



Customers seeking excellent new hybrids, or firms wishing to have early hybrid seed grown under contract, are assured of varietal purity and superb quality precisely because of the exacting Canadian certification requirements, plus high grower skills and industry standards.

## Canola

Less than three decades ago, a relatively small acreage of canola was grown in Canada. Today, it is one of this nation's most important crops, and certainly our number one oilseed.

Naturally, such important traits as yield, maturity, disease resistance, etc. have been emphasized in the development of improved Brassica napus and Brassica campestris canola varieties.

It was the breeding of 'double zero' varieties that made Canadian rapeseed number one worldwide for quality. The name "canola" was adapted to designate those varieties with extremely low levels of erucic acid in the oil, and glucosinolates in the meal.

Minimal erucic acid content make rapeseed acceptable for inclusion in human diets. The addition of

canola rapeseed oil to the United States' GRAS (Generally Regarded As Safe) list has reinforced the importance of low erucic acid content, and made canola rapeseed an even more prominent commodity in world markets for edible oils. Low glucosinolate content makes canola meal an excellent protein supplement for livestock rations.

In 1984, Canadian researchers achieved another important milestone in rapeseed development with the introduction of triazine-tolerant (TT) canola. Representing a completely new direction in plant breeding, TT canola permits control of mustards and many other previously uncontrollable weeds with triazine herbicides. The TT crop is unaffected by these compounds, which would completely destroy standard rapeseed varieties.

Canada is also a world leader in the development of tame mustard (*Sinapis alba*, Brassica spp.).

## Soybean and Flax

### Soybeans

Canadian breeders have played a key role in the development of improved soybean varieties, from

the earliest days of this crop's evolution into North America's number one oilseed. Agriculture Canada's research station at Harrow, Ontario is world-renowned for its long-term contributions to soybean breeding. More recently, breeders at Agriculture Canada, Ottawa and the University of Guelph (Ontario) have provided improved early maturing varieties that have opened up vast new areas to soybean production.

Canadian breeders have developed the very best early soybean varieties in the world. Today, the private seed trade is leading the way in introducing improved cultivars. The early and mid-season varieties give new growers an attractive, profitable crop option. Productivity of early soybean varieties approaches that of the full-season varieties.

Canada's diversity of maturity zones and soil types provides an ideal environment of assessing varieties. Naturally, breeders strive to attain high yield potential, improved standability, resistance to important diseases such as white mould and phytophthora root rot, and other important agronomic traits. Rapid development of export markets for soybeans that meet human consumption standards has significantly influenced breeding efforts. The majority of new varieties feature white hila and other key quality characteristics demanded by these markets.

### Flax (*Linum usitatissimum*)

Canada is a world leader in flax development with emphasis on standability, disease tolerance and provision of a range of maturities.

This specialty crop, grown primarily for its linseed oil content, also provides a high quality protein meal for livestock rations. Linseed oil is the key ingredient in high quality, oil-based paints.