Following a short discussion at the Aug. HOA meeting on the subject of Yellow Starthistle, I offered to consolidate some information that I have reviewed on the subject. To start with, there are two good references that offer an excellent introduction as well as detailed research data on Yellow Starthistle.

The most recent that I have reviewed is a Publication # 21541 titled "Yellow Starthistle Biology and Control" from the University of Calif., Communications Services, Division of Agriculture and National Resources, 6701 San Pablo Ave, Oakland, Ca. 94608---Tel (800) 994-8849---Fax (510) 643-5470---E-mail anrpubs@davis.edu.

The most complete and detailed is a review of several studies compiled by the Sierra Foothill Research & Extension Center titled "Starthistle Control", University of Calif. Cooperative Extension, Sutter / Yuba counties, 142A Garden Hwy, Yuba City, Ca. 95911---(530) 822-7515.

It is best to think of controlling this pest rather than eradication, which requires the elimination of all seed production and depleting the existing seed reservoir that has accumulated from previous years. Complete eradication is difficult to achieve, and usually impractical, but a control program can result in large reductions if all seed production is stopped. Control methods that have been studied are; cultivation, mowing, insect (biological), grazing (live-stock), plant competition, prescribed burns, herbicides, and manual. The two that I can address from experience are mowing and herbicides.

MOWING

Success depends on both plant form (structure) and timing. Erect, high branching (lowest branch 3" to 4" above ground) plants are effectively controlled by a single mowing at the early flowering (2%-5% flower), while sprawling low branching plants are not satisfactorily controlled even with multiple mowing. To be effective, mowing must cut below the lowest branch of the main stem. If you can’t cut close enough with a mower, use a weed-eater and cut as close to the ground as possible. Mowing is effective provided it is well timed (mid May through June) with < 5% flower heads. Follow-up mowing may be necessary and should be done once flowering resumes, approximately four weeks later.

HERBICIDES

Post-emergence herbicides generally work best during seedling and rosette stages (Mar & Apr) when temperatures are warm and soil moisture is high. Dodging rain this time of year can be difficult, but you will need 3-4 days dry for best results. Large areas can be treated with 0.5 pounds of active Glyphosate ingredient per acre. NOTE--This is a short life (2-3 day) non-specific/selective weed killer. It will affect most plants it contacts. For the best treatment of small patches, use Glyphosate as Round-up Pro applied in a 1-2% solution at the later stages of growth (Jul-Aug) before seed maturation occurs. Very large plants may survive Round-Up. The next step would then be Clopyralid (Transline) which is a growth regulator herbicide registered for use in non-crop areas, including pastures and range-land. It does not injure grasses and most broadleafs. It is hard on legumes, burclover and vetches unless applied during their dormant stages----usually not a problem. It can provide excellent control from Dec through
April @ 1/4 pt/acre. However, under drought conditions, higher rates (up to 2/3 pt/acre) are necessary. For spot treatment, I use 1/4 cup/gal.

---Round-up Super Concentrate at 50% Glyphosate---Apply above 60F @ 1 to 2%, 5tbsls (2 1/2oz) /gal works well---Wet plants thoroughly kills to the roots which can be 2ft or longer. Available at Eisley Nursery and other local outlets. Mfg. by Monsanto Company, Lawn and Garden Products, P.O. Box 418, Marysville, Oh 43041. Information---(800) 246-7219---www roundup.com

---Transline (Clopyralid)---Apply when soil is wet & between rains. Use a non-ionic surfactant to increase efficiency, or, as noted above for spot treatment---Available @ Orchard Supply, 17th & R Sts, Sac.---(916) 446-7821---Mfg. by Dow Agroscience, LLC. Indianapolis, In. 46268

Submitted by Dennis Williams