

Dry Bean Yield Trial across 3 counties in Western WA, 2016

	Emergence (%)	Lodging (%)	Maturity (1-3 rating)	Height (in)	Moisture at harvest (%)	Yield (lb/A)	Split (%)	Moldy (%)	Hundred Bean Weight (g)
Jefferson County									
Desert Song	83	95	1.5	19	13	1414	37	2	22
Eclipse	88	13	3.0	20	14	802	13	1	16
Etna	90	60	1.5	19	16	1635	40	4	43
Island	83	75	1.0	31	14	1935	24	2	29
King of the Early	80	50	2.5	26	12	1338	44	6	47
LRK	68	58	1.5	25	14	1103	17	20	49
Orca	75	53	3.0	17	14	557	13	4	21
Rockwell	90	18	2.0	24	13	1123	32	1	38
Rojo Chiquito	60	28	2.5	20	15	637	9	2	17
Sedona	83	23	2.0	24	13	1371	37	3	25
CV (%)	23.1	42.4	18.2	4.8	9.9	26.9	28.2	96.5	2.4
LSD (p = 0.05)	42	45	0.8	2	3	725	17	10	2
Mean	80	47	2.1	22	14	1192	27	4	31
Minimum	30	5	1.0	16	11	358	4	0	16
Maximum	95	95	3.0	32	17	2001	48	29	50
Skagit County									
Desert Song	88	23	1.5	18	19	1180	4	1	33
Eclipse	90	18	3.0	23	20	2367	2	0	24
Etna	90	5	1.5	14	19	1980	7	1	60
Island	93	15	1.0	30	20	2260	1	1	40
King of the Early	80	10	1.0	18	20	1134	2	1	52
LRK	95	5	1.0	18	20	2586	2	0	59
Orca	80	25	3.0	18	19	1382	2	1	32
Rockwell	85	13	1.0	15	21	1301	2	1	45
Rojo Chiquito	90	8	3.0	22	20	3489	0	0	23
Sedona	95	20	2.5	23	18	3129	6	1	39
CV (%)	6.0	47.6	18.5	7.7	2.6	21.9	35.8	97.2	3.4
LSD (p = 0.05)	12	15	0.8	3	1	1029	2	2	3
Mean	89	14	1.9	20	20	2081	3	1	41
Minimum	70	5	1.0	13	18	818	0	0	22
Maximum	95	30	3.0	32	22	4035	9	2	63
Thurston County									
Desert Song	90	65	1.5	23	13	3042	34	2	31
Eclipse	93	48	2.5	25	11	1987	29	1	19
Etna	93	55	1.0	21	13	2104	42	1	48
Island	95	83	1.5	27	14	3406	9	2	40
King of the Early	88	63	1.5	18	14	1451	19	3	53
LRK	93	53	1.5	22	12	2042	32	3	55
Orca	88	65	3.0	19	10	1264	43	0	32
Rockwell	95	90	2.0	19	13	2228	37	2	47
Rojo Chiquito	95	48	2.5	20	15	2351	11	2	22
Sedona	93	70	2.0	29	13	3092	29	4	36
CV (%)	3.1	47.2	38.4	13.2	9.9	37.1	33.3	76.5	7.0
LSD (p = 0.05)	7	68	1.7	7	3	1930	21	4	6
Mean	92	64	1.9	22	13	2297	28	2	38
Minimum	85	5	1.0	14	9	913	7	0	18
Maximum	95	90	3.0	30	16	4304	51	5	57

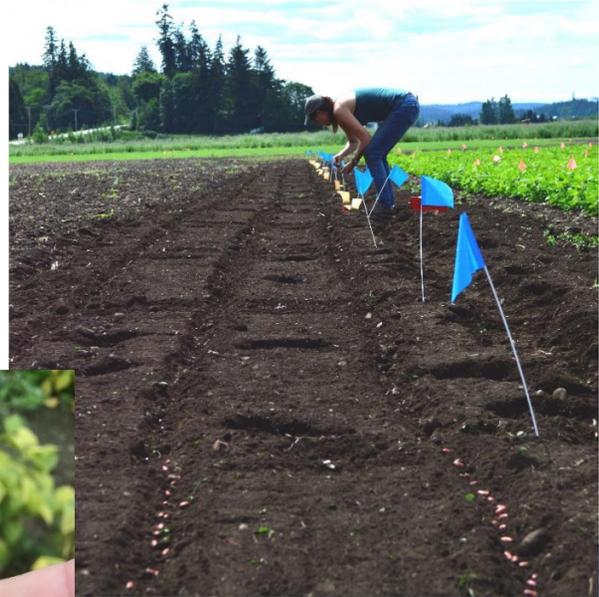
Dry Bean Observational Trial in Skagit County, 2016

