Evaluation of Camelina Varieties and Numbered Lines at Lind

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We are currently in the third year of multi-location camelina agronomy trials. Identical experiments are conducted in four precipitation zones in the Pacific Northwest. These locations are Lind, Pendleton (Don Wysocki, OSU), Pullman (Stephen Guy, WSU), and Corvallis (Tom Chastain, OSU). This brief report covers the performance of numerous camelina varieties and numbered lines during 2009 at Lind.

For the 2009 crop year, 18 camelina varieties and numbered lines were planted in the fall and 25 varieties and numbered lines were planted in the spring. We built a small-plot drill (using John Deere 450 double-disc openers on 6-inch row spacing) for this purpose. Camelina was sown into standing winter wheat stubble at a rate of 4 lbs/acre. Individual plots were 5 x 20 feet and all entries were replicated four times in a randomized complete block arrangement. Fall planting was conducted on November 19 and spring planting on February 27. Plots were fertilized with 25 lbs/acre of nitrogen.

Precipitation for 2009 crop year (Sept. 1 – Aug. 31) at the Lind Research Station was 8.46 inches. Long-term average crop-year precipitation for this site is 9.50 inches. Grain yields among entries ranged from approximately 400 to 600 lbs/acre for both fall and spring planting dates (Fig. 1). The variety 'Calena' was one of the top producers from both planting dates.

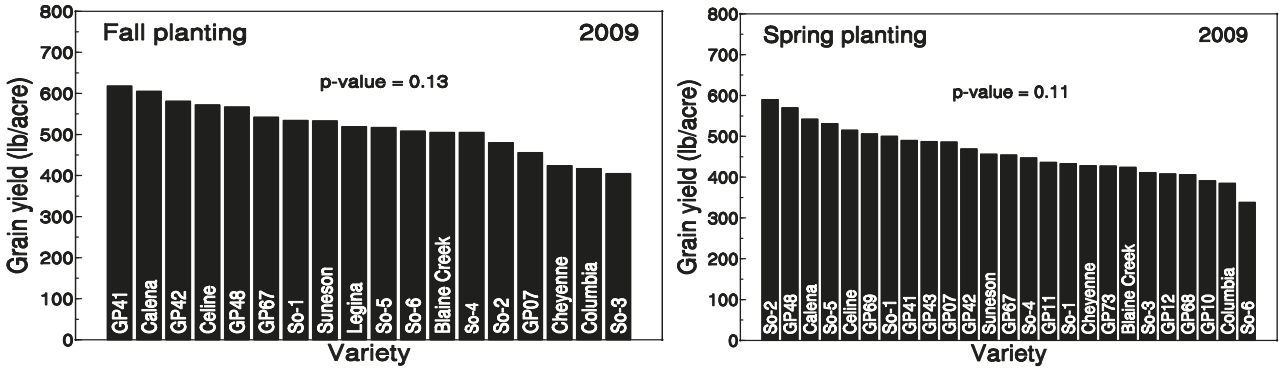

Fig 1. Grain yield of camelina varieties and numbered lines at Lind, WA in 2009. (Left) 18 camelina varieties and numbered lines were direct-drilled into wheat stubble on November 19, 2008. There were no significant grain yield differences among entries. (Right) 25 camelina varieties and numbered lines were direct drilled at Lind on February 27, 2009. There were no significant grain yield differences among entries.

Winter Canola Feasibility in Rotation with Winter Wheat

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Producers in the dryland (<12 inches annual precipitation) cropping region of eastern Washington continue looking for profitable alternatives to winter wheat (*Triticum aestivum* L.) to limit grassy weed resistance to Group 2 herbicides. Winter canola (*Brassica napus* L.) is an oil seed crop that offers non Group 2 grassy weed herbicide options but has a very limited history in this region as agronomic and economic risks are elevated. The objective of this research is to help producers determine market prices needed to minimize risks, increase profitability, and decrease potential for herbicide resistances. An on-farm test (OFT) was initiated in the fall of 2006 examining two treatments: 1. winter canola, summer fallow, winter wheat; 2. winter wheat, summer fallow, winter wheat. The OFT was a RCBD with 4 replications and was 6.5 acres in size. Total production costs between the two crops were similar. Winter wheat produced greater yield and gross economic return at 43.5 bu and $355/ac compared to canola at 34.5 bu and $293/ac. Subsequent winter wheat yield was 39.3% greater following canola and over the total cropping sequence, no significant difference in gross economic returns were determined between winter wheat and canola averaging $493/ac. In conclusion, yield differences were documented between winter wheat and canola but market price differential between the two crops has a larger influence on the profitability and can