BETWEEN THE ROWS®

Replant Considerations

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The Decision

Each year there are a few acres replanted somewhere due to adverse environmental conditions. The replant decision must be made by weighing the production of a replanted crop versus the production of the damaged field if left untouched.

It's easy to let emotions influence a replant decision, but it's important to make the decision based on logic and economics. Wyffels has developed a ***Replant Worksheet*** that will help take emotion out and let the facts drive the decision.

If the decision is made to replant, there are a few factors you must consider to ensure maximum yield potential. Replanting presents some unique challenges, but with proper planning they can easily be overcome to set the replanted acres up for success and increase profitability.

Plant Stand Determination

The first step in a replant decision is to evaluate plant stands in the damaged areas. In cases of hail, flooding, or freeze damage, it's best to wait at least 5 days after damage occurs to allow plants time to recover.

It's important to only count healthy, productive plants. Plants with discolored growing points, and plants more than one leaf behind neighboring plants will not produce productive ears, so they shouldn't be counted. Uniform plant spacing is also an important consideration as multiple large gaps in the stand will greatly reduce yield potential.

Planting Date Yield Potential

Another important consideration is to compare the yield potential of the current stand at the original planting date versus the yield potential of the expected replant stand at a later date. The ideal planting date varies by geography, but there will be a yield penalty for the replanted stand relative to the original stand. The decision is based on whether the benefit of the improved stand will outweigh the penalty of a later planting date.

Replant Table: Effect of planting date and population on corn yield. Expressed as percent of optimum yield.

	Planting Date						
Plants/Ac	before May 15	15-May	20-May	25-May	1-Jun	5-Jun	10-Jun
40,000	99%	94%	91%	87%	79%	74%	64%
37,000	100%	95%	92%	88%	80%	75%	65%
34,000	98%	93%	90%	86%	78%	73%	63%
30,000	95%	90%	87%	83%	75%	70%	60%
26,000	90%	85%	82%	78%	70%	65%	55%
22,000	85%	80%	77%	73%	65%	60%	50%
18,000	76%	71%	68%	64%	56%	51%	41%
14,000	67%	62%	59%	55%	47%	42%	32%
10,000	57%	52%	49%	45%	37%	32%	22%

Hybrid Maturity

A common question is whether to switch to earlier maturing hybrids when replanting. ***If the entire field is being replanted it is best to stick with your original relative maturity up until at least the end of May.*** That hybrid was likely chosen because it best fit the geography, soil type, pest pressure and other factors of that field. Up until then the benefits of that placement outweigh any considerations of changing relative maturities. It's also been documented that later-planted corn requires fewer growing degree days (GDD) to reach maturity than corn planted earlier.

If a partial field is being replanted and it's important to keep harvest moisture similar throughout the field, earlier hybrids can be chosen. To choose the best hybrid for this application, reference the GDD to black layer for each hybrid (Table 1) and consult your Wyffels Seed Representative to determine the best Wyffels product for your situation.

HYBRID FAMILY	RM	Adjusted GDD to black layer	HYBRID FAMILY	RM	Adjusted GDD to black layer
W1516RIB	95	2325	W6826RIB	111	2710
W1588RIB	96	2400	W6956RIB	111	2730
W1636RIB	96	2470	W7198RIB	112	2740
W2086RIB	98	2600	W7368RIB	112	2800
W2196RIB	99	2550	W7456RIB	112	2720
W2236RIB	99	2490	W7576RIB	112	2760
W2276RIB	100	2580	W7696RIB	113	2780
W2506RIB	101	2530	W7726RIB	113	2840
W3488RIB	104	2690	W7876RIB	114	2875
W4196RIB	105	2670	W7888RIB	114	2770
W4358RIB	106	2570	W7956RIB	114	2780
W4638RIB	107	2660	W7976RIB	113	2830
W4796RIB	106	2650	W8228RIB	115	2730
W5086RIB	107	2700	W8268RIB	116	2890
W5516RIB	108	2700	W8646RIB	116	2890
W6408RIB	110	2710	W8936DGRIB	117	2800

Table 1. Relative Maturity and estimated Growing Degree Days required to reach black layer by hybrid family. GDD adjusted for an end of May planting date.

WYFFELS HYBRIDS®

Removing Current Stand

It can be tempting to "spot in" corn in areas with lower stands, but this isn't recommended as plants from the two planting dates will compete with each other. It's also very difficult to know where to start planting and where to stop. The best way to replant corn is to eliminate the original stand and start anew. If you're planning to use an herbicide for crop removal, always read and follow the herbicide label. Here are some ways to remove the current stand.

- *Tillage* – Most effective on emerged plants. Work the field at an angle to the original rows and make sure the implement is set deep enough to tear out the plants completely. Ensure the field conditions are fit, otherwise you might do more harm than good.
- *Roundup® (glyphosate)* – Very effective at killing corn that doesn't contain a glyphosate resistance trait. In the Wyffels lineup, the only hybrids that don't contain a glyphosate trait are conventional hybrids.
- *Liberty® (glufosinate)* – Effective herbicide to kill corn that does not contain a glufosinate resistance trait. In the Wyffels lineup, Liberty could be used to kill RR2, VT Double PRO®, or conventional hybrids.
- *Postemergence "grass" herbicides* – Some postemergence grass herbicides have residual activity and will damage replanted corn. Check the herbicide label. For example, the clethodim (Select Max® and others) label states that corn can be replanted 6 days after application, but the quizalofop (Assure® II and others) label has a 120-day plant back restriction for corn.

Insect Protection

Replanted fields will be very attractive to second generation corn borer moths and will be more susceptible to rootworm damage because the corn will be smaller when the rootworms hatch and begin to feed on roots. So, hybrids with corn borer and rootworm traits are recommended. Very few soil insecticides are labeled to be used twice in one season, so they are usually not an option.

Other considerations

- *Crop insurance* – Many crop insurance policies have specific requirements for replant situations. Be sure to check with providers to ensure policy compliance.
- *Replant costs* – This includes seed, fuel, labor, loan interest, removal of the original crop, and potential extra grain drying.
- *Herbicide and insecticide* – Understand the implications of any pesticides that were applied with the original planting. In some cases, re-application is not necessary or permitted.

Conclusion

The decision to replant a corn crop is often a hard one to make. But once the decision is made there are a few steps you can take to set yourself up for success. When the aim is to preserve top yield potential, the devil is in the details. Consider all of the factors and make the decisions that are best for your specific situation.

From the desk of

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