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OKANOLA

# Canola Bits

## Bringing Canola Rotation to Winter Wheat Producers

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In cooperation with the Great Plains Canola Association

Welcome to the first in a series of articles devoted to information on production techniques, current local and federal issues, and activities and information of interest on winter canola in the southern Great Plains. This first issue is devoted to explaining the Okanola project initiated by OSU and where we are with winter canola today.

What is canola? Canola is a broadleaf crop developed in the early 1970's from the rapeseed plant using traditional plant breeding methods. Canola is special because the seed contains about 40% oil with less than 2% erucic acid in the oil. The term canola is an acronym for Canada "CAN" oil low acid "OLA". This trait allows canola oil to be used as high quality heart-healthy cooking oil and the meal left after crushing the oil out is a high quality protein feedstock typically used for livestock. In 1985, the US-FDA ruled that canola was safe for human consumption and in 2006 the FDA approved a qualified health claim for canola oil for improved human heart health. The United States currently imports over two million acres of production per year just to meet our increasing consumer demand for healthier edible oils. Winter canola varieties adapted to the southern Great Plains have only been developed within the past few years. Much like wheat, spring varieties are grown in the northern states and Canada. Canola oil is also used in cosmetics, hydraulic fluids, printing inks, margarine, and prepackaged foods. Canola oil is also a high quality biodiesel, but the demand for cooking oil currently prevents much use of canola oil for fuel.

Our mission statement for the Okanola Project clearly defines OSU's long term goals.

**<u>Mission Statement</u>: To provide research, education, and demonstration to stimulate the development of winter canola as a major profitable rotational crop with winter wheat.**

**Why did we decide to introduce a new crop to Oklahoma wheat growers?**

- Oklahoma wheat growers suffer severe competitive disadvantage due to their widespread practice of growing only wheat for decades. Pest problems have multiplied and yields have failed to increase over time, in stark contrast to steady and major increases in yields of wheat and other crops elsewhere.
- The Okanola Project was conceived in 2003 as a vehicle to introduce winter-hardy canola as a profitable rotational crop for Oklahoma wheat growers to aid in pest management, improve wheat yields and quality, and facilitate adoption of notill crop production methods by wheat growers.
- Winter canola has been commercially grown in OK for only 5 years. The first adapted winter hardy variety was released by Kansas State University breeders in 2001. Before that time, canola could not be successful grow in Oklahoma.

As with any new crop, we had much to learn and we have all been learning quickly.
OK farmers can now feel confident about growing a crop of winter canola, and we are working vigorously to make the crop even more profitable.

1. Basic production technologies have been developed through research and on-farm trials.

2. Multiperil crop insurance has become available as a result of demonstrating successful production.
3. Producers Cooperative Oil Mill in OKC started crushing the oil from canola seed this fall.
4. Producers now have act of God contracts available from Plains Oilseed Products. Contact Brandon Winters at 405-232-7555 or bwinters@producerscoop.net. Recently, canola contracts have become an important financial planning tool for growers.
5. Demand for canola oil still exceeds supply and is increasing faster than the demand for grains.
6. Since the Okanola Project was started by Dr. Tom Peeper, OSU has hired an Assistant Extension Specialist for canola (Mark Boyles), an Extension Oilseed Specialist (Dr. Chad Godsey), and a canola breeder (Mike Stamm -shared with KSU, 40% OSU). A new grant-funded (3 yrs) Assistant Extension Specialist-Canola (Heath Sanders) began working at the OSU Cooperative Extension Area Office at Enid in July, 08.
7. OSU production research, variety improvement, and educational efforts are positioned to continue vigorously to support the anticipated major increase in canola acreage. This will ensure long term success of winter canola as a profitable rotational crop for OK wheat growers thereby improving their economic viability and ability to compete in world markets.
8. Introducing a new crop requires changes in farming and business operations throughout the system. Oklahoma wheat growers are quickly learning how to grow canola and local elevators have learned how grade and handle canola as it crosses the scales. Canola is not a grazed crop, but canola meal that remains after the oil is removed is a high protein for feed ingredient that is very usefully to the Oklahoma livestock industry.
9. The Great Plains Canola Association was organized this past year to support canola growers and represent Southern Great Plains growers in the U.S. Canola Association.
10. A check off was approved by the OK Legislature and Gov. Henry to assist in canola development.

