



## **Canola - How do I grow it in Southwestern North Dakota?**

Cool weather during the past several years has brought with it a relatively new crop to the buttes of southwestern North Dakota. Canola, traditionally a

Canadian grown crop has found its niche with several farmers in North Dakota's banana belt

Canola is a specific type of edible oilseed crop developed in the 1970's. It is a cool season broadleaf crop from the mustard family and is well adapted to North Dakota's growing conditions. The crop is typically grown under contract, with 1997 prices bringing between 10 to 14 cents per pound. Yields during the past couple of years have averaged well over 1500 pounds per acre for several southwestern ND growers.

Eric Eriksmoen, agronomist at the Hettinger Research Extension Center has conducted research on canola for the past 8 years. According to Eriksmoen, "canola can be grown successfully anywhere spring wheat can be grown, however, the management to successfully grow canola is different than that of wheat". Canola must be planted early, "before you plant wheat", according to Eriksmoen, "and probably no later than the first week of May in southwestern North Dakota". Research conducted at Hettinger in 1989 through 1991 showed a 37% decrease in yield when canola was planted on April 15 vs. April 1 and a 68% decrease when planted on May 1 vs. April 1. "Obviously weather plays an important roll", says Eriksmoen. "In 1992 I planted canola on May 12 and only saw

a small decrease in yield over canola planted on April 1". 1992 was cool throughout the growing season. "Last year we planted canola on April 19 and lost some yield to heat but still had a respectable 1700 pound yield" says Eriksmoen.

Canola is relatively frost tolerant except for a very short period of time directly after the young plant has emerged from the soil. According to Eriksmoen, "I've seen canola survive 20 degree temperatures numerous times and it has only frosted out once in 8 seasons". There are two distinct types of canola, Polish and Argentine, and many varieties within each of these types. "In general, the Polish varieties are

earlier in maturity but yield less than the Argentine varieties", says Eriksmoen. "The Polish varieties can help in managing risk, especially in southern North Dakota and especially during a late spring". The Hettinger Research Extension Center has tested many different varieties over the past several years and in 1994 entered into a comprehensive variety testing project with other North Dakota Research Centers. "Our goal is to evaluate varieties to determine which ones are best adapted to each area of the state", says Eriksmoen. This evaluation has been completed and is available at County Extension offices.

"Fertilizer requirements are very similar to that of wheat, says Eriksmoen. "A difference being that canola is a heavy sulfur user". For every 10 pounds of nitrogen that the canola plant uses, it also uses one pound of sulfur. Sulfur deficiencies are rare but they have been documented in southwestern North Dakota. A soil test should be utilized to determine existing fertility levels and to avoid nutrient deficiencies.

Weed and insect control are other areas that need to be carefully managed. Trifluralin (Treflan), quizalofop (Assure II) and sethoxydim (Ultima 160) are the only herbicides cleared for use on canola in North Dakota. Trifluralin needs to be incorporated into the soil twice before planting with a minimum of 5 days between incorporation passes. Ultima 160 and Assure II control grassy weeds and are applied post emergence.

An application of insecticide should also be considered when planting canola. A tiny insect, called a flea beetle, feeds on young emerging canola plants, defoliating and killing the plant. "Our first experience with the flea beetle was during the first year we tested the crop", says Eriksmoen. "We broke up a piece of land that had been in grass for 60 years and planted canola. The flea beetles were so thick on the small emerging canola plants that you couldn't see green plant tissue". Furadan CR10 mixed and sown with the seed is very effective on controlling flea beetles, according to Eriksmoen.

"Canola is a relatively easy crop to grow", says Eriksmoen. "It doesn't require any additional specialized equipment, it fits well with many crop rotations and you don't have to worry about disease problems associated with small grain crops".

For more information on this crop, extension circular [A-686, Canola Production](#), is available from your local county extension agent.