

# SUPERS AND SUPERING

(The notes below refer only to the National Hive)

A 'super' is a chamber that is positioned on the hive for the storage of honey.

Chambers containing frames are referred to as brood boxes or supers. To avoid any confusion, brood boxes are also called brood 'chambers', or 'deep' boxes and are 8 7/8<sup>th</sup> inches deep. Supers are sometimes referred to as 'shallow' boxes and are 5 7/8<sup>th</sup> inches deep.

## SUPERS

It is common practice, to use the purpose made super boxes on the hives as the area in which the bees are intended to store honey. These are placed above a queen excluder to ensure they remain devoid of any brood. The advantage of using supers is that they are easy to handle especially when full of honey. The weight of a full super is about 30lbs.

It is also possible to have all supering undertaken with deep boxes. These are naturally heavier and a full box can weigh 50 lbs. The advantage is that the frames are inter-changeable with frames in the brood rearing area. It is good practice to have one or two deep supers of foundation on your hives each year. The foundation will be drawn and once extracted, will provide valuable spare drawn comb for exchanging brood frames or for establishing nuc hives in the following season.

There are also specialist supers such as 'section racks' and these can be designed to produce the wooden square sections or the plastic 'Ross Rounds'.

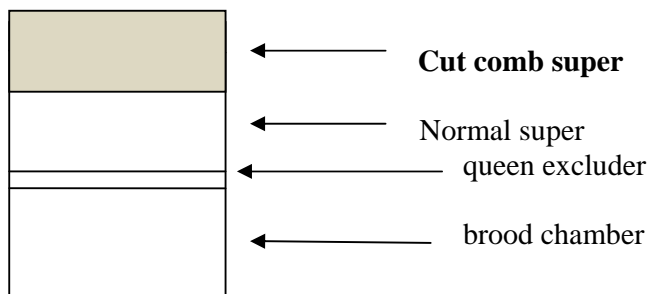
## FRAMES & FOUNDATION

The shallow frames are 5 1/2 inches deep and the brood frame 8 1/2 inches. The foundation in the brood size frames should **always** be wired worker. In supers, the foundation can be in various forms.

- a. Wired worker based. Good for ensuring the comb does not collapse when being extracted. Ensures worker brood is raised should the queen get through the excluder. Disadvantage is that pollen is often stored in the comb providing an in-balance when extracting
- b. Wired Drone based. Comb does not collapse when extracted, Holds more honey. Larger cells enables honey to be extracted easier. No pollen is stored in them Disadvantage is when the queen gets through the excluder. Not recommended for beginners.
- c. Cut comb foundation is thin foundation and is generally of the worker pattern. Must never be placed next to the excluder if pollen filled cells are to be avoided. (see diagram a.)

Diagram a.

Positioning of a cut comb super



## SPACING

Deep boxes would normally be arranged to take 11 frames. The spacing is undertaken with either narrow spacers or an 11 castellation spacer. Using the 11 spacing pattern allows foundation to be used throughout.

Where there is some drawn comb, foundation can be inserted between the drawn frames, ( 5 drawn combs interspersed with 4 foundation). Supers that are to contain just foundation will need to be

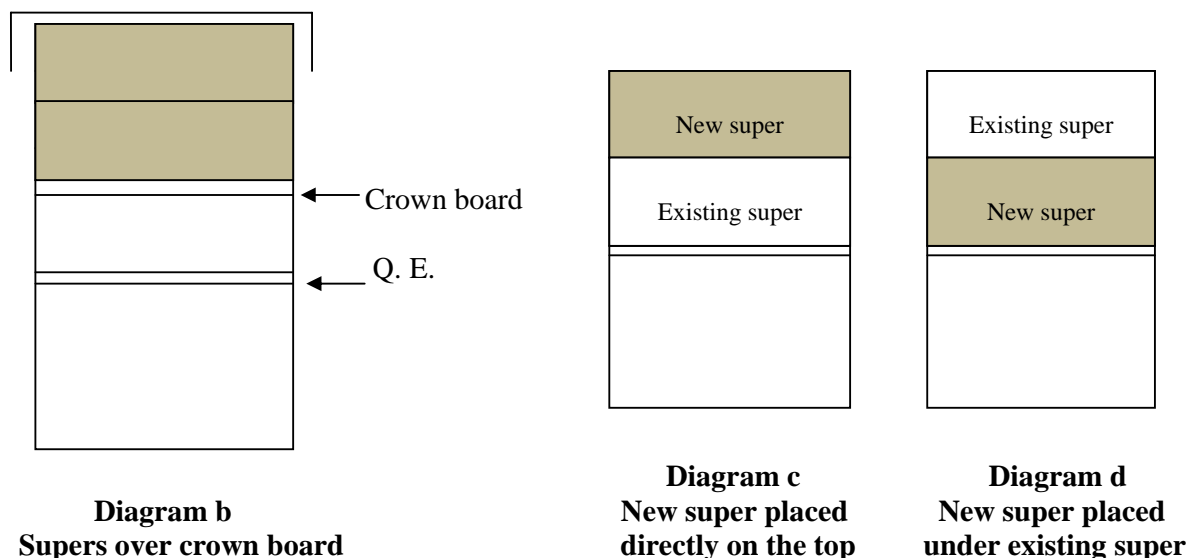
on narrow spacers. Once the foundation is drawn they can be spaced out to the normal number of nine to a super ( 8 wide spacers and 1 narrow). With now having some drawn comb, further foundation can be interspersed and the six surplus drawn frames can make up a second super again with interspersed foundation to make up a full box

With cut comb, these need to be spaced out to 10 per box in order to fit into the packaging uniformly. I now find that a 10 castellated runner is the best solution in getting an even spacing.

## SUPERING

Some books tell you to put the second super on when the first or previous super is over half full. I advocate putting two supers on at the start to enable the bees to commence cleaning the comb and providing clustering space. The second super can be placed over the crown board with the feed hole open if it is felt that two at a time is too many. (see diagram b)

The first super above the queen excluder **must** have its frames running the same way as the brood frames. This is to avoid wasteful brace comb being built between the frames. Subsequent supers on national hives can be added in any direction and it is suggested that by placing them at right angles to the one below, the ‘bee space is kept clear of brace comb and allows the air to circulate more freely.



There is also various views on where to put the second and subsequent supers. Do you place it over the existing super(s) or put it to the bottom directly over the queen excluder? The advantage of the first option, (diagram c) is that it disturbs the bees least and maintains the seals between the supers and the excluder. The disadvantage is that the cappings can become ‘travel stained’, that is darkened slightly. Such signs would lose points in any ‘frame for extraction’ class at a show. By placing the new super directly upon the excluder (diagram d) alleviates this problem and may have an advantage in that the bees have less distance to carry their loads. It may make the evaporation of water from the nectar more efficient.

The removal of supers is dealt with in my paper ‘Harvesting Honey’.