perhaps there were no more than fourteen reliable employees available who were likely to remain on the Columbia long enough to make the required improvements and to "firm up" their claims.

Included in the 8960 acres were 1419-1/2 acres "under Cultivation."[14] But these may not have been the only lands cultivated on the Fort Vancouver farm. Years later Thomas Lowe testified that only "improved land actually under fence" was included under this category in the inventory. There was "much more land" under cultivation at that time, he said, but it was not fenced.[15] Perhaps his memory was faulty, however, since observers in 1845 and 1846 generally gave the total area cultivated as about 1200 acres.[16]

Areas of agricultural use

In one sense, practically the entire area claimed by the Company at Vancouver may be said to have been employed for farm purposes, since cattle roamed to even the most remote portions and took refuge in the densest forests of the back country. Even the ground within the stockade may be said to have had agricultural uses, since the granary, the beef store, and a root house were located there, to say nothing of the blacksmith shop and other tradesmen's shops where much of the farm equipment was manufactured or repaired. The flour mill was also considered a part of the farm, at least for accounting purposes.

In the present study, however, "areas of agricultural use" are those localities that were cultivated or fenced or where herds of cattle and horses and flocks of sheep were concentrated. No attempt is made to treat the buildings within the stockade or the several successive gristmills. Such structures have been covered in earlier studies.

Fort Plain

The term "Fort Plain" appears to have come into use after the stockade was moved from the bluff down onto the prairie in early 1829. As with most geographical designations in the Vancouver vicinity, its boundaries appear to have been rather inexact. It seems to have been universally agreed that Fort Plain encompassed all of the lowland along the river from the fort stockade eastward as far as the plain extended, that is until terminated by higher ground approaching the riverbank. This area, said one veteran employee, measured about one by three miles, a reasonably accurate estimate.[17]

The difficulty with this definition arises from the fact that there seems to be no clear statement as to how far Fort Plain was understood to extend west of the stockade. Two recognized agricultural areas, Dairy Plain and Lower Plain, lay to the westward of Fort Plain, but exactly where one left off and another began no one seems to have said.

From early maps it appears that an arm of forest and brush pushed from the north down toward the river a short distance west of the stockade and became quite dense beyond the site of the village where the Company's servants had their homes.[18] It seems reasonable to assume that this band of foliage marked the western terminus of the Fort Plain.

The Company's cultivated fields extended about 600 to 700 feet westward from the west stockade wall, beginning at the

present East Fifth Street and stretching southward, at times, nearly to the river. West of these fields were the wharf, the salmon store, the hospital, and a number of agricultural and other buildings. Also west of the fields lay the village. All of these structures and improvements appear to have been considered as being on the Fort Plain. One employee, for example, described the village dwellings as being dotted "all over the plain, for a mile."[19]

Another question concerns how far the Fort Plain was considered to have extended up the slope of the low bluff north of the present East Fifth Street. It is obvious that the Columbia River flood plain terminates roughly along the line of this thoroughfare, yet the Company did cultivate a portion of the gently upward-rising slope north of the road.[20] Some of principal farm improvements, such as barns, were located on this higher ground. These fields and structures were considered as falling within what by the 1850s came to be called the "Vancouver Farm," consisting of all the agricultural facilities in the immediate fort vicinity.

It is clear that farming operations near the post were conducted as part of a single unit. Fields, whether on the Fort Plain proper or adjacent to it, were included in this unit. For purposes of this study, therefore, farm improvements mentioned as being on Fort Plain include all such improvements in the close neighborhood of the post.

The very first fields plowed and sown during the spring of 1825 at Fort Vancouver were located on the Fort Plain or very close

to it on the adjacent bluff. After the post was moved down onto the lowland early in 1829 there is no doubt that agricultural efforts at the depot were centered there for a number of years. Chief Factor Dugald Mactavish, though not present at Fort Vancouver until the end of the 1830s, was intimately acquainted with depot operations over a long period of years. He later testified that "every portion" of Fort Plain where a plow could be used, whether above flood levels or not, had been cultivated at some time.[21]

As has been seen, however, the cold waters of the periodic spring rises proved very destructive to the crops, particularly to the wheat. For this reason, and because it was found that the silt left by the high waters of the Columbia did not significantly regenerate the rather poor and quickly exhausted soil of the Fort Plain, cultivation was gradually concentrated on the higher portions of the prairie (though at least one small field on the riverbank east of the fort continued to be cultivated for many years).[22]

A succession of maps dating from 1844 to 1859 clearly demonstrates that the plowed fields, though they varied somewhat in size and location over the years, were largely located well back from the river.[23] The southern portion of the plain was mainly used for pasture and was extensively planted with timothy which was allowed to grow wild.[24]

At the time of the 1846-1847 inventory, only 457 acres of fenced land in the fort vicinity (and evidently including potato fields "below the dairy" on Dairy Plain) were under cultivation.[25]

Clearly the principal agricultural operations had by that time been shifted elsewhere.

The Back Plains

It has already been noted that by 1832 McLoughlin, seeking additional clear land free from flooding, had experimented with farming on two of the "pretty small plains" which formed openings in the dense forest north and east of the fort. These efforts were not particularly successful, since it was found that the "poor land" on these prairies quickly deteriorated under cropping and had to be allowed to lie fallow for four years between plantings.[26]

Evidently the Company in later years used these openings principally for pasturing cattle and sheep when the better grazing lands near the river were flooded. This practice did little to benefit the soil, since there was not enough grass on them to permit animals to be penned there for any length of time.

Practically nothing is known about the Company's improvements on the "Back Plains" as they were usually termed or about the extent and duration of agricultural operations there. It may be significant that the 1846-1847 inventory lists no improvements at these small prairies.

At least four of these openings, in addition to Mill Plain which was not encompassed by the term "Back Plains," were of particular interest to the Company and seem to have been utilized to some extent for farm operations. These were, prosaically enough, First Plain, Second Plain, Third Plain, and Fourth Plain.

First Plain, which James Douglas called the "First North Plain" in 1838 and the "1st Back Plain" in 1844, was estimated to be about one hundred acres in extent.[27] It was described as being about one-quarter mile in diameter, "nearly circular," and covered with "good" grass. There was a marsh "by" its south side.[28]

It was situated about three miles northeast of the fort according to the estimates of the period, and as early as 1844 the road out to it crossed the present Burntbridge Creek on a wooden bridge.[29] By 1837 McLoughlin had twice planted crops on it, but nothing more is known specifically about Company use of First Plain.

Second Plain was a "small opening" about one mile easterly from First Plain.[30] If this was the second plain mentioned by McLoughlin in 1837, it was about the same size as First Plain and had the same "dry miserable soil." But a map of 1859 shows Second Plain, situated about a mile east of First Plain, to be much smaller than the latter place.[31] Perhaps McLoughlin was referring to Third Plain, which appears to have been about one and a half miles east of First Plain and to have been about the same size. Second Plain was said to have been "farmed" by the Company, although no time was specified.[32]

Third Plain seems to have been about one-half mile east of Second Plain and about the same size as First Plain.[33] It is said to have been "farmed."

Fourth Plain, also known as "Kalsas Plain," "Kalsus Plain," "Calsas Plain," or "Kolsas Plain," was about seven miles northeast of the fort, in the general area of the present Orchards. This was the largest of the Back Plains, and it is said to have had an enclosure on it and to have been used by the Company for agricultural purposes though exactly how and to what extent is not specified.[34] According to the little available evidence its principal use was as grazing land.[35]

The Company included Fourth Plain within the land claimed at Vancouver, but the firm's officers at the fort seem to have soon decided it would be hopeless to attempt to hold it from the squatters.[36] At least they appear to have raised no forcible objection to the private donation land claims established there in 1848 and later.

Simsik and Camas Plain. In addition to the four openings ordinarily known as the Back Plains there were at least two others in the same general direction that are occasionally mentioned in documents or testimony concerning Fort Vancouver. One of these was Simsik, a "small prairie" about six miles northeast of Fourth Plain.[37] It is not specifically said to have been used by the Company for farm purposes, but the inference is that it may have been employed as pasture.

The other was Camas Plain, at the time generally called "Camass Plain," location not specified.[38] In 1844 a clerk at the depot went from Fourth Plain to Mill Plain via "Kamas Plain," but his route may have been circuitous.[39] Whether Camas Plain bore

any close relationship to the present Camas is not known by the present writer, but evidently it did not, except in so far as the two locations may have been linked to Camas Creek, a stream shown east of Fourth Plain on early maps. One Company employee testified that "Camass Plains" were used by the firm for pasturage.[40]

A map of 1867 shows a road leading northeasterly from Fourth Plain to Fifth Plain.[41] It is not known whether this latter opening was Simsik or still another Back Plain.

Prairie du Thé (also known as Prairie de Thé) probably was not considered to be among the Back Plains, but it perhaps can be most conveniently mentioned here. It was a forest opening evidently situated near the Columbia River about ten miles east of the Company's sawmill. William Crate testified that the Fort Vancouver cattle grazed as far as the Prairie du Thé.[42] James Douglas reported on March 5, 1845, that a party of American settlers had "taken possession of Prairie du Thé."[43] Thus the Company must have considered it part of the firm's claim. The present writer has found no evidence that the Company ever again occupied this tract.

Mill Plain

By 1846 Mill Plain was the largest single cultivated unit of the Fort Vancouver farm. In the words of one Company officer it was a prairie of "great extent" -- about three miles by an average of about three-quarters of a mile in area.[44] It was located somewhat more than a mile north and northeast of the sawmill, and

it was roughly six miles east of the fort. In terms of today's landmarks, it was in the vicinity of Mill Plain Boulevard between about 104th Avenue and 164th Avenue.

Exactly when the Company began to farm Mill Plain has not yet been revealed by the sources employed in the present study. The rather complete inventory of the cultivable lands at the depot submitted by James Douglas in 1838 would appear to indicate that no farming had been undertaken at Mill Plain by that date.[45]

It seems logical, though not necessarily true, that Mill Plain was made a part of the Fort Vancouver farm after the return of McLoughlin from London in the fall of 1839 with the mandate from the Committee to greatly expand agricultural efforts. And it is virtually certain that by the time of Daniel Harvey's arrival in 1841 or very shortly thereafter Mill Plain was extensively cultivated. The 1200 acres reported by Charles Wilkes to have been under cultivation that year could scarcely have been obtained without at least a moderate amount of farming on Mill Plain, and the "sheep-walk" and the grazing cattle and horses he observed on the high prairie north of the river probably were located there also.

The soil at Mill Plain was largely a mixture of clay and gravel, but it produced good crops.[46] Clerk Thomas Lowe said that "all" of the prairie there was cultivated, but evidently he did not mean that all of it was under cultivation at once, since it is known that sheep were pastured there at least at intervals.[47] According

to the inventory of 1846-1847, 958-3/4 acres at Mill Plain were then both fenced and cultivated. There were also 3-3/4 acres of enclosed "Stable fields."[48] But Chief Factor Dugald Mactavish later testified that there was much open land outside the fences.[49]

Mill Plain was a highly developed farm in its own right, "well equipped in all particulars," with barns, a stable, a warehouse, and at least three residences. Among the crops specifically mentioned as having been raised there were wheat, oats, peas, potatoes, and turnips, but undoubtedly there were a number of others.[50] In 1846 Thomas Lowe visited Mill Plain and found that Daniel Harvey had filled all the barns after a "splendid harvest."[51]

Despite the exodus of employees following the California gold discovery and despite the assaults of squatters upon the Company's lands, the firm's officers at Vancouver evidently continued to operate the Mill Plain farm on a reasonably extensive scale through 1851. But before the end of the next spring Chief Factor Ballenden leased the land and improvements there to settlers. Evidently the Company resumed farming Mill Plain itself by at least early 1853, but in view of the much reduced depot staff by that time it is doubtful if agricultural operations were conducted on the former scale.

In February, 1859, Chief Trader James A. Grahame reported that the Mill Plain farm had "for several years remained uncultivated," although the Company had been able to retain possession of most of

the prairie by maintaining its fences and having one of the servants live on it.[52] According to Archibald McKinlay, a clerk and then chief trader who visited Vancouver frequently, "some" settlers had been able to establish themselves on the "far end."[53] During 1859, however, the Company's enclosures were invaded by squatters, and by the end of the year it was evident that the firm could make no more use of the land.[54]

The mills

The Company's gristmill and sawmill were near the north bank of the Columbia River about five and six miles, respectively, east of the fort. Clustered about the mills, and particularly about the sawmill, were a number of residences, shops, stables, barns for oxen, sheds for lumber, and the like. A fairly large staff was required to operate these facilities, and the artisans and laborers lived near their work. Dugald Mactavish later testified that "much land" at the sawmill was occupied by gardens designed to feed these men. Evidently potatoes formed the main crop, but other vegetables were also grown.[55]

Lower Plain

Immediately west of the village where the depot servants lived a "point of woods" extended down from the north nearly to the Columbia River.[56] West of this finger of brush and trees was a vast low-lying expanse of prairie generally known as the "Lower Plain." It began about a mile and a half from the fort and for approximately another three-quarters of a mile was a fairly narrow

band along the bank of the river. Then it expanded rapidly until it was three or more miles wide at "Big Lake," the present Vancouver Lake. Beyond this body of water was another known as Chalifoux Lake. The Lower Plain apparently encompassed both of these lakes and continued, northward now, as a narrower band to the mouth of the Cathlapootl or Lewis River. All in all, this great prairie stretched along the north shore of the Columbia for about fifteen miles or more.[57]

It must be noted, however, that the designation "Lower Plain" seems to have meant different areas to different people at different times. In his 1838 inventory of arable lands near Fort Vancouver James Douglas stated that the "West Plain," two to three miles from the post, contained 76 acres of good land always available, 52 acres of good land subject to flooding, and 37 acres of "poor shingly" land never inundated.[58] He made no mention of a Lower Plain. Although the location of West Plain is not entirely clear, it probably was the upper or easterly end of Lower Plain.

The 1846-1847 inventory, under the heading of "Fort Vancouver," which seems to have meant the immediate fort vicinity, lists fences on "Dairy plain" and at "potatoe fields below the dairy."[59] A dairy had existed on the prairie west of the depot for many years, though it was moved about periodically to fertilize a wider tract of soil. In 1845-1846 this dairy was located not far from the river and about two and a half or three miles west of the fort.[60] It appears almost inescapable that "Dairy Plain" was a term applied

to the eastern end of Lower Plain. This conclusion seems confirmed by the words of Clerk Thomas Lowe, who wrote in his journal on November 30, 1845: "Walked down to the Dairy at the Lower Plain."[61]

To confuse matters still further, Chief Factor Dugald Mactavish, who certainly should have known the truth of the situation, testified years later that Lower Plain extended for about five miles below Fort Plain. Below Lower Plain, he added, the "alluvial lands of the Columbia River" ran for about ten miles along the shore and were three or four miles deep; and there the depot pastured the bulk of its cattle and horses when the land was not under water.[62] According to Mactavish, therefore, Lower Plain was only the eastern one-third of the great prairie downstream from the village.

During the great fire of September, 1844, James Douglas heard that the conflagration had reached the "Lower Plain." By the time he arrived on the scene, he reported a few days later, the flames were "sweeping across the Plain, towards the Pastures on the South side of the 'Big Lake,' threatening the destruction of our entire stock of cattle, sheep, and horses, which were running there." With the help of some Indians a fire line was established, thereby "preserving the South side of the Plain." Since the fire was attacked "between the Lakes" -- presumably the present Vancouver Lake and Chalifoux Lake -- it would seem that Douglas's "South side of the Plain" was in reality the large prairie then lying west of Vancouver Lake.[63] If this reasoning is correct, it would appear that James Douglas considered Lower Plain to extend to the area

south and west of Vancouver Lake and perhaps still farther downstream, quite a distance beyond the five-mile limit mentioned by Mactavish.

In view of these discrepancies, it is difficult to determine today exactly what the Company's employees meant when they used the term "Lower Plain." For the purposes of this study it is assumed that it designated the entire prairie between the "point of woods" and the mouth of the Lewis River.

Despite its exposure to periodic flooding, Lower Plain was an important unit of the Fort Vancouver farm. As has been seen, when the livestock herds grew too large for the pastures on Fort Plain most of the animals were moved elsewhere, and one of the principal new grazing areas was on the Lower Plain, particularly in the vicinity of Vancouver Lake and beyond. In September, 1844, as the already quoted words of James Douglas reveal, the depot's "entire stock" of cattle, sheep, and horses was pastured there.

It has also been noted that a dairy was established on the Lower Plain at an early date and that there were at least two dairies on this prairie by 1841. By the time of the 1846-1847 inventory, however, only one dairy was listed on Lower Plain.[64]

It is clear that in spite of the recurrent difficulties caused by spring floods, Lower Plain was rather extensively cultivated, particularly during the period from about 1840 to about 1847. Clerk Thomas Lowe testified years later that a "good deal" of the Lower Plain was under cultivation about 1846.[65] In

his report on the fire of 1844, James Douglas mentioned the fencing, the "fields," and the "Barns in the 'Lower Plain.'"[66] The 1846-1847 inventory lists only one barn, in addition to three houses, one dairy, and one piggery.[67]

After the Oregon Treaty of 1846 the Company evidently continued to farm and pasture cattle on the Lower Plain for a few years, but it fought a losing battle with the American settlers.. The military reservation of 1850 provided a degree of protection for the firm's agricultural operations on the eastern fringe of the prairie -- in August, 1850, there was a cultivated field directly west of the village -- but when the reserve was reduced to 640 acres in 1853 this shield was removed.[68] In fact, Archibald McKinlay claimed that the "whole" of the Lower Plain had been occupied by others by the end of 1850.[69] The tangled story of the Company's attempts to defend its claim from trespassers has not been completely unravelled, but there are indications that possession of a few enclosures on Lower Plain was maintained for a time beyond 1850.