**Why Oklahoma wheat growers need winter canola.**

Because of climatic and soil limitations, most Oklahoma farmers have been locked into a monoculture of winter wheat with practically no crop rotation for the last 50 years. Lack of crop rotation has increased production problems for wheat. One troublesome change has been the large increase in winter annual grassy weed species, including wild oats, jointed goatgrass, ryegrass, cheat, rescuegrass, and rye. Herbicide resistant weeds are becoming a problem. Over the years, wheat growers have tried using summer rotational crops in efforts to break disease cycles and limit weed problems. Success with soybeans, corn, and sorghum has been highly variable due to low rainfall-use-efficiency during the hot dry summers in the Great Plains and inadequate heat stress tolerance in these crops. Oklahoma growers need a profitable winter rotational crop with winter wheat that is not a host to the diseases of cereal grain crops and that will permit use of alternative weed control strategies. Winter hardy canola varieties have been introduced during the past few years and variety improvement is occurring rapidly. Herbicide resistant varieties are now available which offer excellent opportunities for wheat growers to clean up their fields.

A second troublesome issue is that wheat yields continue to remain flat in OK, despite all the new varieties, new weed, disease and insect control options available, improvements in equipment, etc. For example, the OK statewide average wheat yield from 2003 through 2007 was 31.6 bushels per acre. Twenty years earlier, i.e. 1983 through 1987 harvests, the 5-year average yield was 31.4 bushels per acre. We gained only 0.2 bushels per acre in 20 years. The near record OK wheat yield in 2008 is only1 bushel/acre greater than the yield of the 1988 crop. When we consider that the harvested wheat acres dropped from a average of 5.2 million during ’83-’87 to only 4.4 million over the past five harvests, due to the worse land being taken out of production and placed into the CRP, we could argue that yields have probably declined. Thus, yields of wheat in Oklahoma haven’t followed trends seen in other crops like corn, cotton, and soybeans. Most Oklahoma grown wheat is exported and failure of average wheat yields to rise over time in OK has put our wheat growers at a severe competitive disadvantage to European

growers who have seen a dramatic 23.4% increase in their wheat yields over the past 20 years (1987 to 2007) to an average of 79 bushels/acre. Thus, the concept of the Okanola project was developed as a fresh approach to addressing wheat quality and production issues.

The purpose is not to introduce a new crop to replace wheat, but to foster a crop rotation in the traditional wheat-only system to break weed and disease cycles and to improve yields and the marketability of Oklahoma wheat. This is only practical when the rotational crop is also a profitable crop.

While canola oil is a potential high quality biodiesel, it is more importantly the healthiest cooking oil widely available. Since December 2006, when the FDA approved a qualified health claim for use of canola oil for improved human heart health), the demand for canola oil has escalated rapidly. Since then NYC, Chicago, and other major cities have begun legally requiring an end to the use of unhealthy cooking oils (vegetable oils with trans-fats, palm oil, etc) for restaurant food. Over the past year major restaurant chains have started featuring their use of canola oil in efforts to boost sales. The canola meal remaining after oil removal is a high quality animal feed marketable in OK. Thus, the future of this crop seems very bright.

Today, wheat growers face increasing problems with fluctuating input costs and high operating costs, landowners wanting higher rent, optional uses for land, and prices for wheat that change dramatically almost every day. Contracting winter canola with act of God contracts for June delivery to local elevators can take a lot of worries off of a wheat growers shoulders. Therefore, we continue to suggest that wheat growers should seriously consider learning to grow and harvest winter canola in order to profit from a wheat-canola rotation and to keep their farming operation financially competitive.

The acreage seeded to winter canola in OK during the fall of 2008 has increased 2 to 3 times over the acreage seeded last year.

## Local News You Can Use:

The Oklahoma and Kansas winter canola crop is off to a good start this fall with good stands and adequate soil moisture in most areas. We are starting to see Diamondback moth larvae. They are mainly on the bigger canola that was seeded early. Diamond back moth is green looper type worms that are foliage feeders. They are easy noted in the field by the irregular shaped holes they chew in the leaves. It is also time to control the weeds in your canola. If you have grass or broadleaf weed problems it is recommended that the fields be sprayed 4 to 8 weeks after planting. This reduces early weed competition and promotes better canola stands going into the winter. For further information on identifying or controlling pest problems in your field contact your local OSU or KSU county extension office.

## Canola Equipment Digest:

OSU is starting a new service to provide a free contact point for people that have equipment useful to canola growers that is for sale or lease. This includes seeding equipment, draper type swathers, pushers, combine pickup heads, and direct harvesting equipment. We will also list growers and companies offering custom planting, swathing, harvesting, consulting or new farm equipment. The information will be listed on the Oklahoma State University web site www.canola.okstate.edu. If you have something to list or that you are looking for, something you want to sell or a custom service you can provide in your area send an e-mail to mark.boyles@okstate.edu. Please include description, general location, phone and e-mail address. We will not be listing prices or any advertizing. The objective of this project is to assist growers in locating the custom services they would like to have or the equipment they are looking for.

For more information on winter Canola visit these web sites:
http://greatplainscanola.com/ Subscribe to online GPCA newsletter.
http://www.canola.okstate.edu
http://uscanola.com/

Or Contact your local OSU or KSU County Extension Office