

Corn Stand Evaluation in Eastern Canada

Many different stress factors can reduce corn stands, such as:

- Cold or wet soils at planting
- Insect feeding
- Unfavorable weather conditions, for example frost, heavy rains, cold weather



Start by assessing the density and health of the current stand.

How to Take a Stand Count

- Take several sample counts to represent the field.
- Sample a length of row equal to 1/1000th of an acre.
- Measure off the distance appropriate for your row width, count the number of live plants and multiply by 1000 to obtain an estimate of plants/acre or multiply by 2470 to obtain an estimate of plants/ha.
- Alternatively, Drone Deploy Stand Assessment is a revolutionary solution that performs automated, drone-based stand counts that may be available through your Pioneer Sales Representative.

Row Width (inches)	Row Width (cm)	Length of Rows (feet, inches)	Length of Rows (m)
36	91.4	14 ft 6 in	4.4
30	76.0	17 ft 5 in	5.3
22	55.8	23 ft 9 in	7.2
20	50.8	26 ft 2 in	7.9
15	38.1	34 ft 10 in	10.6

Stand counts should be taken randomly across the entire area of a field being considered for replant; this may include the entire field or a limited area where damage occurred.

Other Factors To Consider

- Is the stand density consistent? Are gaps large gaps present?
 - An uneven stand will yield less than a relatively even stand with the same number of plants.
- Are the plants that are present healthy?
 - Plants that are severely injured or defoliated will have reduced photosynthetic capability and a lower yield potential.
- Are the plants of uniform size?
 - Variation in plant size can have a negative impact on yield.
 - Plants with delayed emergence or development are at a competitive disadvantage with larger plants in the stand and will have reduced leaf area, biomass, and can cause up to 8-10% yield loss.
- Will the stand have adequate crop canopy to assist with weed control and irrigation efficiencies?
- Will replanting provide an economic gain?



Weather Effects

- Frost or hail can damage a wide area. In this case plant density and health should be assessed across the entire field.
- When an injury event such as frost or hail occurs, it is best to wait a few days to perform a stand assessment. This allows for a better determination of if the plants will recover.

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The foregoing is provided for informational use only. Please contact your Pioneer sales professional for information and suggestions specific to your operation. Product performance is variable and depends on many factors such as moisture and heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. Individual results may vary. CF210519