

Replanting Decisions

Ten to 15% of your seed typically fails to become healthy plants due to insects, frost, hail, flooding, or poor seedbed conditions. Before replanting do not make a quick decision. Corn plants often outgrow leaf damage, especially when the growing point is below ground. If new leaf growth appears within a few days after the injury, the plant is likely to produce normal yields.

When deciding to replant, consider:

1. Original planting date and plant stand (target population).
2. Present plant population.
3. possible replanting date and plant stand (target population).
4. Cost of seed, machinery, labor, fuel and pest control for replanting versus the yield increase.

As a general guideline, yields will be reduced an additional 5% if there are gaps for four to six feet in the row and 2% for gaps of one to three feet.

Example:

A field at the optimum planting date with a 25,000 plant population would achieve 98% of maximum yield. If the stand was reduced to 15,000, the corn would achieve 82% of maximum yield. This is a 16% loss due to stand reduction. If the earliest replant date is 20 days later with a final population of 25,000 yield prospects would be 89% of maximum. This is a 7% gain in replanting over leaving the older, reduced stand. If gaps of one to three feet were present, there would be a 9% gain in replanting. Will a 7 or 9% increase in yield pay for replanting costs?

% of Maximum Yield by Plant Population

Date	10,000	15,000	20,000	25,000	30,000	35,000
20 days early	62	76	86	92	94	93
10 days early	67	81	91	97	99	97
Optimum	68	82	92	98	100	98
10 days late	65	79	89	95	97	96
20 days late	59	73	83	89	91	89
30 days late	49	63	73	79	81	79

Source: University of Illinois (adapted)