

Corn Planting Date by Maturity Trial

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Objective

To evaluate how corn hybrid and planting date influence corn grain yield.

Materials and Methods

Crop Year–2022

Location	Nashua
Soil type	Kenyon
Previous crop	Soybeans
Hybrid/variety	Multiple
Planting date	Multiple
Row spacing	30-in.
Seeding rate	35,077 seeds/acre
Tillage	Spring field cultivation–April 12
Fertilizer	None, soil test Melich 3 P = 28ppm, soil test Melich 3 K = 237ppm
Nitrogen	178 lbs. N/acre as anhydrous ammonia–April 10
Harvest date	October 26, 2022
Experimental design	Randomized complete block design
Replications	Four
Treatments	Four dates of planting (April 12, April 27, May 16, June 1) and three hybrids (P0075Q, P0589AM, P1185Q)

Results

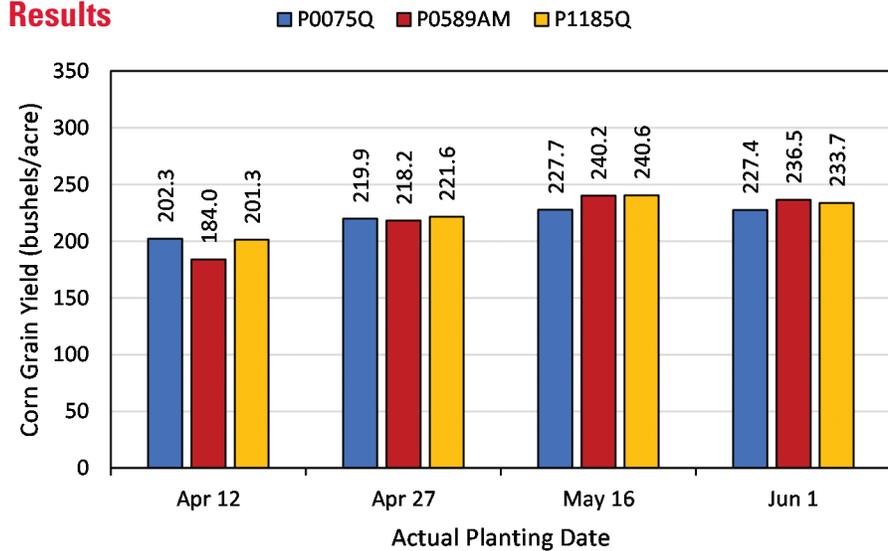


Figure 1. Corn grain yield at 15.5% moisture for three hybrids/maturities and four dates of planting. Corn hybrid/maturity was not significant ($P = 0.2713$), planting date was significant ($P < 0.0001$), and the hybrid/maturity by planting date interaction was not significant ($P = 0.0602$).

Table 1. Corn plant population on June 15 (April 12 planting date) and June 25 (April 27, May 16, and June 1 planting dates).

Actual planting date	Emergence date	P0075Q	P0589AM	P1185Q
		plants/acre		
April 12	May 13	22,738	17,816	18,208
April 27	May 13	27,007	25,875	22,869
May 16	May 26	32,496	31,929	31,668
June 1	June 8	32,888	33,628	32,931

Key Takeaways

- There were no corn yield differences between hybrid/maturity ($P = 0.2713$).
- The average corn yield on May 15 (236.2 bushels/acre) and June 1 (232.5 bushels/acre) were significantly higher than April 12 (195.8 bushels/acre) and April 27 (219.2 bushels/acre) planting dates ($P < 0.0001$). Plant populations on the two April planting dates were lower due to a protracted time to emergence. This may be a cause of lower yields.
- The May 15 and June 1 planting dates were significantly similar grains yields, however, April 27 planting date was higher yielding than the April 12 planting date.

