

## Jeremy Barns' presentation ....May 2011

The inspiration for this program came from an article by Marla Spivak in ABJ, Dec.

Varroa mites are a major issue for beekeepers. We know that

1. we should test regularly for mites, that it is easy to do, and yet we seldom do it;
2. mites feed on pupae, resulting in adult bees with lower body weight, a compromised immune system and a reduced life span;
3. Varroa spread viruses and ...
4. ... Bees exposed to Varroa are more vulnerable to factors such as poor nutrition, pesticides and Nosema.

We have asked each beekeeper in York Co to test for Varroa during the first week of every month, starting in May and ending in October. The exception is those who have recently installed a package and who therefore do not need to test until June or July.

For comparative purposes it is important we all use the same method of testing, in this case the sugar roll method, which David Papke demonstrated at the April meeting with a follow-up e-mail sent to all members. Any beekeepers anxious about the procedure can request that one of the peer reviewers (an internal program set up in the absence of state inspectors) come and assist them.

It was suggested that at the same time beekeepers keep an eye out for SHB.

The results are submitted to a data base where a chart converts raw numbers (Varroa per 300bees) to percentages for the hive.

To date 19 beekeepers have submitted results for their hive with an average of 4.5 mites per 300 bees, or 3% per hive. That's a high figure for so early in the season.

We are recommending three possible treatments. For low level infestations, either put a leaf of tobacco or a cheap, non-aromatic cigar in your smoker, or drench the bees with a sugar syrup solution that contains four times the normal amount of essential oils such as HoneyBHealthy.

For higher levels of infestation we recommend removing the queen and letting the colony raise their own replacement. This interrupts the brood cycle and deprives the mites of a host on which to lay eggs.

Keeping bees without chemicals does not mean not treating at all. Knowing the extent of the Varroa infestation of a hive is vital to good management and the longevity of a colony.

The more I learn about pollination, the more I'm filled with wonder. It started with Chapter 10 of Rowan Jacobsen's poetic-like book, Fruitless Fall and reached a climax with Louie Schwarzburg's latest contribution to the TED talks last week.

Beauty and seduction, Louie argues, are nature's tools for survival, because we protect what we fall in love with. The interaction between beauty and seduction is a love story that feeds the earth. It reminds us that we are part of nature, that we are not separate from it.

He quotes an expert on monarch butterflies, Chip Taylor, as saying that "Nothing in the universe lasts forever. Everything wears out."

Reproduction is the means by which the mechanism of life can move forward, at least until it wears out. It might be in plants, which are bound to one place by their roots and therefore rely on other parties to transport the male pollen to the ovule buried deep below the female stamen. Or bees, who besides helping plants reproduce through pollination, reproduce themselves either asexually, by swarming, or sexually, by the explosive mating of drones with a queen.

Pollination is a life force, an intersection between the insect world and the plant world seldom seen by the naked eye, and is thus often taken for granted.

There are many specific details, but one in particular begins with the question. "If you knew you were going to be marooned on a desert island for a month, and were allowed only one source of food, what would you choose?" Honey or eggs are popular choices (apparently the best would be tinned cat food) but with any of these your health would deteriorate without variety.

The same is true for the bees. Pollen is like snowflakes – everyone is different, everyone has different configurations, different properties and values – and honey bees need a range of at least twelve to be healthy. Thus Jeff Pettis is quoted in the May issue of *Bee Culture* as saying that the three challenges facing the bees are the three p's – poor nutrition, pathogens and pesticides.

Apparently in Australia, according to a beekeeper at Apimondia in 2009, the properties of different pollens have been assessed and this is now a prime factor in choosing what to plant to ensure diversity for the bees.

In York we have built on the work of the late Arthur Gruver and his wife, Barbara, from Maryland, and put in bar graph form when trees, shrubs and flowers are in blossom. This of course is the nectar flow, which provides the carbohydrates to compliment the proteins of pollen. Nectar is the seducer which together with the beauty of the flower invokes those magical, mystical moments of pollination when life regenerates itself over and over and over again.