About canola

Canola production in SA is usually lower than demand and favourable prices can therefore be achieved.

Canola is derived from rapeseed and was developed in Canada in the 1960s. The name is an abbreviation of ‘Canadian oil, low acid’ and was adopted because it was more ‘market-friendly’ than the word rapeseed.

The latter comes from the Latin word *rapum*, meaning turnip. Turnips, cabbages, brussel sprouts and many other vegetables are related to canola.

Although canola is a summer crop in the temperate areas of the world, it is grown mainly in the Western Cape as a winter crop. In summer rainfall areas, it can be produced under irrigation during winter.

**DESCRIPTION**

- **Roots**
  Canola has a taproot system. Growth is rapid after establishment, with 85% of the tap root in the top 25cm of soil.

- **Stems**
  Stem height varies between 75cm and 175cm. The more widely spaced the plants, the more extensive the branches, which compensates for yield losses due to there being fewer plants.

- **Leaves**
  Plants produce up to six large, waxy, blue-green leaves per stem. After emergence, canola develops a thick rosette of leaves close to the ground before the flowering stem appears.

- **Flowers**
  Canola has small, yellow flowers and flowering starts on the main stem.

- **Seeds/pods**
  The round black, brown or yellow seeds are relatively small, with 280 000 to 340 000 seeds/kg. Mature pods contain about 23 seeds. Pods on the lower parts of plants are about 30cm from the soil surface. Pods are prone to shattering if the harvest is delayed.

**CLIMATE REQUIREMENTS**

- **Temperature**
  Canola is produced in cool weather conditions. Optimum temperature for growth and production is 21°C. Temperatures below 10°C result in progressively poorer germination and emergence.

- **Rain**
  Rainfall between April and October should be at least 300mm for a yield of 2t/ha. Yields can drop lower than 1t/ha when rainfall is lower.

**SOIL**

Canola grows on most soil types, but is best suited to clay-loam soil that is not susceptible to wind erosion. Sandy soils should be avoided.

Canola cannot tolerate waterlogged soils, so good surface drainage is essential. The ideal soil pH is between 5,5 and 7 (KCI).

- **Source:** Canola Production Guideline, compiled by the Directorate Plant Production in collaboration with the ARC, published by the department of agriculture.  ■ FW
Uses of Canola
Canola has many uses, both edible and inedible. It can be utilised for human consumption as canola oil, or blended with other vegetable oils for the production of various solid and liquid cooking oils and salad dressing.

Canola meal, which is a good source of protein, can be used in animal feed and is recommended for up to 20% of the ration for chickens, dairy and beef animals. The meal is also a high-quality organic fertiliser that can be used by commercial organic farmers. In addition, canola is grown as a biofuel.

Canola cultivars
Numerous cultivars are available in South Africa. Days to flowering vary between 70 days for late planted (middle to end of June) and 120 days for early planted (May) crops. Plant diseases, growing length, yield potential and problem weeds are important aspects to consider when selecting cultivars.

Cultivars may change annually because of ongoing research, therefore cultivar choice should be revisited every season.

**Cultivars available in South Africa**
- 44C11 (411)
- 44Y06 (411)
- 45V44 (411)
- AG-Muster (1)
- AG Spectrum (1)
- ATR-Balio (1)
- ATR-Cobler (1)
- Hyola 63 (1421)
- Tornado 555 TT (1421)
- Varola 54 (1421)
- Varola 404 CL (1421)
- Varola 405 TT (1421)
- Varola 600 TT (1421)
- Pib 44C73 (411)
- Rocket CL (1421)
- Thunder TT (1421)

**ANIMAL HEALTH**

**Injecting chickens**

If you're a small-scale poultry producer, chances are you'll have to inject your birds at some stage. Prof Cheryl McCrindle explains how to do it safely and effectively.

Commercial poultry farmers seldom inject chickens, and many vaccines are introduced as sprays or eye drops. But small-scale poultry farmers tend to keep their chickens for a longer time and may need to inject them for a disease or to administer a vaccine. Small-scale poultry farming may not have broiler production as its primary aim.

Antibiotics may need to be injected intramuscularly to treat a disease or infection, or after an injury. Pet roosters fight each other and can get bitten by dogs or cats. Sometimes chickens have to be bled to check for certain diseases, such as avian influenza, so it makes sense to be familiar with the intravenous injection sites.

**IMMOBILISE THE FOWL SAFELY BEFORE INJECTING IT**

Some people keep chickens to help control flies or ticks around cattle and horses. Pet chickens are becoming big business; a desirable hen or rooster may fetch several hundred rand because of its particular breed or colour.

The subcutaneous, intramuscular and intravenous sites discussed here also apply to turkeys, ducks and geese. A fowl must be immobilised in order to be injected. The traditional way of doing this is to tuck its head under your left elbow, hold both legs with your left hand and keep the wings together with your right hand. Intramuscular injections are given into the breast muscle, injecting 0.25ml to 0.75ml using a 21-gauge needle and a lmt or 2.5ml syringe.

The needle should be inserted at a slight angle into the thickest part of the breast muscle. If it strikes the breastbone, withdraw the needle slightly and ‘re-aim’. Subcutaneous injections are rare. If you do need to administer one, insert the needle carefully under the skin, after parting the feathers on the breast.

Intravenous injections or collection of blood are done from the main vein under the wing. With poultry, syringes can also be used to good effect for dosing birds. Draw up a few drops of medication. Hold the beak gently, with the bird tucked under one arm and the head facing forward. Tip the beak slightly upwards and dribble the medication into the beak. Remember to allow the bird time to swallow.

In an outbreak of diarrhoea, it may be necessary to add electrolytes, antibiotics or coccidiostats (medications that kill coccidians, the germs that cause bloody diarrhoea in poultry) to the drinking water. A syringe is ideal for measuring the amount of medication needed.

Used syringes and needles must be disposed of correctly, or even better, incinerated.