

## **CONTROL OF YELLOW STARHISTLE WITH MOWING: EFFECTS OF TIMING, REPEATED CUTTINGS, AND GROWTH FORM**

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Yellow starthistle is the most widespread non-crop weed in California. When used properly, mowing can offer an economical and effective option for control. However, successful implementation depends upon proper timing and plant growth form. We examined the effects of one or two cuttings at the bolting, spiny, or early flowering stage on plants with either a high (>10 cm) or low (<10 cm) branching pattern. Experiments were conducted in Calaveras, Shasta, Butte, and Siskiyou counties in northern California. Experiments were established in areas where yellow starthistle plants were in competition with grasses. Plants competing with grasses developed a more erect growth form with few basal branches. Low branching plants were produced when plots with yellow starthistle in the rosette stage were mowed, thinned, and treated with a postemergence graminicide. The efficacy of mowing was determined by measuring seedhead production per unit area at the end of the season. In all cases, mowing was most effective when conducted at the early flowering stage. Repeated mowing at the bolting stage was ineffective for the control of yellow starthistle. Mowing once at early flowering was just as effective as mowing twice at the spiny stage. Mowing erect plants with a high branching pattern provided better control than mowing low branching plants at all comparative stages of development. When plants developed a low branching pattern, mowing was not effective, regardless of the timing or number of cuttings.