

Dry Bean Yield Trial across 4 counties in Western WA, 2014

Variety Name	Market Class	Yield (lb/A)	Clean yield (lb/A)	Plant height (cm)	Maturity rating (1-3)*	Emergence (%)	Hundred bean weight (g)
<b>Island County</b>							
Black coco	Black	612	587	32.5	1.0	80.6	53.8
CELRK	Kidney	808	805	37.5	2.0	76.4	59.6
Eclipse	Black	1493	1462	39.0	3.0	84.7	21.6
Etna	Cranberry	1600	1387	28.5	1.0	66.7	53.5
King of the early	Cranberry	1471	1399	39.5	1.0	83.3	60.2
Orca	Black and White	575	543	30.0	3.0	19.4	32.7
Silver cloud	White Kidney	629	569	41.5	3.0	55.6	57.2
Bright stone	Cranberry	1457	1421	32.0	1.5	80.6	41.2
Rockwell	Red and White	1396	1352	35.0	1.0	63.9	45.7
Whipple	Cranberry	929	881	31.5	2.0	59.7	68.3
<b>CV %</b>		61.1	58.3	13.0	12.1	11.8	12.3
<b>LSD (P=0.05)</b>		1519	1372	10.2	0.5	17.7	13.7
<b>Mean</b>		1097	1040	34.7	1.9	66.7	49.4
<b>Minimum</b>		575	543	28.5	1.0	19.4	21.6
<b>Maximum</b>		1600	1462	41.5	3.0	84.7	68.3
<b>San Juan County</b>							
Black coco	Black	610	571	35.6	2.0	75.0	48.7
CELRK	Kidney	1270	1237	37.5	1.0	86.8	57.2
Eclipse	Black	53	52	36.2	3.0	81.9	16.9
Etna	Cranberry	1316	1043	37.5	1.0	84.0	46.9
King of the early	Cranberry	1149	1080	36.2	1.0	87.5	52.7
Orca	Black and White	29	26	36.8	3.0	89.6	31.0
Silver cloud	White Kidney	414	280	34.3	3.0	77.8	61.2
Francis kring	Cranberry	1158	1108	33.7	1.0	93.1	52.8
<b>CV %</b>		43.8	39.7	9.6	0.0	7.1	3.4
<b>LSD (P=0.05)</b>		777	634	8.2	0.0	14.2	3.7
<b>Mean</b>		750	675	36.0	1.9	84.5	46.9
<b>Minimum</b>		29	26	33.7	1.0	75.0	16.9
<b>Maximum</b>		1316	1237	37.5	3.0	93.1	61.2
<b>Skagit County</b>							
Black coco	Black	369	336	26.6	1.0	45.0	51.6
CELRK	Kidney	440	419	27.1	1.0	50.0	53.3
Eclipse	Black	991	985	31.6	2.0	87.5	22.1
Etna	Cranberry	961	877	26.9	1.0	77.5	57.3
King of the early	Cranberry	594	561	29.0	1.0	85.0	52.1
Orca	Black and White	340	273	36.3	3.0	12.8	32.8
Silver cloud	White Kidney	680	666	38.9	2.0	42.5	60.0
Rojo chiquito	Small Red	1237	1222	40.8	2.0	72.5	22.9
<b>CV %</b>		48.8	50.7	14.3	0.0	22.6	3.5
<b>LSD (P=0.05)</b>		503	497	6.8	0.0	19.6	2.2
<b>Mean</b>		702	667	32.1	1.6	59.1	44.0
<b>Minimum</b>		340	273	26.6	1.0	12.8	22.1
<b>Maximum</b>		1237	1222	40.8	3.0	87.5	60.0
<b>Thurston County</b>							
Black coco	Black	3541	2687	53.5	1.0	78.5	59.9
CELRK	Kidney	4240	3759	58.5	1.0	91.0	64.8
Eclipse	Black	4123	3620	67.0	3.0	91.0	20.8
Etna	Cranberry	4419	2702	56.5	1.0	77.1	62.7
King of the early	Cranberry	4532	3851	59.5	1.0	91.7	62.9
Orca	Black and White	4857	4354	59.0	2.0	73.6	35.1
Silver cloud	White Kidney	4875	4299	70.5	2.0	92.4	74.4
Calypso	Black and White	3714	2964	54.5	1.0	87.5	55.5
<b>CV %</b>		32.2	37.3	10.1	0.0	7.9	5.7
<b>LSD (P=0.05)</b>		3263	3118	14.3	0.0	15.9	7.3
<b>Mean</b>		4288	3530	59.9	1.5	85.3	54.5
<b>Minimum</b>		3541	2687	53.5	1.0	73.6	20.8
<b>Maximum</b>		4875	4354	70.5	3.0	92.4	64.8

## Yield Trial Methods

**Planting:** The yield trial contained a set of 10 entries planted at all locations and one farmer-selected entry. Two replicates were planted at three on-farm trials and 4 replicates were planted at WSU Mount Vernon. Planting dates ranged from May 14 to May 28. Trials at WSU Mount Vernon were machine planted using a modified Allis Chalmers planting tractor in rows on 24 in centers. On-farm trials were hand-planted to accommodate variation in row width and field size.

**Management:** Farmer-collaborators managed soil fertility, weed control, and irrigation at on-farm trials. Mount Vernon trials were certified organic and were fertilized prior to planting and were cultivated 3 times to control weeds.

**Harvest:** Trials at WSU Mount Vernon were harvested sequentially to account for different maturities using a Wintersteiger NurseryMaster Plot Combine ( August 29 and September 5, 8, & 16). On-farm trials were harvested by hand and then threshed using the plot combine (Thurston County harvested on September 9, and Island and San Juan counties harvested September 15).

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

For additional information contact Steve Lyon ([slyon@wsu.edu](mailto:slyon@wsu.edu)).

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

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