

Plantback Restrictions for Herbicides Used in South Florida Sugarcane¹

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Although sugarcane is a relatively competitive crop, weed pressure can have a negative impact on yields. Consequently, most fields are treated with herbicides one or more times during the growing season. Regardless of whether an herbicide is primarily a pre- or postemergence product, some have the potential to persist in the soil for long periods of time. Ideally, herbicide applications would provide long-term weed control during the growing season, but would dissipate to a safe level before the next crop is planted. In some situations, herbicides that persist in the soil for long periods of time can injure subsequently planted crops or these crops can accumulate injurious herbicide residues. The potential for rotational crop injury depends on complex interactions among herbicide characteristics, soil type, soil moisture and temperature, and the sensitivity of the rotational crops. Herbicides that persist in the soil usually have a section on the product label detailing specific rotational crop (plantback) restrictions. These restrictions indicate how much time must pass between herbicide application and the planting of a sensitive crop. The rotational crop restrictions on herbicide labels take

into account basic chemical properties of the herbicide, the persistence of the herbicide, typical environmental characteristics of the state or region, and the sensitivity of rotational crops.

This publication condenses rotational crop restrictions for herbicides registered for use in Florida sugarcane (Table 1). When considering the application of herbicides, it is very important to understand the effects that a persistent herbicide may have on subsequent crops. Information on herbicide labels can be used to make better decisions about the crop sequence in a rotation, about which herbicides to use or avoid in a system, and about the rate and timing of herbicide applications. When planning weed control programs, the labels for all herbicides that will potentially be used in crop rotation should be studied along with this bulletin to prevent label violations, reduce economic losses due to herbicide carryover and avoid injurious herbicide residues.

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The use of trade names in this publication is solely for the purpose of providing specific information. UF/IFAS does not guarantee or warranty the products named, and references to them in this publication does not signify our approval to the exclusion of other products of suitable composition. All chemicals should be used in accordance with directions on the manufacturer's label.

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Table 1. Minimum number of months following application of herbic-des registered for use in sugarcane before it is safe to plant selected rotational crops.

Herbicide		Rotational Crops													
Common Name	Trade Names*	Celery	Cilantro	Chinese Cabbage	Corn, Field	Corn, Sweet	Lettuce ¹	Melon	Parsley	Pepper	Radish	Rice	Snap beans	Spinach	St. Augustine Sod
Months After Application Before Planting															
2,4-D acid	Unison	1	1	1	0 ²	0 ²	1	1	1	1	1	0 ²	1	0 ²	0 ²
2,4-D amine	Several	NCS ³	NCS ³	NCS ³	7/14D ⁴	7/14D ⁴	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³
2,4-D/Dicamba	Brash, Weedmaster	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Ametryn	Evik	9	9	9	4	4	9	11	9	11	9	4	9	9	11
Asulam	Asulox, Asulox XP, Asulam (several)	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³	NCS ³
Atrazine	Aatrex 4L, Aatrex Nine-O, Atrazine (several)	12	12	12	12	12	12	12	12	12	12	9	12	12	12
Clomazone	Command 3ME	12	12	12	9	9	12	12	12	9	12	9	9	12	12
Dicamba	Banvel, Clarity, several	4 ⁵	4 ⁵	4 ⁵	4 ⁶	4 ⁵	4 ⁵	4 ⁵	4 ⁵	4 ⁵	4 ⁵	4 ⁵	4 ⁵	4 ⁵	4 ⁵
Diuron	Direx 4L, Karmex DF, Karmex XP, several	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Hexazinone	Velpar L, Velpar DF	24	24	24	24	24	24	24	24	24	24	24	24	24	24
Flumioxazin	Valor SX	18 ⁵	18 ⁶	18 ⁶	9	18 ⁶	18 ⁵	18 ⁶	18 ⁶	18 ⁶	18 ⁶	9	18 ⁶	18 ⁶	18 ⁶
Halosulfuron	Sandea	36	36	36	1	3	3 ⁷ or 18	2	36	4	3 ⁷ or 12	2	2	24	36
Halosulfuron/ Dicamba	Yukon	36	36	36	1	3	3 ⁷ or 18	9	36	10	3 ⁷ or 12	2	9	24	36
Mesotrione	Callisto	18	18	18	0	0	18	18	18	18	18	18	18	18	18
Metribuzin	Metri DF, Sencor, several	12	12	12	4	12	12	12	12	12	18	8	12	12	12

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		Months After Application Before Planting													
Paraquat	Gramoxone Max, Gramoxone Inteon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pendimethalin	Prowl H20, several	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Trifluralin	Treflan, several	5	5	5	5	5	5	5	5	5	5	5	5	12-14 ⁸	5
Trifloxysulfuron	Envoke ⁹	9-12 ⁶	9-12 ⁶	9-12 ⁶	7-12	7-12	12 ⁶	18 ⁶	9-12 ⁶	18 ⁶	9-12 ⁶	7-9	7-9 ⁶	9-12 ⁶	9-12 ⁶

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¹Lettuce includes iceberg, leaf types, endive, and escarole.

²Labeled crops may be planted within 29 days following application; however, under cold soil temperatures and/or excessively wet or dry conditions the possibility of crop injury exists (particularly in the first 14 days).

³Plantback restriction not specified in the label. NCS = next cropping season plantback.

⁴Planting must be delayed for a minimum of 7 to 14 days at use rate of 1 or less to greater than 1 pints per acre, respectively.

⁵Banvel label: no crop rotation restrictions exist if normal harvest of the treated crop has occurred.

⁶Successful soil/field bioassay must be performed prior to planting any of these crops.

⁷Can be planted 3 months after application on muck soils only.

⁸Should not be planted for 12 months after a spring application or 14 months after a fall application.

⁹Rotational interval dependent on the rate of Envoke applied per season. See the label for rate and corresponding interval required for each crop.