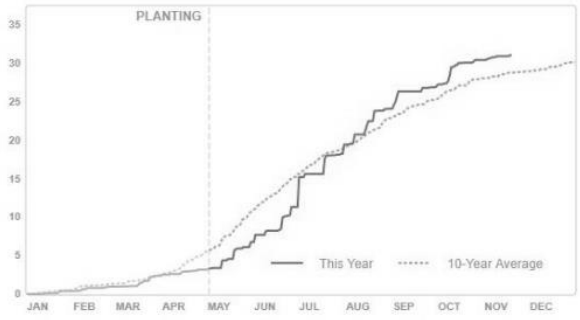
Group 2.7 versus Group 3.0 Soybean Maturity with Early Planting

Study ID: 0118185201801
County: York
Soil Type: Hastings silt loam 0-1% slope
Planting Date: 5/2/18
Harvest Date: 10/3/18
Population: 130,000
Row Spacing (in): 30
Reps: 7
Previous Crop: Corn
Tillage: Ridge-Till
Herbicides: ***Pre:*** 5 oz/ac Authority® First, 1.5 pt/ac Brawl™, 4 oz/ac Dimetric®, 2 oz/ac InterLock®, 0.7 pt/ac 2-4,D Shredder™, and 8 oz/ac Destiny® on 4/26/18 ***Post:*** 50 oz/ac Class Act®, 32 oz/ac Roundup®, 12 oz/ac Cobra®, 9 oz/ac SelectMax®, and 12 oz/ac StrikeLock® on 6/8/18

Seed Treatment: CLARIVA™ Elite
Foliar Insecticides: None
Foliar Fungicides: None
Note: There were two light hail events on this field
Irrigation: Pivot
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 (GH 2788X) and group 3 (NK S30-C1) soybean were evaluated. The group 3 soybean was not dicamba tolerant and had visual symptoms (cupping) indicating it was affected by off-target dicamba. The group 2 soybean was dicamba tolerant and did not have any visual symptoms (Figure 1). Ten plants of each variety were sampled on July 18; the group 3 soybeans that were affected by the dicamba were shorter but there was no difference in number of nodes at that time (Figure 2). The soybeans were planted on May 2, 2018. Both group 2 and group 3 soybeans were harvested on October 3.

Results:

	Harvest Stand Count (plants/ac)	Pods/plant	Nodes/plant	Moisture (%)	Test Weight	Yield† (bu/ac)	Marginal Net Return‡ ($/ac)
Group 2.7 (GH 2788X)	96,800 A*	62 A	22 A	14.2 B	57 A	70 A	456.14 A
Group 3.0 (NK S30-C1)	105,000 A	54 A	20 B	15.0 A	57 A	72 A	470.17 A
P-Value	0.185	0.185	0.019	0.014	0.197	0.239	0.239

*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 $7.40/bu soybean, $44/unit seed cost, and $22/ac seed treatment cost. Seed costs were the same for both varieties.

Summary:

- Test weight, pods per plant, and stand counts were the same between the group 2 and group 3 soybeans. At harvest the group 2 early season soybeans had more nodes than the group 3 late season soybeans that were affected by off-target dicamba.
- There were no yield or net return difference between the group 2 and group 3 soybeans. The group 3 late season soybeans were slightly (0.8%) wetter than the group 2 soybeans.

Figure 1: Group 2 (dicamba tolerant) soybean on left and group 3 (not dicamba tolerant) soybean on right.

Figure 2: Group 2 (dicamba tolerant) soybean on left and group 3 (not dicamba tolerant) soybean on right.

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