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**Profitability of Canola for West Tennessee Growers**

With commodity prices trending lower over the course of the past two years, producers are looking at alternative crops to potentially increase their net farm income. An example of this would be producers planting more grain sorghum, or milo, as they have done here in Tennessee for this crop year. Some West Tennessee growers are contemplating planting canola this year due to a canola processing facility in Kentucky and a few local grain elevators expecting to be buying stations in 2016.

Canola is an alternative for a winter crop instead of planting winter wheat. Traditionally, canola has not been planted here in our state. However, recent events are indeed changing that as we have producers that are currently growing canola in counties that border the Kentucky-Tennessee state line and in Lower Middle Tennessee. Based on Farm Service Agency 2015 certified acres released in August, there were approximately 6,600 acres of canola and rapeseed in Tennessee. Canola, like soybeans, is an oilseed with as it is mainly used to produce canola oil and canola meal.

Canola is a little different crop from what we tend to produce here in Tennessee. For example, canola is typically planted around late September to mid-October, which is earlier than wheat planting.Harvest tends to be about two weeks earlier than winter wheat harvest, which would put harvest around June 1st to June 15th. Also, canola seed is a very tiny seed that can be compared to beet seeds. This means that many growers will have to change the seed plates in their planters in order to plant canola and change the screens in their combines come harvest. Canola is actually measured in a 50 pound bushel with yields typically being reported in pounds per acre. Yields can vary from region to region; however, according to the USDA, the national yield for canola in 2014 was 1,614 pounds per acre, or 32.28 bushels per acre (assuming a 50 pound bushel). The national yield includes varieties that are different than what can be grown here in Tennessee. In fact, the University of Tennessee Extension canola crop budget uses an estimated yield of 50 bushels per acre.

Producers considering planting canola need to keep production costs in mind. The following scenario is based on the University of Tennessee Extension’s canola budget for 2015 along with modifications to account for changes in variable expenses over the course of the year. The example assumes that a producer receives $8.00 per bushel based on a yield of 50 bushels per acre. Variable expenses include seed, fertilizer, chemicals, machinery related expenses, crop scouting, crop insurance, interest expense, and labor. Rent was excluded as the farm was assumed to be owned outright. Fertilizer[[1]](#footnote-1) rates are shown at 140 units of nitrogen, 90 units of phosphorus, and 145 units of potassium. A half ton of lime was assumed to be applied along with 28 units of sulfur and 1 unit of boron. Sulfur is considered to be an important nutrient for canola production. The chemical expense is based on University of Tennessee Extension’s recommendations with changes made to fungicides[[2]](#footnote-2). The fungicides include an application of 7 ounces of Quadris TOP® and 4.3 ounces of Proline®. The prices for these chemicals are based on local input suppliers’ retail prices. Crop insurance expense per acre was based on a revenue protection insurance policy that was gathered from an insurance provider in a county that currently raises canola in West Tennessee. Please note that the price for crop insurance is only a quote as insurance can significantly vary based on location, individual circumstances, and other factors. After accounting for all crop expenses, the return above variable expenses was $43.34 per acre. As mentioned above, this value does exclude land rent. Another way of looking at this is the return to land and management, which is the return above variable expenses minus capital recovery. This accounts for fixed expenses such as equipment. In this case, the return to land and management equals to a net loss of -$10.86 per acre.

If we increased the yield to 60 bushels per acre, assuming good growing conditions, then the return above variable expenses equals $123.34 per acre and the return to land and management equals $69.14 per acre.

Soybeans can be planted immediately after canola, much like winter wheat. This is something that producers should consider when deciding what to plant. Based on the University of Tennessee Extensions budgets, the return above variable expenses for double cropped beans equals $111.60 per acre. This assumes a yield of 35 bushel per acre at a price of $8.94 per bushel with no land rent included. The price used for soybeans is based on the USDA estimated season average farm price received for soybeans as of 8/6/2015. The return to land and management for the double crop beans is $70.27 per acre.

Soybeans that follow canola are reported to have a 5 to 7 bushel increase per acre. If we assume a yield increase of 5 bushels per acre, then the return above variable expenses equals $156.30, while assuming no land rent.

By combining the return above variable expenses for a canola crop with a yield of 50 bushel per acre and the double crop soybeans with a yield of 35 bushel per acre, the end result is $154.94 per acre. If we include the potential soybean yield increase of 5 bushels per acre, the combined return above variable expenses is $199.64 per acre. A producer that can produce higher yields could realize a greater return.

Canola offers producers another crop alternative in order to diversify their crop mix. Based on the example, the margins for a canola crop followed by soybeans are very tight. Producers that plant canola on rented ground will face even tighter margins. Canola, like other row crops, has unique characteristics that must be considered before planting. Farmers can contact their local University of Tennessee Extension staff for additional details on growing canola.



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1. *Fertilizer rates will vary depending on soil test results and levels of management.* [↑](#footnote-ref-1)
2. *Fungicides will vary based on disease pressure and levels of management.* *Producers should be aware that many chemicals used in the production of other row crops in Tennessee may have a detrimental impact on canola.* [↑](#footnote-ref-2)