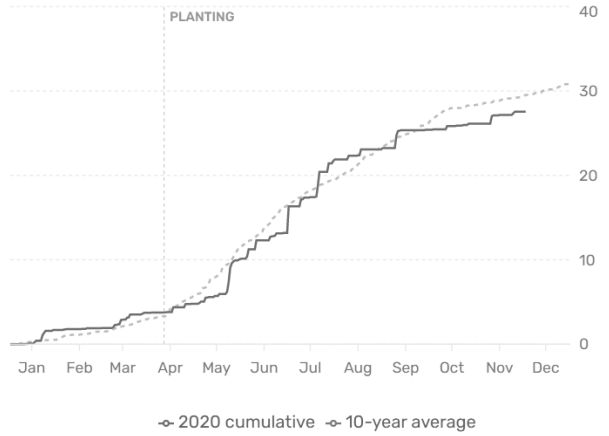
Group 2.1 versus Group 3.1 Soybean Maturity

Study ID: 0802159202003
County: Seward
Soil Type: Muir silt loam 1-3% slope; Hastings silt loam 7-11% slopes, eroded; Hall silt loam 0-1% slope
Planting Date: 4/11/20
Harvest Date: 9/15/20 for group 2.1 and 9/23/20 for group 3.1
Population: 146,087
Row Spacing (in): 30
Hybrid: Pioneer® P21A28X and Pioneer® P31A22X
Reps: 3
Previous Crop: Corn
Tillage: No-Till
Herbicides: ***Pre:*** 23 oz/ac Roundup PowerMAX®, 6 oz/ac Zidua® PRO, 2,4-D LV6, 2.55 lb/ac AMS on 4/8/20 ***Post:*** 32 oz/ac Roundup PowerMAX®, 6 oz/ac Select Max®, 32 oz/ac Symbol™ Release, 8 oz/ac Flexstar®, 2.55 lb/ac AMS on 6/18/20

Seed Treatment: LumiGEN®, EverGol®, Gaucho®, PPST 2030, PPST 120+
Foliar Insecticides: None
Foliar Fungicides: None
Fertilizer: None
Irrigation: None
Rainfall (in):



Introduction: With early planting of soybean (in April or as close to May 1 as possible), a longer-season variety may help take advantage of the longer growing season. However, some growers are also obtaining high yields with mid-group 2 varieties. The goal of this study was to determine if growers need to plant a longer-season maturity soybean to achieve optimum yields when planting early. A group 2 (Pioneer® P21A28X) and group 3 (Pioneer® P31A22X) were evaluated. The soybeans were planted on April 11 with a soil temp of 50°F prior to a cold weekend. The group 2 soybeans were harvested on September 15 and the group 3 soybeans on September 23.

Results:

	Harvest Stand Count (plants/ac)	Pods/ plant	Nodes/ plant	Test Weight (lb/bu)	Moisture (%)	Yield (bu/ac)†	Marginal Net Return‡ ($/ac)
Group 2.1 (Pioneer® P21A28X)	125,500 A*	45 A	19 B	56.7 B	11.5 A	59 A	518.33 A
Group 3.1 (Pioneer® P31A22X)	125,333 A	51 A	22 A	57.1 A	10.0 B	58 A	502.67 A
P-Value	0.958	0.434	0.035	0.020	0.020	0.186	0.128

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre corrected to 13% moisture.
‡Marginal net return based on $9.50/bu soybean, $44.77/ac for Pioneer® P21A28X, and $50.27/ac for Pioneer® P31A22X. Both varieties has the same seed treatment, so this cost is not included in the comparison.

Summary:

- Test weight, pods per plant, yield, stand counts, and net return were the same between the group 2 and group 3 soybeans varieties evaluated.
- The group 3 soybeans had a greater number of nodes per plant.

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