Sauvie Island

The first substantial settlement on Sauvie Island -- then known as Wappatoo Island or Multnomah Island -- was made by the Boston merchant Nathaniel J. Wyeth. By the spring of 1836 he realized that his second effort to establish a fur-trading and salmon-packing enterprise in the Far West was doomed to failure, and he set out for Boston seemingly with the hope that he could

obtain additional resources to continue his struggle against the Hudson's Bay Company's dominant position in the trade. No additional resources were forthcoming, however, and his chief lieutenant complied with earlier instructions to sell Fort Hall and all the remaining property in the Snake Country. Chief Factor McLoughlin made the purchase on behalf of the "Great Company" in 1837.[70]

The case was different with Sauvie Island, where Wyeth had established his main headquarters, Fort William, "on the south-westerly shore." Here he had erected a number of buildings, planted crops, and started herds of cattle, sheep, goats, hogs, and horses obtained from Hawaii, California, and the Indians. He hoped to establish a permanent claim to this property and before he left had instructed "the gentleman then in charge," Courtney M. Walker, to lease it to "some trusty person for 15 years unless sooner reclaimed."[71] Unfortunately for Wyeth's hopes, Walker soon joined the Hudson's Bay Company as a clerk.[72] After not hearing from his "gentleman in charge" for a "long time," Wyeth asked his friend, Chief Factor John McLoughlin, to try to find a tenant. And evidently several years later he requested McLoughlin to enter a claim for the island in his name with the Oregon Provisional Government.[73] In 1852 the "Big Doctor" said that Wyeth had asked him to "keep" the island for him and that he did record it in Wyeth's name.[74]

Seemingly McLoughlin decided that the best way to protect Wyeth's interest was to occupy the island as a unit of the Fort Vancouver farm. By at least March, 1838, the Company was maintaining a herd of cattle on "Multoma Island," where there was "abundant feed at all seasons." By that same date a dairy "that will nearly cover the expenses of herding the cattle" had also been established there.[75]

Except for areas of higher ground Sauvie Island was flooded almost annually.[76] On such occasions the cattle had to swim for the "mainland," though whether the north or the south bank of the Columbia was preferred is not indicated.[77] They must have prospered, since Governor Simpson found two or three hundred of them on the island when he visited there in September, 1841.[78]

The dairy also did well and was soon expanded. On McLoughlin's return from Europe in the fall of 1839 he "set about" building three dairies on "Wapatoo Island." A map of 1841 shows that there were three dairy buildings on the island at that time, all located near Wyeth's old Fort William, although Lieutenant Wilkes, who did not visit Sauvie Island personally, stated that there were only two dairies there.[79] The Fort Vancouver farm inventory for Outfit 1844 appears to indicate that by then the number of dairies had increased to four, a count confirmed by the 1846-1847 inventory of improvements at the depot.[80]

As has been seen, Chief Factor John Ballenden discontinued dairy operations on Sauvie Island early in 1852, although a man

was kept there to protect the Company's property. Whether or not these activities were resumed after the London directors reversed Ballenden's action is not clear. Probably they were not; as early as July, 1852, organized "squatters" had protested against the Company's "encroachments" there, and private land claims eventually prevailed.[81]

Clerk Thomas Lowe recalled years later that the Company had "farms" on Sauvie Island in addition to the dairies.[82] There very likely was some truth to this impression since, as shall be seen, there were farm buildings there, but no records examined for this study throw any light on the extent of cultivation if, indeed, there was any. It is of interest to note, incidentally, that the usual route used by employees when going from the fort to Sauvie Island was to follow down the north bank of the Columbia to a point two miles below the fishing station -- that is to a point about eight miles west of the stockade -- and then cross the river by a "ferry" to the island.[83]

The Tualatin Plains

At least as early as the spring of 1826 the Company's employees began to pasture horses in the Willamette Valley. The location first favored was in the vicinity of Champoeg, where the trapping and trading parties coming from the Umpqua and California frequently changed from horses to canoes for the remainder of the trip to Fort Vancouver. This same locality was generally used as the point of final departure for southward-bound expeditions.

Thus it was logical to permit the horses to rest and feed near where they were unloaded and where they would again be required.

By the spring of 1834 the favored grazing area seems to have been shifted to the Tualatin Plains in the extreme northern part of the valley. At least a sizeable herd of horses was being pastured there at that time.[84] There was good reason for this move. As James Douglas wrote four years later, the "Fallety Plains" abounded with excellent herbage, were well watered, and enjoyed a temperate climate. For grazing land, he said, this region possessed "advantages, superior to any other" in the neighborhood of Fort Vancouver.[85]

It has already been seen that toward the end of 1838 Douglas decided to send about 150 cattle to spend the winter at the Tualatin Plains because the animals could no longer be accommodated on the limited pastures closer to the fort. Evidently the experiment was a success, for the Company's use of the region continued to expand. The employment of the plains as a holding area, both temporary and long-term, for cattle, horses, and sheep treked overland from California has also been previously noted.

During the summer of 1841 an officer of the United States Exploring Expedition visited the Tualatin Plains and found them being "used as a grazing farm by the H B Co. where they now have several thousand sheep and a large band of Horses." He observed several of the Company's servants "encamped" on the bank of a large stream he called Newell's Creek. They were living in "small canvas

tents, partially protected by an oak grove."[86]

In view of this seemingly accurate description, it is difficult to credit a claim made by the American adventurer Lansford W. Hastings as a result of his stay in Oregon during the winter of 1842-1843. "Besides the improvements in connection with Fort Vancouver," he wrote in his Emigrant's Guide to Oregon and California, "the Company also has very extensive farms at the Cawlitz, Nisqually, Langley and the Fualitine plains. At each of these considerable grain is grown, and many horses and cattle are reared." Then he added: "At the Fualitine plains also, grain and vegetables grow most luxuriantly, and produce abundantly."[87] Hastings undoubtedly was correct about the herds of livestock, but if the Company raised abundant crops of grain and vegetables on the Tualatin Plains the records examined in the preparation of this report have not revealed that fact.

By the mid 1840s the Tualatin Plains were largely taken up by land claims under the Oregon Provisional Government. As far as is known, the Hudson's Bay Company, even through its individual employees, asserted no right to the soil there. Nothing seems to be known for certain about the end of the firm's "grazing farm" in this region, but it is probable that the Hudson's Bay men and their animals simply moved out as the settlers moved in.

Improvments

It is not a purpose of this section to list every fence, barn, shed, and "piggery" on the Fort Vancouver farm. Nor is it intended to give the precise locations of these improvements, although many

of those listed can be identified without too much trouble on the maps reproduced among the plates in Hussey, History of Fort Vancouver.

Rather, the intent is to list the principal improvements, with their dimensions when available, found at each of the major farm units. The objective is to give a general impression of the substantial character of these improvements and to provide another base for judging the relative importance of and the types of agricultural activities carried on at each of these units. Since the buildings within the stockade relating to agriculture have already been described at length in other studies, they are not treated in this section.

The only adequate list of the structures on the Fort Vancouver farm is that in the 1846-1847 inventory made with a view to establishing the value of the Company's improvements south of the forty-ninth parallel. That list, in greater part and modified for clarity and brevity, is as follows:[88]

MILL PLAIN

Fencing

2 side fences	7252	yards total
8 cross fences	7616	yards total
2 side fences of stable field	588	yards total
2 end fences of stable field	92	yards total
7 barn fences	945	yards total
5 sheep packs	425	yards total
Total	16,918	yards

[Total length of fencing was more than nine miles][89]

Enclosed Lands

Land enclosed by boundary fences	958-3/4 acres
Enclosure of Stable fields	3-3/4 acres
Total enclosed lands	962-1/2 acres

Farm Buildings

1	dwelling house	26 x 21 ft.
1	store [warehouse]	40 x 20 ft.
1	stable	50 x 20 ft.
1	barn no. 1	108 x 32 ft.
1	barn no. 2	150 x 19 ft.
1	barn no. 3	130 x 18 ft.
1	barn no. 4	117 x 21 ft.
1	barn no. 5	114 x 18 ft.[90]
1	barn no. 6	150 x 21 ft.
1	barn no. 7	141 x 21 ft.
2	shepherd's huts	

FORT VANCOUVER [AND VICINITY, FORT PLAIN]

Fencing

Fencing adjoining the fort	8,362 yards
Fencing on Dairy plain	2,169 yards
Fencing of potato fields below dairy	1,090 yards
Total	11,090 yards

[Containing 44,040 rails]

Enclosed Lands

Land under cultivation 457 acres

Out Buildings

2	barns	100 x 30 ft. [each]
1	barn	120 x 30 ft.
1	stable	105 x 20 ft. [shingled][91]
1	ox byre	40 x 25 ft.
1	piggery	40 x 20 ft. shingle roof
3	root houses	60 x 20 ft. [each][92]

Work Shops

1	corn kill	18 x 18 ft.

LOWER PLAIN

3 houses	20 x 18 ft. [each]
1 dairy	20 x 18 ft.
1 barn	100 x 20 ft.
1 piggery	60 x 18 ft.

SAUVE'S ISLAND [SAUVIE ISLAND]

2 dwelling houses	30 x 20 ft. [each]
2 dwelling houses	18 x 18 ft. [each]
2 dairies	30 x 20 ft. [each]
2 dairies	18 x 18 ft. [each]
1 granary	30 x 20 ft.
1 dwelling house	50 x 40 ft., ceiled & shingle roof
1 granary	50 x 40 ft., shingle roof[93]

CHAPTER III

FARMING METHODS, CROPS, AND EQUIPMENT

Management

Records examined for this study reveal little concerning the organizational structure of the farm and its day-by-day management. For accounting purposes the farm was considered a part of the depot (as distinct from the fur trade).[1]

It is clear that the Chief Factors in charge of the depot and post were also the managers of the farm and made the major decisions concerning it. This is amply demonstrated by actions of John McLoughlin, James Douglas, and John Ballenden already described. McLoughlin's daughter later said that "before Missionaries came" the "Big Doctor" was in the habit of going out to the fields to observe how the men were working.[2] But except for McLoughlin in the earliest years it is unlikely that the depot managers were able to devote much time to the routine, everyday agricultural activities.

The immediate supervision of the farm workers ordinarily was delegated to subordinates. These were most often clerks, but by the last decade and a half of the post's existence, when the staff was frequently much reduced, postmasters were generally assigned to this duty. Postmasters formed the lowest rank of the Company's

"gentlemen" but ordinarily were not considered qualified to become clerks or commissioned officers and did not often rank with clerks or even apprentice clerks in social standing. But they had sufficient prestige to maintain their authority over the "servants." In rare emergencies, however, even "servants" were called upon to oversee the farm work.

How these supervisory appointments were made is well illustrated by the case of George Traill Allan. He was a young Scotsman, a clerk who had been in the Company's service less than a year and a half when he arrived at Fort Vancouver on October 25, 1831. Although described about a decade later as "a most experienced farmer," it seems unlikely that he had much acquaintance with agriculture before entering the fur trade. His previous employment had been as a salesman of books and stationary in Glasgow.[3]

At Vancouver Allan was first assigned to the Indian trade shop. "Having served my probation in the Indian trade, about a twelvemonth," he later recalled, "I was next placed in charge of the Farm." He must have picked up farming as quickly as he had become a competent Indian trader, because McLoughlin soon gave him the "entire" supervision "of men and forces." In depot records this assignment was often designated by the terms "Men" or "Outdoors." It encompassed not only supervision of the farm but of most of the laborers and artisans about the depot. Allan, for instance, said that one of his "worries" was drying and cleaning the grain when the granary roof leaked.[4] George B. Roberts, who at one time held

this position, said he was "in charge of the men as it was then called, that is all the out door & general work of the establishment." Another responsibility of this position was making the daily entries in the post journal.[5]

The work of the clerk in charge of "Outdoors" began very early in the morning every day except Sunday. The laborers, mechanics, and other artisans gathered at one of the fort gates and stood with a "respectful bearing" while being "told off to their duties."[6] After assigning the men to their tasks, the clerk took up his "somewhat arduous task" of supervising the men at their labors. "My duty as superintendent of the Farm," George Allan wrote to his brother reportedly during the 1830s, "consists mainly in seeing the wishes of the gentleman in charge of the establishment carried into effect, and I am therefore almost constantly on foot or on horseback during the day."[7] Since the farm spread over a large area, this "keeping things in order" left little time for leisure, particularly when it had to be combined with "making reports to the chief factor as to the necessary labors."[8]

During the periods of plowing, planting, and, especially, harvesting most of the servants at Fort Vancouver as well as numbers of the local Indians hired temporarily were put to work in the fields. But for significant intervals during the year a large percentage of the men were absent, conveying supplies and dispatches by boat to the inland posts or across the continent, or seeking beaver with the trapping and trading brigades, or fulfilling a host

of other assignments. When these voyagers returned to the depot between trips, McLoughlin saw to it that they did not remain idle. Most of them were "set to labor" on the farms, where there was always work to be done grubbing out brush, cutting trees, building and repairing fences, spreading manure, cleaning pig sties, digging drainage ditches, and a myriad of other tasks. In this way, said Clerk Thomas Lowe, the crops were raised without much expense, since the wages of these men would have had to be paid in any case.[9]

But in addition to this rather transient farm labor force there was a nucleus of employees who were assigned to agricultural duties on a more or less permanent basis. It is often impossible to ascertain who most of these men were or what positions they filled, since the annual rolls of employees seldom told more about the work of each than to give his rank, as "laborer," "boute" (bowsman), "middle" (ordinary conoeman or laborer), "guide," and so forth, if they told that much. There was seldom any indication of where these men worked. Only the mechanics, artisans, and some farm specialists such as shepherds, dairymen, and swineherds might ordinarily have their occupations indicated.

Fortunately, there were occasions when the depot manager had a special reason for indicating the particular assignment of each man considered to be on permanent duty at the post (in contrast to the "comers and goers" in the brigades, expresses, etc.), although even members of the regular depot staff might be called upon to replace the "lame and the sick" in the brigades or to form a special party to punish Indians, build a new post, or to perform some similar duty.

One such list was made by Chief Factor McLoughlin to disabuse Governor Simpson of the idea that "we have more men than we really have." It shows how the men at the depot were actually employed on the date when the letter was written, March 21, 1833. The number of men who can be identified as working on the farm are as follows (names omitted): 3 Cowherds, 1 Carter, 1 "Sowing," 5 "Ploughing," 2 "Harrowing," 3 Pig Herds, 2 "At the Barn," and 1 "Garden."[10] At various times during the fort's existence a number of different classifications, such as "farmer," "seedsman," dairyman, and shepherd appear in the records, but the list condensed here serves to give an indication of how the farm labor was organized.

Most of the Company's field officers and clerks, and probably even most of the servants, were not farmers by upbringing or training before they entered the fur trade. Yet they managed to develop productive farms and gardens across much of the continent. The question arises, how did they achieve this level of competence isolated as they were from models to emulate?

At Fort Vancouver it is known that the post library contained at least two texts on agriculture. They are listed in the depot inventories as "2 Vols. Cattle Doctors" and "1 Loudon's Encyclopa. Agriculture."[11] The second of these works was John Claudius Loudon's <u>An Encyclopaedia of Agriculture: Comprising the Theory and Practice of the Valuation, Transfer, Laying Out, Improvement, and Management of Landed Property; and the Cultivation and Economy of the Animal and Vegetable Productions of Agriculture, Including All the Latest</u>

Improvements . . . . A second edition of this handbook was published in London in 1831 by Longman, Rees, Orme, Brown, and Green. This work contains descriptions and illustrations of all types of farm implements and machinery in use in England at the time. It is clear that McLoughlin studied this text carefully, probably this second edition, since he ordered two reaping machines in 1836 after reading descriptions of them by Loudon.[12] Further identification of the "Cattle Doctors" book has not yet been made by the present writer.[13]

In addition to these handbooks and to any others he may have had in his private library, McLoughlin undoubtedly learned from those of his employees who had some experience with farming. Both Britain and Canada were still extensively rural in the 1820s and 1830s, and it is unlikely that at least some of the men at the depot had not been raised on farms or had not experienced some contact with agriculture.

As early as Outfit 1828 a servant named Peter Wagner received extra wages for services as a "Cow herd &c," and the next year he was paid a gratuity for "Butchers Services."[14] It seems probable that such a man would have had previous experience handling cattle. Similarly, Laurent Sauvé dit Laplante received extra wages for services as a dairyman in Outfit 1831.[15] It would appear that he also had some prior knowledge of farming. During Outfit 1834 a servant named John McKay was given a gratuity "for an English Plough."[16] This intriguing bit of information tempts one to

speculate that he may have been a former farmer who brought the tools of his trade with him. A limited number of other indications of possible earlier farm experience are found in the employee rolls down to Outfit 1859, the last business year during which Fort Vancouver remained active.

But as has been seen, Governor Simpson and the London directors were not greatly impressed by the results obtained from farming techniques acquired through self-education and the advice of servants. In 1835 they sent out Mr. and Mrs. William Capendale, well trained in all phases of agricultural management, to take charge of the farm and dairy. McLoughlin's refusal to let them assume these duties has already been treated. The Governor and Committee tried again in 1839 when they had McLoughlin take back with him from England James Steel, "Farmer," at a salary of £100 per year and the effective rank of clerk, and four "Farm servants," actually experienced dairymen.[17]

From that time the rolls indicate that professional farmers were an accepted feature of life at Fort Vancouver. Daniel Harvey, "Farmer," arrived in 1841 and was put in charge of the gristmill and the developing farm at Mill Plain. John McPhail, an expert Scots shepherd, served for a number of years. These and other trained personnel provided the technical skills required to increase the production of the Fort Vancouver farm to the limits permitted by its inadequate area, often poor soil, frequent floods, limited manpower, the assaults of squatters, and other difficulties.

Farming methods

Apparently it was not found necessary to fertilize the fields at Fort Vancouver during the earliest years. John Kirk Townsend noted in 1834 that the land produced "abundant crops, particularly of grain, without requiring any manure."[18] But it was not long before the areas most intensively cultivated began to show signs of exhaustion.

The topsoil on the Fort Plain proved to be rather shallow in places, and it was underlain with alluvial sand and gravel which provided little sustenance for crops. The problem was compounded by the fact that much of the prairie was inundated during periods when the Columbia River was high. Lieutenant Charles Wilkes witnessed a flood during 1841 and reported that the waters of the Columbia had no "fertilizing qualities" and were said to deteriorate and exhaust the soil.[19] By the spring of 1833 it had already been found necessary to be selective in choosing locations for planting the different crops. Indian corn or maize required the richest soil, barley the next richest, then wheat, with oats or peas getting the poorest fields.[20]

Chief Factor McLoughlin was well aware of the agricultural techniques of the period for enriching the soil. As he wrote years later, farmers could not cultivate the ground without cattle.[21] By 1837 he was penning cattle at night "as sheep are penned on Turnips," on the fields of Fort Plain in order to make the "poor miserable Dry S[h]ingly soil" produce a crop. This procedure could not be

employed on the Back Plains because there was insufficient grass available for penned cattle to feed upon. Therefore those plains were allowed to rest for four years after each crop.[22] James Douglas threw a bit more light upon these matters when he wrote in 1838: "The method hitherto most successfully pursued in the management of the Farm, is a rotation of grain with occasional hoe crops, keeping the soil in good heart, by fallowing and manures, the latter operation being most commonly performed by folding the cattle upon the impoverished land."[23]

There is little direct evidence as to how these soil-enriching procedures were carried out at Vancouver, but the methods cannot have been much different than those employed at the Cowlitz Farm during the 1840s. The Cowlitz journal contains many entries such as the following: "Changed sheep & Cattle pens"; "set all the carts & spare Indians to cart out manure upon field No 2"; "ploughing under the field lately manured by the cattle intended for potatoes next year"; "Manure the land as fast as we can with the muck from the pig sties"; and "Began . . . to plough that part of field No 21 that was not fallowed last summer."[24] The Nisqually journal also contains much information on these topics, as is illustrated by the entry for September 15, 1834: "Wheat sowed in the pea field."[25]

Most of the grains were sown in the fall.[26] The farm journal at Cowlitz reveals that the actual sowing of wheat could begin there as early as mid September, particularly if it was desired to take advantage of "early growing rains."[27] But according to one observer, the usual time at Vancouver was in November and December. There was

a second and smaller planting of wheat and other grains in the spring, usually in February and March. Peas, oats, potatoes, and, probably, turnips and other vegetables were planted in March.[28] But in mid February, 1848, Colewort and turnips were being sown at Fort Vancouver "to give early feed for the hogs."[29]

There was nothing rigid about these schedules, however, Much depended on the weather, the available manpower, and other variables. At Cowlitz Farm, for example, Clerk George B. Roberts had planned to sow one area with oats in the spring of 1848, but he planted it it in November of the preceding year because he feared the crop, if sown at the "usual time" would be "too much beaten down & washed by the heavy rains." But he was aware of the danger of planting most of his grain at once. The result, he wrote, would be "the certainty of the whole crop in harvest coming on together so that if not immensely strong handed at that season a loss must be expected."[30] At Vancouver it was sometimes possible to plant a second crop on fields which had been damaged by flooding.

