

Leiston Beekeepers' Newsletter

Issue July - September 2015

(<http://leistonbeekeepers.onesuffolk.net/>)

Editor - Laurie Wiseman

Get your winter bee feed from here!

For a number of years Christopher Bindloss (LBKA) has arranged for the supply of Ambrosia and the number of members taking the feed has grown. This year Christopher is working with Paul White and the Suffolk BKA to ease the administrative load and we welcome the continued support of David Adams for the distribution as in past years.

You will be pleased to hear that the cost for bulk feed this year is lower by 14% than last year and is considerably cheaper than Thornes' bulk price. The order can only be in Kg (rule of thumb - an Ambrosia can when full holds about 14 kg or 10 litres).

The amount of stores required by a colony is about 18–22kg of honey or feed substitute to get it through the winter. Larger hives headed by prolific queens may require more. When full a BS (National) brood frame contains about 2.2kg of honey, so assess the existing colony stores and feed the required balance.

Please complete the order form on the Suffolk Beekeepers website http://suffolkbeekeepers.co.uk/feed_order.php

You will receive an email confirming your order along with payment details. Note that payment will be made to Suffolk BKA this year so please don't use the bank details of previous years if you have them.

Farming Today - Radio 4 - 23 April 2015

Nick von Westenholz, CEO of the Crop Protection Association said on farming today *"it is difficult to design test on wild bees in field trials and these trials do not chime in with other trials on wild bees. The seed producing companies will not produce their own studies that say these neonicotinoids are safe."* Newcastle University have found that bees are attracted more to treated oil seed rape than untreated oilseed rape given the choice. When the pesticide companies persuade the government that the cost benefits of pesticide over the environment are greater the environment suffers. This is the case with neonicotinoids. *Editor - The EU will be reassessing its decision of the two year ban on the use of some neonicotinoids in December of this year. Our own government is not in favour of continuing the ban.*

Varroa - A Suffolk Beekeeper's Experience

Beekeepers use a variety of treatments for use in their colonies against varroa. These treatments have the effect of masking the pheromone environment of the hive, often stopping the queen from laying for some time. A respected and experienced Suffolk beekeeper has not treated his bees for varroa for some years and his bees have fared well over this time. He uses Hive Clean in his colonies. He squirts 20ml of Hive Clean on the seams of bees in the brood box every 2 to 3 weeks throughout summer and a mite drop count is carried out each time. If the drop is greater than 30 mites he uses Hive Clean every 8 days x 3 (one brood cycle) on that colony. In December/January he uses Hive Clean warmed to blood heat to knock down any remaining varroa when the brood laying is at its lowest.

A Bees Nest - An Integrated Superorganism

"A colony of honey bees functions as an integrated whole with its members being physically independent but cannot survive on their own."

Honeycomb is an integral part of the bee colony as so many features of its structure play an essential role for the channelling of material, energy and information - the three basic pillars of life - in a hive. Honey bees manufacture wax, themselves, with which they construct their combed nest and in this respect belong to elite among animals. They produce wax in eight groups of glands arranged in pairs on the underside of the last four segments of the bee abdomen. The wax glands develop slowly needing a few days to achieve their full size. They reach peak performance between 12th and 18th day of their lives and then degenerate. Should the need arise older bees can again become 'wax gland young' and produce wax again. This flexibility of 'age related jobs' extends too many functions of the bees' life. Once the wax has been extruded from the glands it hardens into small paper thin scales. These scales are then collected and passed to the bee's mouthparts where they are kneaded by the mandibles. A secretion from the mandible glands is added before the wax is brought to a state the bees can work it. The bees determine themselves the characteristics of the raw wax for the construction of the comb. This is like a construction engineer who determines the physical nature of the building material to suit the job in hand. The wax production is at its greatest when the colony swarms. The swarm takes with it enough honey to construct a new nest of combs. About 7.5kg of honey produces 1.2kg of wax with which the bees will construct 100,000 wax cells which represents the content of a medium sized colony. The nest is not a normal environment in the usual sense, which bees have adapted through evolution, but as an environment produced and constructed by themselves. Honey bees spend nearly all their lives on their combs. The protracted amount of life spent on the comb provides countless possibilities for interaction between the bees and their comb. The bees' nest is therefore an integral part of a larger entity, a superorganism.

