

WSU Mount Vernon Western Washington Spring Oat Variety Tests 2014

- Spring oat nurseries were grown at four locations in Western Washington. A full nursery of 50 varieties was grown at Bishops Farm (Island County), WSU Mount Vernon NWREC (Skagit County) and Kirsop Farms (Thurston County). A partial nursery of 15 varieties was grown at TeVelde's Farm (Whatcom County). This data is shown separately.
- Seeding rates were adjusted for seed weight and germination rate to achieve 250 live plants per sqm at Bishops, NWREC and Kirsop and 180 plants per sqm at TeVelde's.
- Seed was placed with a double disc drill set on 6-inch spacing.
- No fungicides or insecticides were applied.

Location	Seeding date	Harvest date	Applications
Bishops	4/9/2014	8/26/2014	2,4-D Ester in June (NB this herbicide can be damaging to oats and is thought to have influenced trial results; see below).
NWREC	4/7/2014	8/28/2014	Glyphosate, pre-drilling; Proganic chicken manure fertiliser (75lb N/a) in April.
Kirsop	5/15/2014	9/9/2014	Organically managed, no applications.
TeVelde's	4/2/2014	8/8/2014	Maestro (1.5 pints per acre) and Harmony Extra (0.5oz per acre) herbicides in May; urea fertilizer (80lb/a N) in May.

Field notes	
Bishops	An application of 2,4-D ester to control weeds in the surrounding barley crop may have contributed to stunted flowering and uneven ripening of the crop, since oats are sensitive to this herbicide.
NWREC	Abundant rains in spring and late summer contributed to very severe lodging pressure.
Kirsop	Heavy weed pressure contributed to lower yields.
TeVelde's	No unusual observations.
All sites	Grey speck (manganese deficiency) was observed, and a very minor infestation of powdery mildew towards the end of the season. Other than this, no disease was observed. Cereal Leaf Beetle affected plants at all sites.

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

For other variety testing results, please visit <http://plantbreeding.wsu.edu>

The information in these documents is provided for educational purposes only. References to commercial products or trade names do not imply an endorsement by Washington State University.

Western Washington Spring Oat Variety Trials 2014

Yield data

* Entries marked with a star were not grown in the TeVelde nursery.

Site:	Bishops		Kirsop		NWREC		TeVelde		C.V. by entry ¹
	Average Yield, lb/a	Within-site rank							
Site mean	3281	n/a	3323	n/a	6919	n/a	6430	n/a	n/a
06-5465	2721	35	2600	42	6403	39	6096	11	13%
AC Lu	5142	4	4254	4	8052	4	*	*	9%
AC Morgan	2985	28	4512	1	7913	6	7122	1	16%
Baker	2724	34	3477	21	6615	34	*	*	27%
Buckskin	3065	27	2829	39	6962	23	5889	14	19%
Cayuse	1833	46	2812	40	6249	42	5998	13	20%
Chaps	3872	13	3979	8	6800	28	*	*	8%
Don	1648	50	3627	17	5540	50	*	*	27%
Esker	4070	12	2915	37	7489	10	*	*	6%
Excel	2824	32	3234	29	7101	16	*	*	26%
Furlong	4962	5	3175	30	6739	32	6794	4	15%
HiFi	4134	11	2451	45	6092	45	*	*	28%
Horsepower	5332	2	3291	27	7298	13	6914	2	14%
Jay	2552	40	3443	23	7059	17	*	*	9%
Jim	3181	25	2971	35	6550	36	*	*	25%
Jordan	3628	17	3411	25	6853	27	6848	3	13%
Jury	2324	41	2594	43	6103	44	*	*	22%
Kaufmann	6238	1	3950	9	7989	5	*	*	12%
Killdeer	1789	49	3499	20	7787	7	*	*	13%
Kona	1799	48	3428	24	7030	18	*	*	11%
L-5	3119	26	3033	32	6956	24	*	*	29%
Leggett	4284	9	3470	22	6529	37	*	*	19%
Lincoln	3503	19	2438	46	5616	49	*	*	18%
ML oat	3283	23	2513	44	6743	31	*	*	21%
Monida	2639	37	2400	49	6744	30	*	*	22%
Newburg	3521	18	3105	31	6411	38	*	*	9%
NZA228/17	4164	10	2633	41	6165	43	*	*	18%
NZA29/09	2307	42	2404	48	6579	35	*	*	30%
NZA292,06	4578	6	3025	33	6965	22	*	*	11%
NZA293,111	5253	3	3713	14	6866	26	*	*	18%
NZA733/01	2658	36	4488	2	7027	19	*	*	17%
Ogle	2624	38	3394	26	7180	14	*	*	24%
Pinnacle	2177	43	3830	11	8667	1	*	*	19%
Proleaf234	2935	31	3612	18	8386	2	6540	7	9%
Robust	2591	39	3012	34	7017	20	*	*	23%
Rockford	2937	30	3511	19	6297	41	6527	8	12%
Rodeo	4308	8	3934	10	6745	29	*	*	12%
Ronald	3330	21	3668	15	6975	21	*	*	14%
Saber	3808	14	3246	28	7366	12	*	*	24%
Shootingstar	2020	44	3658	16	7717	8	6189	10	9%
Souris	3228	24	2943	36	5755	48	6779	5	16%

