

In 1977, the historically problematic disease anthracnose returned, and proceeded to destroy 20% of the white bean crop. Extensive backcross breeding programs were initiated at OAC in an attempt to develop resistance to anthracnose. In 1983, four delta-race anthracnose resistant cultivars were released; OAC Seaforth, Harokent, Harofleet, and OAC Rico. Five years later, three additional resistant cultivars were introduced; OAC Gryphon, OAC Cygnus, and OAC Sprint. In addition to the above mentioned research, OAC also conducts research on other diseases such as common blight, root rot and white mold. By the 1990's, 5 of the 18 white bean cultivars recommended for production will have been bred at the OAC.

Another important centre for pulse research, is the Crop Development Centre at the University of Saskatchewan. At the CDC, one of the most knowledgeable people with respect to pulses, is senior research scientist Dr. A.E. Slinkard. Dr. Slinkard is in charge of pulse crop breeding and management at the CDC, and has an extensive background in all facets of pulse production. Dr. Slinkard is continuously attempting to develop improved management practices and develop higher yielding, disease and drought resistant cultivars.

Lentil was first grown in Saskatchewan in 1969. Lack of proper management almost eliminated lentil by 1976. The CDC initiated a series of management studies placing emphasis on seeding depth, seeding methods, rate and date of seeding, swathing stages, and chemical and cultural weed control. Thus, by 1976 a new package of agronomic practices had been developed, and with the assistance of Agriculture Canada, a three year program was initiated. In the first year, one of the ten first-time lentil growers had outstanding results and grossed over \$1500/ha!!

Since then, lentil production has increased every year except for 1983, 1988 and 1989. Laird lentil was registered in 1978 and is currently the most widely grown cultivar in the world. Eston lentil was registered in 1980, but is susceptible to ascochyta blight. Currently, a backcross program has been initiated to produce a Laird type lentil that will be resistant to both foliar infection and seed infection by ascochyta. In addition, Dr. Slinkard has developed the red cotyledon cultivar Rose lentil, which was registered in 1990. The addition of the Rose lentil should help expand Canada's markets overseas in countries where red cotyledon lentil is preferred.