



April 29, 2015

CORN REPLANT DECISION-MAKING

Making the corn replant decision can be complicated. Consider the following guidelines when making a replant decision:

1. Know what the existing stand is. Avoid the “one-and-done” approach. Take a minimum of 5 stand counts per field to determine if enough plants remain. Check stands in areas that differ in soil type and/or topography. It is possible that not all parts of the field will need to be replanted. Check the roots of smaller plants. Injury to the primary root system or damage to the endosperm may be the reason for the delay in emergence or slowed seedling growth. Such injury may not allow for complete recovery.
2. Check the stand for uniformity. Allow for additional yield loss when making replant decisions if gaps of 1 or more feet are commonly found between plants. Iowa State University research shows that recurring gaps of 16 to 33 inches may cut yields by 2%, and several gaps of 4 to 6 feet can reduce the final yield as much as 5%, compared to a uniform stand, even when the final stand count appears adequate.
3. Consider the calendar date. The following table shows yield potential as a % of optimum for various planting dates and populations. Compare the existing stand (original planting date) to the yield potential for replanted stand at a later planting date. Keep in mind the possibility of ending up with another reduced stand. Typically, a 5% increase in yield over the existing stand is needed to cover costs associated with replanting.
4. Allow for existing insect pressures. A second application of corn insecticide could be necessary if the field is planted in an area where 1st-year corn rootworm feeding is a problem, or where wireworms and/or white grubs are the reason for the replant decision. Read the label before making a 2nd insecticide application. Most soil insecticides are restricted to one application per growing season.
5. Where frost or freeze injury is the source of corn stand concerns, we suggest waiting for 3 to 5 (or more) days of “decent” growing weather to objectively evaluate the stand. If there are additional acres of corn (or even soybeans) that need to be planted, it might be prudent to finish those acres before returning to the replant question. The corn stand almost always looks better if you turn your back on it for a few days.

Relative yield potential of corn by planting date and population. Note: Values are based on some earlier Iowa research and modeling; 100% yield potential is estimated to occur with 35,000 plant population and early planting. The following table is from the ISU Corn Field Guide (CSI 001 publication) on page 12.

Using information in this table, note that potential yield associated with the original planting date,

and with the actual population, will give a fair estimate of the actual yield of the problem field. The table summarizes planting date and plant population (final stand) relationships. For example, if the original planting date was April 30, a population of 35,000 plants/acre is expected to provide maximum yield, based on this table. If the population is only 20,000 plants/acre, yield potential is still 89% of maximum. Compare the estimated yield potential of the existing stand with the anticipated yield for the replant stand, plus replant costs, herbicides, etc. to determine if replanting is likely to be profitable.

Population (Plants/Acre)	Planting Date				
	April 20-May 5	May 5-May 15	May 15-May 25	May 25-June 5	June 5-June 15
	Percent Maximum Yield				
45,000	97	93	85	68	52
40,000	99	95	86	69	53
35,000	100	96	87	70	54
30,000	99	95	86	69	53
25,000	95	91	83	67	51
20,000	89	85	77	63	48
15,000	81	78	71	57	44
10,000	71	68	62	50	38

Table from ISU Corn Field Guide (CSI 001 publication) on Page 12

You are receiving this email because you subscribed through GROWMARK Agronomy Services.

GROWMARK Inc.
1701 N Towanda
Bloomington, IL 61701

[Unsubscribe](#)

©2015 GROWMARK, Inc. The information provided in this letter is general in nature and specific information should be obtained by review of product labels and consultation with the manufacturer. Such information can be materially affected by inaccurate data or assumptions, varying circumstances, known or unknown risks and uncertainties, and many other factors which are beyond the control of GROWMARK, Inc. and results can vary widely. The user will not rely on any information provided herein and GROWMARK, Inc. will not be liable for any reliance on that information. The FS logo is a registered trademark of GROWMARK Inc. and all trademarks contained herein are the intellectual property of their respective owners.