

# NORTH LONDON BEEKEEPERS

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## **Information Sheet No.4**

### **Hive Protection**

#### **Background:**

Most modern hives are constructed of timber, either cedar or some other softwood such as pine or fir. (sometimes referred to as deal). Cedar is naturally a durable wood which does not readily absorb moisture so does not require preserving or painting to prolong its life. It is therefore a good investment.

Many economy hives and those made by beekeepers are of pine or other softwood, which is susceptible to the weather and requires some preservative to prevent rot, shrinkage & warping, especially in the joints.

Ventilation is vital in the hive to prevent condensation. Traditionally this was achieved in winter months by placing matchsticks under the crown board. Ideas change with experience and it is now considered that open mesh floors provide adequate ventilation throughout the year. Good ventilation means that the walls do not necessarily have to be water vapour permeable and this is borne out by the use of the modern polystyrene hives in cold climates.

#### **Traditional attitudes:**

Twin walled hives such as the WBC, were generally painted, usually in white. Some single walled hives have been painted, although not so much in the UK. Other European countries often paint their hives, sometimes in a variety of colours. It has been said that by painting hives of different colours helps the bees to distinguish their colony from others.

Traditionally, single walled hives suffer from condensation in the winter due to a lack of ventilation and this will increase the risk of wood rot, whereas twin walled hives seem to stay dry due to the ill fitting of the outer lifts and roof vents.

#### **Technical aspects of different preserving methods:**

1. Traditional paint, oil based gloss, will water proof and seal the wood, but if painted only externally, could trap in moisture and lower the insulation quality of the wood and also cause rot to start. A suggestion has been put forward to paint every part and seal the wood completely, this will be very labour intensive in years to come and scorching the hive parts presents a problem! Only suitable for the outer lifts of WBC hives.
2. Modern paint systems can be of the micro-porous type that will allow the wood to breathe and still give a matt or glossy finish.
3. Creosote has often been used and comes in a dark and golden brown stain. If used, it is recommended that it is only used externally and allowed to ventilate off the colony for a month or two. Recent research has indicated that creosote is carcinogenic, I would not suggest using it.
4. There are many wood preservatives on the market, but there seems to be only one that is recommended for hives, externally only, obtainable from Thornes, is "Cuprinol" wood preservative "clear", "light oak" & "green".

#### **Conclusion:**

1. All wood preservatives (including creosote) include insecticides and therefore bees can be put at risk if it is used. Only use externally and allow to thoroughly dry out before using on the colony.
2. Paint should only be used on twin walled hives or when there is a full ventilation system in the roof and floor.
3. Cedar hives should be left natural, plus ventilation. Paint on cedar has difficulty in adhesion. Take advice on suitable primer if you contemplate painting cedar.
4. Softwood hives are best treated with Cuprinol every few years.
5. **It all depends on good ventilation.**

Prepared by John Hauxwell (revised Nov 2006)