

2021 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 heavier than 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 79800 kernels per bushel from 90000 (close to the 5 year average). The 134 scorecards recorded an average yield of 203.21 BPA (raw yield @ 90000 kernels) with an adjusted yield of 229.18 BPA (79800 kernels). The final adjusted yield is 20 bushels above last year's actual yield of 209.21 for a 9.5% increase. The adjusted corn yield will be 1.3% above the 5 year average actual yield of 226.16 BPA based on a sampling of 134 fields (268 tests=804 ears).
- 2 The kernel count per ear at 561 kernels is identical to the 5 year average (561 kernels per ear). There is very little tipping back of the ears in the late planted corn. July rains and cooler pollination weather probably has a lot to do with the more complete filling out of the ears.
- 3 73% of the tour participants rated the early planted corn as being the best.
- 4 83% of the tour participants concluded that the crop would not be mature (black layer) by Sept 1st. 68%
of the tour participants also concluded that additional rains would add yield to the crop.
- 5 While seeding rates were mostly unchanged, again some minor difficulty in spring seeding conditions resulted in slightly less plant populations in the early corn only. We recorded a 32637 average ear population, which is 1047 more population than last year and 683 more than the 5 year average.
- 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 heavier than last year and similar to the 5 year average. Adjustments made to the yield formula based on this number was difficult, again because of the wide window of planting this year.
- 9 The average number of rows per ear is identical to last year and only very slightly less than the 5 year average. (see attached summary)
- 10 The average ear length in kernels increased 1 kernel from last year and was nearly 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 nearly all fields surveyed.

SUMMARY OF 2021 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>AVERAGE EAR MOIST %</u>	<u>NUMBER OF FIELDS SAMPLED</u>	<u>TOTAL SAMPLES TAKEN</u>	<u>EARS SAMPLED</u>
Congerville/Carlock/Danvers	149.22-238.46	194.04	32230	16.31	33.28	0.6232	52.6	31	62	186
Deer Creek/Morton	138.84-252.04	207.34	33420	16.28	34.42	0.597	51.1	37	74	222
Goodfield	149.08-263.25	199.88	32090	16.2	34.62	0.5981	53.3	30	60	180
Mackinaw/Minier	153.30-277.16	<u>209.64</u>	<u>32640</u>	<u>16.56</u>	<u>34.91</u>	<u>0.61</u>	<u>51.4</u>	<u>36</u>	<u>72</u>	<u>216</u>
AVG RAW YIELD (Standard 90,000 seeds/BU)		203.41	32637	16.34	34.33	0.61	52.10	134	268	804
ADJUSTED YIELD ASSUMING 79800 SEEDS PER BUSHEL BASED ON AVERAGE TOUR KERNEL WEIGHT		229.41								

ACTUAL YIELD

SUBJECTIVE SURVEY (of Tour Participants)

- | | | | |
|-----------------------------------------------------------------------|---------|----------|---------------|
| 1) SOIL MOISTURES WERE: | 0% Poor | 44% Good | 56% Excellent |
| 2) STALK QUALITY: | 0% Poor | 83% Good | 17% Excellent |
| 3) WILL THE CORN CROP BE MATURED(BLACK LAYERED) BY SEPTEMBER 1, 2021? | 17% Yes | 83% No | |
| 4) WOULD ADDITIONAL RAIN ADD YIELD TO CORN CROP? | 68% Yes | 32% No | |
| 5) PARTICIPANTS RATE THE CROP: | Best | Early | 73% |
| | | Late | 0% |
| | | Same | 27% |