

Replanting Corn: How To Control Corn Plants From The Initial Planting

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Certain areas of Illinois received excessive precipitation over the Memorial Day weekend, and it appears likely that some corn replanting will occur when field conditions improve. Losses of the initial corn stand will likely range from complete to partial, so farmers may need to implement practices to control any re-

includes an interval that must elapse between application and rotation to or replanting with grass crops, such as corn. These intervals range in days from 30 (Poast, Poast Plus, Select) to 60 (Fusion, Fusilade) to as many as 120 (Assure II), making these products unlikely choices for this particular use.

We have evaluated several different herbicides

Table 1. Control of a first-planting corn stand as influenced by herbicide treatment and corn growth stage.

Treatment	Rate	% control ^a	
		V1 at time of application	V2-V3 at time of application
Liberty	32 fl oz	50	75
Gramoxone Inteon	2.25 pt	27	48
Gramoxone Inteon	2.50 pt	— ^b	40
Gramoxone Inteon + Sensor	2.25 pt + 3 oz	65	—
Gramoxone Inteon + Sensor	2.50 pt + 3 oz	—	70
Balance Pro + atrazine	3 fl oz + 1 lb	—	25
SelectMax	1 fl oz	12	33
SelectMax	2 fl oz	58	68
SelectMax	3 fl oz	—	75
SelectMax	4 fl oz	95	94

Data averaged over experiments conducted in 2006 and 2007.

^aControl ratings taken 14 days after herbicide application.

^bNot all treatments were applied at each corn growth stage.

maining corn plants before replanting. What options are available to control emerged corn from a first planting?

Tillage can effectively remove corn plants remaining from the first planting, regardless of their herbicide sensitivity or resistance characteristics. This option introduces very little risk of injury to the replanted corn, unlike some herbicide alternatives described in the following paragraphs. Tillage also can effectively control any weeds that might have emerged in the first planting, providing weed-free conditions into which to replant. However, for myriad reasons farmers may not want to disturb the soil prior to replanting and thus look to herbicide alternatives. If herbicides will be used, they should be applied before the fields are replanted.

Glyphosate is very effective at controlling existing stands of (sensitive) corn. There is no waiting interval between application and replanting specified on the label, but overall control may be improved if at least 24 hours elapses between application and replanting. Glyphosate would also control most emerged weeds, allowing replanting into weed-free conditions. However, glyphosate obviously would not control existing stands of glyphosate-resistant corn (or any glyphosate-resistant weeds that might already have emerged), so alternative herbicides would be required.

Poast, Poast Plus, Fusion, Fusilade, Select, and Assure II are effective for controlling volunteer corn (including volunteer glyphosate-resistant corn) in soybean, but each product label

or herbicide combinations for control of an existing stand of corn. Some results from this research, conducted in 2006 and 2007, are summarized in Table 1. Treatments that included glufosinate, paraquat, or isoxaflutole often appeared to be providing good control at 7 days after application, but corn frequently recovered by the evaluation 14 days after application.

SelectMax has a supplemental label for control of an existing stand of glyphosate-resistant corn prior to replanting field corn. The label allows applications of 6 fluid ounces per acre for control of glyphosate-resistant field corn up to 12 inches tall. We have limited research experience with this particular rate of SelectMax, but we have observed good to excellent control of corn with a 4-ounce rate of SelectMax. Applications should include NIS and AMS (do not use a COC or MSO in this particular use), and care must be taken to avoid in-field overlaps, or excessive injury to the replanted corn may occur. Do not replant fields treated in this way sooner than 6 days after application. Previous research has shown that clethodim, the active ingredient in SelectMax, has some soil persistence and can cause significant damage to corn when applied at higher rates prior to planting. It is strongly advised that rates not exceed the rate labeled for this type of application, that in-field overlaps be avoided, and that the 6-day waiting interval be fully expired before treated fields are replanted.

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