

Understanding General Forage Weed Control

Weeds

Weeds are adaptable, rank, unwanted colonizers that compete for water, nutrients, light and reduce overall forage quality. Forages, when managed properly, can generally out compete many common forage weeds. Factors that generally lead to poor competition from forages in a field include overgrazing, low pH, and nutrient deficiency.

Control Methods

There are three primary control methods of weeds: cultural, mechanical and chemical. In a specific situation regarding musk thistle, biological control is also a method.

Cultural Control – This method incorporates best management practices that promote plant competition from a healthy forage stand. This includes soil testing, maintaining adequate pH to support forage persistence and nutrient uptake, proper forage specie selection, proper establishment practices (seeding rates, dates, depth), maintaining adequate fertility through proper application rates and timing, and good harvest management through rotational grazing or quality haying practices.

Mechanical Control – This method refers to physical removal of weeds most often by, but not limited to, mowing. This method applied properly at the right timing in combination with other control methods, can help maintain forage competition and quality. When used alone, mowing often masks weed problems and with some weeds can compound the problem or reduce efficacy of cultural or chemical control.

Chemical Control – This method is the application of non-selective and/or selective herbicides to control and quickly shift the competitive advantage back toward the forage species. Several factors to consider before, during and after applying any herbicide in order to promote maximum efficacy with the greatest level of environmental stewardship. **This starts with good cultural control practices already in place, proper weed identification and READING THE HERBICIDE LABEL BEFORE USE and following pre harvest intervals!**

Chemical Application Methods

There should be a good understanding of the application methods outlined on the herbicide label. When the application method is applied through a sprayer system (handheld, boom or boomless), proper calibration is essential to insure proper labeled herbicide rate and adequate coverage of target weeds. The three general application methods include foliar broadcast or spot, basal bark, and cut stump.

Foliar applications target actively growing plants, in general, targeting leaves and stems. Since this application methods targets actively growing plant parts, when plants are under stress from dry conditions or recent mechanical control methods, or grazing, efficacy may be reduced. Foliar applications can be broadcast over a wide area to provide maximum coverage of large weed infestations or target a specific weed or small area through spot treatment. Also, follow label recommendations for adjuvants, which may be required to improve foliar coverage and uptake of herbicide.

Basal bark application targets the lower 12 to 18 inches of woody perennial weed species that have a trunk(s) less than 6 inches in diameter but too mature for foliar applications. If an herbicide is labeled for this application method, follow the label directions for proper timing, rates and basal oil carriers.

Cut stump applications directly target the freshly cut stump of woody perennial weed species. Plant cell walls seal quickly which reduces or stops herbicide uptake through the outer cambium layer of trunks, so timing of application should be within the hour of cutting. Follow the label directions for this application method.

The University of Missouri Extension publication IPM 1031 “Weed and Brush Control for Forages, Pastures, and Non-Cropland” is an excellent reference. This pictorial guide has full color photos of common annual, biennial and perennial weed species along with growth characteristics, control methods and efficacy ratings for specific herbicides. Order this book through MU Extension either at an extension office or on the extension website: <http://extension.missouri.edu/p/ipm1031>.