

Louisiana Field Crops IPM



Information for Identifying and Controlling Diseases, Insects and Weeds

Layby Weed Control in Sugarcane

Layby herbicides for sugarcane are applied broadcast and directed underneath the sugarcane canopy, usually following the last cultivation (Figures 1 and 2). It is necessary that the lower canopy be contacted by the spray solution to ensure weed control both in the sugarcane drill and in the row middle. If weeds are present, nonionic surfactant at 1 to 2 quarts per 100 gallons of solution or crop oil concentrate at 2 to 4 quarts per 100 gallons should be added to the spray solution for herbicides with postemergence activity.

Layby is an important time to control itchgrass (Raouigrass), seedling johnsongrass, browntop millet and other annual grasses. Preemergence herbicide options for controlling grasses include the herbicides Pendimethalin/Prowl H₂O/others and Treflan/Trifluralin/others. Due to the rapid decomposition of Pendimethalin/Prowl H₂O/others by sunlight, rainfall of a half-inch is required within seven to 10 days of application. Treflan/Trifluralin/others is subject to volatility and must be incorporated within 24 hours after application. Since row middles are worked at layby, some growers prefer to incorporate a trifluralin product at the same time. This is an economical treatment and incorporation helps to ensure the herbicide is in the soil when weed seeds begin to germinate.



Figure 1. Broadcast application of herbicide in May at layby using two nozzles per row middle.

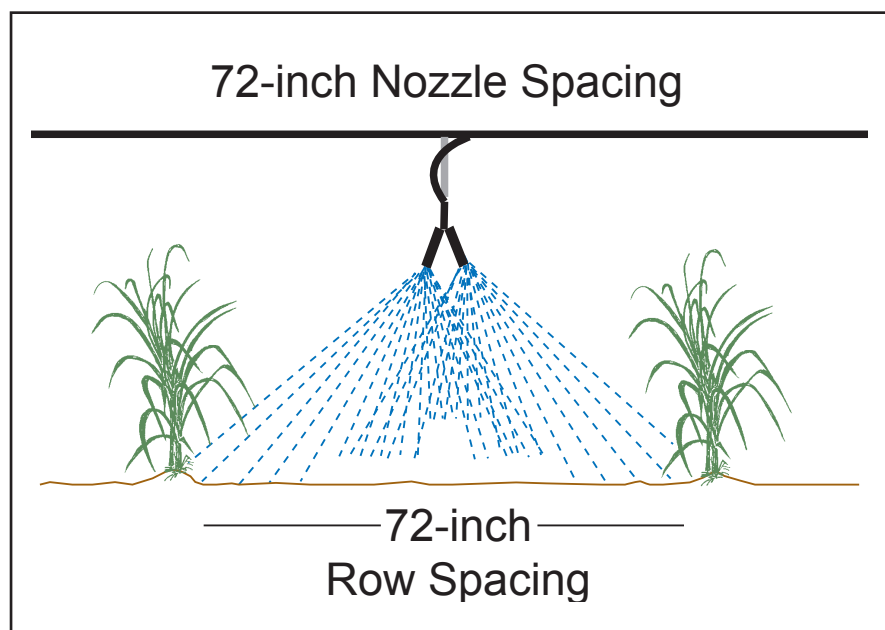


Figure 2. Broadcast application of herbicide at layby.

TriCor/Dimetric/Metribuzin/others is an effective preemergence option for controlling seedling johnsongrass and annual grasses other than itchgrass and browntop millet, and it also will control many broadleaf weeds, including morningglories.

Although several species of morningglories (tie-vines) can be found in sugarcane, the most predominate species is red morningglory (*Ipomoea coc-cinea* L.). Red morningglory is capable of germinating in 90 percent shade and can thrive under the sugarcane canopy. Soil-applied herbicides that provide long residual control are needed to prevent red morningglory emergence later in the growing season.

Since there can be at least four months between the last cultivation and harvest, growers may

choose to apply a grass herbicide at the layby cultivation and delay application of herbicides for morningglory control until after a rain has settled the soil. This action would extend the weed control period later into the growing season. Preemergence herbicide options for morningglory control include Atrazine/others, Callisto plus Atrazine, Diruon/Direx/others, Metribuzin/others and Valor SX. These herbicides will provide morningglory control for approximately 35 days. Authority MTZ and Spartan will control morningglory up to 70 days. Caution must be taken to ensure that Diuron/Direx/others, Valor SX, Authority MTZ and Spartan are not applied to the whorl of sugarcane, where injury to new shoots and leaves can occur.

Table 1. Preemergence Herbicide Control Options for Morningglories at Layby.		
Active Ingredient	Trade/Brand Formulation	Broadcast Rate
Atrazine	AAtrex/Atrazine/others 4L	2-4 quarts per acre
	Aatrex/Atrazine/others 90DF	2.2-4.4 pounds per acre
Sulfentrazone plus Metribuzin	Authority MTZ 45DF	16-33 ounces per acre
Mesotrione plus Atrazine	Callisto 4L + Atrazine/others 4L	3 ounces plus 2 quarts per acre
Diuron	Diuron/Direx/others 4L	2.4-3 quarts per acre
	Diuron/Direx/others 80DF	3.0-3.8 pounds per acre
Metribuzin	TriCor/Dimetric/others 75DF	2.0-4.0 pounds per acre
Pendimethalin	Pendimethalin/Prowl/others 3.3EC	2.4-3.6 quarts per acre
	Prowl H2O 3.8CS	2.1-3.1 quarts per acre
Sulfentrazone	Spartan 4F	6.0-8.0 ounces per acre
Trifluralin	Treflan/Trifluralin/others 4L	1-2 quarts per acre
Flumioxazin	Valor SX 5IWDG	3.0-8.0 ounces per acre

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