

WIPE OUT WEEDS



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SPECIES:

***Centaurea solstitialis* L. (yellow starthistle) & *Centaurea melitensis* (Malta starthistle)**

IMPACTS AND THREATS

Starthistle infestation in Arizona may be low at present. A single plant can produce up to 150,000 seeds in one year. Seeds begin to germinate in the fall, but can continue to germinate into the spring. Some seed is viable **8 days** after flower initiation. Seed can survive for 10 years, but most seeds survive 2-3 years. Dense infestations will displace native plants.

DESCRIPTION AND DIAGNOSTIC CHARACTERISTICS

Form: Yellow Starthistle is a 2 to 5 feet tall winter annual. It has a basal rosette of deeply lobed leaves. Upper leaves are linear, on ridged winged stems. The whole plant is covered in thin cottony fuzz. Seedlings sprout and form rosettes with the rain in the fall or spring, then flower in warm weather. In very cold weather the mature plant may lose its leaves and dry to a silvery-grey skeleton with white cottony seed-heads, resembling "Q-tips."

Flower/seed: Both malta and yellow starthistle flower are bright yellow with a distinctive spiny bud. Both have prominent spines radiating from the flower base, but the spines on yellow starthistle flowers are longer, stiff, and pointed like a cactus spine. Malta spines are shorter, less rigid, with three or four pairs of smaller spines at the base.

MANAGEMENT AND ERADICATION TECHNIQUES

Monitoring and spot eradication of plants when they are discovered can prevent the spread of starthistles. It is possible to substantially reduce the infestation with one year of control, but an established starthistle population will require a longer-term management program.

Management techniques can prevent seed production and control infestations. Mowing and other methods must be properly timed to be effective. Mowing is most effective when plants are cut below the height of the lowest branches and timed with when 2-5 % of the total population of seed heads is in bloom; mowing too early can result in higher seed production. All starthistles are highly susceptible to the herbicides clopyralid (late fall to early spring) and glyphosate (anytime when plants are not in drought stress). Prescribed burns can provide control if implemented after annual plants have dried, but before seed is produced. Burning at other times may enhance survival. To prevent re-infestation, vigilant monitoring and spot eradication may be required indefinitely.

Clockwise from top: *Centaurea solstitialis* L. (yellow starthistle); dried out starthistle plant at "Q-tip" stage; young starthistle plant; yellow starthistle; and yellow starthistle flower on left and Malta starthistle flower on right. Photos by John M. Randall, The Nature Conservancy.