Preparation of the ground for the seed sometimes began long in advance. At Cowlitz during September, 1847, for instance, Roberts started a "2 Wheel plough" to get the "potatoe land" ready for the next year. On other occasions the seed was sown almost immediately after the harvesting of the previous crop. On September 24, 1847, Roberts "ploughed in" twenty-two bushels of wheat, believing that when sowing was done early in the season in dry soil it was better to get the seed down deep rather than merely to harrow it in and

have it washed out later by heavy rains.[31] As with the sowing, the time of plowing depended a great deal on the weather. The soil could not be worked when it was too wet, and much of it could not be turned when it was hard and dry.

The first step in preparing the soil for planting was to plow it. For crops which had to be planted deeply, like potatoes, special plows were used, probably similar to or the same as the "2 Wheel plough" or the "big Norfolk Plough" used for such work at Cowlitz.[32] McLoughlin once advised the manager at Nisqually to "cross-plough" and harrow the poor soil there, so it is likely the same practice was followed on those fields at Vancouver which were most troublesome.[33] The "Big Doctor's" daughter later recalled that he "was very particular about ploughing straight."[34]

Thomas Jefferson Farnham has left a graphic description of the planting-time activity at Fort Vancouver. "Twenty or thirty ploughs tear open the generous soil," he wrote; "the sowers follow with their seed, and pressing on them come a dozen harrows to cover it; and thus thirty or forty acres are planted in a day."[35]

Both horses and oxen were employed to draw the plows and harrows.[36] At Red River during the 1840s the harrow was used to "work down the soil," evidently before the seed was sown, as well as to cover the seed.[37] It is probable that this same practice was followed occasionally at Vancouver. It is also likely that the seed was at times sown "before the ploughs" as it was periodically at Cowlitz.[38] If the practice at the latter place was followed at

the depot, certain seeds, such as coleseed, were lightly covered by soil after planting by going over the field with rollers or brush.[39]

Harvesting, said one observer, usually began in the Fort Vancouver vicinity between the fifteenth and twenty-fifth of July and continued for three or four weeks.[40] This generalization seems to have been quite accurate, though there were variations depending on the weather and other factors. In 1844, for example, the harvest began on Fort Plain on July 9 and at Mill Plain on July 16; the crops at both places were reported "all taken in" on August 31.[41]

At harvest time, wrote Farnham, "sickle and hoe glisten in tireless activity to gather in the rich reward."[42] While sickles may have been used for cutting grain up to the time of Farnham's visit in 1839, they were being replaced by cradles by 1841, since an observer of that year said the grain was cut "with scythe and cradle."[43] By 1844 no sickles and only "reaping cradles" were listed in the farm inventory.[44] Perhaps the "hay scythes" noted in the inventory were used for harvesting also, because as a Catholic priest remarked at Vancouver, "here hay is not put up, the animals constantly find things to feed on in the fields."[45] Evidently McLoughlin never received the reaping machine he had inquired about in 1836; at least none is listed in the 1844 inventory. Other implements used for harvesting various types of crops included "pea Hooks," hoes, spades, shovels, and possibly a

"turnip cutter" and a "chaff cutter."[46]

As the grain was cut the reapers were followed by other workers who bound it into sheaves. Then came the carters who hauled the harvest to the barns or sheds. In the Vancouver vicinity every effort was made to get the grain under roof on the same day it was cut. According to one observer, the heat was usually so intense during the harvest season "that grain, once cut, cannot remain longer than a day in the field." Thus at times it was necessary to transport the crop during the night "to profit by the humidity."[47]

At least some of the barns and sheds on the Fort Vancouver farm seem to have been open on the sides, affording somewhat scanty protection to the harvest. There the grains remained until they could be threshed and winnowed. As the Reverend Mr. Beaver pointed out with considerable self-satisfaction, the period of storage "in stack" could be quite lengthy -- even up to "several years" -- since except for grain needed immediately for seed the threshing process could be postponed to keep men busy during inclement weather or for other reasons. If Beaver was correct, as he probably was in this instance, "vermin" destroyed part of the grain thus stored and more was rendered "almost unfit for use" because of dirt.[48]

Assuming that ideas of sanitation were the same at Vancouver as they were at Cowlitz, one source of contaminated grain may have

been the carts used to bring in the sheaves, for they were the same ones employed to haul manure. More light is thrown on the habits of the period by an entry in the Cowlitz Farm journal: "carts leading out manure upon field No 8 in order to clear out the shed for Wheat."[49] In addition to damage from a "prodigious" number of native mice, the stored grain suffered much from rats. These rodents were said by one observer to have been unknown at the depot until about 1843, when they arrived in bales brought by ship from England. Within two years they had multiplied to such an extent that they caused "great damage in the sheds."[50]

Despite Beaver's criticism, it is apparent that by 1841 at least efforts were made to get the grain threshed as soon as possible after harvest, not only to obtain the seed needed for the next crop but to preserve the yield from the rodents that left "only the straw in the sheaves."[51] During the earliest years the threshing was done in the ancient manner by horses. In October, 1829, Clerk J. W. Dease noted in his diary: "Began their Thrashing in the Circus with Horses."[52] By 1834, however, there was a horse-operated "threshing mill" at Vancouver, which probably was the "threshing machine" worked by oxen and kept in "a large and splendid barn" said to have been seen in that same year by Hall J. Kelley.[53] Thomas J. Farnham wrote in 1839: "At the back, and a little east of the fort, is a barn containing a mammoth threshing machine; and near this are a number of long sheds, used for storing grain in the sheaf."[54] By 1844 there were three "portable Thrashing Machine[s], 4 horse power" at Vancouver, two of them imported from England and

one "country made."[55]

How this equipment was used is revealed to some extent by a Catholic priest who wrote in 1841 that "an apparatus for flailing is transported from one barn to the other immediately after harvest."[56] Another clue comes from a report that when the great fire of 1844 burned the barns back of the fort three "floors for threshing grain" were "consumed in the wink of an eye."[57] Among the crops which were "thrashed" at Cowlitz were wheat, oats, barley, peas, clover, flax, and timothy.[58] Peas were also threshed at Nisqually.[59] Undoubtedly these same crops at Vancouver received similar treatment.

The next step in the process was to clean the kernels and seeds by winnowing. Probably during the first years this was accomplished by tossing the grain in the air and letting the wind carry off the chaff as had been the practice from time immemorial. At Fort Nisqually in 1834 one man was described as "winding" the threshed peas "indoors," although whether this action was by hand or machine is not evident.[60] But by the 1840s there was mechanized equipment available for this task at the depot and, at least, at Cowlitz. The 1844 Fort Vancouver inventory lists one "pair English Fanners" and another pair of the same, "country made."[61]

George B. Roberts provides a glimpse of how this equipment was used. It was, he noted in the Cowlitz journal, "highly necessary to have the seed wheat perfectly clean." Therefore, he added, "the thrashing mill people have been employed passing it thro and thro' the fannery."[62] After the grain was well cleaned it was taken to

the granary and stored until used or exported.

There were special procedures for harvesting and storing certain crops. At Nisqually as the peas neared maturity, a man had to be kept at the fields day and night to prevent the Indians from stealing them. After the peas were harvested they were all "gathered up about the thrashing floor" and allowed to remain for about five days until they were "entirely dry." Only then were they threshed and cleaned.[63] Probably the same operations were carried out at Vancouver.

At Cowlitz Farm Indian women were employed to collect the seed from the clover and timothy in the fields. The seed was then almost immediatley threshed and cleaned.[64]

Potato culture also required special techniques. The planting process, at least as practised at Cowlitz, is well described by that post's journal entry for February 28, 1848: "The land on the hill where the cattle were parked last summer [to manure the soil] & which was ploughed up in the fall, I had harrowed & reploughed as deep as possible with the big Norfolk Plough -- & planted with Ladies finger & the Early blue potatoes. The drills were drawn quite shallow, merely deep enought to protect the tubers from the frost."[65] Since George B. Roberts, who made this entry, had also been in charge of the Fort Vancouver farm for a number of years, it is quite likely that this procedure was also used at the depot.

During the growing season the potatoes were cultivated at intervals with the hoe and, evidently, with the plow. As the crop neared maturity at Cowlitz it had to be protected from the Indians, who otherwise would dig up and steal the potatoes while they were

still unripe. Harvesting of potatoes was ordinarily done by Indian women, presumably using spades. But in certain years, when the crop was small, harvesting was accomplished both "with the hoe & [the] usual way," and the crew was sent over the field a second time.[66]

At Vancouver the potatoes intended for seed or for the men's rations were stored after harvest in the "potatoe cellar" north of the fort near the present East Fifth Street or in the other "Root Houses." At Cowlitz at least some of the potatoes placed in the "potatoe house," including those destined for "seed," were kept in barrels.[67] On the other hand, at Vancouver the potatoes intended for the mess hall table and for the other "dwellers in the Fort" were left in the ground until ready to be used. Chaplain Beaver complained of the quality of these potatoes, and he felt sorry for the cook, who was required to "dig them all, twice each day, as well as cook, for about fifty persons; and I have seen him digging them in a frost more severe than the average frosts of England."[68]

Little that is specific is known about the dairy operations at Fort Vancouver. From the inventory records already quoted it is clear that these structures were rather small, mostly 30 x 20 feet or 18 x 18 feet, and as Lieutenant Wilkes noted, at least some of them were moved annually in order to fertilize the soil and provide better pasture for the cows. At the one visited by Wilkes churning was done in "barrel-machines, of which there were several."[69]

Narcissa Whitman visited the dairy on Lower Plain during 1836 and then wrote in her journal: "Saw an improvement in the manner of raising cream. Their pans are of an oblong square, quite large, but shallow, flareing a little, made of wood & lined with tin. In the center is a hole with a long plug. When the cream has all arisen to the surface, [they] place the pan over a tub or pail, remove the plug & the milk will all run off leaving the cream in the pan only . . . . They milk between fifty and sixty cows [here]."[70]

Methods of caring for the livestock differed little from the ordinary British practices of the period, but there were a few differences stemming from the customs of the American West and from conditions peculiar to the Columbia Department. Since the more important cultivated fields were fenced, the cattle were often allowed to run free at Vancouver, though according to Wilkes they were penned at night in moveable pens as protection from wolves and "to manure the ground."[71] If the situation at Cowlitz was reflected along the Columbia the cattle -- and the pigs too -- sometimes broke through the fences and gleefully destroyed or damaged the crops. Occasionally the stock was deliberatley pastured on the timothy and coleseed or even, when feed was scarce, upon wheat.[72]

When the cattle were moved to the Lower Plain after Fort Plain began to be extensively cultivated, long lines of fences were erected "immediately above" the Lower Plain to confine the animals to the west. A gate was installed on the road to the Lower Plain, and a gatekeeper was stationed there day and night to make sure no

strays passed the fencing. These barriers remained until they were destroyed by squatters.[73]

The loose cattle on the Lower Plain and elsewhere were adept at hiding themselves from their herders, seeking refuge in clumps of trees and brush where it was almost impossible to find them. They were, McLoughlin told a friend, as wild as deer "and could not be approached so that when we wanted to kill any for Beef we had to hunt them as Deer."[74] This meant that the animals had to lassoed or shot; the depot clerks often hunted them for sport on holidays.

Despite interbreeding with blooded stock, the strain of long-horned California cattle persisted for many years at the post. These animals, even the milch cows, were wild and dangerous and a threat to anyone on foot. One story told by old Fort Vancouver residents concerned three young boys, sons of Company officers, who persisted in teasing the dairy cows and were finally charged by the bellowing and snorting beasts. The lads were able to reach safety in a fir tree, but they spent a most uncomfortable night until the dairymen arrived early the next morning.[75]

As several witnesses have attested, little or no hay was made at Vancouver, since there usually was plenty of grass and timothy available.[76] There seems to have been one exception, however. Evidently there was not enough natural food near the sawmill always to satisfy the oxen kept there for timbering operations. William F. Crate, a miller and millwright at the depot for a number of years later testified: "Opposite the saw mill there was a large island in

the river, where we procured goose grass for the cattle in winter, keeping a boat's crew for that purpose, and sending there nearly every day."[77]

Horses were kept at the depot for farm work, for use in pack trains, for riding, and, at times, for racing and other sports. No employee, even an officer, was permitted to own a horse; all belonged to the Company. From time to time the supply had to be renewed, as is shown by an entry in Clerk Thomas Lowe's diary for April 27, 1846, noting that "six fine riding horses" had been brought down from Walla Walla.[78]

The method of herding horses was recorded by Lieutenant Wilkes in 1841: "On our way back to Vancouver [from the mills], we met the droves of horses and cattle that they were driving to the upper prairie, on account of the rise of the river . . . . This was quite an interesting sight. A certain number of brood mares are assigned to each horse; and the latter, it is said, is ever mindful of his troops, and prevents them from straying. An old Indian is employed to watch the horses, who keeps them in constant company, and is quite familiar with every individual in his charge.."[79]

Pigs seem to have been kept at a number of places over the farm. There was a "piggery" on Fort Plain and another on Lower Plain, and "large herds" of hogs were also kept on Sauvie Island.[80] An officer of the United States Exploring Expedition in 1841 noticed that the pigs on Lower Plain had learned to dive under the waters of a lake there "after a species of clam or oyster." Surprised, he

wrote in his jounal: "It was here that I first learned that [a] pig would voluntarily dive under water."[81]

After being allowed to mature on wapato, acorns, and other wild foods, the pigs were fattened on peas, turnips, pumpkins, and similar crops. At Cowlitz the space under the sills of the "big store" was enclosed "to make [a] domicile for the mother pigs."[82] There is no record of such a practice at Vancouver, but Chaplain Beaver protested vigorously about the mud churned up around his dwelling within the stockade by "the Pigs and Carts."[83]

Sheep were also pastured over a wide area. Lieutenant Wilkes encountered "sheep walks" on the high prairie back of the mills, probably on Mill Plain, and one of his fellow officers visited the "sheep farm down the river," almost surely on Lower Plain.[84] The flocks were regularly attended by shepherds, and the sheep also were kept in moveable pens or "parks" at intervals to fertilize the soil and to protect them from predators. If the practices at Cowlitz were followed at Vancouver, the sheep were at times "parked" in the fields of coleseed or even of wheat "to feed it off."[85]

At Vancouver the sheep ordinarily were sheared during May or thereabouts. Before shearing they were taken to the bank of the Columbia by the shepherds and washed.[86] At Cowlitz the shepherds bathed the flocks again in the fall, this time with an "anti scab preparation" made of tobacco water and corrosive sublimate.[87] In 1842 the Fort Nisqually manager noted in an account book: "Shepherds say that Black Soap (soft soap I presume they mean) is a good cure for the scab."[88]

At Cowlitz it was found advantageous, even necessary, to house the sheep during inclement weather, with the floors of the sheds raised one foot above the ground and covered with an abundance of straw.[89] It is not known that this precaution was taken at Vancouver, but McLoughlin did requisition "mercurial or Sheep's Ointment" for use on his flocks. As a protection against wolves, bait poisoned with strychnine was set out, and the "Big Doctor" was advised to encourage the Indians to destroy wolves by offering high prices for the skins.[90]

Field crops

In the vast literature, manuscript and printed, relating to Fort Vancouver there are mentions of a number of grains and vegetables grown on the farm and in the garden. All that the present study has revealed concerning the various fruits and vegetables raised in the garden has been presented in the first chapter. The present section deals only with field crops.

The items in the following list were drawn from sources so numerous that it is impracticable to give citations. The names of a few varieties listed were not found in references to Fort Vancouver but appeared in works relating to Fort Nisqually, Cowlitz Farm, Fort Langley, or New Caledonia. Since in all probability the seed for these varieties came from Fort Vancouver it is reasonable to assume that the varieties were found at the depot also. But in such cases the names of the posts or districts where the varieties were observed have been placed in brackets after the entry.

Under the names of each type of grain or vegetable the names of different varieties mentioned in the sources are listed. Most often these varieties are distinct, but a few of the names may be synonyms.

The list is as follows:

Barley

Beans

Buckwheat

Clover
Red clover

Colewort (coleseed). A variety of cabbage not forming a compact leafy head. Used as food for cattle and sheep in winter. At Cowlitz Farm sheep were "parked" on the Coleseed in summer also.

Hops. Recorded only as growing in the garden but were raised in quantity for export to Sitka.

Indian corn (maize)

Oats

Peas. Dried peas were used as food for the employees, usually boiled; also used for "fattening of hogs."
Gray pease (grey pease; "Gray Pease [say Bush]")
Early pease
White pease
(The above three varieties are listed as different)
Field pease
Garden pease

Potatoes
Brotchie potato. "An early variety," introduced from England by Capt. William Brotchie. According to family tradition Brotchie [also?] brought potatoes from California.
Bush potato
Red potato [Fort Langely]. "Different . . . than regular potatoes."

Potatoes (continued)
Ladies Fingers ("Ladies Finger variety") [Nisqually, Cowlitz, New Caledonia[
"Early blue potatoe" [Cowlitz]
"Early ash leaf kidney" [Cowlitz; not certain this was a potato but was planted with potatoes]

Pumkins. Used as food for pigs.

Tare ("tares"). Any of several varieties of vetch, a leguminous annual herb with trailing or climbing stems; used as forage.

Timothy

Turnips. Used as food for cattle and sheep in winter.

Wheat
Red wheat
White wheat ("old white winter wheat")
Spring wheat
Fall wheat
Yellow wheat

Farm equipment

The machinery and implements employed on the Fort Vancouver farm changed constantly as old articles wore out, broke, became lost, or were discarded and as new items were received from England or were manufactured locally. One employee stated that a "large depot . . . of costly implements" was maintained at Vancouver for the Puget's Sound Agricultural Company.[91] Undoubtedly McLoughlin, as manager for both the Hudson's Bay Company's Columbia Department and the PSA Company, could draw upon this supply for the good of the Vancouver farm. But in the main the European items required for the depot farm were requisitioned annually from London.

