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B.C.H.P.Assn. Capital Region Division.

D R I F T I N G

When young bees make their first orientation flight, some of them may drift to other colonies, especially during a strong wind.

Many authorities have different opinions about the effects of drift. The work of Prof. S.C. Joy of Canada may be something of an overstatement, as far as general circumstances are concerned, but it just could be that he has pinpointed the problems in its true perspective. Joy's principal finding was that identical hives, working the same flow from the same site, at the same time, yielded 23% more honey when the effect of drift was eliminated. Joy also busted wide open a widely held notion that, when drifting is extensive, the increased production of of the end colonies (those to which the bees are drifting), equalizes the losses of the centre colonies from which the drifters came.

A group of hives, in a straight line, facing the same direction, produced an average of 114 lbs of honey per hive. The centre hives were weakest with 63.66% of average and those at the end were strongest with 138 to 155% of average.

Another straight line group, with hives facing different directions, produced an average of 141 lbs of honey per hive. Although there was still some evidence of drift, colony size was far more uniform and production varied only 86-88% in the centre hives and 111-113% on the outer hives.

When the test hives were placed in a "U" shaped formation the y ield for hives facing the same direction was averaged at 79 lbs, whilst that for hives facing different directions was 111 lbs. This is an increase of about 27%.

When drifting is prevalent, more bees are used on guard duties, many drifting bees are killed, robbing is likely to occur more frequently, and in badly depleted lines, young adult bees may have to go out as nectar gatherers before they are mature.

Rauschmeyer (1928) studied drifting of bees in German hives and found that, when there are no orientation marks, bees drift in extraordinary large numbers. If there are enough orientation marks, only single bees drift. Painting hives with different colours, particularly close to the entrance, is helpful. When the same colours are repeated, bees drift to hives having the same colours even at great distances. Young bees, especially during the first four days of their orientation flighrs, drifted very often, even when the front walls of the hives had been painted with different colours. The youngest bees which drifted were five days old. The majority of bees (80%) drifted at the age of 6 to 11 days and only 16% drifted at the age of 12 to 37 days.

J.B. Free (1958) noted that bees which emerged in August and September drifted less. Drifting is especially noticeable when bees have been confined for long periods or when colonies were removed to a new site. The amount of drifting varies considerably depending on the arrangement of hives.

EN/HR.
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