

## **“Piute Forestry” vs. Forest Fire Prevention**

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Southwestern mining men and southwestern foresters have many common interests. The National Forests supply timber and water used by miners, while the mines are one of the important sources of prosperity in the National Forest communities. For this reason southwestern mining men may be interested in a new problem which now confronts the administrators of the forests, namely, the propaganda recently started by the Southern Pacific Railroad and certain timber interests in favor of "light-burning," or the so called "Piute Forestry."

"Light-burning" means the deliberate firing of Forests at frequent intervals in order to burn up and prevent the accumulation of litter and thus prevent the occurrence of serious conflagrations. This theory is called "Piute Forestry" for the alleged reason that the California Indians, in former days, deliberately "light-burned" the forests in order to protect them against serious fires.

Foresters generally are strenuously opposing the light-burning propaganda because they believe that the practice of this theory would not only fail to prevent serious fires but would ultimately destroy the productiveness of the forests on which western industries depend for their supply of timber.

The whole principle involved may be put in a nutshell by stating that under certain conditions mature forests are not killed outright by light-burning, and can be kept alive in spite of surface fires, provided, however, that no other actual drain is made upon their productive capacity. In other words, certain forests will withstand light-burning provided they do not have to withstand anything else. But this proviso is the very negation of the fundamental principle of forestry, namely, to make forests productive not only of a vegetative cover to clothe and protect our mountains, but also of the greatest possible amount of lumber, forage, and other forest products.

Forests can not be productive under light-burning because:

1. Light-burning destroys most of the seedling trees necessary to replace the old stand as it is removed for human use.
2. Light-burning gradually reduces the vitality and productiveness of the forage.
3. Light-burning destroys the humus in the soil necessary for rapid tree growth, (that is, rapid lumber production, and germination of the seed.)
4. Light-burning, by inflicting scars, abnormally increases the rots which destroy the lumber, and increases the resin which depreciates lumber grades and intensifies subsequent fires.
5. Light-burning, in most cases at least, increases the destructive effects of wood-boring insects.

In other words, you can maintain some forests under light-burning, but you can not maintain them efficiently. The light-burning fallacy ought to be of particular interest to the mining industry for the reason that it would destroy future timber supplies in an attempt to preserve present standing timber. The mines of the Southwest are not going to be exhausted during the present generation, and they are going to need timber in the future as well as at present. The heavy cost of importing this timber from distant sources is already known to most mining men. The mining industry would therefore suffer an economic

handicap of no mean proportions were the future productiveness of our mountain timberlands seriously jeopardized.

The Forest Service policy of absolutely preventing forest fires insofar as humanly possible is directly threatened by the light-burning propaganda. It is up to the public and especially the users of the forests to decide whether they wish that policy continued or whether they wish to try "Piute Forestry." If the public desires the continuance of forest fire prevention, now is the time to put the quietus on the agitation for light-burning.

It is, of course, absurd to assume that the Indians fired the forests with any idea of forest conservation in mind. As is well known to all old-timers, the Indian fired the forests with the deliberate intent of confusing and concentrating the game so as to make hunting easier. It appears to be a fact that when deer or other game animals smell a smoke they stand stupefied with their heads in the air until actually singed by the heat or flames. They then make a wild break in any direction and largely lose their usual caution and ability to escape their human enemies. A bunch of deer with their heads in the air waiting for a fire presented an easy mark, even to the Indian's bow and arrow, and it was this fact, and not any desire for fancied forest conservation, which caused the Indians to burn the forests.

The destructive effects of Piute Forestry can readily be seen in California and in many areas of the Southwest. It can be stated without hesitation that a large percentage of the chaparral or brush areas found in the Southwestern states were originally covered with valuable forests, but gradually reverted to brush after repeated light-burning had destroyed the reproduction. In fact, the remains of large old stumps and pitchy roots can be found in these brush areas in many places. It is probably a safe prediction to state that should light-burning continue for another fifty years, our existing forest areas would be further curtailed to a very considerable extent. It is also a known fact that the prevention of light-burning during the past ten years by National Forest administration has brought in growth on large areas where reproduction was hitherto largely lacking. Actual counts show that the 1919 seedling crop runs as high as 100,000 per acre, and in some cases 400,000 per acre. It does not require any very elaborate argument to show that these tiny trees, averaging only two inches high, would be completely destroyed by even a light ground fire.

It is an old saying that fire is a good servant but a poor master. It is the opinion of foresters generally that the light-burners who propose to make fire their servant will find that forest fires are not so easily subjugated. In fact, it would be in practice absolutely impossible to fire the Forests without destroying the young growth, not to mention the constant risk of the fire breaking out of bounds and destroying buildings, fences, and mature timber. Most light-burning propagandists undoubtedly know this already, but do not care whether the young growth is destroyed or not. Their investments are in mature timber, and the less young growth there is left in the country the greater their chance for speculative profits. But the public does care, because wholesale destruction of young growth means timber famine at some time in the future. To actually control light-burning would cost more than the entire present system of Forest administration (about three cents per acre per year, gross) of which fire prevention is but a fraction. Why pay such a price for the privilege of burning up our future timber supplies?