



**Eva Crane Trust**

**ECTD\_077**

**TITLE:** Plants that buzz with Bees

**SOURCE:** Amateur Gardening 91 (4674): 29 -30

**DATE:** 1974

**Reproduced with permission of Amateur Gardening**

# Plants That Buzz With Bees 77

**What more cheerful sight can be seen in the garden than a compact flowering bush surrounded by bustling bees? Garden plants are not always the best for honey production but, as *Dr Eva Crane* explains, they do have an important function.**

BEES make honey from nectar, and most nectar is produced by specialised plant cells (nectaries) in flowers. Flowers of different plants vary enormously in the amount of nectar they produce, and also in the quality of the nectar. Nectar quality depends mostly on the amount of sugar it contains, and nectar with little sugar in it is not of great value to the bees or to the beekeeper.

A colony of bees needs plants providing nectar — and also pollen, for protein required in rearing new bees — throughout its active season, with enough for its winter stores as well. The beekeeper takes honey that is surplus to the colony's requirements, and for this he depends on what is called the "main flow" — an intense production of nectar during one or a few weeks in the year from a large mass of flowers of the same species — clover, heather, acacia or orange, for instance, according to the region.

The main flow, yielding say 20-50lb. surplus honey for the beekeeper, may come from large tracts covered with a wild plant, such as heather, from cultivated plants such as rape, or from trees planted in years gone by — for instance limes, or the false acacia in Hungary and Rumania. It is unlikely to come from garden flowers because there are not enough of one kind to give a main flow.

Garden flowers can be most valuable to bees and contribute indirectly to honey production by providing "background" bee forage that keeps the colony alive and flourishing throughout the rest of the season when there is no main flow. Early-flowering trees, especially fruit trees, are often present in sufficient quantity to be useful in enabling the colony's population to grow large enough to

collect a good harvest from the main flow when it comes. Most bees forage within half a mile of their hive, although they may fly several miles if the survival of their colony depends on it. A colony's main foraging area covers perhaps a square mile, and its nectar and pollen income depends entirely on the plants growing there. In a suburban area these would include a good many fruit trees.

Trees in general are good value for bees because they produce many flowers on a small area of land and enlarge the bees' forage upwards in a way that ground cover plants do not. Some of the intermediate bushes, hedgerow plants and climbers are very good honey plants. Raspberry is one, and in eastern Scotland it provides a main flow. Blackberry is another, and its value is increased because it provides a succession of flowers over one or two months.

Rose-bay willow-herb is valuable for the same reason — this is one of the first plants to grow after vegetation has been destroyed by fire, and many of our railway embankments still have large patches of it as an inheritance from fires caused by sparks from the trains that used coal for fuel. These embankments, often with extensive tangles of blackberry as well, add up to a significant honey source.

Of the hedgerow honey plants, hawthorn is — and was to a much greater extent — widespread. In gardens, escallonia, fuchsia, berberis and lavender can be useful background honey sources if there are large numbers of flowers. One shrub that is an excellent honey plant, but is normally grown in England only as

*Continued on page 30*



*Orchards make ideal sites for beehives since the bees will help in the cross-pollination of compatible fruit varieties*

## Plants That Buzz With Bees

*Continued from page 29*

a specimen, is the Siberian pea-tree *Caragana avbovescens*. Another great honey yielder is *Vitex negundo incisa*.

With ground plants, a much larger area is needed to produce honey than is normally available in a garden. Some of the most prolific honey producers that grow in England are white dead-nettle, garden thyme, white melilot, alkanet, and borage. This is on the basis of the amount of honey that could be produced from a square mile of land covered with the plant. The plants named are, however, not normally massed together over large areas, as for instance clovers are. Clover produces a major flow because so many flowers are within reach of bees from any one colony, not because each flower or floret itself is a very prolific nectar producer.

The concentration of sugar in the nectar is very important, and it may vary from 5% to 80% — almost as high as in honey. Dandelion nectar contains something like 50% sugar, but apple, pear and plum less than 30%. This has its economic significance because bees may well neglect fruit blossom that growers want them to pollinate, visiting instead any dandelions that have been left to bloom in the

orchard. The bees doing so may be poisoned if pesticides sprayed on the trees drip down on to the dandelion flowers.

One annual garden flower that often appears to be covered with bees is the little yellow *Limnanthes douglaii*. Catmint is usually full of bees too, but in my garden only the bumble bees with long tongues work the first flowering — the nectar is too deep in the flower for the hive bees to reach. But at the second blooming in September the flowers are smaller and the hive bees have their turn.

Many cultivated ornamental plants have double flowers which are sterile and useless to bees. So, whereas wild cherry trees with their frail white flowers sound alive with bees in the spring, the more colourful and handsome double varieties are silent.

In conclusion, a garden alone will not produce a crop of honey, but it can be most valuable in helping to keep the bees going through the season so that they can produce their honey harvest. Remember too that the bees provide the gardener with a free pollination service for apples, pears, plums, currants, raspberries, strawberries and other fruits. It is worth enticing them into the garden where their real value can be appreciated.