With regard to the queen, autumn is the time when strict attention should be paid to weak and failing queens. None but the best queens should be allowed to go into winter quarters. Poor queens should be destroyed and either superseded by young and vigorous ones or their colonies united with those of the better queens before the winter sets in. No queen should be tolerated which cannot provide the colony with an abundant supply of young workers before the cold weather arrives.

It is quite certain that the queen which goes back in the autumn will be in a worse condition after the winter and will not produce enough workers to provide a surplus in the following season, even if she does not fail entirely before the spring or develop into a drone-layer as soon as brood-rearing commences.

—*E. A. Earp, Senior Apiary Instructor, Wellington.*

Honey-producing Flora in Canterbury.

THE flavour and colour of honey gives a true indication of the floral source and determines the commercial value. Other natural elements are subject to changes which, at times, result in a general improvement of the product, but to bring about any alteration in either the colour or flavour is, as yet, beyond individual producers, so that we still possess what might be termed a key to identify the floral source of honey.

The word clover has developed into a trade name, and is generally associated with honey of various standards of quality. This may be the result of the greater part of the output being gathered from this source, but we have completely overlooked the value of our native flora as an advertising medium to popularize the product.

Climate and Temperatures.

Climatic conditions and temperatures have an important bearing on nectar secretion, and consequently the quality or type of honey changes in given areas from year to year. The product of the Canterbury Plains reaches a high standard of quality during a normal season, as 80 per cent. of the crop is gathered from white clover. A wet season, however, generally gives heavier crops, but the colour is generally reduced to a lower white or border-line. The flavour is also more pronounced, but the variation in either case is not sufficient to react on the value for local sales.

Extensive areas of native bush are still found on the lower slopes of the ranges and foothills, with isolated patches on the rolling downs and plains, but the dense areas have failed to attract producers, as good pasture land, which is usually more accessible, is still available in white-clover districts. The absence of early spring flora is certainly a problem, but this can be overcome by making the necessary provision for stores during the autumn.

First Honey Flow.

Keeping in view the main producing centres in the province, the first honey flow of any volume is from willow, and as this is well established on all river-banks and extensive areas have been grown to provide shelter both for stock and buildings there appears to be no dearth of nectar for spring requirements. Weather conditions are far from settled at this season, and producers anticipate a flow from this source, but experience has proved that this must not be relied upon.

Wild turnips (*Sinapis arvensis*) and rape (*Brassica napus*) follow in late October and November. The latter is grown on a fairly large scale and is of great value, as it begins to yield just before the clover. The honey is in the light-amber class, but it is seldom stored in sufficient quantities to warrant extracting or the provision of necessary additional super accommodation. Clover blooms about mid-October, and in warm and sheltered locations when the soil is dry a light flow will begin at the end of the month, but this is not sufficient to supply even immediate requirements, and, at times, is extremely misleading. Colonies should be at peak strength at this season, and if the food-supply is not maintained brood-rearing will, as a result, be restricted.

The owering-period covers practically five months, and during a dry season is reduced to nine or ten weeks, with the main flow beginning in December and closing early in January. The secretion from clover is subject to a temporary check at any time, and if this occurs during the main flow any other source of nectar will be readily worked. Eucalyptus is not grown to any great extent in the province, but a few trees within flight range will give a heavy flow. This, of course, is not a welcome addition to the crop, as the flavour is strong and, if worked for any length of time, tends to lower the grade.

Flowers in January.

Cats-ear (*Hypochaeris radicata*), hawksbeard (*Crepis capillaris*), hawkbit (*Leontodon hispidus*), and dandelion (*Taraxacum officinale*) flower towards the end of

TREES AND SHRUBS FOR THE PLANTING SEASON.

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display of blossom of excellent quality with little labour, and thus deserve every consideration. In addition to high culture in special beds, many kinds may be planted in grass or the foreground of shrubberies, where they will flourish for many years before requiring attention.

Established lawns may now be given any extra attention that is necessary, such as returfing worn places and loosening-up hard places with a fork, or thoroughly raking the whole area and, after cutting, sowing such grass-seeds as may be desirable before applying a light top-dressing composed of fine soil and manures. Where the lawns have been in constant use for games this attention is urgently needed and should be begun as soon as the playing-season is finished, so that the most may be made of the interval between seasons, which is generally all too short for this purpose.

A sharp look-out should be kept for insect pests. This is the season when serious damage may be done to lawns by the common earth-worm or subterranean caterpillar (*Porina*), or grass-grub (*Odontria zealandica*). Damage is best avoided by giving the matter prompt attention as soon as the attack is perceived.

—*Wm. C. Hyde, Horticulturist, Wellington.*