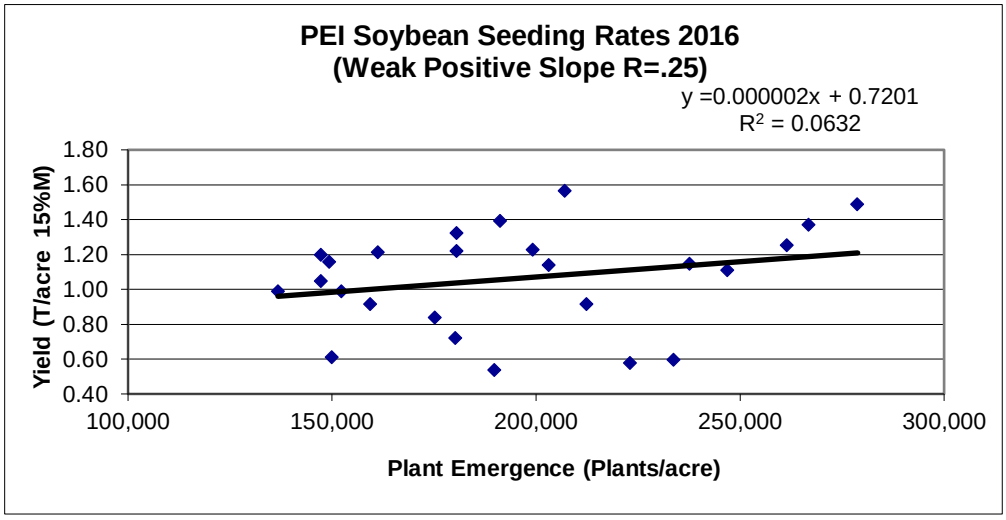
Soybeans – do you know how much you are planting?

Taking emergence counts

Soybean planting levels have been a major priority in the On-Farm Agronomy trials. In the trials across the Maritimes, the planting rates targeted were 130,000, 160,000, and 190,000 seeds per acre. In some cases producers identified other seeding rates (as high as 225,000 seeds/acre). A range of planting equipment from corn planters to grain drills were used by producers participating in these trials. Efforts were taken to calibrate all of the equipment used in these trials. Even with this effort and targeting, the following graph for the PEI trials shows the results based on emergence counts taken at each site. Most of the sites on PEI were planted with grain drills which are more difficult to obtain accuracy.



For three targeted seeding rates of 130,000, 160,000, and 190,000 seeds per acre (as well as the other rates used by producers, up to 225,000), the graph shows a range of emergence counts from roughly 130,000 to 280,000 plants per acre in 2016. First, you would hope for better accuracy than what is shown, and secondly you would also expect lower counts factoring in seed germination rates. At initial review, this indicates that what gets seeded is higher than what was intended.

Is this happening on your farm? Are you planting more seed than you need to? One way to find out is to do your own emergence counts and see how accurate you are. To do so, for each field, you:

1. Once you are sure all plants have emerged, using a meter stick, do a running count of the number of plants on the stick. Do this at least 10 times, randomly selecting your sampling sites – similar to collecting a soil sample, and average your answers. This will be the # of plants per running meter.
2. Measure your row spacing in centimeters.
3. Calculate as follows: $\frac{4{,}046.9}{\text{(Row Spacing in centimeters / 100)}}$ X # of plants per meter

Some standard row widths are:

7.5 inches = 19.0 cm
12 inches = 30.5 cm
15 inches = 38.1 cm
30 inches = 76.2 cm

Example:

Planting at 15 inch rows, you did 10 meter stick counts in the field and got an average of 14 plants per count in Step 1.

Your calculation is as follows: $\frac{4{,}046.9}{(38.1 / 100)} \times 14$

Your result is 148,705 plants per acre.

We would be very interested in you sharing your results with us. Please email the Atlantic Grains Council at agc@bellaliant.com and tell us your intended seeding rate and your emergence count. Your participating would be really appreciated.