Forage News
Clover GRASS
MISSISSIPPI STATE UNIVERSITY EXTENSION
Center for Forage Management and Environmental Stewardship

New Herbicide Technologies for Hay and Pasture Systems

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Rocky Lemus
Extension Forage Specialist

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Weeds can impact the stand of perennial warm-season pasture and hay fields by delaying spring green-up and reducing early yield potential. Several cool-season annual weeds impact hay production systems such as annual ryegrass, buttercup (Yellowtop), wild-barley, henbit, Carolina geranium among others. These weeds can also affect the aesthetic of hay fields. The way a hayfield is managed can also have an impact on the weed species and population. Therefore, production practices that result in low fertility (low pH and nutrient levels), cutting at the wrong stage of maturity, not allowing seeds to become well-established in newly established fields can have a major impact on the presence of weedy species and their competition.

To effectively control weeds in pastures and hayfields, herbicides can be a good management tool when used properly and when cost-effective. In the last year, several new pre-and post-emerge herbicides have been introduced in the pasture and range market as potential management strategies. Herbicide selection should be based on the type of forage and weed species that are present in the pasture or hayfield and the herbicide treatments should be based on factors such stage and severity of the weed population, residual control (soil type), the intended use of the forage (pasture vs. hay), the time of the year, environmental conditions (temperature and rainfall), potential forage crop injury, cost of treatment, and haying, grazing (feeding), and plant-back restrictions. Before using a herbicide, always consult the label for the intended use of a herbicide product.

Rezilon™ (Indaziflam) is a pre-emergence (should be applied well before expected weed germination) herbicide that can be applied in the fall or early spring to bahiagrass or bermudagrass hay fields to control some annual broadleaf weeds and grasses. Some of the target weeds include buttercup, annual ryegrass, goosegrass, annual foxtail, and little barley. Rexilon is an herbicide that requires activation by rainfall under amounts ranging from 0.25 to 0.5 inches. This product can be applied at a rate of 3 to 5 oz per acre and to exceed more than 6 oz per acre per year. When this product is applied at a rate greater than 3 oz per acre, there is a 40-day hay cutting restriction. There are no grazing restrictions associated with this herbicide. A fall application is recommended to control late fall and early winter weeds while a late winter application is recommended for year-round annual grass control. There is a two-year planting back restriction for perennial grasses (including sprigged bermdagrss), annual grasses, and legumes in areas treated with Rezilon. This is due to that this herbicide can stay on the soil surface for an extended period with no degradation from sunlight while waiting for rainfall for activation. The cost of the product ranges from $7 to $9 per oz of product.

DuraCor™ [aminopyralid + Florpyrauxifen-benzyl (Rinskor)] is a non-restricted post-emergence herbicide that can provide control to over 140 weeds. Some of these weeds include thistle, ragweed, pigweed, wild carrot, ironweed, woolly croton, cocklebur, curly duck, henbit, horsenettle, and plantain, etc. It can be used in permanent grassland systems (annual and perennial grasses grown for grazing or hay) and in Conservation Reserve Program (CRP) acres. Application rates range from 12 to 12 oz per acre plus nonionic surfactant (NIS) at 0.25% v/v or methylated seed oil (MSO) at 1% v/v. Use a minimum application volume of 10 gallons of water per acre. This herbicide can be mixed with liquid fertilizer (even at low temperatures) or impregnated dry fertilizer. Cool-season annual grasses such as tall fescue and annual ryegrass can be reseeded in an area treated with Duracor after a minimum of 15 days following an application of 12 oz per acre. Annual warm-season grasses such as teff grass, crabgrass, sorghum-Sudan hybrids, and pearl millet can be seeded after a minimum of 30 days following a Duracor application of 12 oz per acre. If application rates greater than 12 oz per acre are used, then there is a 45-day planting back restriction. In a seeded field, tall fescue and annual ryegrass are tolerant of 12 fl oz per acre of DuraCor once plants have developed 3 collared leaves. Do not plant forage legumes until a soil bioassay has been conducted. There are no grazing restrictions associated with this product. There is a 14-day haying restriction to allow for maximum herbicide activity. The cost per acre is comparable to the application of GrazonNext HL at the rate of 24 oz per acre.

MezaVue™ (Aminopyralid + Picloram + Fluroxypyr) is a non-restricted post-emergence herbicide that can provide weed control in permanent grassland systems (annual and perennial grasses grown for grazing or hay) and in Conservation Reserve Program (CRP) acres. Some relevant weeds controlled by this product include pigweed, buttercup, cocklebur, dogfennel, hemp dogbane, horsenettle, marestail, kudzu, thistle, etc. Established grasses are tolerant of this product. Application rates range from 18 to 32 oz per acre plus NIS at 0.25% v/v in 10 gallons of water per acre. Broadcasting application rates should not exceed 32 oz per acre per year. Many woody species are susceptible to MezaVue, therefore do not apply MezaVue within the area occupied by roots of desirable trees, unless such injury can be tolerated. Areas treated with this product cannot be reseeded for a minimum of three weeks after application. After grass germination, do not apply MezaVue until after 4 true leaves have emerged and the secondary root system is well-developed. Do not apply this product to sprigged bermudagrass until runners (stolons) have reached at least 6 inches long. Do not plant forage legumes for a minimum of one year after the application of this product and following a soil bioassay has been conducted to determine if aminopyralid and/or picloram concentration remaining in the soil. There is a 14-day grazing restriction for lactating dairy animals and there are no grazing restrictions for non-lactating dairy animals or other livestock (horses, sheep, and goats). There is a 7-day haying restriction associated with this product.

ProClova™
HERBICIDE

ProClova™ is a new herbicide technology that was submitted to EPA for registration and might be available in the US in late 2021 or early 2022. This product will be recommended for controlling broadleaf weeds in pastures with legumes such as white clover and annual lespedeza. The expected application rate might range from 24 to 48 oz per acre plus MSO at 1% v/v. Some of the target weeds include thistles, buttercup, woolly croton, henbit, ironweed, marestail (horseweed), plantain, etc. The herbicide will have no extended residual activity and a short plant back interval of 15 days for pastures and native plantings. Preliminary observations on the application of ProClova to white clover have indicated leaf yellowing and lodging lasting for two to three weeks and showing full white clover recovery after four weeks. It is recommended to graze the areas before herbicide applications to reduce contact with white clover. It is anticipated not to have grazing restrictions for any type of livestock and minimum haying restrictions.

Weed control is vital to increasing forage yields, grazing efficiency, extending the grazing season, improving nutrient use efficiency, improving nutritive value, and reducing production costs. Remember that the return in an herbicide application will depend on effective use of the product by correctly identifying your target weed and select the appropriate herbicide, following label directions, applying the recommended rate, improving application timing to have a broader control spectrum, and paying attention to grazing and haying restriction. ***Always READ THE LABEL!***

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Upcoming Events

May 6, 2021—Northeast Mississippi Beef Cattle Field Day, 9:00 AM-1:00 PM
Hilliard Farms – 3510 Subertown Rd., Ecru, MS

For upcoming forage related events visit: ***http://forages.pss.msstate.edu/events.html***

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