A typical inventory of "Articles in Use" at the Fort Vancouver farm, that taken in the spring of 1844, provides an excellent view of the types and numbers of machines, implements, and other items employed at a time when production was near its peak. This inventory, in slightly condensed form, is reproduced below. It should be realized, however, that this list does not include all the implements available for what has been treated in this study as the Fort Vancouver farm. It will be noted, for instance, that no sheep shears are mentioned; yet it is known that sheep were being sheared at Vancouver during that same year.[92] The reason is that the sheep and undoubtedly many of the cattle were considered the property of the PSA Company, and a separate inventory was kept of that firm's property. The list below contains only "Sundry Goods, Property of the Honble. Hudson's Bay Company." Also, only "Articles in Use" are listed here; the the farm machinery and utensils in the depot warehouses are not listed, since their ultimate destinations are not known.[93]

The inventory as given here has been simplified somewhat, in that only the total number of each item is given instead of the number under each category of "good," "half worn," or "much worn" as is the case in the original document. The original list also contains certain misspellings and obvious omissions of words. For the most part no attempt has been made to correct these errors, although certain corrections and explanations are provided in brackets.

The inventory is as follows:

Fort Vancouver Depot

. . . . . .

Articles in Use

. . . . . .

Dairies on Sauve's Islanden [sic?]

Gilbot's Dairy

118	tin milk Pans		
3	" " Kettles	9	G[allo]ns
1	" " do	5	"
1	" " do	3	"
1	" cream do	5	"
2	" " Skimmers		
1	" Strainer		
1	Auger		
1	Coopers Driver		
1	Churn		
2	Tubs		
2	Windows		
1	Scythe		
1	ox Yoke		
1	set horse Harness		
1	iron Kettle 16 Gns		
6	Osnaburghs Bags		

Taylor's Dairy

2	tin Kettles	9	Gns
2	" do	3	"
73	" milk Pans		
17	Osnaburghs Bags		
2	Tubs		
1	tin milk Strainer		
1	" cream Skimmer		
1	Churn		

Sauve's Dairy

137	tin milk Pans		
3	" " Kettles	9	g'ns
2	" " do	3	"
1	" cream do	5	"
2	Axes		
2	water Buckets		
5	Bags		
1	Churn		
2	set Cart Harness		
2	Tubs		

[Sauvie's Dairy, continued]

1	Scythe	
1	Hammer	
2	garden Hoes	
1	foot Adze	
1	Coopers driver	
45	tin Pans, useless	
1	cast iron Kettle	16 g'ns
3	Water Casks	

Logie's Dairy

80	tin milk Pans	
2	" " Kettles	9 Gns
2	" " Strainers	
1	" cream Skimmer	
2	" " Kettles	5 Gns
3	Tubes [sic]	
5	Iron bound Kegs	8 gns
12	Cheese Vats.	
8	bags	
1	Iron bound 1/2 Bus. measure	
1	Cart	
1	set Cart Harness	
1	Grindstone	
1	plough & harness	
1	Churn	
1	Cheese Mould	
2	Water Buckets	
1	hand Plane	
1	cross cut saw	
1	hand do	
1	Hammer	
3	Water Casks	
3	assd. Files	
1	Gimlet	
1	Com[mon] trading Gun	
1	large Axe	
1	half do	
1	tenon Saw	
6	tin milk Pans, useless	
3	" " Kettles, do	

. . . . . .

Farm Utensils &c

2	Oak 4 Wheeled ox Waggons
8	small horse Carts
6	2 horse harvest Carts
1	Water Cart complete
3	Horse Drays
3	" Tumbril[s]
2	small 4 wheeled hand Carts pr Granary
2	2 Wheel ox Trucks
1	4 " " do
1	Cast iron ox Ransomes Plough
15	" " horse " do
1	C[ountry] Made Horse do
1	potatoe drill d'ble breast do
2	Weeding or Scuffers do
2	p'rs angular sided Horse Harrows
4-1/2	" com C. M. " " do
4	" Irons or Finless" do
12	sets Harness pr 2 horse Carts, consisting of 2 Collars, 2 p'rs Hames, 2 Bridles, Breeching, cart saddles w[it]h chains, pins, traces, bands, &c
16	sets plough Harness, consisting of 2 Collars, 2 p'rs Hames, 2 Bridles & reins & 2 pr Traces
1	Thrashing Machine Harness 4 Collars, 4 prs Hames, 4 Bridles, 4 p'rs iron traces
39	Collars
5	Bridles
1	pair English Fanners
3	" C. M. do
1	oil Feeder
3	Imperial 1/2 Bush[el] Measures
1	" 1 " do
9	Ox Yokes & Bows
4	large Ox Chains
6	small " do
50	large square head Axes
1	" screw Auger 2-1/2 in
6	Spades
4	Shovels
3	Crowbars
2	Timber Cants
25	Reaping Cradles
15	Hay Scythes
23	pea Hooks
5	Horse Rollers
1	" Rake
6	3 prong pitch Forks
4	2 " " do

[Farm Utensils, &c., continued]

1	Bleeding Fleam
1	Searing Iron
1	Clamb
1-1/2	pr Horse Hobbles
25	Garden Hoes
2	Com[mon] trading Guns
1	Dibling Iron [dibbling iron]
3	small cross cut Saws
2	whip Do
3	large C[ast] I[ron] Boilers
2	Loggerheads
6	pack Saddles
1	C[ountry] M[ade] portable Thrashing Machine 4 horse power Complete
2	English do. do.
1	" Chaff Cutter
1	" Turnip Cutter
1	" Seed Drill
6	Columbia Boats
9	Batteaux
1	Scow
2	large Carvel built 14 oars 8 tons
1	North West Canoe
2	Cheenook do. [Chinook canoe]
1	Ship's Boat[94]

The inventory made in the spring of 1848 differs somewhat from that of 1844, but its main contribution is the following list of articles in use in the garden:

-- Gardners [sic] Tools --

1	Axe
2	dung Forks
3	garden Hoes
2	Rakes
2	tenon Saws
1	Shovel
5	Spades[95]

CHAPTER IV

FARM PERSONNEL

Supervisors

Except for the first few years of Fort Vancouver's existence, there is a surprisingly good record of the names of the clerks and postmasters who were assigned to the immediate supervision of the farm. This duty was usually designated as "Farm," "Men," or "Outdoors" in the employee rolls, accounts, and other documents relating to the personnel. All of these terms appear to have had the same meaning.

The men known to have served in this capacity are as follows:

Francis Ermatinger. This impetuous but jovial young clerk had been called back to Fort Vancouver from Kamloops by McLoughlin during the spring or summer of 1830 because of an incident in which an Indian's nose had been cut off. For a few months, "until the fall express arrived," he wrote to his brother, "I was employed with the men about the farm, vessels buildings &c."[1] Then he was transferred to the sawmill, and in 1831 he left the depot to take station at Fort Colvile.[2]

George Traill Allan. This former book and stationary salesman reached Fort Vancouver on October 25, 1831. After about a year as

clerk in the Indian shop, he was placed in charge of the farm and then was given the "entire" supervision "of men and forces." He seems to have held this position, with possibly a few interruptions, until March, 1838, when he was superseded by George B. Roberts.[3]

George Barber Roberts. A former student at Greenwich Hospital naval school, Roberts entered the Company's service as a naval apprentice, but becoming ill he was given duty ashore at Fort George and then Fort Vancouver. For Outfit 1837 he was listed on the depot rolls as a postmaster.[4] According to his own account, after Dr. McLoughlin left for Europe in March, 1838, Chief Trader James Douglas asked him "to oversee the men" instead of George Allan. Roberts continued in this position, except for temporary tours of duty elsewhere, until November, 1842, when he left the service and sailed for England.[5] Although he returned to Fort Vancouver as a clerk in May, 1844, he did not resume his duties as supervisor of the farm and men. That his assignment as overseer of the men included the direction of the agricultural workers is shown by a document giving the "Distribution of Gentlemen & Men" in the Columbia District for Outfit 1839. In it Roberts's position is given as "Farm."[6]

Adolphus Lee Lewes. By November 18, 1843, Clerk A. L. Lewes was in charge of "the men."[7] In March, 1844, his assignment was listed as "Farm & men."[8] Perhaps he had held this position since the departure of Roberts. Lewes was the part-Indian son of Chief Factor John Lee Lewes. A "very active and attentive" young man, he had been educated in England, where he was said to have been

"brought up to the land surveying business."[9] Employed by the Company as a clerk, he arrived at Fort Vancouver in October, 1840, on the Forager.[10] Except for a few intervals such as that on December 23, 1844, when he hurt his ankle "by his horse falling on him," Lewes remained in charge of the farm until April 17, 1845, when he retired.[11]

William McBean. On the same day that Lewes left, April 17, 1845, Clerk William McBean was appointed to succeed him in charge of the men. Because of accidents and other assignments, his service on the farm was somewhat discontinuous. For a time prior to July 4, 1845, for example, Henry N. Peers was temporarily in charge of the farm. McBean resumed his assignment, but on August 20, 1845, a "severe fall from his horse" prevented him from attending "to his duties on the Farm," and David McLoughlin took charge of the men for a day until McBean could return to duty. McBean kept his assignment until January 30, 1846, when he was appointed manager of Fort Walla Walla.[12]

Kenneth Logan. A native of Red River Settlement and twenty years old at the time, Postmaster Kenneth Logan succeeded McBean "in charge of the men" on January 30, 1846.[13] He continued in this position until December 14, 1847, when he fell ill with the measles which were then sweeping through the Pacific Northwest. Thomas Lowe was taken out of the office to fill his place until January 4, 1848, when Logan again "took his old duties on the Farm."[14] But by

March 14, 1849, Kenneth Logan had been discharged by Chief Factors Ogden and Douglas.[15] On the Fort Vancouver rolls it was recorded more gently that Logan had "retired to California," with his wages paid to March 1, 1849.[16]

Edward Spencer. Ogden and Douglas appointed Edward Spencer, the "Dépense Keeper" at the depot who was paid £30 a year, to replace Logan temporarily.[17] That a "servant" should have been chosen for such a responsible position illustrates how far manpower had been drained away by the California gold rush. But Spencer was a man of ability, and sometime about the middle of 1849 he was promoted to the rank of interpreter and placed in charge of Fort George.[18]

Joseph Hardesty and Henry Maxwell. Apprentice Clerk Joseph Hardesty evidently succeeded Edward Spencer in charge of the men, but he served in the position only a short time. By November 23, 1849, he had been followed "on the Farm" by Clerk Henry Maxwell. But on March 4, 1850, Maxwell left Vancouver for the post at Champoeg. His "place on the farm" was to be filled by Robert Logan.[19]

Robert Logan. The elder brother of Kenneth Logan, Postmaster Robert Logan, had received some agricultural experience at Cowlitz Farm. If he actually took charge of the men during the spring of 1850, he held the position only a little longer than a year at that time, since he retired on July 21, 1851.[20] Chief Factor Ogden said in March, 1851, that he intended to put Adolphus Lee Lewes,

who had returned to the service, in charge of the men and of the Vancouver Indian trade for Outfit 1851.[21] It is not known for certain that Lewes actually served as overseer of the farm beginning on June 1, 1851, but it is quite likely that such was the case. But by April 1853, he had retired for a second time.[22]

Jeffrey C. Grahame and John Fraser. Apprentice Clerk Jeffrey C. Grahame was employed in the Fort Vancouver sale shop during at least the first part of Outfit 1852. He evidently was assigned to replace Lewes in charge of the outdoor work, because on October 25,1853, Duncan Finlayson told Governor Simpson: "Since Mr. Jeffrey Grahame left the Service, Mr. John Fraser, P. M., for some months past had been in charge of the men here." John Fraser, listed as an apprentice clerk for Outfit 1853, "lately became very careless & dissipated" according to Finlayson, and when ordered to accompany Chief Factor Ogden to the interior during September, refused to go and was dismissed from the service by Ogden.[23]

Robert Logan. Still ranked as a postmaster, Robert Logan had returned to the Company's employ by Outfit 1853. His assignment for that year was listed as "V[ancouver] Farm."[24] It seems quite likely, therefore, that he replaced the errant John Fraser during September, 1853. His assignment continued to be "outdoors" or "Vancouver Farm" as long as Fort Vancouver remained an active post.[25]

When the Company abandoned the fort on June 14, 1860, the entire staff embarked for Vancouver Island except Robert Logan and one other man who remained behind at their own request. When

mentioning Logan's retirement to a friend, J. M. Wark was unkind enough to say, "I think the Company were glad to get rid of him in this way."[26]

Farm specialists

There were so many "servants" who can be identified as having worked on the farm at one time or another over the years that it would be rather pointless to list them all. Also, there were many other workers who performed specialized tasks who cannot be identified because the employee rolls often do not indicate individual assignments.

Yet there were certain individuals who were so much a part of the Vancouver scene that it seems worthwhile to list some of them. No sources have been cited for this section since they were so numerous that the notes would be far longer than the text.

Several men bore the title of "farmer" during the fort's existence, but except for the ill-fated William Capendale only Daniel Harvey and James Steel seem to have had standing as "gentlemen" and part of management. Harvey was employed by the Governor and Committee in August, 1840, as "miller and farmer" for a period of five years. When he reached the Columbia during the next year his salary was £50 per annum, but it was raised to £75 for Outfit 1842 and remained at that level until Outfit 1848, when it was increased to £100, with an additional £50 as a gratuity for "superintending the Mill-Wright business." His title was given either as "farmer" or "miller" in the account books. As has been

seen, he was in charge of the important Mill Plain Farm and the grist mill until his retirement on December 15, 1849. On the Fort Vancouver rolls he was listed among the "Clerks, &c.," but his official rank seems to have been that of postmaster. In 1850 he married Eloisa, daughter of Dr. John McLoughlin

James Steel was hired as "clerk and farmer" at a salary of £100 a year in 1839 and reached Fort Vancouver during October of that same year. His principal skill seems to have been in the breeding and raising of sheep, and for that reason most of his employment until his retirement in the fall of 1842 was at Fort Nisqually. Evidently he served at Fort Vancouver for only a short period following his first arrival, and his duties were largely performed on behalf of the Puget's Sound Agricultural Company, although he remained on the payroll of the Hudson's Bay Company.

Other individuals listed as "farmer" on the employee rolls were strictly "servants," seemingly with no major management responsibilities. This title does not appear frequently on the lists, and the duties of those so designated are not known, though obviously their major field of labor was the farm. Among the persons listed as "farmer" were John Johnstone (b) [indicating he was the second person of this name in the Company's employ], Outfits 1842-1844; James Ballenden, Outfits 1849-1851; and David Cursiter, Outfit 1852. The wages of these men ranged from £22 to £40 per year.

Another title appearing with some frequency was that of "seedsman." In March, 1833, a man named Louis Lucier was listed

as "sowing," but the title "seedsman" seems to have first appeared on the roll for Outfit 1838, when John Johnstone (b), a middleman, was given a gratuity of three shillings for services as "Seedsman." He held this same position for Outfits 1839, 1845-1847, but thereafter seems to have been a laborer until his death in 1852. A man named Andrew Harvey was listed as "laborer & seedsman" for Outfit 1845.

Many employees served as dairymen over the years. Perhaps the best known was Laurent Sauvé dit Laplante. For Outfit 1829 he was paid three shillings extra for services as a cowherd, but thereafter he usually was listed as either dairyman or cowherd until Outfit 1844, when his name disappears from the Fort Vancouver rolls. Perhaps he retired at that time, since his name is found on a list of taxpayers to the Oregon Provisional Government in 1844 as the owner of 200 cattle. Sauvie Island, where the dairy under his charge was long located, was named for him.

James Logie, an Orkneyman and long a middleman in the Company's service, was granted extra pay as a dairyman during Outfit 1837 and seems to have served in that capacity until he returned to Britain about 1839. There he married, and he brought his bride back to Fort Vancouver, where he was soon put in charge of one of the dairies on Sauvie Island. Despite a rather high wage of £24 per annum, he left the Company on March 1, 1849, to go to the California gold fields. Among other dairymen who appear in the records were Pierre Gilbot, Malcolm Smith (b), James Taylor (d), and Murdock McLeod (c).

The first shepherd to be specifically so designated on the rolls was John McPhail, a Scot from "Yattos." He was described as a shepherd on the employee list for Outfit 1842, but there had been sheep herders at the depot for several years by that time, and McPhail undoubtedly was one of them. By 1846 he evidently was "the" shepherd at the post, although apparently he had several assistants. For Outfit 1847, for example, three men were serving as shepherds. Another prominent shepherd at the depot was James McKay. He first appears on the Vancouver rolls in that capacity for Outfit 1847, at a wage of £25 a year, equal to that of the veteran McPhail. He was still on the list for Outfit 1850, but thereafter no one specifically designated as a shepherd appears in the records. Although both McPhail and McKay appear to have been paid by the Hudson's Bay Company, they were listed on the rolls for Outfit 1848 as "On Account of Pugets Sound Co." At that time they were assisted by four Hawaiian laborers.

The "pig herds" were quite often Sandwich Islanders. One of the three such employees in 1833 was the famous John Coxe [the name appears on Company rolls as "Cox"], the Hawaiian who is said to have witnessed the death of Captain James Cook. Another long-time swineherd was Towai, who served from at least 1833 until he returned to Oahu in 1845.

Other specialist positions sporadically listed on the employee rolls include "ploughman," "farm servant," "horsekeeper," and "cattle & horsekeeper." Employees holding these positions ordinarily

received either a small gratuity or a somewhat higher annual wage than the £17 generally paid to middlemen and laborers.

Farm labor

The basic work force on the Fort Vancouver farm was made up of regularly engaged Company employees. Some of these workers, such as the ordinary swineherds, the horse herders, the assistant shepherds, carters, and a few others were middlemen or laborers who were more or less permanently assigned to agricultural duties. But the larger part of the farm work was accomplished by regular employees such as boatmen, trappers, and depot laborers who were detailed to the fields when there was nothing else for them to do or when such tasks as plowing, planting, and -- especially -- harvesting required sizeable crews. French Canadians made up the larger part of the regular depot staff, but there was good proportion of Britons -- chiefly Orkneymen -- Hawaiians, and, particularly during the earlier years, of Iroquois Indians from east of the mountains.

But obtaining enough workers to operate the farm properly was a recurring problem at Fort Vancouver. Epidemics, the need to man boat brigades and trapping expeditions, the requirements of the expresses, the unloading and loading of vessels, mass desertions to the California gold mines, and other circumstances periodically reduced the work force, often at the very times when the most men were needed in the fields. Under these circumstances it is not surprising that the depot managers turned to other sources of labor.

The most obvious of these sources was the local Indian population. Dr. McLoughlin's daughter stated years later that "at first" the farm laborers were "all whites and Kanakas." After several years, she continued, "they commenced employing Indians. I guess it was 1838 or 39 when they commenced to hire Indians in harvest time. They worked very well . . . . They were quite willing to work, children and all."[27]

She undoubtedly was correct in her impression that for a number of years after 1825 the farm hands were at least predominantly regular Company employees (evidently she did not think of the Iroquois as "Indians"). Chief Factor McLoughlin seems to have implied that no local natives were employed when he told Governor Simpson in 1831 that the crops were raised at no expense to the concern, because if the "people" had not been assigned to farm work they would have been idle.[28] This same inference might be drawn from a list prepared by the "Big Doctor" in 1833 to show how the men were employed. Out of three cowherds, one man sowing, five men plowing, two men harrowing, three "Pig Herds," two men "At the Barn," and one gardener, only one person can be identified as an Indian, and he was Laurent Karonhitchego, an Iroquois.[29] But since local natives were not considered to be regular employees, this list probably does not reveal anything one way or the other about whether Indians were then at work on the farm.

