are used, people are adopting to modern hives faster (Singh, 1983).

FLORAL FIDELITY

Bees are phytophagous and especially known as anthophagous, sucking the pollen and nectar from blossoms. The worker bees of a colony get conditioned to a specific floral source for collection of pollen and nectar (Deodikar, 1962; Frisch, 1969; Ioyrish, 1974). When thus conditioned, the visits of the foraging worker bees are almost exclusively confined to the flowers of the same species or even the same variety and they utterly ignore the presence of all other plant species or varieties that may be flowering at the same time within their foraging range. Only under the scarcity of the source, some of the workers try to collect the feed from other sources. In any case an individual foraging worker bee confines its visits for the time being to a single floral type as long as its blooming period continues. This curious behaviour of bees explains their significance in plant pollination and subsequent evolution.

Pollen and Nectar Collection

Bees visit plants either for nectar or pollen collection. Usually a colony has different sets of workers that are conditioned either for nectar or pollen gathering.
Nectar is secreted in nectaries which are normally floral but rarely extraloral (Crane, 1975b). Plant species differ in chemical composition and sugar concentration of their nectars, though individual species or varieties have characteristic well defined range (Pryce - Jones, 1943). Concentration of sugar in different species in the same locality may range from less than 10% to over 70%. The highest nectar concentration so far recorded, occurs in exposed floral nectaries of *Grevillea robusta* (7%) Deodikar et al., (1957), involving supersaturation. While deciding their choice of nectar from alternative plant sources available at a time, bees usually fix their preference in favour of a plant species or variety that has maximum sugar concentration in nectar. If nectar is more concentrated, they can collect the same quantity of sugar with fewer flights. The quantity of nectar per flower seems to be just a secondary consideration within certain limits. Besides these factors, the chemical composition and relative nutritional status of different nectars also play an important role in fixation of their preference in favour of a particular plant species (Deodikar, 1962, 1965).

Pollen grains, the male reproductive cells of higher plants, as a rule appear as single cell, but they are occasionally found in groups. They contain upto 20% or more of protein and are richer than many plant materials in vitamins B2, B3, B5, B6, C, E and H (Crane, 1975b).
Pollen contains substances that are lacking in diet and thus substantiate benefits, not receiving adequately from normal diet (Parker, 1926; Synge, 1947; Iovrish, 1974; Crane, 1975a, 1975b; Hodges, 1976, 1978; Roch, 1982; Radionov and Shabarshov, 1986). Besides protein, it contains fats (1.5–2%), carbohydrates (7–12%), minerals (2.8–10.6%) and traces of enzymes, hormones, pigments and other components (Deodikar, 1965). The chemical composition of pollen grains of each plant species is fairly constant within a certain range.

Pollen grains meet the protein requirements of bees, which are essential for their body tissues, especially during early embryonic growth (Deodikar, 1962, 1965; Singh, 1962; Gasanov, 1970; Crane, 1973, 1975a; Maurizio, 1975; Hayes, 1980; Eisikowitch and Masad, 1982). A colony of average size needs 50 Ibs of pollen per year (Deodikar, 1965).

The pollen grains are collected in the pellets of hindlegs and when the pollen basket is full, the worker bee returns to the hive, deloading the forage in the wax cells around brood area of the combs. As a result of floral fidelity almost all the pollen loads of a colony are uniformly derived from a single species at a time and the proportion of mixed load may vary (Nair, 1964; Deodikar, 1965; Vorwohl, 1971; Chaturvedi, 1973, 1976;