

Rhizome Johnsongrass Control in Sugarcane



Figure 1. Seedling johnsongrass.

Johnsongrass (*Sorghum halepense* L.), a troublesome weed in sugarcane (Figure 1), reproduces from both seeds (Figure 2) and underground rhizomes (Figure 3).

Although rhizome johnsongrass can emerge in late winter/early spring and be actively growing in March, johnsongrass seeds do not germinate until later when the soil temperature is around 65 degrees Fahrenheit. That means soil-applied preemergence herbicides Prowl/Prowl H2O/others, metribuzin/others, Velpar/Velossa and Command are active on seedling johnsongrass but do not control rhizome johnsongrass.



Figure 2. Johnsongrass seed head.

For rhizome johnsongrass control, Asulox/Asulam should be applied broadcast at 4 quarts per acre (2 quarts per acre for 36-inch band and 72-inch row) or at 2 quarts per acre (1 quart per acre banded) when in combination with Envoke at 0.3 ounces per acre (0.15 ounces per acre banded). Johnsongrass control is more consistent when Asulox/Asulam is applied with Envoke than with Asulox/Asulam applied alone. To avoid a decrease in weed control, do not cultivate, fertilize or otherwise disturb the johnsongrass root system for seven days before or after herbicide application.

If johnsongrass is purple (Figure 4) from stress due to cool weather, herbicide application should be delayed until plants green up. Average air temperature should be at least 60 degrees Fahrenheit and johnsongrass 12 to 18 inches tall and actively growing when herbicide is applied. Nonionic surfactant at 1 to 2 quarts per 100 gallons of water or crop oil concentrate at 1 gallon per 100 gallons of water should be added to the spray solution, and broadcast spray volume should be 15 to 30 gallons of water per acre (7.5 to 15 gallons per acre for 36-inch band). Spray coverage of johnsongrass foliage is critical, and for best results, spray nozzles should be mounted on drops with spray solution directed into the top and sides of the crop canopy.



Figure 3. Below ground vegetative rhizome-producing johnsongrass shoots.



Figure 4. Rhizome johnsongrass in mid-March that is stressed due to cool weather.

Asulox/Asulam plus Envoke also will control itchgrass, other annual grasses, morningglory and nutsedge. Prowl/Prowl H2O/others, metribuzin/others or atrazine/others also can be applied with Asulox/Asulam and Envoke to provide residual weed control without negatively affecting johnsongrass control. Weeds treated with Asulox/Asulam plus Envoke may turn yellow, red or purple after several days, and three to four weeks may be needed for control (Figure 5). Sugarcane may exhibit yellowing and white banding on leaves present in the whorl at herbicide application (Figure 6).



Figure 5. Johnsongrass treated with Asulox and Envoke.



Figure 6. White banding of sugarcane leaves due to Envoke herbicide.

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