It is quite likely, however, that at least a few Indians were employed even during the earliest years. As has been seen,

McLoughlin's daughter recalled that the first gardener at the post was an Indian. And there was ample precedent for employing native labor at Company posts west of the Rockies. By the late 1820s, for example, Indians were commonly used at Fort Colvile as field hands, livestock herders, and even, at a later date, as grain millers. At Fort Walla Walla natives were engaged to harvest the corn by 1831.[30] It would have been unusual if the same source of labor had not been utilized at Fort Vancouver.

It seems impossible to determine exactly when McLoughlin began to hire Indians as farm workers. Since natives were very seldom carried on the Company's rolls of employees and since the Vancouver Indian trade shop account books, in which records of payments to local natives were kept, have disappeared, there are no reliable statistics available. But enough data can be found to permit the development of the practice to be traced in general outline.

Humanitarianism may have been a factor in initiating the employment of natives at the depot. From the beginning of the Company's operations on the Pacific Slope the firm's officers -- even hard-headed Governor Simpson -- were appalled at the miserable lives led by the slaves held by many Indian groups. The Company soon found that it was useless to attempt to have these wretches emancipated in any significant numbers, but as opportunity offered they managed to rescue individual slaves and give them asylum within the posts. The native wives of Company employees sometimes were slave owners; in such cases the officers had more leverage,

though they found that if such slaves were freed they only fell into the hands of the wives' relatives and were worse off than before.

For that reason, McLoughlin wrote in 1839 or 1840, "I did not make the servants wives send their slaves away, but availed myself of every opportunity to make them work and pay them as other Indians. The consequence is that our ploughing and harrowing is principally done by Indians and several of these Indians have claimed their liberty, in which I support them."[31]

Also, employing natives for farming was in accord with McLoughlin's notions of promoting their welfare. "As to educating the Indians," he told a subordinate in 1835, "I am a friend to it, but the education I consider most useful for an Indian is, to teach him Religion, and Morality, to accustom him to work, and to teach him to till the ground by means of which, he can support himself."[32] Clerk George B. Roberts said that McLoughlin was "proud of having so many Indians employed & always held out to the missionaries that that was the way to civilize them to teach them to work."[33]

Whatever his motives -- it should not be overlooked that Indian labor was extremely inexpensive -- McLoughlin quite early began to employ natives on the farm. His daughter recalled that once "before Missionaries came" the "Big Doctor" needed assistance with the plowing because many of the servants had been "sent off traveling." Having some Indian boys under his wing "he thought he would learn his boys to plough," she continued. "They learnt very common ploughing."[34]

By the early 1840s a large part of the farm labor force was composed of Indians. During the winter of 1842-1843 Lansford W. Hastings observed that there were about one hundred hands, "who are generally, half-breeds and Indians," constantly at work.[35] George B. Roberts, who lived at the depot for many years prior to 1846, said: "we employed a great many indians at Vancouver often 8 or ten ploughs & as many harrows running with them." He believed that most of these natives were Klickitats, from a group living not far from the fort.[36]

When the regular depot staff was decimated because of desertions to the California gold fields in 1849, the farm was worked very largely by Indians. During March of the next year Chief Factor Ogden told Governor Simpson that the natives had proved "good substitutes" and that they were paid only twenty shillings a month in goods "at 5% advance." This help, said Ogden, "enabled me to forward the Company's affairs here" and had the salutary effect of showing the remaining servants that the Company was not entirely dependent upon them.[37] In March, 1851, Ogden told Governor Simpson and the Council of the Northern Department: "We shall again as in '49 substitute Indian labor."[38] Thereafter the Vancouver correspondence seems to contain little mention of Indian farm hands, but undoubtedly a number continued to be employed as long as the garden and diminishing fields were maintained, because there were few regular servants remaining on the staff.

Mentions of specific tasks performed by Indians at Fort Vancouver are rare. As has already been seen, there is first-hand

testimony that they were used for plowing, harrowing, and herding horses. On April 22, 1845, Clerk Thomas Lowe noted in his journal: "A gang of Indians have been employed this last fortnight planting Potatoes in the field West of the old Barn."[39]

But for the most part one must rely upon information from other posts to gain an idea of the great variety of tasks performed by Indians. A few random excerpts from the Cowlitz Farm journal provide a vivid picture of how these useful laborers actually worked: "Indians binding [and] carting oats -- changing cattle & sheep pens . . . . Indian women collecting clover seed . . . . set all the carts & spare Indians to cart out manure upon field No 2 . . . . Indian Women collecting timothy, thrashing clover, & & . . . . harvest indians thrashing with the machine flax & self sown wheat . . . . Paid off the harvest indians . . . . Engaged two heads of indian families. Sow a sow & Kawasi to look after the sheep for four months at the rate of 1-1/2 Blkts [blankets] pr month, Engaged 5 Indian women to work at the thrashing machine or elsewhere until strawberry season . . . . 3 Indians employed cutting 7-1/2 feet pickets for a garden fence."[40]

Native workers ordinarily were paid in goods from the Indian trade shop. By present-day standards, and even by the standards of the time, wages were low. At Fort Nisqually, for example, an Indian named Aleck, who "Wrought at Harvest for upward of one Month," was paid for his labors 1 tin one-gallon covered kettle "to be returned"; 1 common Str[ouds] cotton shirt; 1 Scotch bonnet with

peak; and 1 foot of tobacco.[41]

But the managers of Fort Vancouver did not rely solely upon Indians for supplementary farm labor. A school for the children of Company officers throughout the Columbia Department, for the offspring of other employees at the depot, and for Indian orphans and other waifs taken in by Dr. McLoughlin was started at Fort Vancouver in 1832, and although it had its ups and downs it continued for a number of years. The pattern of instruction was to hold classes in the mornings and then to provide manual training in the afternoons. For the boys, the latter meant working in the garden and in the fields.[42] And when labor was scarce, the pupils were pressed into service and worked all day, sometimes for months at a time.

Lieutenant Charles Wilkes saw the scholars at work in 1841. "They were a ruddy set of boys," he wrote, "and when at work had a busy appearance: they had planted and raised six hundred bushels of potatoes; and from what Dr. M'Laughlin said to me, fully maintained themselves." McLoughlin told the naval officer that the labor of four of these small boys was equal to that of a man.[43]

When Chaplain Beaver complained in 1838 about the amount of time such labors took the pupils away from their studies, Chief Trader James Douglas, then in charge at Fort Vancouver, agreed that "to put children of eight and ten years old to work as men is improper," and he promised that the boys would never again be kept from the classroom for long periods. "The only labour I have ever

made them perform," he said, "was weeding the garden, planting potatoes after the plough, pulling the potatoe flowers, and gathering peas in harvest."[44] But evidently the old routine was resumed when McLoughlin returned, for Wilkes noted in 1841 that the boys "had been constantly in the field under their teacher for a few months past."[45]

But small boys were not of much help with the heavy tasks of harvest time, and when hands were short the Vancouver managers sought help wherever they could find it. In 1832 McLoughlin ordered two sailors from one of the Company's vessels to "lend a hand to take in our Wheat." When they refused he stopped their pay and shipped them back to England.[46] In 1841 the officers of the United States Exploring Expedition, "hearing that Dr. M'Laughlin was in want of hands to aid him in the harvest," repaid the hospitality they had received at Vancouver by lending him the services of the Hawaiians attached to the wrecked U.S.S. Peacock "to assist in gathering it in."[47] And as has been seen, after the California gold rush the Company's officers hoped to get help from the soldiers at Vancouver Barracks to save the harvest. That it was necessary to resort to such expedients amply demonstrates that McLoughlin and his successors had cause to complain of being short-handed.

NOTES

CHAPTER I

1. James R. Gibson, "Food for the Fur Traders: The First Farmers in the Pacific Northwest, 1805-1846," in Journal of the West, VII (January, 1968), 24-25.

2. E. E. Rich, ed., The Letters of John McLoughlin from Fort Vancouver to the Governor and Committee, Second Series, 1839-44 (Publications of the Hudson's Bay Record Society, vol. VI, London: The Hudson's Bay Record Society, 1943) (hereafter cited as HBRS VI), 158.

3. Ibid., 161.

4. For the early agricultural efforts of the Hudson's Bay Company, see E. E. Rich, The History of the Hudson's Bay Company, 1670-1870 (2 vols., Publications of the Hudson's Bay Record Society, vols., XXI, XXII, London: The Hudson's Bay Record Society, 1958-1959), I, 67, 109, 145, 312, 494, 540.

5. Daniel W. Harmon, A Journal of Voyages and Travels . . . (reprint ed., New York: Allerton Book Co., 1922), 167.

6. J. Neilson Barry, "Agriculture in the Oregon Country in 1795-1844," in Oregon Historical Quarterly (hereafter cited as OHQ), XXX (June, 1929), 161.

7. E. E. Rich, ed., Part of Dispatch from George Simpson . . . 1829 (Publications of the Hudson's Bay Record Society, vol. X, London: The Hudson's Bay Record Society, 1947) (hereafter cited as HBRS X), 195.

8. Ross Cox, The Columbia River . . ., ed. by Edgar I Stewart and Jane R. Stewart (Norman: University of Oklahoma Press, 1957), 387.

9. Frederick Merk, ed., Fur Trade and Empire: George Simpson's Journal . . . 1824-1825 . . . (Cambridge, Mass.: Harvard University Press, 1931), 50.

10. Gibson, "Food for the Fur Traders," in Journal of the West, VII, 21.

11. Rich, History of the Hudson's Bay Company, II, 292-295.

12. Ibid., 297-301.

13. Gibson, "Food for the Fur Traders," 21.

14. Ibid.

15. Merk, Fur Trade and Empire, xiii, xxvi.

16. E. E. Rich, ed., Journal of Occurrences in the Athabasca Department by George Simpson, 1820 and 1821, and Report (Publications of the Hudson's Bay Record Society, vol. I, London: The Hudson's Bay Record Society, 1938) (hereafter cited as HBRS I), 23, 80, 188, 373, 379.

17. R. Harvey Fleming, ed., Minutes of Council, Northern Department of Rupert Land, 1821-31 (Publications of the Hudson's Bay Record Society, vol. III, London: The Hudson's Bay Record Society, 1940) (hereafter cited as HBRS III), 343.

18. Ibid., 47.

19. Ibid., 48.

20. Ibid., 50.

21. Merk, Fur Trade and Empire, 48.

22. Ibid., 78.

23. Ibid., 87, 105-106. It might be noted, however, that a visitor to Fort George early in 1825 observed that "about 80 acres of land" were cleared, "upon which they cultivate potatoes." John Scouler, "Dr. John Scouler's Journal of a Voyage to N. W. America," in OHQ, VI (June, 1905), 166.

24. Merk, Fur Trade and Empire, 210, 240-242.

25. John A. Hussey, The History of Fort Vancouver and its Physical Structure ([Olympia, Wash.]: Washington State Historical Society, [1957]), 38. See also Simpson to Henry Addington, December 21, 1825, in OHQ, XX (December, 1919), 334.

26. "Copy of a Document Found Among the Private Papers of the Late Dr. John McLoughlin," in Transactions of the . . . Oregon Pioneer Association for 1880 (This periodical is hereafter cited as TOPA), 46.

27. Ibid., 38-41.

28. Merk, Fur Trade and Empire, 87.

29. Ibid., 111.

30. Ibid., 124; J. W. McLoughlin Harvey, History of Fort Vancouver, MS, in Provincial Archives of British Columbia, Victoria (hereafter cited as PABC), fol. 2; Hussey, History of Fort Vancouver, 43.

31. McLoughlin to Simpson, Fort Vancouver, June 20, 1825, in Hudson's Bay Company Archives, Winnipeg (hereafter cited as HBCA), B.223/b/1, MS, fols. 3-7. Materials in the Company's Archives were consulted with the kind permission of the Hudson's Bay Company.

32. Reports on Districts, Vancouver Fort, c.1825, HBCA, B.223/e/3, MS, fols. 1-1d.

33. E. E. Rich, ed., The Letters of John McLoughlin from Fort Vancouver to the Governor and Committee, First Series, 1825-38 (Publications of the Hudson's Bay Record Society, vol. IV, London: The Hudson's Bay Record Society, 1941) (hereafter cited as HBRS IV), 16.

34. Merk, Fur Trade and Empire, 270.

35. Scouler, "Journal," in OHQ, VI, 174.

36. Reports on Districts, Vancouver Fort, c.1825, HBCA, B.223/e/3, MS, fol. 1.

37. Nellie B. Pipes, ed., "The Journal of John Work, March 21-May 14, 1825," in OHQ, XLV (June, 1944), 146.

38. HBRS X, 69.

39. McLoughlin to John McLeod, Fort Vancouver, March 1, 1833, in Washington Historical Quarterly (hereafter cited as WHQ) II (January, 1908), 167-168; Hussey, History of Fort Vancouver, 53.

40. HBRS IV, 207.

41. Alice Bay Maloney, "Hudson's Bay Company in California," in OHQ, XXXVII (March, 1936), 9.

42. Scouler, "Journal," in OHQ, VI, 166.

43. Merk, Fur Trade and Empire, 301.

44. HBCA, B.223/b/1, MS, fols. 3-7.

45. Hussey, History of Fort Vancouver, 53. It is reported, however, that McLoughlin sent a "quarter of fresh beef" to the American vessel Owyhee which went aground in the lower Columbia early in 1829. F. F. Victor, "Flotsam and Jetsam, " in OHQ, II (March, 1901), 78.

46. Scouler, "Journal," 174.

47. Merk, Fur Trade and Empire, 270.

48. Ibid.; Hussey, History of Fort Vancouver, 54.

49. HBCA, B.223/b/1, MS, fols. 3-7.

50. Scouler, "Journal," 174.

51. HBRS X, 69. In March, 1826, McLoughlin also stated that Fort Vancouver employed 20 men. Merk, Fur Trade and Empire, 270.

52. HBCA, B.239/1/2, MS, fols. 29-31.

53. HBRS IV, 11.

54. HBCA, B.239/1/2, MS, fol. 29.

55. McLoughlin to James Douglas, Fort Vancouver, March 21, 1833, HBCA, B.223/b/9, MS, fols. 4-4d.

56. HBRS IV, 206.

57. E. E. Rich, ed., The Letters of John McLoughlin from Fort Vancouver to the Governor and Committee, Third Series, 1844-46 (Publications of the Hudson's Bay Record Society, vol. VII, London: The Hudson's Bay Record Society, 1944) (hereafter cited as HBRS VII), 113.

58. Merk, Fur Trade and Empire, 139.

59. HBRS X, 49.

60. Ibid., 43.

61. Gibson, "Food for the Fur Traders," in Journal of the West, VII, 26.

62. Ibid., 28.

63. HBRS VI, 125.

64. "Copy of a Document," in TOPA . . . 1880, p. 46. Although peas are not grain botanically speaking, McLoughlin was thinking of their use as a substitute for corn and wheat.

65. Merk, Fur Trade and Empire, 29; HBRS IV, 31.

66. "Copy of a Document," 46; HBRS IV, 31; Merk, Fur Trade and Empire, 291.

67. Merk, Fur Trade and Empire, 291.

68. HBRS IV, 50-51.

69. Merk, Fur Trade and Empire, 291-292.

70. HBRS IV, 54

71. Ibid., 60-61.

72. Edward Ermatinger, Old Memo Book & Journal . . . 1823-1830, MS, in Edward Ermatinger Papers, Public Archives of Canada, Ottawa (hereafter cited as PAC), entry for [February] 17, 1828.

73. HBRS IV, 61.

74. Ibid.; Merk, Fur Trade and Empire, 301.

75. HBRS IV, 66-67.

76. HBRS X, 69.

77. HBRS IV, 61; Merk, Fur Trade and Empire, 301.

78. J. Smith, D. Jackson, and W. Sublette to J. H. Eaton, St. Louis, October 29, 1830, in 21 Cong., 2 Sess., Senate, Ex. Doc. No. 39, pp. 21-23.

79. Harvey, History of Fort Vancouver, MS, fol. 8. The above account of the beginnings of the depot garden and orchard is based upon sources cited in Hussey, History of Fort Vancouver, 52-53. See also Carl Landerholm, "The Genesis of Apple Culture in Washington and the Pacific Northwest," in Clark County History, III (1962), 57-59.

80. Barry, "Agriculture in the Oregon Country," in OHQ, XXX, 161.

81. Hudson's Bay Company, London Correspondence Book Outwards, General Series, 1824-1828, HBCA, A.5/8, MS, 110, 129, 258.

82. Ermatinger, Old Memo Book, MS, entry for February 18, 1827.

83. Merk, Fur Trade and Empire, 301.

84. HBRS X, 69.

85. Alfred L. Lomax, "History of Pioneer Sheep Husbandry in Oregon," in OHQ, XXIX (June, 1928), 103n.

86. Merk, Fur Trade and Empire, 310.

87. HBRS X, 85.

88. Merk, Fur Trade and Empire, 311-312, 314n.

89. "George T. Allen [sic]," in The Pacific Express (Portland, Oregon), April 12, 1888. Allan described conditions as they were in 1831 when he arrived at the depot.

90. Victor, "Flotsam and Jetsam," in OHQ, II, 38-39.

91. "Lee's Original Diary," in Archer Butler Hulbert and Dorothy Printup Hulbert, eds., The Oregon Crusade . . . (Overland to the Pacific, vol. V, [Denver]: The Stewart Commission of Colorado College and the Denver Public Library, 1935), 180; F. G. Young, ed., The Correspondence and Journals of Captain Nathaniel J. Wyeth, 1831-6 (Sources of Oregon History, vol. I, parts 3 to 6, Eugene, Oregon: Oregon Historical Society, 1899), 176.

92. Harvey, History of Fort Vancouver, MS, fol. 8.

93. William Fraser Tolmie, The Journals of William Fraser Tolmie, Physician and Fur Trader (Vancouver, B.C.: Mitchell Press Limited, 1963), 170.

94. T. C. Elliott, "The Coming of the White Women, 1836," in OHQ, XXXVII (September, 1936), 187.

95. British and American Joint Commission for the Final Settlement of the Claims of the Hudson's Bay and Puget's Sound Agricultural Companies, [Papers] (14 vols., Washington; Montreal, 1865-1869), [IX], 412.

96. William Dunlop Brackenridge, "The Brackenridge Journal for the Oregon Country," ed. by O. B. Sperlin, in WHQ, XXII, 140-141.

97. Hulbert, Oregon Crusade, 180.

98. Samuel Parker, Journal of an Exploring Tour Beyond the Rocky Mountains . . . (reprint ed., Minneapolis: Ross & Haines, 1967), 172.

99. H. H. Spalding to W. and E. Porter et al, October 2, 1836, in OHQ, XIII (December, 1912), 375; H. H. Spalding to D. Greene, September 20, 1836, in American Board of Commissioners for Foreign Missions (hereafter cited as ABC), Papers, Cherokee Mission, MS, vol. 9, item 203, in Houghton Library, Harvard University.

