

2014 Dry Bean Performance Evaluation

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In 2013, Wyoming ranked eighth nationally in dry bean (*Phaseolus vulgaris* L.) production, fourth in the production of pinto beans, and first in production of other bean market classes. In the same year, Wyoming growers produced 506,000 hundred-weight of pinto beans on 22,000 harvested acres, averaging 23 hundred-weight per acre.

The University of Wyoming Seed Certification Service coordinates the dry bean variety performance evaluation at this location in a continuous and on-going program. In cooperation with the National Cooperative Dry Bean Nursery, a wide range of germplasm is evaluated each year, including promising new lines and newly released varieties, assisting producers in selecting varieties best suited for Wyoming soils and climate. Public and private (proprietary) varieties are tested.

Materials and Methods

The experiment was located at the University of Wyoming Research and Extension Center in Powell, Wyoming. The soil, a Garland clay loam, (fine, mixed, mesic: Typic Haplarid), was prepared by roller harrow and leveled in the spring. Chemical weed control consisted of a preplant incorporated chemical treatment of 2 pints of Sonalan and 1 pint of Outlook, which was applied on May 18. The plots received 65 units of N, 50 units of P and 5 units of Zn on May 18. The plots were planted on May 27 in three row plots that were 5.5 feet wide by 20 feet long. IH 185 planter units with cone attachments were used, set on 22-inch row spacing. The experimental design was a randomized block with 4 replications. Cultivation controlled weed escapes during the growing season. Furrow irrigation was applied on May 21, July 6, July 15, July 23, August 12, August 22, and September 2. Visual estimates for days to 50 percent bloom (50 percent of plants at second bloom) and days to maturity (50 percent of the plants with one buckskin pod) were made. Subplots of one row by 10 feet were pulled by hand, and plots were threshed with a Wintersteiger small plot combine. The seed was hand-picked to remove dirt clods and seed mixtures. Samples were then weighed for clean seed yield per plot and seeds per pound.

Results and Discussion

Stand establishment was reasonable, although a post-planting irrigation was required to get the stand established. Summer temperatures were reasonable, but a hard frost the first week of September had an impact on all entries, and is at least part of the high CV for the trial. Days to maturity data was not reported due to data errors.

Acknowledgements

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Table 1. Agronomic Data, 2014 Cooperative Dry Bean Nursery, Powell, Wyoming

	Yield lbs. per Acre	Seeds per Pound	Days to 50% Bloom	Market Class
23ST-27	2554	1144	49	black
96-148	2398	1688	50	black
T39	1908	2248	55	black
Gypsy Rose	2785	1503	51	flora de mayo
UCD 9623	1877	1254	49	flora de mayo
Powderhorn	3041	1132	51	great northern
Majesty	2102	679	51	kidney dark red
ND061210	943	1000	50	kidney dark red
Inferno	3633	721	49	kidney light red
NY105	1185	726	41	kidney light red
ND061106	1079	1025	50	kidney light red
CELRK	986	870	41	kidney light red
NY104	879	798	45	kidney light red
Yeti	2043	903	49	kidney white
Snowdon	1599	812	49	kidney white
Fathom	2528	1900	49	navy
Rosetta	3068	1224	51	pink
UCD 9634	2067	1234	48	pink
PT11-13	2981	1004	51	pinto
CO 91212-4	2855	1089	49	pinto
ISB-19	2823	1161	49	pinto
PT12-37	2710	1152	50	pinto
ISB-20	2477	1113	49	pinto
Maverick	2476	1161	49	pinto
EIDorado	2286	993	50	pinto
Othello	2232	1204	41	pinto
SF103-8	2018	1061	45	pinto
ND060197	1918	1343	49	pinto
ISB-P1	1891	1290	49	pinto
ISB-P3	1509	1297	49	pinto
R12859	2834	1217	49	red
28-1	4712	887	49	yellow
60-1	3578	1063	45	yellow
24-2	3546	828	50	yellow
54-1	2509	936	51	yellow
Mean	2285	43	49	
LSD	649	4	2	
CV	20	7	3	