MISSISSIPPI STATE UNIVERSITY EXTENSION SERVICE

Spring Weed Control in Forage Crops

Volume 6, Issue 3

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March 2013

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Timing is everything when it comes to spring weed control. Weed control in pastures can be a very difficult challenge. Getting a handle on weeds early in the spring is the most cost and labor effective ways of dealing with persistent weed populations. Normally, the emergence and blooming of butter cups is an indication that temperature is increasing and creating the optimum for germination and emergence of different weeds species in pastures. This provides time for crabgrass germination and provides a window of several weeks to apply pre-emergent herbicide. Crabgrass germination actually occurs after the soil temperature has reached 55ºF for several consecutive days. To make your pastures more productive and reduce economic loses be ready to invest in spraying weeds.

Pre-emergent vs. post-emergence herbicide applications? Pre-emergence applications are made before weeds germinate and emerge. Understanding the life cycle of the targeted weed or weeds s important when using a pre-emergence herbicide. Post-emergence applications are made after the weeds emerge. The most effective and cost-efficient applications are made when the weeds have recently emerged and are small. For perennial weeds (re-growing from root storage organs), it is advisable to allow them to bloom (not to produce seed) before spraying, which allows sufficient leaf surface for coverage and ensures that the perennial is transporting nutrients back to the roots.

There are six components that are important in developing an effective weed control program:

1. ***Identify weeds that need to be controlled, their density and what desired species are in the pasture.*** It is important to begin by scouting pastures to identify all pre-existing problems. Using herbicides that might control a specific weed or groups of weeds sometimes might cause injury and stand losses to desirable species such as grasses or clover. If the weed density is low or is not limiting forage availability, then it does not meet the treatment threshold and treatment is not justified for production reasons. It is also important to remember that in many cases herbicides are necessary to maintain infestations below that threshold.
2. ***Calibrate and use proper spraying equipment.*** Equipment calibration is very important to make sure that recommend rates are applied. Using the proper equipment and spraying during conducive conditions such low winds will also will minimize drift of herbicides to sensitive crops (e.g. products containing 2,4-D drift into cotton and soybean).
3. ***Chose the proper herbicide and application rate.*** Chemical weed control can be a challenge because of its selective or nonselective means of controlling specific plant species. Because the herbicides recommended for broadleaf weed control in pastures will also kill legumes, they should not be used as broadcast treatments if legumes are present in the pasture. Also, keep in mind that some herbicides might have longer soil residual effect and can affect replanting/renovation of desired forages species. Consult the weed control guidelines for specific planting restrictions after herbicide applications.
   It is important to compare generic chemical names vs. name brand products to make sure that they have the same active ingredients and offer the same efficacy. Usually name brand products might be more expensive but they might be backed up by the company and they might help with technical assistance to troubleshoot efficacy issues if the desired weed control is not achieved.
4. ***Control weeds early in the season.*** The best time to spray weeds is when they are less than six inches tall to be cost-effective. As plant mature, the herbicide efficacy might decrease which translate in higher herbicide applications and higher cost per acre. Lower than recommended application rates will not provide consistent weed control, while excessive application rates may cause injury to the forage. Timing of the herbicide application is critical because you **must eliminate the seed production,** which will prevent future re-infestations.
5. ***Pay close attention to grazing restrictions.*** Most herbicides have grazing restriction for hay production and also for grazing depending on the type of livestock (dairy vs. meat animals and/or lactating vs. non-lactating). Restrictions vary among herbicide products and it is recommended to check product label for specific restrictions.

6. ***Avoid overgrazing the pastures.*** Part of a good herbicide program is to utilize proper grazing management strategies to main the desired forage species more competitive and productive. This will prevent weed from establishing and utilizing resources (water and fertilizer). Controlled grazing allows beneficial plants to become strong, productive plants and out-compete the weeds.

Many producers see spraying weeds as an expense, but it should actually be looked as an investment because it will help to have better nutrient utilization by the desired species which translate in better forage production, which could translate in better hay production and improved livestock production. When designing a strategy for effective weed control it is important to account for all the factors including weed species and growth stage, weed density, soil fertility, pH, forage type, stocking rate or forage requirements, and proximity to sensitive crops. Remember that healthy pastures mean healthy livestock. For more information related to weed control in pastures contact your local County Extension Office or refer to the 2013 Mississippi Weed Control Guidelines (http://msucares.com/pubs/publications/p1532.pdf).

Selected Common Broadleaf Weeds in Mississippi Pastures

Bull Thistle

Strawberry

Horsenettle

Woolly Croton

Cucklebur

Milkweed

Horseweed

Henbit

Dandelion