100. Brackenridge, "Journal," in WHQ, XXII (April, 1931), 140-141.

101. George B. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII (June-September, 1962), 199. See also HBRS VII, 309; and HBCA, B.239/1/10, p. 55. Bruce also brought out some plants given to the Company by Joseph Paxton. HBRS VII, 309.

102. John Kirk Townsend, Narrative of a Journey across the Rocky Mountains . . . (reprint ed., Lincoln: University of Nebraska Press, 1978), 188.

103. Hulbert, Oregon Crusade, 180.

104. Spalding to Greene, September 20, 1836, in ABC, Papers, Cherokee Mission, MS, vol. 9, item 203.

105. Brackenridge, "Journal," in WHQ, XXII, 141.

106. Thomas Jefferson Farnham, Travels in the Great Western Prairies . . . and in the Oregon Territory (Poughkeepsie, N. Y., 1841), 195.

107. See Hussey, History of Fort Vancouver, plates XX, XXI, XXV.

108. See ibid., plates X, XI, XVI.

109. Thomas Lowe, Private Journal Kept at Fort Vancouver, MS, 6, 17, 26, in PABC.

110. Ibid., 26.

111. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 199. However, in 1845 a missionary listed peaches among the fruits that "easily ripen" in Oregon. Notices & Voyages of the Famed Quebec Mission to the Pacific Northwest . . ., tr. by Carl Landerholm (Portland: Oregon Historical Society, 1950), 178.

112. Brackenridge, "Journal," in WHQ, XXII, 141.

113. For example, see John S. Zeiber, "Diary . . . 1851," in TOPA . . . 1920, p. 325.

114. Br. & Am. Joint Comm., [Papers], [IX], 105.

115. J. R. Cardwell, "The First Fruits of the Land: A Brief History of Early Horticulture in Oregon," in OHQ, VII (March, 1906), 29.

116. Br. & Am. Joint Comm., [Papers], [IX], 412.

117. Tolmie, Journals, 170.

118. Parker, Journal of an Exploring Tour, 172-173. Captain Josiah Spaulding, who visited Fort Vancouver in 1841, estimated that the garden covered four acres. 27 Cong., 3 Sess., House, Report No. 31, pp. 56-61.

119. Cliffor Merrill Drury, ed., First White Women over the Rockies: Diaries, Letters, and Biographical Sketches of the Six Women of the Oregon Mission Who Made the Overland Journey in 1836 and 1838 (3 vols., Glendale, California: The Arthur H. Clark Company, 1963-1966), I, 101.

120. See Hussey, History of Fort Vancouver, plate XXV.

121. See ibid., plates X, XV, XVI, XVII, XVIII.

122. One map of 1855 shows the "orchard" extending eastward over what had been the garden and even beyond it; the "garden" was placed east of the stockade. Other maps of the period do not appear to agree. Ibid., plates XX, XXI.

123. Ibid., Plates XV, XVII, XXV.

124. These lists are largely based upon sources already cited in the discussion of the history of the garden and orchard. Additional sources used include: John Ball to Amos Eaton, February 24, 1832, MS, in Oregon Historical Society, Portland; Jason Lee, "Diary of Reverend Jason Lee -- II," in OHQ, XVII (September, 1916), 262; George B. Roberts, Fort Vancouver, Thermometrical Register . . . [1838], HBCA, B.223/a/7, MS; Cyrus Shepard, The Journal of Cyrus Shepard's Trip Across the Plains . . ., MS, in The Beinecke Rare Book and Manuscript Library, Yale University; 31 Cong., 1 Sess.,

Senate, Ex. Doc. No 47 (Ser. 558), 88; Charles Wilkes, Diary of Wilkes in the Northwest, ed. by Edmond S. Meany (Seattle, 1926), 74-75.

125. "Occurrences at Nisqually House," in Washington Pioneer Project, Told By the Pioneers: Reminiscences of Pioneer Life in Washington (3 vols., [Olympia], 1937-1938), I, 63.

126. Shepard, Journal, MS, 175.

127. Parker, Journal of an Exploring Tour, 173; H. H. Spalding to D. Greene, September 20, 1836, MS.

128. Tolmie, Journals, 173, 180.

129. James Douglas to A. K. Etholine, Fort Vancouver, May 22, 1841, in James Douglas, Correspondence Outward, July 13, 1840-May 24, 1841, MS, pp. 67-69, in PABC.

130. "Louis Labonte's Recollections of Men," in OHQ, IV (September, 1903), 265.

131. James Robert Anderson, Notes and Comments on Early Days . . ., MS, 152, in PABC.

132. John Sebastian Helmcken, The Reminiscences of Dr. John Sebastain Helmcken, ed. by Dorothy Blakey Smith (Vancouver: University of British Columbia Press, 1975), 133.

133. Eloisa Rae Harvey, Life of John McLoughlin, MS, 15, in the Bancroft Library, University of California, Berkeley.

134. HBRS IV, 47; Peter H. Burnett, "Recollections . . . of an Old Pioneer," in OHQ, V (March, 1904), 98.

135. Bruce's biography in HBRS VII, 309, states that Bruce was not transferred to the Columbia until 1834, but his name is found on the depot employee lists beginning with Outfit 1826. Since there were at least two William Bruces in the Company's service about that time, it is barely possible that another William Bruce served at Fort Vancouver until Outfit 1834, when Bruce appears on the depot roll at an increased wage of £22. HBCA, B.239/1/5, MS, p. 138. But such a sequence seems unlikely. McLoughlin's daughter, Eloisa, said Bruce was the gardener in 1827. Harvey, Life of John McLoughlin, MS, 8-9. However, the personnel records seem to indicate that Bruce as largely engaged as a laborer in the warehouses about that time. HBCA, B.239/1/3, MS, p. 6.

136. HBCA, B.239/1/10, MS, p.55.

137. John Warren Dease, Memorandum Book, 1829, MS, entry for October 15, 1829, in PABC; Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 199.

138. Roberts, "the Round Hand of George B. Roberts," 199.

139. Charles Wilkes, Narrative of the United States Exploring Expedition . . . (5 vols., Philadelphia, 1849), IV, 331-332; V, 135.

140. HBCA, B.239/1/20, MS, p,42. In addition to the sources already cited, this sketch of Bruce is based on HBRS VI, 191-193; VII, 60, 107, 309; WHQ, XVII, 62; XXII, 140.

141. HBCA, B.239/1/9, MS, p. 45; B.239/1/22, p. 40.

142. Herbert Beaver, Reports and Letters of Herbert Beaver, 1836-1838 . . ., ed. by Thomas E. Jessett (Portland, Oregon: The Champoeg Press, 1959), 123-124, 145; Wilkes, Narrative, IV, 332.

143. Wilkes, Narrative, IV, 332.

144. A. J. Allen, Ten Years in Oregon . . . (Ithaca, N. Y., 1850), 73-74.

145. Shepard, Journal, MS, 175.

146. Mrs. H. H. Spalding to O. and C. Porter, October 2, 1836, in OHQ, XIII (December, 1912), 378-379.

147. E. Ruth Rockwood, ed., "Diary of Rev. George H. Atkinson," in OHQ, XL (June, 1939), 181.

148. H. H. Spalding to W. and E. Porter, et al. October 2, 1836, in OHQ, XIII, 375.

149. Drury, First White Women, I, 109.

150. Zeiber, "Diary . . . 1851," in TOPA . . . 1920, p.335.

151. Merk, Fur Trade and Empire, 310. In 1838 McLoughlin stated that the seamen "when in Harbour" had "as much fresh fish, Venison or Game with potatoes or other vegetables according to the season as they can eat." HBRS IV, 110. From other evidence it would appear that these "other vegetables" were often dried peas, dried corn, or barley.

152. Beaver, Reports and Letters, 142.

153. See Roberts, Fort Vancouver, Thermometrical Register, MS, 6.

154. George Simpson, An Overland Journey Round the World during the Years 1841 and 1842 (2 vols. in 1, Philadelphia: Lea and Blanchard, 1847), I, 142.

155. HBRS I, 364.

156. H.B.C., Correspondence Book, Fort Vancouver, 1836-7, in HBCA, B.223/b/16, MS, fols. 17d, 19d.

157. [George T. Allan], "Reminiscences of Fort Vancouver . . . as it Stood in 1832," in TOPA . . . 1881, p. 75.

158. HBRS IV, 79; Merk, Fur Trade and Empire, 324.

159. Dease, Memorandum Book, 1829, MS, entry for Nov. 3, 1829.

160. Burt Brown Barker, ed., Letters of Dr. John McLoughlin, Written at Fort Vancouver, 1829-1832 (Portland, Oregon: Binfords & Mort, 1948), 186.

161. HBRS IV, 92.

162. Barker, Letters of Dr. John McLoughlin, 186; HBRS IV, 228.

163. HBRS IV, 93.

164. Ibid., 94.

165. Ibid., 232-234. According to a letter McLoughlin wrote to a fellow officer, the yield for 1831 was 1800 bushels of wheat, 1200 of barley, 600 of peas, 400 of Indian corn, and 600 of potatoes. M. McLoughlin to J. McLeod, March 1, 1832, in WHQ, II (October, 1907), 40-41. But two weeks later he told Governor Simpson that the yield was 2307 bushels of wheat, 1100 of barley, 32 of oats, 206 of "Early Pease," 74 of "Grey Pease," 96 of "White Pease," and 200 of Indian Corn, plus 560 barrels of potatoes. Barker, Letters of Dr. John McLoughlin, 257-258.

166. Barker, Letters of Dr. John McLoughlin, 245.

167. HBRS IV, 104-105. But McLoughlin told a colleague that the crop was 3500 bushels of wheat, 3000 of peas, 3000 of barley, 2000 of oats, and 15,000 of potatoes. WHQ, II (January, 1908, 167-168.

168. Young, Correspondence and Journals of . . . Wyeth, 176-177.

169. HBCA, B.223/b/8, MS, fols. 13d-17.

170. Young, Correspondence and Journals of . . . Wyeth, 176.

171. Allan, "Reminiscences," in TOPA . . . 1881, p..75.

172. HBCA, B.223/b/8, MS, fols 13d-17.

173. Archer Butler Hulbert, ed., The Call of the Columbia . . . (Overland to the Pacific, vol. IV, [Denver], 1934), 179-180.

174. Allan, "Reminiscences," in TOPA . . . 1881, p. 75.

175. HBRS IV, 97n.

176. Rich, History of the Hudson's Bay Company, II, 659.

177. Ibid., 658-659; HBRS IV, 116n.

178. J. McLoughlin to John McLeod, March 1, 1833, in John McLeod, Journals and Correspondence . . ., MS, 172-174, in Oregon Historical Society.

179. A. McDonald to J. McLeod, February 20, 1833, in ibid., 167-170; Rich, History of the Hudson's Bay Company, II, 659.

180. "Occurrences at Nisqually House," in Told by the Pioneers, I, 7.

181. Ibid.; Tolmie, Journals, 195.

182. Tolmie, Journals, 210, 226, 227, 229; Rich, History of the Hudson's Bay Company, II, 659, 679; HBRS IV, 138-139.

183. HBRS IV, 113.

184. Ibid., 130.

185. OHQ, XVII (September, 1916), 262.

186. Townsend, Narrative, 188.

187. HBRS IV, 143.

188. Parker, Journal of an Exploring Tour, 172.

189. HBRS IV, 143.

190. Ibid., 143-144.

191. Ibid., 158.

192. H. H. Spalding to David Greene, September 20, 1836, MS, in ABC Papers.

193. Drury, First White Women, I, 102.

194. Slacum said the Vancouver farm produced 8000 bushels of wheat, 5500 of barley, 6000 of oats, 9000 of peas, and 14,000 of potatoes besides "large quantities of turnips (rutataga,) pumpkins, &c." William A. Slacum, "Slacum's Report on Oregon, 1836-7," in OHQ, XIII (June, 1912), 186.

195. HBRS IV, 161n.

196. Beaver, Reports and Letters, 21.

197. HBRS IV, 160-161.

198. R. C. Clark, "Editorial Comment: Reverend Herbert Beaver," in OHQ, XXXIX (March, 1938), 69.

199. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII (June-September, 1962), 225.

200. HBRS IV, 183.

201. McLoughlin to Benjamin Harrison, November 17, 1836, in HBCA, B.223/b/15, MS, fols. 54-54d.

202. Roberts, "The Round Hand of George B. Roberts," 225.

203. Slacum, "Slacum's Report," in OHQ, XIII, 186.

204. McLoughlin to Governor and Committee, October 31, 1837, in HBRS IV, 204-207.

205. Beaver, Reports and Letters, 78-79.

206. Merk, Fur Trade and Empire, 338-339.

207. For a more extended discussion of the relationship of agricultural development to the renewal of the license, see John S. Galbraith, The Hudson's Bay Company as an Imperial Factor, 1821-1869 (Berkeley: University of California Press, 1957), 195-197.

208. Rich, History of the Hudson's Bay Company, II, 678.

209. McLoughlin to Douglas, Fort Vancouver, March __, 1838, in HBCA, B.223/b/18, MS, fols. 25-27d.

210. HBRS IV, 284.

211, Ibid., 257-258, 260.

212. Ibid., 265.

213. Ibid., 265.

214. Ibid., 283.

215. Ibid., 283.

216. John Dunn, The Oregon Territory, and the British North American Fur Trade . . . . (Philadelphia: G. B. Zieber & Co., 1845), 106-107.

217. HBRS VI, 222.

218. Ibid., 222-223.

219. Ibid., 223-224.

220. Thomas J. Farnham, Travels in the Great Western Prairies, the Anahuac and Rocky Mountains, and in the Oregon Territory (2 vols., London: Richard Bentley, 1843), II, 265-266. The similarities between this description and that by John Dunn are obvious.

221. HBRS IV, 79.

222. Merk, Fur Trade and Empire, 310.

223. HBRS IV, 92.

224. Hubert Howe Bancroft, History of the Northwest Coast (2 vols., San Francisco: A. L. Bancroft & Company, 1884), II, 443.

225. F. W. Howay, "The Brig Owyhee in the Columbia, 1829-30," in OHQ, XXV (March, 1934), 10-21.

226. Samuel Eliot Morison, "New England and the Opening of the Columbia River Salmon Trade, 1830," in OHQ, XXVIII (June, 1927), 111-132.

227. Young, Correspondence and Journals of . . . Wyeth, 176.

228. Lomax, "Pioneer Sheep Husbandry," in OHQ, XXIX (June, 1928), 111.

229. Hussey, History of Fort Vancouver, 70. There was a Louis Lapiere dit Brillant on the Fort Vancouver rolls during the period in question, 1826-1829.

230. Barker, Letters of Dr. John McLoughlin, 168-169; HBRS IV, 87.

231. Barker, Letters of Dr. John McLoughlin, 161.

232. Ibid., 159, 161.

233. M. M. Quaife, ed., "Letters of John Ball, 1832-1833," in Mississippi Valley Historical Review, V (March, 1919), 465.

234. McLoughlin to [J. McLeod], March 1, 1833, in WHQ, II (January, 1908), 167-168.

235. Hulbert, The Call of the Columbia, 179-180. In August, 1832, McLoughlin told John Work, about to depart on a trapping expedition to California, that he would take 1000 head of cattle, horses, and mules if they could be bought at reasonable prices. The implication seems to be that Work was to drive the animals back to Vancouver. Barker, Letters of Dr. John McLoughlin, 292-293. But Work's party bought only a few horses near San Francisco Bay, and these largely were purchased by the individual trappers. See John Work, Fur Brigade to the Bonaventura . . . , ed. by Alice Bay Maloney (San Francisco: California Historical Society, 1945), 38, 41, 42-43, 44.

236. Barker, Letters of Dr. John McLoughlin, 277, 289.

237. Tolmie, Journals, 178-179.

238. For a detailed account of this plan, see John S. Galbraith, "The Early History of the Puget's Sound Agricultural Company, 1838-43," in OHQ, LV (September, 1954), 235-237.

239. HBRS IV, 137-138n.

240. Galbraith, "Early History of the Puget's Sound Agricultural Company,", 238.

241. HBRS IV, 137-138.

242. For a discussion of this matter see Rich, History of the Hudson's Bay Company, II, 661-662, 678-679, 685-686.

243. Tolmie, Journals, 250.

244. Townsend, Narrative, 188-189.

245. Parker, Journal of an Exploring Tour, 172.

246. H. H. Spalding to David Greene, Fort Vancouver, September 20, 1836, in ABC, Papers, Cherokee Mission, MS, vol. 9, item 203.

247. Drury, First White Women, I, 102.

248. HBRS IV, 143.

249. OHQ, XXIII (December, 1922), 369-371. William Slacum said that the number of cattle salted, evidently in 1836, was seventy. Ibid., XIII (June, 1912), 202.

250. Mariano Malarin, History of his Life from his Dictation, MS, 2-4, in the Bancroft Library, University of California. Since there is some evidence that Clerk James Birnie brought the boys from California, the sheep may have arrived during May, 1837, on the Company's vessel Lama, for Birnie visited California in that craft. HBRS IV, 210-211.

251. HBRS IV, 207.

252. Slacum, "Report," in OHQ, XIII (June, 1912), 186.

253. This possible motivation for the grant is suggested by Galbraith, "History of the Puget's Sound Agricultural Company," in OHQ, LV (September, 1954), 235. Galbraith points out, however, that there is no proof for such an assumption.

254. HBRS IV, 164.

255. McLoughlin to Douglas, Fort Vancouver, March __, 1838, in HBCA, B.223/b/18, MS, fols. 25-27d.

256. For contemporary evidence of Birnie's departure for, and his presence in, California at this time, see Philip L. Edwards, The Diary of Philip Leget Edwards . . . (San Francisco: Grabhorn Press, 1932), 8ff. The suggestion that he was after cattle is found in Hubert Howe Bancroft, History of California (7 vols., San Francisco: A. L. Bancroft & Co., 1884-1890), IV, 84-85. See also HBRS IV, 211.

257. The details of this venture are well treated in F. G. Young, "Ewing Young and his Estate," in OHQ, XXI (September, 1920), 171-315. See especially pp. 176-180, 208.

258. HBRS IV, 215n.

259. Hubert Howe Bancroft, History of Oregon (2 vols., San Francisco: The History Company, 1886-1888), I, 150. It has been stated that Jacob P. Leese, an American living in California, met the Willamette Cattle Company leaders in California and was persuaded to drive half of his flock of 900 sheep northward in the wake of the Oregonians in 1837. The animals supposedly were sold to settlers and to McLoughlin. Lomax, "Pioneer Sheep Husbandry," in OHQ, XXIX (June, 1928), 119-120. The present writer has not yet been able to find a contemporary record of a journey by Leese in 1837, although it is possible that further research will throw more light on the subject.

