



The Food & Environment
Research Agency

National Bee Unit

Best Practice Guideline No. 1

The Essence of Beekeeping

The best way to keep colonies productive is to pay attention to the two major areas of colony management – colony husbandry and disease recognition and control. Colony losses usually occur when these are not effectively addressed.

Inadequate colony husbandry includes:

- Poor apiary or hive hygiene which allows disease to take a hold and flourish;
- Insufficient nutrition - many beekeepers feed their bees but sometimes not what the bees need.

Solutions:

- Regular comb changing, aim to change three combs a year or carry out a Bailey comb change every three to four years;
- Ensuring that each colony **always** has sufficient carbohydrate (honey or sugar). Each colony should have 25-30kg of stores so that when lifted, they can barely be raised. The colony should also have pollen (protein) stores as well as access to suitable water sources;
- Better choice of apiary site with a wide variety of forage available to colonies;
- The best feed is that which is left on the colony;
- Removing less honey from the colony means less feeding will be needed;
- Make sure you source healthy disease free queens and honey bee stocks from a reputable source, with a known disease free record, preferably local. When sourcing queens, choose a reputable supplier with queens that suit your circumstances;
- Concentrate on improving your stock – cull the queens which least suit your requirements, breed from those which most suit them;
- Hive swarms on foundation at a 'hospital apiary' in case they carry disease.

Disease recognition and control should include:

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- Varroa management is an ongoing task which should be practised throughout the active season (Integrated Pest Management-IPM), not just in the autumn;
- Check for disease each time you examine your colony. Foulbrood disease should be dealt with by the Bee Inspector but the beekeeper can deal with other diseases;
- Colonies not building up and/or showing signs of dysentery should be checked for *Nosema spp*;
- More frequently seen diseases such as chalk brood or sac brood should be addressed. If problems persist then it may be worth re-queening the colony.



Learn to recognise what a healthy frame of brood looks like so that when one doesn't look right, you are more likely to notice it.

Solutions:

- Consult the Fera National Bee Unit brochure “Managing *Varroa*” which gives full details of virtually every effective *Varroa* control technique and registered medicines: <https://secure.fera.defra.gov.uk/beebase/index.cfm?pageid=167> ;
- Aim to have healthy bees with minimum *Varroa* levels going into autumn and winter. They will have a higher chance of surviving winter and helping the queen to raise brood in the New Year;
- Foulbrood (and other brood diseases) can be identified by reference to the Fera brochure “Foulbrood Disease of Honey bees”
- If you have concerns about *Nosema*, consult the NBU laboratory at Sand Hutton or your association microscopist who will help you identify the presence of *Nosema*. Further details can be found on BeeBase at: <https://secure.fera.defra.gov.uk/beebase/index.cfm?sectionid=42> ;
- Changing combs can make a big difference in keeping pathogen numbers down on the combs and therefore controlling chalk brood disease and sac brood.

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