

Dry Bean Screening Trial at WSU-NWREC, 2014

Variety Name	Market Class	Yield (lb/A)	Clean yield (lb/A)	Days to maturity (dap)	Plant height (cm)	Hundred bean weight (g)	Emergence (%)
PK9-1	Pink	2410	2226	105	44	36.1	85
PK11-4-4	Pink	2131	2068	109	33	33.3	75
Stampede	Pinto	1938	1821	115	45	40.2	75
Rio Rojo	Small Red	1926	1863	112	36	29.5	80
Agate	Pinto	1893	1853	105	38	38.1	75
Rojo Chiquito	Small Red	1840	1822	117	43	22.4	75
Rosetta	Pink	1833	1514	125	49	37.3	60
Agassiz	Pinto	1740	1725	105	34	40.3	80
UCD9634	Pink	1725	1602	121	42	36.8	85
UI-239	Small Red	1696	1629	109	31	33.8	90
B12721	Black	1653	1613	117	32	24.0	80
SR10-2-4(1)	Small Red	1646	1594	112	35	37.7	50
Eclipse	Black	1537	1529	117	46	22.1	80
Othello	Pinto	1525	1499	105	36	39.5	70
Island	Pinto	1512	1485	105	40	42.4	80
Victor	Pink	1503	1475	105	29	35.4	75
UI-537	Pink	1470	1440	105	38	38.8	90
B12712	Black	1434	1257	121	40	21.8	85
PT12-31	Pinto	1386	1353	105	41	36.4	70
Sedona	Pink	1344	1211	117	46	41.2	75
C11266	Cranberry	1290	1210	105	31	48.0	75
Etna	Cranberry	1287	1177	105	32	59.4	70
FDM 9623	Flor de Mayo	1255	1239	105	35	39.1	75
BK11-8	Black	1252	1232	111	40	22.3	70
N12466	Navy	1243	1160	121	43	17.0	55
PT8-15	Pinto	1219	1136	105	33	42.0	85
B12724	Black	1213	1179	117	32	20.3	90
R11806	Flor de Mayo	1192	1162	117	39	31.6	85
Francis kring	Cranberry	1150	1101	109	34	55.7	80
R11801	Flor de Mayo	1101	1049	105	34	33.5	85
Decker	Cranberry	1099	1071	112	35	74.3	25
CELRK	Light Red Kidney	1097	1055	105	29	54.2	75
King of the early	Cranberry	1073	1045	105	33	53.1	80
GN10-1-1	Great Northern	1013	971	117	31	38.8	6
ND061210	Dark Red Kidney	998	981	109	34	46.5	80
Matterhorn	Great Northern	985	910	117	38	38.6	15
Espresso	Black	979	940	105	24	21.2	50
N12467	Navy	977	934	121	37	17.8	45
ND061106	Light Red Kidney	931	907	112	36	48.7	65
N11277	Navy	930	899	121	37	19.4	15
Krimson	Cranberry	849	806	105	28	54.1	55
Youngquist brown	Brown	814	563	125	36	48.5	55
GN10-1-7	Great Northern	769	752	115	30	39.6	10
Rockwell	Red and White	764	742	105	29	44.7	55
Marfax	Brown	701	668	105	28	36.4	60
Indi	Navy	683	662	125	40	18.8	10
Kenearly	Colored patterned	673	651	109	32	46.0	15
Black coco	Black	672	626	105	29	50.5	25
Avalanche	Navy	661	644	117	37	21.7	30
Merlot	Small Red	635	615	117	35	34.9	50
Vermont Cranberry	Cranberry	626	589	121	29	44.5	50
Silver cloud	White Kidney	612	586	112	37	58.8	10
Red Hawk	Dark Red Kidney	572	556	105	31	46.8	35
UC White Kidney	White Kidney	501	456	121	43	50.4	6
Calypso	Black and White	491	452	105	29	48.1	45
Snowdon	White Kidney	469	454	109	29	59.3	6
Canario 707	Yellow	433	387	125	29	47.6	15
Orca	Black and White	303	250	125	35	33.6	11
CV %		23.6	23.8	2.5	11.1	2.8	20.6
LSD (P=0.05)		552	530	6	8	2.2	23
Mean		1166	1110	112	35	38.8	57
Minimum		303	250	105	24	17.0	6
Maximum		2410	2226	125	49	74.3	90

Screening Trial Methods

Planting: A trial of 60 varieties including breeding lines from North Dakota State University, University of California Davis, USDA Prosser, Michigan State University, four local heirlooms, and commercially available varieties was planted on May 14, 2014. The trial was arranged in a randomized complete block design with two replicated plots of each variety. Plots were 12 ft in length and 4 ft in width (two rows wide). Prior to planting a winter cover crop of rye-vetch was incorporated on April 1, 2014. Pre-plant organic fertilizer Proganic (8-2-4) was applied at a rate of 35 lbs N/Acre on May 6, 2014. The field was chisel plowed, disked and cultivated to incorporate cover crop residue, control weeds, and prepare the seedbed for planting. Seed was planted at a rate of one seed every two inches with a double disc drill set on 24-inch centers (130,680 seeds/acre) using a custom Allis-Chalmers tractor equipped with a cone planter. Target seeding depth was two inches. Seed was inoculated with Garden Combination Inoculant, (Johnny's Selected Seeds, Winslow, ME) immediately prior to planting.

Weed Control: On May 20, prior to seedling emergence, the trial was cultivated with a Lely Weeder (Lely Southwest Inc, Temple, TX). On June 6, the between row space was rototilled with a Multivator (Ford Distributing, Marysville, OH) set on 24-inch centers. On June 23 the field was cultivated using disc openers mounted on an Allis Chalmers G1 (Briggs and Stratton, Wauwatosa, WI) to cut weeds away from the row. The between row space was rototilled with a Multivator and the field was cultivated again with the disc openers set to hill soil towards the row in order to smother weeds at the base of the bean plants.

Harvest: Mature plots were harvested using on a Wintersteiger NurseryMaster (Wintersteiger Ag, Ried im Innkreis, Austria) on August 29, and September 5, 8, and 16.

For additional information contact Steve Lyon (slyon@wsu.edu).

For additional variety testing results visit: <http://plantbreeding.wsu.edu>

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