Spurs	2961	29	2438	47	6388	40	*	*	20%
Stainless	1836	45	2836	38	6733	33	*	*	10%
Stride	3772	15	3786	13	7479	11	6085	12	13%
Summit	2799	33	4150	5	8381	3	*	*	19%
Tack	4368	7	4124	6	5975	47	6601	6	10%
UC113	3318	22	4003	7	6897	25	*	*	33%
UC125	3486	20	4324	3	7177	15	6257	9	13%
Viking	1813	47	3817	12	7575	9	5810	15	11%
Wombat	3632	16	2179	50	6001	46	*	*	16%
H.S.D.	3567		n.s.d.		3222		n.s.d.		
Within-site C.V.	21%		27%		11%		11%		

HSD: Tukey's Honestly Significant Difference

n.s.d.: no significant difference identified from statistical tests.

C.V.: Coefficient of Variation

¹ For comparability, the entry C.V. was calculated using only data from the three sites where all varieties were grown.

Western Washington Spring Oat Variety Trials 2014

Test Weight data

* Entries marked with a star were not grown in the TeVelde nursery.

	Bishops		NWREC		Kirsop		TeVelde		C.V. by entry ¹
	Average test weight, lb/bu	Within-site rank							
Site mean	39.9	n/a	40.6	n/a	37.5	n/a	38.5	n/a	n/a
06-5465	40.2	26	41.0	20	38.6	15	41.7	3	6%
AC Lu	44.9	2	42.3	11	38.0	22	*	*	2%
AC Morgan	35.3	46	41.6	16	37.5	28	37.1	11	4%
Baker	40.3	25	40.7	28	37.9	25	*	*	4%
Buckskin	45.0	1	41.4	18	39.5	5	41.6	5	3%
Cayuse	39.6	28	40.7	26	35.4	43	34.4	13	3%
Chaps	38.4	37	39.4	41	37.4	32	*	*	3%
Don	41.1	20	40.6	29	39.2	9	*	*	3%
Esker	41.0	21	39.9	35	38.1	20	*	*	3%
Excel	38.8	34	40.9	23	37.4	31	*	*	4%
Furlong	42.9	12	41.4	19	38.0	23	38.2	10	4%
HiFi	41.0	22	42.9	4	38.5	17	*	*	4%
Horsepower	44.2	5	42.6	7	38.2	19	41.6	4	4%
Jay	41.6	16	42.2	12	39.2	8	*	*	2%
Jim	41.2	19	40.6	30	39.0	10	*	*	3%
Jordan	36.1	44	36.6	48	33.9	46	30.9	15	3%
Jury	39.2	31	42.9	5	39.5	6	*	*	4%
Kaufmann	43.1	7	41.8	14	38.8	12	*	*	2%
Killdeer	29.4	50	41.9	13	36.8	39	*	*	5%
Kona	32.4	49	36.8	47	36.0	42	*	*	6%
L-5	36.9	43	39.8	38	38.8	13	*	*	6%
Leggett	41.9	15	42.6	8	37.2	34	*	*	4%
Lincoln	41.2	18	41.5	17	35.0	44	*	*	4%
ML oat	41.9	14	40.2	34	36.8	38	*	*	5%
Monida	43.2	6	39.7	39	37.6	27	*	*	3%
Newburg	39.5	30	42.7	6	38.0	21	*	*	4%
NZA228/17	40.9	23	38.1	46	33.5	48	*	*	3%
NZA29/09	37.4	41	34.0	50	33.3	49	*	*	4%
NZA292,06	41.3	17	39.6	40	37.5	30	*	*	4%
NZA293,111	42.9	11	40.7	27	37.9	24	*	*	3%
NZA733/01	37.7	40	39.9	37	37.0	36	*	*	2%
Ogle	38.6	36	39.3	43	34.4	45	*	*	3%
Pinnacle	35.1	47	40.9	24	36.3	41	*	*	3%
Proleaf234	37.1	42	39.9	36	37.0	37	35.2	12	3%
Robust	42.6	13	41.7	15	40.7	2	*	*	4%
Rockford	39.0	33	43.5	1	39.4	7	42.7	2	3%
Rodeo	39.1	32	40.5	31	37.3	33	*	*	3%
Ronald	39.6	29	40.9	25	38.2	18	*	*	3%
Saber	39.7	27	40.9	22	37.5	29	*	*	4%
Shootingstar	34.8	48	34.5	49	32.8	50	32.1	14	8%
Souris	42.9	10	40.5	32	38.9	11	39.8	7	4%
Spurs	44.3	4	42.3	9	41.5	1	*	*	3%

