



Starthistles

Centaurea solstitialis, *C. melitensis*

Centaurea solstitialis, yellow starthistle, and *C. melitensis*, malta starthistle, are deep-rooted, branching annuals up to about 25 inches tall. The winged branches carry thick leaves and are narrow and smooth-edged near the tip and lobed at the base. Yellow flowers are borne at the ends of stems in the spring.

Malta starthistle is distinguished by its covering of dense white hairs and its thistle-like seedpod armed with sharp barbs.

Distribution and habitat

The starthistles are introduced invaders. Yellow starthistle covers millions of acres in California and is spreading in Texas. Malta starthistle has already become disseminated through most of the state.

Starthistles grow in disturbed, otherwise bare areas and as weeds in cultivated fields. Malta regions: 1, 2, 3, 4, 5, 6, 7, 8, 10; yellow regions: 4, 5, 7.

Toxic agent

The starthistle toxin is thought to be a sesquiterpene lactone. Toxicity occurs in horses after ingestion of 50 to 150 percent of the animal's weight in green plant material over a period of 1 to 3 months. Horses usually consume the young plant in early spring

before stalk and spine growth. Yellow starthistle has been proven toxic to horses in experimental trials; malta starthistle is implicated only in case reports.

Livestock signs

Signs of poisoning in horses are attributed to brain damage and may include:

- Drowsiness
- Tongue flicking, lip twitching due to one-sided paralysis
- Chewing movements
- Difficulty eating and drinking
- Aimless walking

Integrated management strategies

Maintaining good range condition and sound supplemental protein and mineral feeding programs will help prevent poisoning. Even though malta starthistle is widespread across Texas and the southwest, there are few poisoning cases.

The greatest concern is probably the continuing spread of the more toxic yellow starthistle as a future problem in Texas. In areas of extreme infestations, chemical control strategies may be warranted.

Neither yellow nor malta starthistle is difficult to control with herbicides. Use general broadleaf weed compounds such as 2,4-D or

Grazon P+D®. Apply in the spring when there are 4 to 6 inches of growth and good growing conditions.



↖ Malta plant

Yellow plant ↗

Malta flower ↘

↙ Yellow flower

