

## 2020 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 106 scorecards recorded an average yield of 192.57 BPA (raw yield @ 90000 kernels) with an adjusted yield of 211.36 BPA (82000 kernels). The final adjusted yield is 3 bushels below last year's actual yield of 214.71 for a 1% decrease. The adjusted corn yield will be 5.4% below the 5 year average actual yield of 223.32 BPA based on a sampling of 106 fields (212 tests=636 ears).
- 2 The kernel count per ear at 550 kernels is below the 5 year average (554 kernels per ear) due to average smaller ear size. There is some minor tipping back of the ears in the late planted corn. The later planting, better populations in the late planted corn and July heat this year may be some of the reason for the minor tipping back.
- 3 58% of the tour participants rated the early planted corn as being the best.
- 4 92% of the tour participants concluded that the crop would not be mature (black layer) by Sept 1st. 92% of the tour participants also concluded that additional rains would add yield to the crop.
- 5 While seeding rates were mostly unchanged, again difficult spring seeding conditions resulted in slightly less plant populations overall. Approximately 35% of the crop was planted in April and resulted in some average ear populations in those field checks. We recorded a 31590 average ear population, which is 480 less population than last year and 560 less than the 5 year average. We found more smut(fungal disease in grains) this year than usual .
- 6 There is very little corn on corn in the area to report any difference between yields on corn on corn vs. 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 a bit lighter than last year and definitely lighter than the 5 year average. Adjustments made to the yield formula based on this number was difficult, again because of the varied nature of each planting of corn (calendar).
- 9 The average number of rows per ear decreased short of 1/4 a row from last year and was nearly identical to the 5 year average. (see attached summary)
- 10 The average ear length in kernels increased 1.5 kernels from last year and was identical to 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.

## SUMMARY OF 2020 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	134.10-243.76	187.39	30120	16.32	34.39	0.558	25	50	150
Deer Creek/Morton	152.38-244.67	204.84	31800	16.81	34.62	0.574	33	66	198
Goodfield	130.73-247.50	181.11	31430	16.49	31.45	0.545	21	42	126
Mackinaw/Minier	130.33-236.34	<u>191.28</u>	<u>32810</u>	<u>15.78</u>	<u>33.29</u>	<u>0.529</u>	<u>27</u>	<u>54</u>	<u>162</u>
AVG RAW YIELD (Standard 90,000 seeds/BU)		192.57	31590	16.36	33.60	0.55	106.00	212.00	636.00

ADJUSTED YIELD ASSUMING  
82000 SEEDS PER BUSHEL BASED ON  
AVERAGE TOUR KERNEL WEIGHT

**211.36**

ACTUAL YIELD

### SUBJECTIVE SURVEY (of Tour Participants)

- |  |          |          |               |
|--|----------|----------|---------------|
| 1) SOIL MOISTURES WERE:  | 13% Poor | 83% Good | 4% Excellent  |
| 2) STALK QUALITY:  | 4% Poor  | 79% Good | 17% Excellent |
| 3) WILL THE CORN CROP BE MATURED(BLACK LAYERED) BY SEPTEMBER 30, 2019? | 8% Yes   | 92% No   |               |
| 4) WOULD ADDITIONAL RAIN ADD YIELD TO CORN CROP?                       | 92% Yes  | 8% No    |               |
| 5) PARTICIPANTS RATE THE CROP:   | Best     | Early    | 58%           |
|  |          | Late     | 25%           |
|  |          | Same     | 17%           |