Stainless	38.1	39	40.4	33	36.5	40	*	*	4%
Stride	43.0	8	43.0	3	39.5	4	40.3	6	3%
Summit	38.1	38	41.0	21	38.7	14	*	*	5%
Tack	44.7	3	43.2	2	40.7	3	44.0	1	2%
UC113	38.8	35	38.5	44	33.5	47	*	*	8%
UC125	40.9	24	39.3	42	37.1	35	38.7	8	2%
Viking	35.7	45	42.3	10	37.8	26	38.5	9	4%
Wombat	42.9	9	38.1	45	38.6	16	*	*	3%
H.S.D.	7.2		n/a		6.6		5.7		
Within-site C.V.	4%		3%		4%		4%		

HSD: Tukey's Honestly Significant Difference

n.s.d.: no significant difference identified from statistical tests.

C.V.: Coefficient of Variation

¹ For comparability, the entry C.V. was calculated using only data from the three sites where all varieties were grown.

Western Washington Spring Oat Variety Trials 2014

Field data

* Entries marked with a star were not grown in the TeVelde nursery.

Entry	NWREC			Bishops			Kirsop			TeVelde		
	Days to heading, Julian	Plant height, in	Pre-harvest lodging index, %	Heading, E=early, M=mid, L=late	Plant height in	Mid-season lodging, 0-3	Heading, E=early, M=mid, L=late	Plant height, in	Mid-season lodging, 0-3	Heading, E=early, M=mid, L=late	Plant height, in	Mid-season lodging, 0-3
O6-5465	161	46.9	13	E	39.3	0.0	n.r.	36.8	0.0	E	37.8	0.0
AC Lu	170	54.1	93	E	47.3	1.7	n.r.	45.5	0.0	*	*	*
AC Morgan	175	55.4	58	M	51.3	0.7	n.r.	43.0	0.0	M	51.8	0.0
Baker	168	54.7	83	E	44.7	1.3	n.r.	38.8	0.0	*	*	*
Buckskin	163	46.7	87	E	39.0	0.7	n.r.	35.3	0.0	E	39.2	0.0
Cayuse	174	51.6	98	E	34.0	0.7	n.r.	37.5	1.3	E	46.7	0.0
Chaps	168	54.1	86	E	45.0	1.0	n.r.	42.2	0.0	*	*	*
Don	165	54.5	89	E	35.7	0.0	n.r.	39.8	0.0	*	*	*
Esker	166	53.9	97	E	44.7	1.3	n.r.	38.0	0.0	*	*	*
Excel	164	47.8	42	E	42.3	1.0	n.r.	38.7	0.0	*	*	*
Furlong	174	57.7	89	E	48.7	0.3	n.r.	39.7	0.0	M	47.2	0.0
HiFi	171	56.3	87	E	50.7	0.7	n.r.	41.0	0.0	*	*	*
Horsepower	165	48.0	68	E	43.3	0.0	n.r.	35.8	0.0	E	41.3	0.0
Jay	165	43.8	19	E	40.3	0.3	n.r.	35.8	0.0	*	*	*
Jim	166	53.9	100	E	46.3	0.7	n.r.	41.5	0.0	*	*	*