260. Beaver, Reports and Letters, 78.

261. Bancroft, History of Oregon, I, 152.

262. Rich, History of the Hudson's Bay Company, II, 685-686.

263. Galbraith, "Early History of the Puget's Sound Agricultural Company," in OHQ, LV, 240.

264. Rich, History of the Hudson's Bay Company, II, 685.

265. HBRS IV, 215-216.

266. Ibid., 252-254.

267. Ibid., 248-251, 276-277.

268. Ibid., 258-259, 284.

269. Ibid., 259.

270. Ibid., 285.

271. HBRS VI, 210.

272. Ibid., 223. See also Rich, History of the Hudson's Bay Company, II, 693.

273. Galbraith, "Early History of the Puget's Sound Agricultural Company," in OHQ, LV, 240-241. Linn's bill did not pass, but the threat of American occupation remained.

274. Ibid., 242; Rich, History of the Hudson's Bay Company, II, 685-686.

275. Rich, History of the Hudson's Bay Company, II, 686-687.

276. Rich, History of the Hudson's Bay Company, II, 654-655; Harold A. Innis, The Fur Trade in Canada (paperback ed., New Haven: Yale University Press, 1962), 333.

277. HBRS VI, 27n.

278. H.B.C., Account Book, Fort Vancouver, 1844-1845, in HBCA, B.223/d/158, MS, pp. 148-149.

279. The 2000 fanegas of wheat required in 1840 amounted, according to James Douglas's calculations, to 4000 bushels, an amount which could be provided, but the demand for 1841, he said, would be "immeasurably beyond every example of the past." HBRS VI, 209.

280. Simpson to J. M. Yale, Red River, June 20, 1839, in Yale Family Manuscripts, MS, Letter 22, in PABC.

281. HBRS VI. 230, 234, 406-407.

282. Ibid., 230, 234. Actually these men were employed as laborers during the winter, as McLoughlin did not intend to build the dairies until summer. They were under contract for only two years, and most if not all of them left at the end of their engagements.

283. Ibid., 236.

284. Ibid., 233-234.

285. Ibid., 20, 237-245.

286. Ibid., 28.

287. There are a number of sources which provide the interesting details of Douglas's mission and the subsequent cattle drive, but since these events were peripheral to the main story of the Fort Vancouver farm they could not be treated in detail here. The principal sources employed, and to some extent quoted, in the above account are: James Douglas, James Douglas in California, 1841 . . . , ed. by Dorothy Blakey Smith (Vancouver, B. C.: The Library Press, 1965); Bancroft, History of California, IV, 211-214; HBRS VI, 28, 39-40, 41, 246, 251-256; Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 205; George Simpson, An Overland Journey Round the World . . . (2 vols. in 1, Philadelphia: Lea and Blanchard, 1847), I, 143.

288. Wilkes, Narrative, IV, 334.

289. Douglas to Simpson, August 24, 1841, in HBCA, D.5/6, MS, fol. 198.

290. Simpson, An Overland Journey, I, 143.

291. 27 Cong., 2 Sess., House, Reports of Committees, No. 830, p. 57.

292. John Minto, "Sheep Husbandry in Oregon," in OHQ, III (September, 1902), 221.

293. Wilkes, Narrative, IV, 335. John S. Galbraith says Southdown and Cheviot sheep were also sent from England. "Early History of the Puget's Sound Agricultural Company," in OHQ, LV, 245.

294. HBRS VI, 228.

295. For an expert's opinion of one lot in 1844, see Galbraith, "Early History of the Puget's Sound Agricultural Company," 259. See also Rich, History of the Hudson's Bay Company, II, 699.

296. Matthew P. Deady, "The Annual Address," in TOPA . . . [1875], p. 27; Wilkes, Narrative, IV, 334.

297. Wilkes, Narrative, IV, 334-335.

298. HBCA, B.239/1/12, MS, p. 59; HBRS VI. 390-391. Harvey seemingly was not actually a clerk in the formal sense, since after 1846 he was classed as a postmaster, a step lower in rank (although the Fort Vancouver rolls still listed him among the clerks). In the minutes of the Council for 1842, however, he is listed as "clerk and farmer."

299. Harvey, Life of John McLoughlin, MS, 34.

300. The wages of Daniel Harvey, "Miller," were paid until December 15, 1849. HBCA, B.239/1/20, MS, p. 20.

301. Silas Holmes, Journal . . . , MS, III, 5, in Beinecke Rare Book and Manuscript Library, Yale University Library.

302. Wilkes, Narrative, IV, 334. Actually the area undoubtedly was even larger. One of the Exploring Expedition's officers observed "a single cultivated tract" extending from the fort to a point opposite the lower in of Sauvie Island. Holmes, Journal, MS, III, 8.

303. Simpson, An Overland Journey, I, 143.

304. Wilkes, Narrative, IV, 334.

305. Ibid.

306. Charles Wilkes, Diary of Wilkes in the Northwest, ed. by Edmond S. Meany (Seattle, 1926), 37.

307. George Foster Emmons, Journal . . . , MS, III, entry for August 1, 1841, in Beinecke Rare Book and Manuscript Library, Yale University Library.

308. McLoughlin was quite willing to share his improvements with others. General M. G. Vallejo at Sonoma, California, was sent some seed wheat which he found to be "superior in quality to his own." Simpson, An Overland Journey, I, 176.

309. Wilkes, Narrative, IV, 334.

310. Ibid.

311. Simpson, An Overland Journey, I, 106.

312. Governor and Committee to Simpson, March 1, 1841, in HBCA, D.5/6, MS, fol. 69.

313. Fort Vancouver, Accout Book, 1845-1846, in HBCA, B.223/d/161, MS, fols. 94-105.

314. Fort Vancouver Account Book, 1844-1845, in HBCA, B.223/d/158, MS, fols. 148-149.

315. Rich, History of the Hudson's Bay Company, II, 699.

316. G. P. de T. Glazebrook, The Hargrave Correspondence, 1821-1843 (Toronto: The Champlain Society, 1938), 371.

317. Rich, History of the Hudson's Bay Company, II, 699.

318. HBRS VI, 268.

319. Ibid., 126-127.

320. McLoughlin to Simpson, Vancouver, March 20, 1843, in HBCA, D.5/8, MS, fols. 160-160d; HBRS VI, 81-82.

321. Simpson to McLoughlin, Red River, June 21, 1843, in HBCA, B.223/c/1, MS, fols. 197-197d. The Governor and Committee also deplored Ermatinger's action. See HBRS VI, 314-315.

322. Lomax, "History of Pioneer Sheep Husbandry," in OHQ, XXIX (September, 1928), 120-121.

323. HBRS VI, 136.

324. McLoughlin to Simpson, Vancouver, April 6, 1844, in HBCA, D.5/11, MS, fols. 56-57A. This copy differs in important respects from the extract quoted in HBRS VII, 130.

325. HBRS VII, 129-130. George Simpson had the impression that Leese's cattle amounted to about 600 head.

326. HBRS VI, 72-73.

327. Ibid., 63, 77.

328. Ibid., 315.

329. Ibid., 326-333. McLoughlin's excuse for sending unclean wheat was that the grain came from California. It could not have been cleaned, he claimed, without "washing it with water as the Calefornians do." Ibid., 132-133.

330. Ibid., 130.

331. Ibid., 125, 126.

332. McLoughlin to Simpson, Vancouver, March 20, 1844, in OHQ, XVII (September, 1916), 225.

333. HBRS VII, 36.

334. HBCA, B.223/d/155, MS, fols. 168-169.

335. This account of the fire is largely based on HBRS VII, 37-45; and Hussey, History of Fort Vancouver, plate XXV.

336. See Hussey, History of Fort Vancouver, plates X, XVI, XVII, XXI.

337. Br. & Am. Joint Comm., [Papers], [II], 131-132, 136.

338. HBRS VII, 184.

339. Ibid., liv, 259-268.

340. Ibid., 178.

341. For a summary of these decisions, with citations of sources, see ibid., lviii-lvix.

342. HBRS VII, 85.

343. Ibid., 148.

344. Douglas and Ogden to Simpson, Fort Vancouver, March 19, 1846, in HBCA, B.223/b/34, MS, fols. 15-29d.

345. HBRS VII, lviiin.

346. See sources cited in Hussey, History of Fort Vancouver, 89-90.

347. The inventory is conveniently available in T. C. Elliott, "British Values in Oregon, 1847," in OHQ, XXXII (March, 1931), 27-45. Other copies of the inventory differ in some details from the version reproduced by Elliott.

348. Ibid., 30, 32-33. Visitors of 1845 and 1846 made different and sometimes widely divergent estimates of the amount of land under cultivation. These ranged from Lieutenant William Peel's about 1000 acres, through Lieutenant Henry J. Warre's 1200 acres, to the Rev. Gustavus Hine's about 3000 acres.

349. Douglas to Simpson, October 23, 1843, in HBCA, D.8/9, MS, fol. 119d.

350. Br. & Am. Joint Comm., [Papers], [IX], 87, 92. 99, 120.

351. Ibid., [II], 106-107.

352. Ibid., 128-136.

353. Joel Palmer, Journal of Travels over the Rocky Mountains . . . (Reuben Gold Thwaites, ed., Early Western Travels, vol. XXX, Cleveland, Ohio, 1906), 210. Another visitor of 1845 also noted that the plain near the fort was "partially flooded" by spring freshets and thus was not all cultivated. H. J. Warre, Overland to Oregon in 1845 (Ottawa: Public Archives of Canada, 1976), 76.

354. Br. & Am. Joint Comm., [Papers], [VIII, 69.

355. J. Douglas, P. S. Ogden, and J. Work to Governor and Committee, Fort Vancouver, November 2, 1846, in HBCA, B.223/b/34, MS, fols. 1-13.

356. Ogden and Douglas to G. Simpson, Fort Vancouver, March 15, 1847, in HBCA, B.223/b/35, fols. 66d-67.

357. Ibid.

358. Ogden and Douglas to Governor and Committee, September 20, 1847, in HBCA, B.223/b/36, MS, fols. 75-84d; same to George Simpson, March 16, 1848, in HBCA, B.223/b/37, MS, fols. 3-19.

359. Ogden and Douglas to Governor and Committee, October 1, 1848, in HBCA, B.223/b/38, MS, fols. 53d-59.

360. E. Ruth Rockwood, ed., "Diary of Rev. George H. Atkinson," in OHQ, XL (June, 1939), 184.

361. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 166.

362. HBCA. B.239/1/30, MS. fols. 42-45. The figures for 1849, however, do not include 1 officer, 4 clerks, and 39 men listed under "General Charges," some of whom were stationed at Fort Vancouver. At best, the numbers given above are only approximate, since men were frequently on detached service or shifted to other stations.

363. Samuel C. Damon, A Journey to Lower Oregon & Upper California, 1848-49 (San Francisco: John J. Newbegin, 1927), 21.

364. Robert V. Hine and Savoie Lottinville, eds., Soldier in the West: Letters of Theodore Talbot . . . (Norman: University of Oklahoma Press, 1972), 126.

365. J. Douglas to Donald Ross, Fort Vancouver, November 27, 1849, MS, in Ross Collection, PABC.

366. E. E. Rich, ed., London Correspondence Inward from Eden Colvile, 1849-1852 (Publications of the Hudson's Bay Record Society, vol. XIX, London: The Hudson's Bay Record Society, 1956) (hereafter cited as HBRS XIX), 10.

367. 31 Cong., 1 Sess., Senate, Ex Doc. No. 47 (Ser. 558), pp. 88, 105.

368. Extracts from British Foreign Office Documents, MS, in Fort Vancouver folder, Vertical File, PABC.

369. See Hussey, History of Fort Vancouver, plate XI.

370. For details of these events, see ibid., 103-104.

371. Ibid., 99, 103-104.

372. Br. & Am. Joint Comm., [Papers], [II], 109-111, 116, 381-383.

373. Br. & Am. Joint Comm., [Papers], [II], 11, 82, 85; Ogden to Governor and Council, Vancouver, March 20, 1851, in HBCA, B.223/b/39, MS, fols. 66d-69d.

374. Ibid.; Ogden to Simpson, Fort Vancouver, January 28, 1851, in ibid., fols. 61d-63d.

375. Ogden to A. Barclay, Vancouver, August 22, 1851, in HBCA, B.223/b/39, MS, fols. 87-87d; same to same, September 7, 1851, in ibid., fols. 88-89. On the other hand, Chief Factor Ballenden, who succeeded Ogden late in 1851, described the 1851 harvest at Fort Vancouver as "very poor." HBRS XIX, 139.

376. J. Ballenden to E. Colvile, Fort Vancouver, March 22, 1852, in HBCA, B.223/b/39, MS, fols. 109d-118d. See also Ballenden to A. Barclay, Fort Vancouver, March 23, 1852, in ibid., fols. 108-109.

377. HBCA, B.239/1/19, MS, p. 44; B.239/1/22, MS, p. 41.

378. Thomas Lowe, Private Journal Kept at Fort Vancouver, MS, 16, in PABC.

379. Victor J. Farrar, ed., "The Nisqually Journal," in WHQ, XV (July, 1924), 224; (October, 1924), 295.

380. Ballenden to Douglas, Fort Vancouver, July 16, 1852, in HBCA, B.223/b/40, MS, fols. 17d-18.

381. HBRS XIX, 139.

382. Ibid., 139n; Ballenden to Douglas and Work, Fort Vancouver, November 2, 1852, in HBCA, B.223/b/40, MS, fols. 36d-38d.

383. Ballenden to Simpson, Fort Vancouver, July 6, 1852, in ibid., fols. 13-17. The quoted passages in this paragraph may contain some paraphrasing of the original text.

384. Ballenden to Simpson, Fort Vancouver, August 3, 1852, in ibid., fols. 23d-26.

385. Ballenden to Simpson, July 6, 1852, in ibid., fols. 13-17.

386. Ballenden to Douglas and Work, Fort Vancouver, November 2, 1852, in ibid., fols. 36d-38d.

387. Ogden to Simpson, Vancouver, March 29, 1853, in HBCA, B.223/b/41, MS, fols. 2-3.

388. Same to same, May 30, 1853, in ibid., fols. 11-12d; Ogden to A. Barclay, June 15, 1853, in ibid., fols. 13d-14d; and Ogden to Simpson, July 12, 1853, in ibid., fols. 15-15d.

389. Ogden to Duncan Finlayson, Fort Vancouver, August 12, 1853, in HBCA, B.223/b/41, MS, fols. 18-18d.

390. Bradford Ripley Alden, "The Oregon and California Letters of Bradford Ripley Alden," in California Historical Society Quarterly, XXVIII (September, 1949), 202-203.

391. Br. & Am. Joint Comm., [Papers], [IX], 411.

392. For details of this subject, see Hussey, History of Fort Vancouver, 103-104.

393. Br. & Am. Joint Comm., [Papers], [IX], 104-105.

394. Ibid., [XI], 119-120.

395. Ogden and Mactavish to Simpson, Vancouver, April 12, 1854, in HBCA, B.223/b/41, MS, fols. 36d-40d.

396. Ibid.; Ogden and Mactavish to Simpson, July 12, 1854, in ibid., fols. 48-48d.

397. See Hussey, History of Fort Vancouver, 95-96.

398. J. A. Grahame to D. Mactavish, Vancouver, June 18, 1855, MS, in Fort Nisqually Collection, The Henry E. Huntington Library and Art Gallery, San Marino, California.

399. Mactavish to Simpson, Vancouver, June 30, 1855, in HBCA, B.223/b/41, MS, fols. 81d-82; Mactavish to Simpson, August 4, 1855, in ibid., fols. 85d-86d.

400. Mactavish to Simpson, July 22, 1856, in ibid., fols. 114d-116.

401. See Hussey, History of Fort Vancouver, 105.

402. Grahame to Simpson, December 24, 1857, in HBCA, B.223/b/42, MS, fols. 72d-73.

403. Mactavish to Simpson, Vancouver, August 19, 1857, in HBCA, B.223/b/41, MS, fols. 139d-141.

404. Results of Trade, Oregon Department, Outfit 1858, in HBCA, A.11/71, MS, fol. 961.

405. Grahame to Simpson, October 18, 1858, in HBCA, B.223/b/42, MS, fols. 101-101d.

406. Grahame to Smith, Vancouver, September 4, 1858, in ibid., fols. 95-95d.

407. Grahame to Simpson, February 19, 1859, in HBCA, B.223/b/42, MS, fols. 113-114; Grahame to Thomas Fraser, February 21, 1859, in ibid., fol. 115; Grahame to Simpson, September 2, 1859, in ibid., fols. 146d-147d; Grahame to Fraser, September 19, 1859, in ibid., fols. 148-150d; Grahame to Simpson, November 28, 1859, in ibid., fols. 155-157; John M. Wark to Edward Huggins, November 28, 1859, MS, in Fort Nisqually Collection.

408. Grahame to Simpson, Vancouver, September 2, 1859, in HBCA, B.223/b/42, MS, 146d-147d; Grahame to Fraser, Vancouver, September 19, 1859, in ibid., fols. 148-150d.

409. Wark to Huggins, January 26, 1860, MS, in Fort Nisqually Collection.

410. Grahame to Simpson, September 4, 1859, in HBCA, B.223/b/42, MS, fols. 133d-135d.

411. Br. & Am. Joint Comm., [Papers], [IX], 81-82.

412. Wark to Harney, March 1, 1860, in HBCA, A.11/71, MS, fols. 1070d-1071.

413. Grahame to Fraser, April 16, 1860, in HBCA, B.223/b/42, MS, fols. 196d-170; see also ibid., B.223/c/2, fol. 287; and B.223/z/5, fol. 49; and Hussey, History of Fort Vancouver, 107-109.

414, James Robert Anderson, Notes and Comments on Early Days and Evente . . . , MS, 245-246, in PABC. For details of the Company's last months at Fort Vancouver, see Hussey, History of Fort Vancouver, 109-110.

415. Hussey, History of Fort Vancouver, 101.

416. HBCA, B.223/g/15, pp. 2-5.

CHAPTER II

1. Wilkes, Narrative, IV, 334.

2. Douglas to Simpson, October 23, 1843, in HBCA, D.8/9, MS, fol. 119d.

3. Br. & Am. Joint Comm., [Papers], [IX], 86-87, 92, 99, 120.

4. Ibid., 99.

5. In March, 1845, Douglas wrote to Governor Simpson that settlers had "squatted at Wyeth's place on Multnomah Island," seeming to imply that the Company did not claim that area. HBRS VII, 178.

6. Elliott, "British Values in Oregon," in OHQ, XXXII, 44.

7. United States, Department of State, Treaties and Other International Acts of the United States of America, ed. by Hunter Miller (8 vols., Washington, D. C., 1931-1948), VIII, 963.

8. Br. & Am. Joint Comm., [Papers], [II], 106-107.

9. Ibid., [IX], 2-3.

10. Ibid., [II], 8-9. Dugald Mactavish, another Fort Vancouver resident, also said the Company's claim began about two miles above the sawmill. Ibid., [XI], 119-122.

