10 Steps to Profitable Canola

Canola is a relatively new winter crop with good profit potential for Georgia producers. Well suited to Georgia's mild winters, it can be grown with the same equipment used for wheat and is also suitable for double cropping. Canola requires timely and careful management for profitable yields.

Good canola varieties, fertility, and cultural management should produce yields of 40 to 50 bushels per acre. Careful attention to varieties and management is required to make this possible. Listed are ten steps necessary for profitable canola production.

Step 1 - Plant on Productive Soils

Plant canola on productive row crop soils. Good wheat soils are typically good for canola. Poorly-drained soils and deep sands often yield very poorly and should not be planted to canola.

Step 2 - Practice Sound Crop Rotation

Canola or other *Brassica* crops should not be planted on a given soil more often than once in four years. Crop rotation is necessary to suppress Sclerotinia and Phoma blackleg diseases.

Rotational restrictions must be followed to avoid herbicide residue carryover injury to canola from previous crops of corn, soybeans, peanuts, or cotton. The labels of herbicides used in previous summer crops must be reviewed to determine if a rotational restriction exists for canola.

Step 3 - Follow Soil Test Recommendations

Canola land should be limed to a soil pH of 6.0. Soil calcium should be in excess of 600 lbs/A and soil magnesium should test at least 200 lbs/A. Soil tests levels for phosphorus and potassium should be near or in the high test range. Needed P and K should be applied and incorporated before planting. Canola requirements for nitrogen, sulfur, calcium, magnesium and boron are much higher than those for some other crops.

The total nitrogen requirement for a 45 bu/A canola crop ranges from 150 to 170 lbs/A. Split applications of N are usually necessary to avoid early season N deficiency and/or excessive N leaching. Apply 25 percent of the total nitrogen at planting, 25% at 45 days after planting, and 50% at 90 days after planting to meet these needs. Omit the initial N application at planting if following a productive field of soybean or peanut.

Apply 40 lbs sulfur/A with ½ of this amount along with preplant fertilizer and the remainder with the first N sidedress application. Apply ¾ to 1.5 lbs boron/A to all canola fields using a preplant or early sidedress application.

Step 4 - Prepare Land Using Deep Tillage

Deep till all sandy textured soils to disrupt hard pans. Use a chisel or bottom plow to accomplish this. Firm and level the soil surface for canola planting.

Step 5 - Plant Recommended Varieties

Select varieties with proven performance in the southeast. Plant varieties with high yield potential and good cold tolerance. If planting canola on or near soils where canola has been planted before, be sure to select varieties with resistance to Phoma blackleg. 'Flint', a variety developed by the University of Georgia, combines high yield with blackleg resistance and cold tolerance and is recommended for planting in south

Georgia. Spring-type varieties are recommended for south Georgia, whereas winter-type varieties are recommended for north Georgia.

Step 6 - Plant Early

Plant at least three weeks before the time of the first expected killing frost. Canola should be planted around November 1 (± two weeks) in south Georgia and around October 1 in north Georgia (± two weeks).

Step 7 - Plant Shallow

Plant canola seed not more than ¼ to ½ inch deep in a firm, clean seed bed. Severe problems with stand can occur if canola seed is planted too deep. A culti-packer or similar equipment used for planting other small seeded crops works well for canola. Grain drills with precision depth control and press wheels may be used in firm seed beds. Plant high quality canola seed at a rate of only 4 to 5 lbs/A in row widths of 6 to 12 inches to achieve maximum yields. Plant seed with a standard fungicide seed treatment.

Step 8 - Control Weeds Early

Canola can be successfully produced with only minimal herbicide inputs. Use cultural practices that promote uniform emergence and growth. Once established, canola competes well with weeds if approved cultural practices are followed.

Preplant incorporated applications of trifluralin will provide early control of several winter annual weeds such as henbit and common chickweed. A number of postemergence grass herbicides, including Assure II/Targa, Poast, and Select/Arrow, are labeled for the control of Italian ryegrass. Currently, the “Clearfield System” is the only effective means of controlling wild radish (turnip) in canola. This system utilizes varieties with enhanced herbicide tolerance to imidazolinone herbicides. Beyond (imazamox) is the **only** imidazolinone herbicide registered for use on Clearfield canola varieties. Avoid planting canola in fields where certain residual herbicides were used in proceeding crops.

Step 9 - Scout and Control Insects

Aphids cause severe injury when populations build during the seedling and early rosette stages. Scout canola for aphids biweekly during the fall and winter months. Damaged plants have wrinkled leaves and appear stunted. Use insecticides to control aphids when populations exceed 2 per plant in the seedling stage, 5-10 per plant in the rosette stage (5 early and 10 late) or 15% infested terminals during the bud/early bloom stage. Do not treat for aphids during late bloom or pod fill stages.

The cabbage seedpod weevil can be a serious insect pest of canola in most of Georgia. High populations may reduce yields by more than 25 percent. Cabbage seedpod weevil infests canola during flowering and insecticide application should be timed to coincide with 75 percent bloom. Treat when two or more weevils are found per plant. After the first treatment, treat again when weevils average one per plant.

Step 10 - Harvest Promptly

Select varieties that stand well and begin harvest as soon as seed moisture content reaches 8-10 percent. The seeds are small so carefully seal rock guards, header doors, etc. with tape. Follow the combine operator’s manual for initial settings and fine tune in the field. Incorrect combine settings can lead to excessive grain losses so check and adjust frequently. Common seed loss rates of 25 to 50 pounds per acre correspond to 50 to 100 seed per square foot. Once the crop is fully mature, it may be necessary to harvest when the pods are tough (morning or at night) to minimize header losses.

Only clean canola should be put into bins for storage. The moisture content should be not more than 8-9 percent.

Prepared by the Canola Team
The University of Georgia
8/07