

WSU Mount Vernon Western Washington Hulless Spring Oat Variety Tests 2014

- Hulless spring oats nurseries were grown at three locations in Western Washington: Bishops Farm (Island County), WSU Mount Vernon NWREC (Skagit County) and Kirsop Farms (Thurston County). Kirsop Farms is organically managed.
- Three replicates were grown at each location.
- Seeding rates were adjusted for seed weight and germination rate to achieve 250 live plants per sqm.
- 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.

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.
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>

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Results summary

		Yield, lb/a	Tukey's HSD Group, yield ¹	Test weight, lb/bu	Tukey's HSD Group, test weight ¹	Plant height, in	Days to heading, Julian	Mid-season lodging severity, 0-3	Late-season lodging index, 0-100	Mean grain protein, %	Mean grain oil, %
	Location average	2,288		39.1		48	n.r.	0.8	n.r.	15.7	7.7
Bishops	AC Gwen	2,295	*	38.3	ab	45	n.r.	0.0	n.r.	13.6	7.2
	Paul	1,906	*	38.6	ab	50	n.r.	0.7	n.r.	17.2	8.4
	Streaker	2,304	*	44.6	a	50	n.r.	2.3	n.r.	16.3	7.7

	Location average	1,986		40.2		39	n.r.	0.1	n.r.	17.4	7.7
Kirsop	AC Gwen	1,624	b	39.0	c	36	n.r.	0.0	n.r.	15.5	7.1
	Paul	1,758	b	42.0	b	41	n.r.	0.0	n.r.	18.5	8.8
	Streaker	1,615	b	45.6	a	39	n.r.	0.3	n.r.	18.2	7.3

	Location average	4,594		39.5		57	173	2.6	89	14.0	8.3
NWREC	AC Gwen	4,807	ab	38.2	b	56	174	2.2	78	12.2	7.5
	Paul	4,250	b	42.2	a	58	175	2.8	89	15.3	9.2
	Streaker	3,579	b	42.7	a	61	167	3.0	100	14.5	8.2

¹ Entries sharing the same letter are not significantly different at $p \leq 0.05$

n.r.: not rated