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Managing Pasture Weeds

Introduction:

Weeds are the most common pests of pastures. Weeds can invade pastures resulting in a reduction of pasture quality and quantity. Some weeds can be poisonous to livestock and, under certain circumstances, can result in animal sickness or death. Several weeds have good nutritional value, however when compared with pasture grasses and other desirable forages weeds have low recovery potential after summer stress and wear, are low in productivity, and do not provide winter cover. Weeds are strong competitors and can cause pasture renovation and establishment projects to fail.

Pasture Scouting:

The best defense against weeds in a pasture is a dense, healthy sward of desirable pasture species.

The first step in the development of a pasture weed management program is to scout and identify all weed species in a pasture. Scouting of pastures and areas adjacent to pastures should be conducted on a regular basis. Pasture managers should get into the habit of scouting for weeds every time they are in the pasture. At a minimum, scouting should be done monthly during the growing season. Special attention should be given to those weeds that might be new in a pasture or those that are potentially toxic. All weeds should be correctly identified and recorded. The life cycle of each weed should also be determined and recorded. Regular scouting and accurate weed identification enables a pasture manager to plan and implement appropriate management strategies and evaluate the long-term effectiveness of those strategies.

Cultural Practices:

Pasture managers should adopt an integrated approach when attempting to manage pasture weeds and improve the quality of pasture available for grazing.

The best defense against weeds in a pasture is a dense, healthy sward of desirable pasture species. The growth habit and vigor of many pasture grasses and forage species make them well-suited to compete effectively with many weeds. In order for pasture species to reach their peak competitive advantage against weeds certain requirements need to be meet. Soil fertility including soil pH should be corrected based on the soil test to insure pasture growth and productivity. Grazing frequency and intensity is another critical factor in the ability of pasture species to remain competitive against weeds. The amount of forage available can vary greatly and is affected by many factors including pasture species and vigor, pasture age, soil and environmental conditions and number of livestock being grazed. While horses are closer grazers than sheep, goats or dairy and beef cattle, if the frequency and intensity of grazing in not managed properly all animals have the potential to overgraze a specific pasture and increase the likelihood of weed infestations.

The presence of summer or winter annual weeds in a pasture is a good indication the pasture is being over-grazed. Summer annual weeds might include smartweed, crabgrass, pigweed, common lambsquarters, yellow or giant foxtail and common ragweed. Winter annual weeds may include common chickweed, henbit, shepardspurse and annual bluegrass. When annual weeds occur in pastures, mowing can be an effective strategy to prevent these weeds from setting seed. The potential for over-grazing should be decreased through the development and use of a rotational grazing program in conjunction with correct animal to pasture ratios. Pastures that are under-grazed may also become weed infested. Lax grazing allows animals to be selective and often means

over-grazing the more palatable species and opening up the pasture for less palatable weeds. Managing the pasture so that it is grazed evenly helps to eliminate the animal's ability to be selective in grazing. The use of a rotational grazing program, where pastures are permanently or temporary subdivided, can be used to adjust the size of the area provided for grazing.

Neglect, poor cultural practices, and over- and under-grazing can cause a pasture to become infested with weeds. In some instances, weeds may increase to a point where they comprise more than half of the vegetation in a pasture. At this time a pasture manager should consider renovating the pasture. Pasture renovation, while somewhat costly and time consuming, can be an effective solution to many weed problems and in the long run result in a significant increase in the quality and quantity of pasture available for grazing. Prior to seeding, the pasture should be treated with glyphosate to control existing weeds especially those perennials which have the ability to propagate vegetatively. Products that contain glyphosate alone should be used. Renovation is best conducted in late summer through early fall. Proper selection of pasture species and cultivars is a critical step in pasture renovation. Pasture species and cultivars that are best adapted to the type of grazing and site conditions will provide the best weed control.

Herbicide Applications:

Pasture managers who routinely monitor their pasture and take the necessary action can prevent and reduce the chances that a pasture will become heavily infested with weeds. Although management plans that make the necessary adjustments in pasture species and cultivars, grazing habits and soil fertility can significantly reduce weeds in a pasture, pasture managers will from time to time need to consider and apply an herbicide. Herbicide applications are most commonly needed to control broadleaf, perennial weeds. Postemergent broadleaf herbicides for pastures selectively remove broadleaf weeds and do not injure or kill pasture grasses. These products may be a single herbicide or a combination of two and sometimes three different herbicides. The best time to apply these products is late summer and early fall, however any time in the growing season can be effective as long as the pasture species and weeds are not under moisture stress. Read and follow the product label. Some products have grazing restrictions and animals must be removed from treated area for a specific amount of time. These grazing restriction periods may range from as little as "no restriction" to as much as the "next growing season" if lactating animals are to be grazed in treated areas. Many pasture managers find it easier and more economical to hire a custom application company to make herbicide applications to their pastures.

Summary:

On a final note, pasture managers should adopt an integrated approach when attempting to manage pasture weeds and improve the quality of pasture available for grazing. All strategies and practices that have the potential to decrease weed growth in a pasture should be included in a weed management program. There is little, if any, agronomic or economic benefit in attempting to control weeds with herbicides if problems related to the frequency and intensity of grazing, poor soil fertility, and poorly adapted pasture species are not corrected beforehand.

For more information visit www.umass.edu/cdl

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This publication has been funded in part by Mass. Dept. of Agricultural Resources in a grant to the Massachusetts Farm Bureau Federation, Inc. and by Mass. Dept. of Environmental Protection, s319 Program.