11. See Hussey, History of Fort Vancouver, plate XXVIII.

12. HBRS VII, 108.

13. Br. & Am. Joint Comm., [Papers], [II], 8, 19.

14. Elliott, "British Values in Oregon," 30.

15. Br. & Am. Joint Comm., [Papers], [II], 8.

16. For an example, see Warre, Overland to Oregon, 78.

17. Br. & Am. Joint Comm., [Papers], [XI], 119-122.

18. See Hussey, History of Fort Vancouver, plates X, XI.

19. Br. & Am. Joint Comm., [Papers], [II], 107-108.

20. Hussey, History of Fort Vancouver, plates X, XI, XXV.

21. Br. & Am. Joint Comm., [Papers], [XI], 119-122.

22. Hussey, History of Fort Vancouver, plates XI, XVI.

23. Ibid., plates V, X, XI, XVI, XX, XXV, XXVII.

24. Br. & Am. Joint Comm., [Papers], [II], 132.

25. Elliott, "British Values in Oregon," in OHQ, XXXII, 33.

26. HBRS IV, 205. McLoughlin said that by October, 1837, he had taken two crops from each of the two plains, one of which almost surely was First Plain; the other was either Second Plain or Third Plain.

27. Ibid., 283; ibid., VII, 39.

28. George B. McClellan, Journal, May 20-Dec. 16, 1853, MS, entry for July 18, 1853, in Library of Congress. A map drawn in 1859 does not show this plain as being round. Hussey, History of Fort Vancouver, plate XXVII.

29. HBRS IV, 283; ibid., VII, 39. Burntbridge Creek was called "Bridge River" in 1844 but was also known as "Little River" in 1846. Lowe, Private Journal, MS, 50. McClellan said the bridge was about one-third mile south of First Plain.

30 McClellan, Journal, MS, entry for July 21, 1853.

31. Hussey, History of Fort Vancouver, plate XXVII.

32. Br. & Am. Joint Comm., [Papers], [II], 9.

33. Hussey, History of Fort Vancouver, plate XXVII.

34. Br. & Am. Joint Comm., [Papers], [II], 82; [IX], 2, 490.

35. Ibid., [II], 9.

36. Fourth Plain appears to have been one of the localities that James Douglas asked General Smith to protect from squatters in the fall of 1849. Ibid., [IX], 2. On the other hand, Douglas showed every evidence of friendship with Richard Covington, whose Donation Land Claim on Fourth Plain dated from 1848.

37. Ibid., 489-490.

38. HBRS VII, 38.

39. Lowe, Private Journal, MS, 2, 5.

40. Br. & Am. Joint Comm., [Papers], [II], 9.

41. Hussey, History of Fort Vancouver, plate XXVII.

42. Br. & Am. Joint Comm., [Papers], [II], 106-107.

43. HBRS VII, 178.

44. Br. & Am. Joint Comm., [Papers], [XI], 119-122; Hussey, History of Fort Vancouver, plates XXVII, XXVIII.

45. HBRS IV, 283. Douglas's "2d North Plain," six miles from the fort, could fit Mill Plain as far as distance is concerned, but it is impossible to see how anyone could describe Mill Plain as containing only 120 acres of cultivable land.

46. Br. & Am. Joint Comm., [Papers], [II], 132.

47. Ibid., 9; Harvey, Life of John McLoughlin, MS, 34.

48. Elliott, "British Values in Oregon," in OHQ, XXXII, 32.

49. Br. & Am. Joint Comm., [Papers], [XI], 119-122.

50. Ibid., [IX], 334; Harvey, Life of John McLoughlin, MS, 34; HBRS VII, 43; Lowe, Private Journal, MS, 1A.

51. Lowe, Private Journal, MS, 50.

52. HBCA, B.223/b/42, MS, fol. 115.

53. Br. & Am. Joint Comm., [Papers], [II], 82.

54. Ibid., 110.

55. Ibid., [XI], 119-122.

56. HBRS VII, 178. See also, Hussey, History of Fort Vancouver, plate, XI.

57. Br. & Am. Joint Comm., [Papers], [IX], 282.

58. HBRS IV, 283.

59. Elliott, "British Values in Oregon," in OHQ, XXXII, 33.

60. Hussey, History of Fort Vancouver, plate V.

61. Lowe, Private Journal, MS, 30.

62. Br. & Am. Joint Comm., [Papers], [XI], 119-122.

63. HBRS VII, 39-40; Hussey, History of Fort Vancouver, plate XXVIII. The area south of Vancouver Lake apparently was at that time quite narrow, and the only land beyond that body of water large enough for grazing the depot's entire livestock herd was west of that lake. But probably since this region lay along the river, which was toward the south in the vicinity of the post, Douglas could have thought of the plain as lying south of Vancouver Lake even though at that point the river actually ran in a northerly direction.

64. Elliott, "British Values in Oregon," in OHQ, XXXII, 35.

65. Br. & Am. Joint Comm., [Papers], [II], 8-9. See also ibid., [IX], 2.

66. HBRS VII, 39, 41.

67. Elliott. "British Values in Oregon," 35.

68. Hussey, History of Fort Vancouver, plates XI, XV.

69. Br. & Am. Joint Comm., [Papers], [II], 82.

70. The sale of Fort Hall is well described, among other places, in Richard G. Beidleman, "Nathaniel Wyeth's Fort Hall," in OHQ, LVIII (September, 1957), 197-250.

71. Young, Correspondence and Journals of . . . Wyeth, 255. Wyeth also had a farm at Champoeg in the Willamette Valley. Evidently he had hoped to keep this establishment also, but he was not successful.

72. HBRS IV, 171.

73. Young, Correspondence and Journals of.... . Wyeth, 255.

74. Br. & Am. Joint Comm., [Papers], [IX], 99.

75. HBRS IV, 258, 284.

76. Ibid., 258; Simpson, An Overland Journey Round the World, I, 106.

77. Br. & Am. Joint Comm., [Papers], [IX], 461.

78. Simpson, An Overland Journey, I, 106.

79. HBRS VI, 230; Emmons, Journal, MS, III, entries for August 2, 18, 1841 and map following August 18 entry; Wilkes, Narrative, IV, 334; Br. & Am. Joint Comm., [Papers], [IX], 280.

80. HBCA, B.223/d/155, MS, fols. 155-157; Elliott, "British Values in Oregon," in OHQ, XXXII, 35.

81. On squatters' meetings, see HBCA, B.223/b/40, MS, fols. 13-17.

82. Br. & Am. Joint Comm., [Papers], [II], 8.

83. Ibid., [XI], 119-122.

84. OHQ, XXIV, 240-242. It is possible that these horses belonged to Thomas McKay, who had a farm nearby, but probably they were the animals brought by John Work on his return from California in October, 1833.

85. HBRS IV, 259, 284.

86. Emmons, Journal, MS, III, entry for August 5, 1841.

87. Lansford W. Hastings, The Emigrants' Guide, to Oregon and California . . . (Cincinnati: George Conclin, 1845), 52.

88. There are several versions of the 1846-1847 inventory, not all of which are in complete agreement. Three of these are the following: HBCA, B.223/z/5, MS, fol. 265ff.; Br. & Am. Joint Comm., [Papers], [II], 120ff.; Elliott, "British Values in Oregon," in OHQ, XXXII (March, 1931), 30-35. In the main, the following list is drawn from the last source. Valuations have not been included, since they are largely meaningless.

89. In 1845 a British visitor said that the fields at Fort Nisqually were enclosed by "common zigzag or Virginia fence." Henry J. Warre Travel and Sport in North America, MS, 125, in Public Archives of Canada, Ottawa. There may have been similar fences at Fort Vancouver, but nearly all of the pre-1860 views of Fort Vancouver show post and rail fences in the immediate post vicinity.

90. 144 x 18 ft. in Br. & Am. Joint Comm., [Papers], [II], 120-121.

91. This information from HBCA, B.223/z/5, MS, fol. 265d.

92. Perhaps one of these was the "new potatoe cellar" built "at the upper end of the back road" on October, 1844. Lowe, Private Journal, MS, 7.

93. The last two structures on this list, given here as recorded in Elliott, "British Values in Oregon," 35, do not appear on the same list as printed in Br. & Am. Joint Comm., [Papers], [II], 120-121. It is highly probable that they were not on Sauvie Island.

CHAPTER III

1. Practically all of the available personnel lists and many of the accounts reveal this organization. For example, see H.B.C., District Statements, York Factory, 1832-1835, MS, HBCA, B.239/1/5.

2. Harvey, Life of John McLoughlin, MS, 16.

3. "George T. Allen [sic]," in The Pacific Express (Portland, Oregon), April 12, 1888; Dunn, The Oregon Territory, 107; HBRS VI, 383-384.

4. George T. Allan, Copies of Letters and Journals of George T. Allan, typescript, 1-2, in files of Fort Vancouver National Historic Site; "George T. Allen," in The Pacific Express (Portland, Oregon), April 12, 1888.

5. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 183, 185.

6. Ibid., 199. Thomas J. Farnham, who witnessed the start of a work day in late 1839, wrote that the "farmer on horseback at break of day, summons one hundred half-breeds and Iroquois Indians from their cabins to the fields." Farnham, Travels, II, 265. Such may have been the case, but it is usually stated that the depot bell summoned the men to their work "at early dawn." Wilkes, Narrative, IV, 329.

7. Allan, Copies of Letters, MS, 2.

8. "George T. Allen," in The Pacific Express (Portland, Oregon), April 12, 1888.

9. Br. & Am. Joint Comm., [Papers], [II], 23.

10. McLoughlin to James Douglas, March 21, 1833, in HBCA, B.223/b/9, MS, fols. 4-4d.

11. HBCA, B.223/d/155, MS, fol. 75d.

12. HBRS IV, 143-144.

13. For another work containing excellent drawings of agricultural implements of the period, see Encyclopaedia Metropolitana; or, Universal Dictionary of Knowledge (29 vols., London, 1845), XXVIII, plates.

14. HBCA, B.239/1/2, MS, p. 45; B.239/1/3, MS, p. 6.

15. HBCA, B.239/1/4, MS, p. 67.

16. HBCA, B.239/1/5, MS, p. 141.

17. HBCA, B.239/1/10, MS, pp. 62-63.

18. Townsend, Narrative, 188.

19. Wilkes, Narrative, IV, 337.

20. Tolmie, Journals, 173.

21. "Copy of a Document," in TOPA . . . 1880, p. 46.

22. HBRS IV, 205.

23. Ibid., 283.

24. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII (June-September, 1962), 116, 126, 129, 133.

25. "Occurrences at Nisqually House," in Washington Pioneer Project, Told by the Pioneers (3 vols., [Olympia, Washington], 1937-1938), I, 46.

26. Carl Landerholm, trans., Notices & Voyages of the Famed Quebec Mission to the Pacific Northwest . . . (Portland, Oregon: Oregon Historical Society, 1956), 149, 177.

27. Roberts, "The Round Hand," 122.

28. Landerholm, Notices & Voyages, 149, 177.

29. Roberts, "The Round Hand," 145.

30. Ibid., 135.

31. Ibid., 121, 122.

32. Ibid., 121, 147.

33. Rich, History of the Hudson's Bay Company, II, 679.

34. Harvey, Life of John McLoughlin, MS, 16.

35. Farnham, Travels in the Great Western Prairies, II, 265.

36. Merk, Fur Trade and Empire, 132-133; HBRS IV, 207.

37. HBRS XIX, xxvi.

38. Roberts, "The Round Hand," 123.

39. Ibid., 159.

40. Landerholm, Notices & Voyages, 177.

41. Lowe, Private Journal, MS, 2, 4.

42. Farnahm, Travels in the Great Western Prairies, II, 265.

43. Landerholm, Notices & Voyages, 27.

44. HBCA, B.223/d/155, MS, p. 167. Evidently only cradles were employed to cut the grain at Cowlitz in 1847. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 115.

45. Landerholm, Notices & Voyages, 149. Wilkes in 1841 noted that "little or no hay was made at Vancouver." Narrative, IV, 334.

46. HBCA, B.223/d/155, MS, pp. 167-168.

47. Landerholm, Notices & Voyages, 177.

48. Beaver, Reports and Letters, 79.

49. Roberts, "The Round Hand," 115, 116.

50. Landerholm, Notices & Voyages, 27, 179.

51. Ibid., 27.

52. Dease, Memorandum Book, MS, entry for October 9, 1829. Even though a machine was available, horses seem to have been used to thresh some of the wheat at Cowlitz as late as 1848. Roberts, "The Round Hand," 160.

53. Townsend, Narrative, 188.

54. Farnham, Travels in the Great Western Prairies, II, 265.

55. HBCA, B.223/d/155, MS, p. 167.

56. Landerholm, Notices & Voyages, 27.

57. Ibid., 239-240.

58. For examples, see Roberts, "The Round Hand," 116, 117, 122, 127, 136, 156.

59. "Occurrences at Nisqually House," in Told by the Pioneers, I, 41.

60. Ibid., 41, 42.

61. HBCA, B.223/d/155, MS, p. 166.

62. Roberts, "The Round Hand," 122.

63. "Occurrences at Nisqually House," in Told by the Pioneers, I, 41-42.

64. Roberts, "The Round Hand," 116, 117.

65. Ibid., 147.

66. Ibid., 119, 127, 129, 164.

67. Roberts, "The Round Hand," 162, 166.

68. Beaver, Reports and Letters, 79-80.

69. Wilkes, Narrative, IV, 334.

70. Drury, First White Women, I, 103.

71. Wilkes, Narrative, IV, 334.

72. For examples of mentions of these practices at Cowlitz, see Roberts, "The Round Hand," 115, 116, 126, 129, 142, 143, 157, 163, 164.

73. Br. & Am. Joint Comm., [Papers], [II], 41.

74. McLoughlin to Archibald McKinlay, Oregon City, November 30, 1847, MS, in Elwood Evans, Correspondence and Papers, in Beinecke Rare Book and Manuscript Library, Yale University Library.

75. M. Leona Nichols to _____ Cree, April 21, 1937, MS, in PABC.

76. In addition to sources already cited on this point, see also Wilkes, Narrative, IV, 333-334.

77. Br. & Am. Joint Comm., [Papers], [II], 106-107.

78. Lowe, Private Journal, MS, 38.

79. Wilkes, Narrative, IV, 336.

80. Dunn, The Oregon Territory, 117.

81. Emmons, Journal, MS, III, entry for August 1, 1841.

82. Roberts, "The Round Hand," 169.

83. Beaver, Reports and Letters, 68.

84. Wilkes, Narrative, IV, 336; Emmons, Journal, MS, III, entry for August 1, 1841.

85. Roberts, "The Round Hand," 115, 126, 157.

86. Lowe, Private Journal, MS, 40.

87. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 126, 127. The formula for this preparation was "32 tobacco in decoction 2-1/2 oz. corrosive Sublimate pr salmon Barrel of water." Unfortunately, Roberts forget to give the unit of measurement for the tobacco in decoction.

88. Fort Nisqually Indian Accounts, MS, vol. I, p. 35, in Fort Nisqually Collection, The Henry E. Huntington Library and Art Gallery, San Marino, California.

89. Roberts, "The Round Hand," 134-135.

90. HBRS VI, 164n.

91. Roberts, "The Round Hand," 105.

92. HBCA, B.223/d/158, MS, fol. 83.

93. For the farm equipment held in the stores (warehouses), see John A. Hussey, Historic Structures Report, Historical Data, Fort Vancouver National Historic Site, vol. I (processed, Denver: National Park Service, 1972), 285-287.

94. Hudson's Bay Company, Account Book, Fort Vancouver, 1844, MS, pp. 155-157, 166-168, HBCA, B.223/d/155.

95. HBCA, B.223/d/181, MS, p. 164 (fol. 84d).

CHAPTER IV

1. F. Ermatinger to Edward Ermatinger, Fort Vancouver, February 16, 1831, in Letters of Francis Ermatinger, 1823-1853, MS, 71, in Henry E. Huntington Library and Art Gallery.

2. For details of Ermatinger's transfer to Vancouver and then to Colvile, see Barker, Letters of Dr. John McLoughlin, 185, 213.

3. For details of Allan's service at Vancouver, see his Copies of Letter and Journals, MS.

4. HBCA, B.239/1/8, MS, fol. 76.

5. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 227.

6. James Douglas, Distribution of Gentlemen & Men, Outfit 1839, MS, p. 2, in PABC.

7. HBRS VI, 162.

8. McLoughlin to Simpson, Vancouver, March 20, 1844, in HBCA, D.5/10, MS, fol. 477.

9. Governor and Committee to McLoughlin, London, December 31, 1839, in HBCA, B.223/c/1, MS, fol. 137.

10. HBRS VI, 19n.

11. Lowe, Private Journal, MS, 11, 16.

12. Ibid., 16, 19, 22, 33.

13. HBRS VII, 38n; Lowe, Private Journal, MS, 33.

14. Lowe, Private Journal, MS, 62, 63.

15. Ogden and Douglas to G. Simpson, Fort Vancouver, March 14, 1849, in HBCA, A.11/70, MS, fols. 386-399.

16. HBCA, B.239/1/19, MS, fol. 40.

17. HBCA, A.11/70, MS, fols. 386-399; HBCA, B.239/1/19, MS, fol. 43.

18. HBCA, B.239/1/20, MS, p. 46.

19. Lowe, Private Journal, MS, 68, 74.

20. HBCA, B.239/1/22, MS, p. 40.

21. HBCA, B.223/b/39, MS, fols. 66d-69d.

22. HBCA, B.223/b/41, MS, fols. 6-7.

23. Ibid., fols. 22d-23d.

24. HBCA, B.223/g/9, MS, p. 4.

25. For correspondence listing Logan's assignment, see, for example, HBCA, B.223/b/41, MS, fols. 71-74, 114d-116, 139d-141; HBCA, B.223/b/42, MS, fols. 133d-135d.

26. John M[cAdoo] Wark to [Edward] Huggins, Vancouver, June 7, 1860, MS, in Fort Nisqually Collection, Huntington Library.

27. Harvey, Life of John McLoughlin, MS, 7.

28. Barker, Letters of Dr. John McLoughlin, 186.

29. HBCA, B.223/b/9, MS, fols. 4-4d.

30. David H. Chance, Influence of the Hudson's Bay Company on the Native Cultures of the Colvile District (Northwest Anthropological Research Notes, Memoir No. 2, processed, Moscow: University of Idaho, 1973), 67, 106.

31. Merk, Fur Trade and Empire, 355.

32. McLoughlin to P. C. Pambrun, Fort Vancouver, June 27, 1835, in HBCA, B.223/b/11, MS, fols. 18d-19.

33. Roberts, "The Round Hand of George B. Roberts," in OHQ, LXIII, 183.

34. Harvey, Life of John McLoughlin, MS, 15-16.

35. Hastings, Emigrants' Guide, 51.

36. Roberts, "The Round Hand," 183.

37. HBCA, B.223/b/39, MS, fols. 31-37.

38. Ibid., fols. 66d-69d.

39. Lowe, Private Journal, MS, 16.

40. Roberts, "The Round Hand," 115, 116, 117, 118, 119.

41. Fort Nisqually Indian Accounts, MS, vol. I.

42. Parker, Journal of an Exploring Tour, 160.

43. Wilkes, Narrative, IV, 332.

44. Beaver, Reports and Letters, 113-114, 123, 145.

45. Wilkes, Narrative, IV, 332.

46. HBCA, B.223/b/8, MS, fol. 11.

47. Wilkes, Narrative, V, 123.