

# Methods to Control “Volunteer” Corn in a Corn Replant Situation

Due to the recent cold wet weather, corn planted in late April has struggled to emerge and there are a number of fields which will need to be replanted. The purpose of this article is to discuss the options to kill an existing stand of corn in a replant situation.

The first issue to address is what herbicide resistance traits are stacked in the corn you would like to remove from the field. If the corn is non-GMO (no herbicide-resistance traits), your options for control are tillage, glyphosate (e.g. Roundup, others), clethodim (e.g. Select Max, others), paraquat (e.g. Gramoxone, others) + metribuzin (e.g. Tricor, others), or glufosinate (e.g. Liberty, others). The best solution to control non-GMO corn will be to use tillage or glyphosate. Non-GMO corn is very sensitive to glyphosate and no waiting intervals are needed to replant. You can also use glyphosate or tillage to control Liberty Link corn hybrids (as long as the hybrid is not also Roundup Ready). For Roundup Ready corn that doesn't carry the Liberty Link trait, tillage, Select Max, or paraquat + metribuzin (Gramoxone + Tricor) would be the logical methods for termination. Another option for corn that is not Liberty Link is to plant Liberty Link corn and apply a follow up treatment of Liberty postemergence to control plants that survived the first application. Use of 32 to 34 oz/A of Liberty has been effective for control of small corn (V1 to V3) in our research.



Glyphosate applied to a non-GMO corn stand for replant situation.

If your corn is NOT non-GMO, then the options are somewhat more complicated. Many popular commercial hybrids are stacked with either Roundup Ready and Liberty Link traits, or both traits. If you have corn stacked with both traits, our experience has been that tillage will be the most reliable method, and would not have the waiting interval associated with Select Max, but tillage is not desirable for those in a long-term no-till situation, or those with cover crops in the field.

Numerous clethodim products, including Select Max, can be used to control the stacked trait corn in a replant situation. The use of Select Max will provide better control of corn than Gramoxone + Tricor, but you cannot plant until 6 days after the field is treated with Select Max. The directions on the label indicate that up to 6 fl oz/A can be applied and NIS at 0.25% and AMS at 2.5 to 4 lb/A should be used as the spray additives. Apply to corn that is 12 inches or less. Avoid overlapping the boom for overlaps may result in rates that can cause excessive crop injury.



Replanted corn emerging after a failed termination of a poor stand.

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If you want to avoid the waiting interval to plant, your only herbicide option for termination of stacked trait corn is paraquat + metribuzin. In University research trials, 2-3 pt/A of Gramoxone + 4-6 oz/A of dry metribuzin (e.g. Tricor, others) has been effective for control of small corn (V1 to V3). Application of Gramoxone alone, without the addition of metribuzin, is likely to be less effective. Corn that has advanced past the V3 growth stage will generally be more difficult to control.

Information listed here is based on research and outreach extension programming at Purdue University and elsewhere. The use of trade names is for clarity to readers of this site, it does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult the herbicide label for the most current and update precautions and restrictions.



**Control of failed corn stand with 6 oz/A of Select Max.**



**Control of failed corn stand with 3 pt/A of Gramoxone.**



**Control of failed corn stand with 3 pt/A of Gramoxone +  
4 oz/A of Tricor.**

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