

Project Title: Statewide Pea Variety Evaluation

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Project Objective: To evaluate seed yield and agronomic performance of 13 pea varieties in northwestern Montana

Results:

Thirteen pea varieties (Table 1) were seeded into Creston sandy loam soil on May 1, 2009. The field was prepared for planting using conventional tillage. No pesticides were applied and the trial was not irrigated. Seeds, treated with fungicide and inoculated with *Rhizobium* sp., were sown at a rate of 8 seeds/ft² at a depth of 1.5 in. Plots were combine harvested at physiological maturity on August 11, 2009, 102 days after planting.

Peas were seeded two weeks later than the previous year, which delayed flowering and maturity by approximately one week. The average time to flower was 58 days after planting (June 28) and plants reached grain maturity (10% moisture) an average of 92 days after planting (August 1). Canopy height ranged from 17 to 27 inches and lodging scores ranged from 1 (no lodging) to 2 (Table 1).

Pea grain yield across varieties averaged 43.1 bu/a (3,323 lb/a), ranging from 34.0 bu/a (Stirling) to 46.8 bu/a (CDC Mozart), however yield differences among varieties were not significant. Test weights averaged 75 lb/bu. SW Midas had the largest seeds (2,700 /lb) while PS0010836 had the smallest seeds (1,730/lb).

Summary:

Grain yields were not significantly different among the commercially available varieties, and average yields were comparable to those obtained in 2008. No major disease or insect pests were observed.

Future Plans:

Pea variety evaluations will continue to be conducted each year in order to identify varieties suitable to our growing region.

TABLE 1. 2009 Statewide Pea Variety Evaluation Results
Northwestern Ag Research Center, Kalispell, MT

Variety	Grain Yield	Grain Yield	Seed Weight	Test Weight	Days to Flower <i>days after planting</i>	Grain Maturity <i>days after planting</i>	Canopy Height <i>in</i>	Lodging Index <i>0-9</i>
	<i>bu/a</i>	<i>lb/a</i>	<i>#/lb</i>	<i>lb/bu</i>				
CDC Mozart	46.8	3538	1888.00	75.78	59	92	19	2
Cruiser	46.7	3484	2260.00	74.58	56	88	27	1
Medora	46.5	3437	2190.33	73.96	62	94	24	0
PS9910140	45.5	3353	1895.33	73.70	58	92	21	2
Delta	45.4	3446	1844.67	76.08	56	87	20	1
Majoret	44.2	3285	1960.00	74.45	60	94	21	1
SW Midas	44.1	3313	2700.67	74.98	59	91	26	1
CDC Golden	43.9	3284	2504.00	75.08	59	91	23	1
PS0010836	42.7	3168	1730.25	74.10	58	96	19	2
CDC Striker	41.3	3154	1804.00	76.45	63	90	24	0
PS01102958	40.2	2996	1885.50	74.75	61	95	20	1
DS Admiral	39.9	3016	2272.00	75.53	58	91	24	1
Stirling	34.0	2550	2283.25	75.18	50	96	17	1
Average	43.1	3232	2093.69	74.97	58	92	22	1.00
LSD ($\alpha=0.05$)	ns	ns	ns	ns	ns	ns	ns	ns

Grain yield is adjusted to 10% grain moisture content.

ns indicates that differences among varieties are not significant at $\alpha=0.05$.