Jordan	180	46.5	65	M	43.3	0.3	n.r.	44.8	2.3	L	42.3	0.0
Jury	169	62.1	83	E	50.3	0.7	n.r.	42.0	0.0	*	*	*
Kaufmann	174	61.7	98	E	49.7	0.7	n.r.	47.5	0.0	*	*	*
Killdeer	169	52.0	90	E	44.0	0.0	n.r.	43.8	0.7	*	*	*
Kona	179	49.1	79	M	42.7	0.3	n.r.	36.0	0.0	*	*	*
L-5	184	42.8	3	L	36.7	0.0	n.r.	34.5	0.7	*	*	*
Leggett	173	53.4	67	E	47.0	0.7	n.r.	38.7	0.0	*	*	*
Lincoln	178	68.9	96	M	52.0	2.0	n.r.	42.2	0.3	*	*	*
ML oat	177	62.1	98	M	51.7	2.0	n.r.	45.5	0.3	*	*	*
Monida	176	56.0	87	M	38.0	1.3	n.r.	41.5	0.3	*	*	*
Newburg	171	66.1	98	E	47.7	1.0	n.r.	47.7	0.3	*	*	*
NZA228/17	184	40.3	57	L	33.3	0.0	n.r.	38.8	0.0	*	*	*
NZA29/09	183	39.4	49	L	28.7	0.3	n.r.	30.5	0.0	*	*	*
NZA292,06	180	53.1	90	L	42.7	0.0	n.r.	36.3	0.0	*	*	*
NZA293,111	178	53.0	54	M	47.7	0.3	n.r.	43.5	0.0	*	*	*
NZA733/01	183	42.3	10	L	38.0	0.0	n.r.	39.2	0.0	*	*	*
Ogle	166	50.7	65	E	42.0	1.7	n.r.	36.8	0.0	*	*	*
Pinnacle	175	61.4	87	E	49.7	0.7	n.r.	44.5	0.0	*	*	*
Proleaf234	175	54.1	33	M	47.0	0.3	n.r.	40.7	0.0	M	45.5	0.0
Robust	170	49.5	20	E	40.0	0.3	n.r.	40.3	0.0	*	*	*
Rockford	172	57.6	94	E	50.3	0.7	n.r.	39.0	0.0	E	50.0	0.0
Rodeo	170	53.1	65	E	48.0	0.3	n.r.	41.7	0.0	*	*	*
Ronald	176	51.8	79	E	43.0	0.7	n.r.	41.8	0.0	*	*	*
Saber	169	52.6	46	E	45.7	0.7	n.r.	38.0	0.0	*	*	*
Shootingstar	182	38.5	3	L	30.0	0.0	n.r.	35.3	0.0	L	32.2	0.0
Souris	172	52.9	80	E	42.3	0.7	n.r.	39.8	0.0	E	46.2	0.0
Spurs	163	53.3	9	E	41.7	1.3	n.r.	33.0	0.0	*	*	*
Stainless	171	56.0	91	E	40.7	0.3	n.r.	41.0	0.3	*	*	*

Stride	176	62.1	93	M	48.7	0.7	n.r.	45.2	0.0	M	49.7	0.0
Summit	174	47.9	37	E	44.0	0.3	n.r.	39.2	0.0	*	*	*
Tack	165	47.5	32	E	43.7	0.0	n.r.	39.3	0.0	E	43.5	0.0
UC113	173	41.3	7	E	32.0	0.0	n.r.	35.0	0.0	E	35.3	0.0
UC125	173	44.5	8	E	32.7	0.0	n.r.	38.0	0.0	*	*	*
Viking	179	52.5	39	M	43.7	1.0	n.r.	40.3	0.0	L	44.2	0.0
Wombat	173	34.4	17	E	30.7	0.7	n.r.	27.3	0.3	*	*	*

¹ Lodging index: % of plot lodged (45-90°) + % of plot leaning (0-45°)

n.r.: not rated