

2019 B.E.I. Corn Yield Survey

Observations & Conclusions

1. Industry standard for estimating yield includes a factor of 90000 kernels per bushel assumption. We have a similar to last year kernel weight based on the average ear weights divided by average kernel count per ear. Based on that observation I have adjusted the factor in the calculation to 82000 kernels per bushel from 90000 (slightly above the 5 year average). The 131 scorecards recorded an average yield of 188.90 BPA (raw yield @ 90000 kernels) with an adjusted yield of 207.33 BPA (82000 kernels). An additional downward adjustment of 1.25% is also being made to compensate for wet holes in each field which leaves the **final adjusted yield estimate for 2019 at 204.74 BPA**. The final adjusted yield is 32 bushels below last year's actual yield of 236.21 for a 13.5% decrease. The adjusted corn yield will be 10.5% below the 5 year average actual yield of 228.52 BPA based on a sampling of 131 fields (262 tests=786 ears).
2. The kernel count per ear at 532 kernels is below the 5 year average (565 kernels per ear) due to average smaller ear size. There is some minor tipping back of the ears in the late planted corn, but not much. The late planting and good populations in the late planted corn this year may be some of the reason for the minor tipping back.
3. 83% of the tour participants rated the early planted corn as being the best.
4. 72% of the tour participants concluded that the crop would not be mature (black layer) by Sept 30th. 3 out of 4 of the participants also concluded that additional rains would add yield to the crop.
5. While seeding rates were mostly unchanged, difficult to impossible spring seeding conditions resulted in slightly less plant populations overall. Approximately 40% of the crop was planted in June and did result in some decent ear populations in those field checks. We recorded a 32070 average ear population, which is 280 less population than last year and 160 less than the 5 year average. We found more barren stalks this year than usual.
6. Once again the corn on corn in most instances yields less than corn on beans.
7. There were no fields that revealed a viable second ear in the measured distance. This was contrary to what we all see on the outside of the fields. Outside rows prove to be deceiving almost every year.
8. Kernel weights were similar to nearly identical to last year and similar to the 5 year average. Adjustments made to the yield formula based on this number was difficult, because of the varied nature of each planting of corn (calendar).
9. The average number of rows per ear decreased short of $\frac{1}{2}$ a row from last year and was identical to the 5 year average. (see attached summary)
10. The average ear length in kernels decreased 1.5 kernels from last year and 2 kernels below the 5 year average. (see attached summary)
11. The stalk quality seems to be good, but not excellent according to the tour participants survey. Plant disease appeared in numerous fields surveyed and most instances were of gray leaf spot.

SUMMARY OF 2019 B.E.I. CORN YIELD TOUR

| <u>AREA</u> | <u>RANGES</u> | <u>AVERAGE YIELD</u> | <u>AVERAGE POPULATION</u> | <u>AVERAGE # OF ROWS</u> | <u>AVERAGE KERNELS LONG</u> | <u>AVERAGE EAR WEIGHT LBS</u> | <u>NUMBER OF FIELDS SAMPLED</u> | <u>TOTAL SAMPLES TAKEN</u> | <u>EARS SAMPLED</u> |
|--|---------------|----------------------|---------------------------|--------------------------|-----------------------------|-------------------------------|---------------------------------|----------------------------|---------------------|
| Congerville/Carlock/Danvers | 130.81-222.93 | 180.77 | 32070 | 16.68 | 30.52 | 0.532 | 35 | 70 | 210 |
| Deer Creek/Morton | 122.93-228.70 | 193.94 | 31950 | 16.59 | 33.06 | 0.597 | 46 | 92 | 276 |
| Goodfield | 137.41-262.81 | 195.29 | 31680 | 16.33 | 33.98 | 0.602 | 22 | 44 | 132 |
| Mackinaw/Minier | 124.91-246.17 | <u>185.77</u> | <u>32570</u> | <u>16.39</u> | <u>31.43</u> | <u>0.563</u> | <u>28</u> | <u>56</u> | <u>168</u> |
| AVG RAW YIELD (Standard 90,000 seeds/BU) | | 188.90 | 32070 | 16.52 | 32.19 | 0.576 | 131 | 262 | 786 |
| ADJUSTED YIELD ASSUMING 82000 SEEDS PER BUSHEL BASED ON AVERAGE TOUR KERNEL WEIGHT | | 207.33 | | | | | | | |
| ADJUSTED YIELD REDUCED 1.25% FOR WET HOLES IN THE FIELD | | 204.74 | | | | | | | |
| ACTUAL YIELD | | | | | | | | | |

SUBJECTIVE SURVEY (of Tour Participants)

| | | | |
|--|----------|----------|---------------|
| 1) SOIL MOISTURES WERE: | 14% Poor | 76% Good | 10% Excellent |
| 2) STALK QUALITY: | 7% Poor | 86% Good | 7% Excellent |
| 3) WILL THE CORN CROP BE MATURED(BLACK LAYERED) BY SEPTEMBER 30, 2019? | 28% Yes | 72% No | |
| 4) WOULD ADDITIONAL RAIN ADD YIELD TO CORN CROP? | 76% Yes | 24% No | |
| 5) PARTICIPANTS RATE THE CROP: | Best | Early | 83% |
| | | Late | 3% |
| | | Same | 14% |