Feed crops for dairy cows

by Lynette Louw
Hay crops

Hay is a general term used for dried feed crops. Grasses and other plants are cut, dried and baled, and used to feed livestock, especially in the winter or dry months.

Teff is a silage that can easily be made into hay. It is easily established, grows fast, cuts easily and dries quickly, so that it can often be baled on the same day. Cows like the taste of teff. It is also economic when it comes to fertilisation and does well as a rotation crop.

Lucern is an irrigation crop and has different “dormancy” classes, which give an indication of the cultivar’s sensitivity to cold temperatures. A dormancy class of 10, for example, is very resistant to cold, and can be cut up to ten times a year. The best time to plant is autumn. Never replant lucern on an existing lucern field. The plant gives off a toxin that inhibits the germination of lucern seed.

Weeping love grass is easy to cut, dry and bale. However, it has little value as standing hay during winter. Therefore farmers often keep the first two cuts for themselves, and fertilises and sells the third. Keep the first cut aside for your highest producing cows and the second cut for the cows in later lactation.

Smutsfinger grass grows best in warm regions. It can take 18 months before there is any really good production. Allow Smutsfinger to go to seed once a year. After making hay, leave the second growth to go to seed. These fields can then be left and used as standing hay for the winter.

Foxtail buffalo grass grows at its best in warm parts where rainfall is low. The lower parts of the plant easily become rough and thick, and can injure animals’ gums. Therefore it must be grazed short. It makes a good hay if it is cut down short.

Cowpeas can be used as silage crops in dry areas. Its hay is similar to lucern. However, the haymaking process is labour intensive, which makes it a difficult hay crop.

Rhodes grass is a good hay crop that is easy to establish and grows quickly. It is a good grass to establish together with Smutsfinger grass, as it does not have a long lifespan – by the time the Smutsfinger grass is well-established, the Rhodes grass has reached the end of its lifespan. Although the fields cannot be grazed at that stage, hay can be cut.
Pasture crops

Pastures are the basic feed resources for livestock. Pastures are areas where cows can graze, usually on a rotation basis. This means that one section is grazed, and then the cows are moved to another section to graze, so that the previous section can repair itself.

Japanese radishes provide excellent grazing during the winter months. The current trend is to utilise leaf growth rather than tubers. Plant density is very high – up to 25 kg per ha. It is the ideal crop to establish on silage fields for winter grazing.

Oats: There are two types of oats: Quick growers for haymaking and silage, and long growers for grazing. Once oats have gone to seed, its lifespan is over. If you want oats ready for grazing in winter, you must make sure that you plant it in time.

Ryegrass is the crop used most often as pasture for dairy cows. Annual ryegrass is divided into the Westerwolds and Italian varieties. Westerwolds are more resistant to cold. Its lifespan is shorter than Italian ryegrass. A combination of the two types is therefore the best strategy.

Perennial ryegrass can be divided into early, medium and late types. Make sure that you select a type that gives you grazing when you need it. Perennial ryegrass is most effective in mist belt regions. If it is planted outside its natural zone, its lifespan (of maximum three years) is shortened.

Stooling rye is an annual pasture crop. It is a slow rye that grows throughout winter and will produce as much as four grazings. Its fibre content is high and it is more resistant to drought.

Kikuyu is mostly planted in combination with other crops. It needs a lot of water and grows in summer. During the rest of the year, other crops such as ryegrass can be planted among the kikuyu. One of its biggest benefits is that it stabilises soil against slopes.

Clovers are perennial and are mainly planted in combination with other pastures, such as ryegrass and kikuyu. Red clovers are fast growers, but have a short lifespan and start disappearing after two or three years. Then the white clovers take over. A mixture of the two types is advised.
Silage crops
Silage is a type of preserved feed with a very distinctive smell, because it is produced through a fermentation process. Silage is an effective way to produce feed for your cows, as the crops can be harvested in almost any type of weather. The process of making silage is called ensiling. In certain dry areas, cowpeas can also be used as silage crops.

Maize remains the best silage crop. Quick growers produce more grain, while longer growers produce more vegetative material.

Sweet sorghum silage is ideal for cows in later lactation. Sorghum can be produced under less favourable conditions. In terms of tonnage, it has an advantage above maize, but when it comes to quality it is no match for maize. Use the best fields for maize, and plant the rest with sorghum.

Canola is the best option in the winter rainfall areas. While its cabbage taste may be a problem for cows, the taste is not noticeable in milk. The best option is to mix canola with another silage such as maize. Canola can be established in irrigated maize fields and is a very good rotation crop that counteracts root-rot.