2023 Blackeye Bean Variety Evaluation

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We evaluated blackeye bean varieties in a commercial field in Stanislaus County. The season began with cool and wet spring conditions, which lasted through the month of June and delayed planting. Seven varieties from the University of California blackeye breeding program were planted on July 7th. The varieties were grown on a Hanford sandy loam, and the soil temperature was approximately 75°F at the time of planting. Each variety was planted across six rows on 30-inch spacing, on a row length of approximately 275 feet. The seeding rate was 40 pounds per acre. This was a non-replicated evaluation due to a limitation in seed; therefore, no statistical analysis is presented.

The trial was planted in a field of CB46, and fertility and pests were managed by the grower in the same manner as the field. Data are presented in Table 1. Stand counts were made approximately two weeks after planting on July 20th. The stand was assessed as the number of plants per two-foot length. Twelve replicate counts were averaged. We evaluated aphid and lygus damage on September 8th, which were low due to the grower's management. For lygus, we took 10 sweeps from four locations in each plot and counted the lygus. Data were averaged and are presented as a 10-sweep count. For aphids, we used a rating scale from 0 to 10 that accounted for visible crown damage and aphid incidence (over at least 50 percent of the plant population). In addition to the in-field assessment of lygus, we also evaluated harvest samples for stings and found that, on average, about 1.2 percent of the beans had lygus damage. No diseases were observed.

We harvested on November 6th. All six rows of each variety were cut and raked into one windrow. At the time of cutting, the grower observed that CB77 plants were laying flat, but they were laying in such a way that the knives still picked up the plants. The grower also observed that CB74 had an upright growth habit that could potentially make it a variety viable for swather cutting. We evaluated 100-seed weight as a measure of seed size, evaluating five 100-seed samples per variety.

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Table 1. 2023 variety evaluation results.

Variety	Stand Count (plants/ac)	In-field Lygus Counts (#)	In-field Aphid Score	Beans with Lygus Stings at Harvest (%)	100-seed Weight at Harvest (g)	Harvest Moisture (%)	Yield at 13% moisture (lb/ac)
CB2	74778	4	0	1.2	22.0	14.8	2436
CB5	72600	4	0	2.0	25.2	15.6	2258
CB46	76230	3	0	1.0	22.6	15.5	2520
CB50	72600	4	0	0.6	25.7	15.5	2157
CB69	73326	3	0	0.4	22.0	15.2	2685
CB74	79860	5	0	1.4	21.8	14.9	2694
CB77	70422	4	0	2.0	20.2	14.5	2969