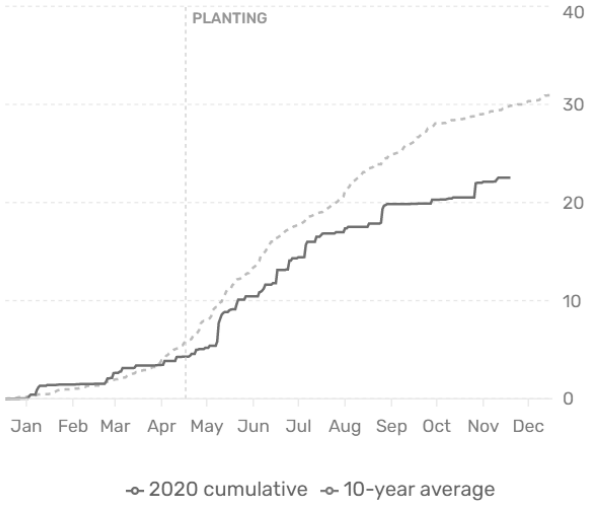
Group 2.1 versus Group 2.5 versus Group 2.7 versus Group 3.1 Soybean Maturity

Study ID: 0802159202001
County: Seward
Soil Type: Hastings silt loam 0-1% slope; Fillmore silt loam frequently ponded
Planting Date: 5/1/20
Harvest Date: 9/25-26/20
Population: 146,087
Row Spacing (in): 30
Hybrid: Pioneer® P21A28X, P25A04X, P27A17X, P31A22X
Reps: 4
Previous Crop: Corn
Tillage: No-Till
Herbicides: ***Pre:*** 23 oz/ac Roundup PowerMAX®, 6 oz/ac Zidua® PRO, and 2,4-D with 2.55 lb/ac AMS on 4/21/20 ***Post:*** 23 oz/ac Roundup PowerMAX®, 22 oz/ac XtendiMax® with VaporGrip® Technology, and 6 oz/ac Select Max® on 6/12/20
Seed Treatment: LumiGEN™, Lumisena™, EverGol®, Gaucho®, PPST 2030, PPST 120+
Foliar Insecticides: None
Foliar Fungicides: None
Fertilizer: None
Irrigation: Gravity, Total: 9.11"
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. Three group 2 soybeans (Pioneer® P21A28X, Pioneer® P25A04X, and Pioneer® P27A17X, and a group 3 (Pioneer® P31A22X) were evaluated. The soybeans were planted on May 1 and harvested on September 25 and 26.

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)	134,500 A	51 A	20 A	55.7 B	10.3 B	73 C	646.84 C
Group 2.5 (Pioneer® P25A04X)	122,750 B	55 A	20 A	56.3 A	9.9 B	79 A	700.39 A
Group 2.7 (Pioneer® P27A17X)	122,500 B	61 A	21 A	56.4 A	9.9 B	80 A	708.51 A
Group 3.1 (Pioneer® P31A22X)	120,125 B	53 A	20 A	56.2 AB	11.0 A	77 B	678.74 B
P-Value	0.001	0.137	0.636	0.042	0.003	<0.0001	<0.0001

*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, $50.27/ac for Pioneer® P25A04X, $47.52/ac for Pioneer® P27A17X, and $50.27/ac for Pioneer® P31A22X. All varieties have the same seed treatment, so this cost is not included in the comparison.

Summary:

- Average pods per plant and nodes per plant were the same between the varieties tested.
- Pioneer® P21A28X had higher harvest stand counts than the other three varieties.
- Pioneer® P25A04X and Pioneer® P27A17X had the highest yield and marginal net return.

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