(From 'The Buzz about Bees' by Jurgen Tautz)

Did you know? A colony of bees raises about 150,000 bees throughout the season and all need feeding with nectar, honey and pollen. The bees will consume about 350lbs of nectar and honey and consume about 70lbs of pollen. That is more than the weight of a bag of potatoes of pollen! Absolutely amazing.

Declines in UK moth species could signal a potentially catastrophic loss of biodiversity and pollination in the British countryside. (Butterfly Conservation and Rothampsted Research February 2013.)

'A farmer telephoned me the other evening and informed me that she was to spray an insecticide on her extensive crop of field beans near to my bees on two occasions a week apart. The spraying was to start at 5am and finish at 12 noon - despite the guidance that says spraying crops in flower should be undertaken early in the morning or in the evening to avoid pollinating insects. The insecticide to be sprayed is 'Hallmark' it is an insecticide that targets: aphids, beetles, caterpillars, moths, suckers & weevils. It is labelled as friendly to bees but kills all the targeted species'. Editor - June 2015.

Moths are declining in the UK. Studies have found the overall number of moths has decreased by 28% since 1968. The situation is particularly bad in southern Britain, where moth numbers are down by 40%. Moths, one of the targeted insects sprayed on field beans near my bees, are key species that indicates the health of the countryside and mirrors the declines of butterflies and bees and beetles. The declines could have a knock-on effect for plant pollination and animals reliant on moths for food, such as garden and woodland birds, bats and small mammals. Butterfly Conservation Surveys report paints a bleak picture about Britain's biodiversity.

Much has been made of the decline of butterflies and honey bees but moths represent a massive, but largely un-noticed diversity of insects that form the vast majority of animal life in Britain that let us know how our environment is faring in a period of unprecedented environmental change. Moths and their caterpillars are important food items for many other species, including amphibians, small mammals, bats and many bird species. Moth caterpillars are especially important for feeding young chicks, including those of most familiar garden birds such as the Blue Tit and Great Tit, Robin, Wren and Blackbird. A serious decline in moth numbers could have disastrous knock-on effects for all these wildlife species. Recent research has indicated that a decrease in the abundance of bats over farmland is related to the decline in the moths that they depend on. Cuckoos may also have been affected. They specialise in eating hairy caterpillars, which most other birds avoid, and it has been suggested that the drop in our Cuckoo population may be linked to the decline in moth caterpillars. The loss of habitat resulting from intensive agriculture and the deteriorating condition of the countryside are believed to be the major factors behind these declines.

Farming and human health depend upon the ecosystem services provided by wild organisms; worms, woodlice, millipedes and a host of other creatures which help with soil formation, forests to produce oxygen, prevent soil erosion and regulate water flow, birds to eat insect pests, flies and beetles to break down animal dung, bees and other pollinators to pollinate crops. Modern farming threatens to eradicate these organisms and so undermine these ecosystem services.

Pollination provides one of the clearest examples of how our disregard for the health of the environment threatens our own survival. About 75% of all crop species require pollination by animals of some sort, often by bees, but sometimes by flies, butterflies, birds or even bats. Some pollination is done by domesticated honey bees, but the bulk of pollination of most crops is done by wild insects, including many species of wild bee such as bumblebees.

Without bees, our diets would be depressingly poor. We would be forced to survive on wind-pollinated crops; wheat, barley and corn, and little else. Imagine shops without raspberries, apples, strawberries, peas, beans, courgettes, melons, tomatoes, blueberries, pumpkins and much more

Pollinating animals fly in to our fields to pollinate crops from surrounding wild areas, but if there are no wild areas, or if the crops are doused in insecticides, then pollination will suffer and yields will decline. There are simple solutions; studies have found that planting strips of wildflowers on farms, and leaving patches of natural vegetation such as forests, can greatly boost pollinator populations. These practices can also increase populations of natural predators, decreasing the need for pesticide sprays.

We need to recognise that the health and wellbeing of everybody depends upon a healthy environment in the countryside and an understanding of the role played by the myriad of wild animals, insects and plants

(From an article by Dave Goulson Professor of Biological Science at Stirling University in the UK October 2012 and a report by the Butterfly Conservation and Rothampsted Research February 2013.)