	Emergence (%)	Lodging (%)	Defoliation (1-4 rating)	Maturity (d.a.p.)	Height (in)	Moisture at harvest (%)	Yield (lb/A)	Split (%)	Moldy (%)	Hundred Bean Weight (g)
Black										
B12712	93	5	1	125	20	19	2988	3	1	21
B12721	90	15	2	125	22	18	3009	5	0	25
B12724	93	5	2	126	18	18	1794	5	2	22
BK11-8	90	18	2	125	23	19	2006	3	0	23
Black coco	95	8	4	114	18	17	1799	14	0	53
Eclipse	88	10	4	127	22	21	2767	2	2	23
Espresso	85	5	2	114	14	16	748	28	0	24
Zenith	90	5	3	125	21	26	2644	2	3	23
Black and White										
Calypso	75	10	4	114	16	17	591	16	0	53
Orca	60	10	4	135	16	22	683	1	2	34
Brown										
Marfax	88	5	4	114	14	17	1311	14	1	36
Cranberry										
C11266	88	8	4	114	14	17	1050	16	1	48
Etna	93	8	4	116	15	16	1269	19	1	58
King of the Early	75	10	4	114	18	18	1168	7	1	58
Krimson	73	20	3	116	17	16	915	18	0	56
Vermont Cranberry	90	35	3	125	28	20	1545	3	1	45
Dark Red Kidney										
ND061210	88	10	4	114	16	17	1230	4	1	47
Red Hawk	78	5	4	114	15	18	972	7	1	49
Flor de Junio										
Desert Song	93	10	2	116	19	17	1023	11	3	34
Flor de Mayo										
FDM9623	78	18	3	114	24	19	1327	8	0	38
Gypsy Rose	93	40	2	125	18	18	2437	3	2	33
Gold and white										
Jacob's Gold	83	5	4	114	13	17	774	17	2	55
Light Red Kidney										
CELRK	90	13	4	109	12	16	1226	12	1	61
ND061106	85	5	4	123	19	20	2152	2	3	47
Navy										
Alpena	85	10	2	125	20	20	1925	0	1	20
Avalanche	73	13	2	126	17	21	1205	0	2	22
N13131	90	5	2	130	15	20	2231	0	0	22
N14230	78	5	2	135	19	22	2321	0	2	20
Pink										
PK11-4-4	90	30	2	118	20	18	1982	1	0	32
PK9-1	90	20	2	116	23	19	1920	5	3	38
Rosetta	80	8	2	135	24	19	2739	2	3	40
Sedona	90	8	1	125	22	17	2498	7	2	38
UCD9634	93	8	4	130	20	20	2389	1	0	37
UI-537	75	35	3	114	29	17	864	4	1	39
Victor	83	70	4	116	27	17	1094	1	1	35
Pinto										
Agate	88	45	3	118	22	19	2364	1	2	41
Island	90	15	3	109	33	17	1657	6	0	41
Othello	75	15	2	114	24	18	687	7	1	40
PT12-31	88	10	3	116	20	16	1534	2	0	35
PT8-15	85	45	2	117	24	20	1486	7	5	43
Quincy	85	70	3	116	29	17	1990	6	0	44
Stampede	60	13	3	126	25	19	1965	4	1	48
Red and White										
Jacob's Cattle	83	5	4	109	14	17	1125	10	1	60
Rockwell	93	5	4	114	16	17	1339	10	1	47
Soldier	85	15	4	116	18	18	1571	5	2	64
Small Red										
Merlot	93	10	2	124	21	19	2873	0	1	36
R12844	93	3	1	116	12	18	1635	3	1	38
Rio Rojo	85	15	2	125	19	20	1182	1	1	30
Rojo Chiquito	90	5	3	123	20	19	3172	1	0	23
SR10-2-4(1)	85	10	2	123	24	18	2033	3	0	41
UI-239	80	38	4	116	18	19	956	1	3	33
Yellow										
Canario 707	33	8	4	137	15	25	576	1	7	48
DBY28-1	83	55	4	134	15	21	2268	1	3	45
DBY60-1	88	18	4	134	14	22	1464	1	3	46
Yellow-eye										
Kenearly	90	13	4	114	19	17	1938	12	0	46
CV (%)	8.0	46.9	16.9	2.2	14.6	6.7	24.2	60.6	108.8	4.1
LSD (p = 0.05)	13	15	1	5	6	3	816	7	3	3
Mean	84	16	3	120	19	19	1680	6	1	39
Minimum	25	0	1	103	10	15	316	0	0	19
Maximum	95	70	4	137	35	27	3497	40	12	65

Skagit Trial



Jefferson Trial



Thurston Trial



Trial Methods

Planting: In the observational trial, 55 varieties including breeding lines from North Dakota State University, University of California Davis, USDA Prosser, Michigan State University, Oregon State University, several local heirlooms, and commercially available varieties were planted on May 18, 2015. The trial was arranged in a randomized complete block design with two replicated plots of each variety. Plots were 8 ft in length and 5 ft in width (three rows wide). Seed was hand planted at a rate of one seed every two inches (130,680 seeds/acre). Target seeding depth was two inches. Seed was inoculated with Garden Combination Inoculant, (Johnny's Selected Seeds, Winslow, ME) immediately prior to planting. The yield trial contained a set of 10 entries planted at all locations in two replicates. Planting dates ranged from May 5 to May 26. All trials were hand-planted to accommodate variation in row width and field size.

Weed Control: In early June, post-emergence, the trial was cultivated between rows. Hand-weeding and wheel-hoeing was performed for the rest of the summer. Farmer-collaborators managed soil fertility, weed control, and irrigation at on-farm trials.

Harvest: Mature plots from the observation trial and Skagit yield trial were harvested using a Wintersteiger NurseryMaster (Wintersteiger Ag, Ried im Innkreis, Austria) on September 13, 22, and 30. On-farm trials were harvested by hand and then threshed using the plot combine (Thurston County harvested on September 15 and October 4 and Jefferson county harvested September 14).

*Maturity rated on a scale of 1-3, where one is early and three is late.

*Defoliation rated on a scale of 1-4, where one is totally defoliated and four is not.

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

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

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