



FACTORS TO CONSIDER WHEN PLANTING CANOLA



Canola that has been cut.

Canola production takes place during the winter under rain-fed conditions. The optimum planting time is from middle to end of April in the Southern Cape and the beginning of May to middle May in the Swartland.

Good crop establishment is crucial to achieve maximum potential yield. Canola has a small seed, therefore the best germination is achieved when it is planted into good moisture, at an even, shallow depth. Plant the seed in a firm seedbed because good seed to soil contact is important. The canola seed cannot absorb enough moisture to germinate if inadequate seed to soil contact occurs, resulting in a reduced and/or staggered germination.

Seeding density (kg/ha) will depend on the 1 000 kernel mass (seed size) and germi-

nation percentage (seed quality). The optimum number of plants (per m²) at harvest varied between 35 and 50 (seeding rate of 3,0 kg/ha to 4,8 kg/ha). When soil moisture conditions and seedbed is not optimal, it is advisable to increase the seeding density by 1 kg - 1,5 kg. When problems with slugs, isopods or insects that damage the seedling are expected, the necessary precautionary control is advised.

The **selection of the cultivar** is of utmost importance. Canola cultivars are divided in three groups, conventional, triazine tolerant (TT) and imidazolinone tolerant (CI). The chemical tolerance of the cultivars determines their group. The active ingredients, simazine and atrazine, can be used on TT-cultivars. The advantage is that these chemicals are from a different group of action than what is normally used on wheat, thus preventing herbicide re-

sistance from occurring. On the CL-cultivars imidazolinone can be used. This is a Group B herbicide and in some areas widespread resistance occurred against Group B herbicide. There are open pollinated and hybrid cultivars amongst the conventional and TT-cultivars. The seed of the hybrid cultivars is more expensive, but their seedling vigour and yield potential are better than the open pollinated cultivars. The use of farm retained seed is not recommended because it has a lower yield potential. The yield of farm retained hybrid seed in local trials showed a decline of between 21% and 85%.

Canola requires **fertiliser** and high inputs per tonne of seed for the macro nutrients, nitrogen (N), phosphorus (P), potassium (K), and sulphur (S) compared to other crops, are needed. The yield of canola is usually about 50% of what can be expected from wheat in the same year. The nutritional requirements (per hectare) of canola are similar to wheat. The nutritional requirements will vary depending on soil type, rainfall, rotation and potential yield (Western Cape average yield is 1,3 ton/ha). The average amount of the macro nutrients removed by seed in 1 ton are, N: 40, P: 7, K: 9 and S: 10.

A number of **insect pests** can damage canola crops; many are of only limited importance. Significant damage is most likely to occur after germination and during flowering and pod fill stage. This is the main periods that the plant needs protection. There are a lot of other insects, etc. that can have a negative economic impact on the crop. These are slugs, snails, isopods, different aphids, American bollworm, budworm, cutworms, red-legged earth mite, etc.

Blackleg and Sclerotinia are the most damaging **diseases** after germination in canola. Seed treatment can give protection against pathogens that causes damping off. Most canola seed is imported with fluquinconazole-treatment that gives protection against blackleg in the seedling stage. Blackleg and Sclerotinia can be chemically controlled, treatment is only recommended if a severe infection of the disease is expected. Crop rotation is the best control measure for most of the diseases, it costs nothing and the longer the rotation the better.

To maximise your canola potential it is essential to take all the above into consideration. ●

Article submitted by Piet Lombard and Dr Johann Strauss from the Western Cape Department of Agriculture. For more information, send an email to pietl@elsenburg.com and johannst@elsenburg.com.