

Varieties for Your Area

IN BRIEF

Certain varieties are ideal for the different crop production areas in Saskatchewan.

A five year agreement to conduct the pulse crop regional variety trials in Saskatchewan continued in 2008. The agreement was sponsored by the Saskatchewan Pulse Growers and the University of Saskatchewan's Crop Development Centre (CDC).

Data was collected on different varieties of pulse crops from various breeding institutions and from private pulse breeding programs. For a more complete list and detailed description of pulse varieties refer to pages 17-19.

Lentil, pea, chickpea and dry bean varieties were tested for yield, maturity, resistance to disease, and other agronomic and seed quality factors at up to 18 sites in 2008. These crops were also tested within areas suitable for their adaptation in Saskatchewan.

Market classes were grouped separately to compare varieties. The performance of each variety was subject to many influences over the growing season; however, the probability of achieving good results on the farm increases by choosing varieties that performed well in these tests.

The lentil trials included six market classes, including small green, medium green, large green, French green, small red, and extra small red. Yield was compared to a standard variety that had been tested for a long period of time. Similar to other years, in 2008 the standard was CDC Milestone and all yield data were

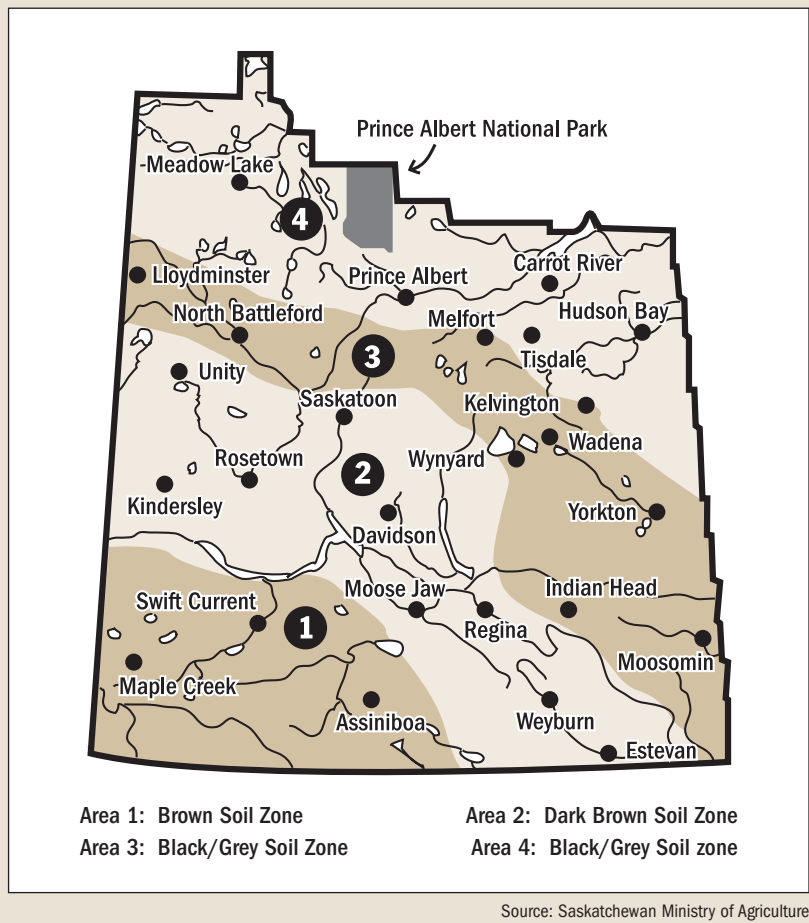
reported relative to this variety. In 2009, lentil production in Saskatchewan should expand, especially red lentil.

CDC Milestone and CDC Viceroy were high-yielding and had resistance to ascochyta blight. CDC Viceroy also had resistance to anthracnose (Race 1). All the varieties in this class are early maturing and performed well in all Saskatchewan crop production areas (see Figure 1).

For medium green lentils, CDC Meteor had the highest yield and performed well in all crop production areas. In the large green class, CDC Greenland performed well in areas 1 and 2. The colour of the seed coat for green lentil affects the price of the product, and progress is being made in this area. For example, CDC Greenland and CDC Viceroy have better retention of green colour compared to other varieties.

The spectrum of red lentil varieties is changing rapidly in response to agronomic requirements and preferences in an expanding market. Small red lentil comparisons showed CDC Maxim CL, CDC Rouleau, and CDC Redberry continue to be high yielding in all crop production areas. All three had resistance to ascochyta blight and anthracnose (Race 1). CDC Maxim CL is a CLEARFIELD lentil with tolerance to herbicides in the imidazilone family. The red lentil sector of the industry is still expanding for both whole seed exports and domestic dehulling. As result,

Figure 1: Crop Production Area in Saskatchewan



seed of CDC Maxim CL and some of the other new red lentil varieties may be difficult to obtain for 2009.

In the extra small red lentil group, the original standard variety CDC Robin is being replaced by CDC Imperial CL, as well as CDC Rosetown, and CDC Impala CL. All new red lentil varieties showed dramatic improvements in lodging tolerance in comparison to the older varieties like Crimson and Robin.

All four market classes of pea were included in the regional variety trials. The variety Cutlass was the standard used for yield comparisons.

For yellow pea, CDC Golden and CDC Bronco were strong performers in both southern and northern regions of Saskatchewan. CDC Golden had slightly better lodging resistance and more durable seed coat than CDC Bronco, while CDC Bronco had a somewhat more branched growth habit. Other yellow pea varieties such as DS Admiral and Polstead had greater yield in the northern regions, SW Midas had greater yields in the south, and

Cutlass and Eclipse had similar yields in both regions. CDC Meadow had early maturity, good lodging resistance and good yield.


CDC Striker has been the most widely grown in previous years due to its excellent seed appearance – round, smooth, and with good bleaching resistance. Cooper had good lodging resistance with high yield in the southern portion of the province. CDC Sage had small seed size, good bleaching resistance and intense green colour.

For forage pea, CDC Tucker was a moderately tall semileafless variety with good lodging resistance. It is attractive for forage and silage markets due to its high biomass production and small seed size.

From the 2008 variety trials, CDC Chico, a small seeded kabuli chickpea was the earliest maturing and had comparable yield with Amit, the check variety for kabuli chickpeas. However, CDC Chico had poor resistance to ascochyta blight. CDC Frontier, a medium size kabuli had consistently high yield in areas 1 and 2 and had fair resistance to ascochyta blight. Initial fungicide application was needed at the seedling to pre-flowering stage to limit early spore development and spread. CDC Frontier was rated as relatively late maturity especially under wet and cool growing conditions. CDC Luna, a kabuli variety with high yield and fair resistance to ascochyta blight, had slightly earlier maturing and larger seed size than CDC Frontier.

All the desi chickpeas tested had fair resistance to ascochyta blight. Initial fungicide application was needed at the seedling to pre-flowering stage. All had similar or better yield than the check (Myles) in both areas 1 and 2. CDC Vanguard was the highest yielding variety.

Dry bean varieties were tested in areas 2 and 3 under irrigation where they are best adapted. CDC Pintium was the variety used as the standard and had the best overall rating, best average yield, performed well for pod clearance and matured the earliest.

There are a lot of things to consider when choosing a pulse crop variety, but making a choice based on research data makes sense. Good luck with your crop selections in 2009! 

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