

The Status of Chemical Remedies for Honeybee Ailments

Over the decades honeybees have been bombarded with a barrage of diseases and pests. These cover a spectrum which falls into categories including bacterial, viral, fungal, protozoa, and parasitic. Beekeepers have had to keep up with all the new invaders and learn the chemical and non-chemical controls to mediate their impacts.

To complicate matters both the ailments and many of the controls have proven to cause secondary problems. As an example, while Varroa mites inflict their direct damages, they also vector secondary problems like the viruses they seem to facilitate. Likewise, while we can be thankful for the chemicals that have helped to save untold numbers of colonies, they have also have had secondary, harmful repercussions on the very honeybees they've worked to aid.

In light of all this, while the chemicals have been and continue to be very important in this on-going battle to have productive colonies, we should also be thankful for our scientists who have worked long and hard to develop less invasive chemicals and non-chemical methods of control. Overall, while the onslaught of problems seem to be endless, we are lucky to have a growing arsenal of defenses at our disposal.

While we are advocates of Integrated Pest Management (IPM) and believe that non-chemical controls should always be the first line of defense, we also want our beekeepers to be aware of what's available to them in the legal chemical arsenal. In past issues we have explained IPM in beekeeping and how to employ some of the mechanical and cultural controls to many of the diseases and parasites in beekeeping. Those methods not only lessen the frequency of needed chemical treatments but they also help to maintain the efficacy of those chemicals by reducing the tendency toward resistance. The most important part of IPM in beekeeping is to know your infestation levels and use the tools appropriate for those levels. (That's to say, you don't want to use a hammer to kill a mosquito on your forehead and you really want to use less "painful" methods to put off the time when you need to pull out that hammer.)

Following is a list of the chemical controls that are registered with the FDA or the EPA and can be used in the State of Arkansas as long as they are used strictly in accordance with their label instructions. The label instructions have been carefully crafted and approved by the federal government to be effective and safe to the bees, the consumers of bee products and to the applicator. Any deviations of the label instructions are infringements of state and federal laws. Likewise, using the ingredients found in these products in formulation variations is also an infringement of state and federal laws. While the following chart list the chemicals in random order, those in shaded rows are thought to be the "harder drugs" and should be used only when necessary.

The use of any of the Section 18 products must be reported by the applicator to the State Plant Board within 10 days of such applications. Section 18 products, by definition, have short-lived exemptions and care must be taken that they are used only when those exemptions are in effect. None of the products listed below should be applied or be present in hives when honey supers are in place. Some of the labels clearly state that there are waiting times between removing the products and placing honey supers on the hives.

<u>Product</u>	<u>Status</u>	<u>Usage</u>
<u>Terramycin</u>	an FDA approved antibiotic	Can be used for the prevention of but <u>not</u> the cure of American Foulbrood. It can legally be used to cure European Foulbrood.
<u>Tylan</u>	an FDA approved antibiotic	<u>Cannot</u> be used to prevent nor cure American Foulbrood
<u>Fumidil-B</u>	A FDA approved antibiotic	Used for the control of Nosema
<u>Apistan strips</u>	an EPA Sect. 3 registration	Legal formulation of fluvalinate that can be used to control Varroa mite populations
<u>Apiguard</u>	an EPA Sect. 3 registration	A formulation of natural herbs in a gel carrier that can be used to control mites.
Hivastan	An EPA Sect. 18 emergency exemption for registration	For the control of Varroa mites
<u>Sucroside</u>	an EPA Sect. 3 registration	A spray mixture of soap/oil to control Varroa mites
<u>GardStar</u>	an EPA Sect. 3 registration	A ground drench for control of Small Hive Beetles
<u>Menthol Crystals</u>	an EPA Sect. 3 registration	An intense menthol fumigant for the control of Tracheal mites
<u>Para-Moth Crystals</u>	an EPA Sect. 3 registration	<i>para</i> -Dichlorobenzene in crystal form used to control wax moths in stored equipment
<u>ApiLife-Var</u>	an EPA Sect. 3 registration	A delivery system of herbs which can be used to control mites.
CheckMite+	An EPA Sect. 18 emergency exemption for registration	A formulation of coumaphos – to control Varroa mites and Small Hive Beetles
<u>Mite-Away II</u>	an EPA Sect. 3 registration	A pre-packaged delivery system and formulation of formic acid used to control Varroa mites

Up-Coming Beekeeping Classes

As the inspection season winds down it is time to start scheduling the next rounds of beekeeping classes. There has been a lot of interest shown in central Arkansas and so a class is being organized to take place in Little Rock. It will happen at the Plant Board during the last two Tuesdays of November and the first two Tuesdays of December. Because of limited space, information and registration is going to be on a first call basis by calling the apiary office at 501-225-1598. There is an opportunity to organize another class for another area of the state for another night of those same weeks.

Classes have already begun in Fargo, AR in conjunction with the Arkansas Land and Farm Development Corp and Heifer Project. For information on those classes, contact Roy Winfrey at 870-494-3203.

We are already working on classes for late winter and one is being organized for the NW part of the state and will be held in Fayetteville and one is forming up for the Harrison area. These will take place in late January and February.

These are all 12 hour courses covering the basics of beekeeping for beginners and intermediate beekeepers. The classes are free with books and handouts available at very reasonable prices. Beekeepers and wanna-bee keepers are welcome.

The Season in Arkansas

It's been a bumpy ride for bees and beekeepers alike. A warm, late winter followed by a hard and chilling Easter freeze put a lot of flowers in a weather crunch to which they couldn't adapt. In turn, this changed everything for bees and beekeepers alike. It became a season of adjustments and acceptance. Then, before the heat wave hit, we were blessed with lots of rain. Of course, for the bees it would be better if it only rained at night but we need to count our blessings. The rain gave the much needed soil moisture to make for a green and flower-full summer. It has also made it possible for many plants to survive the late freeze and heat wave that framed that needed wet season.

What this has meant is that some areas ended up having an almost average season while other areas got hit hard with bees struggling to make a living. For the majority of those who have their bees in nectar producing soybean and cotton areas, it seems that things are leveling out. While the crop has been fairly good once it got hot and dry, at this point it appears that the bees are struggling to get the last bit of moisture out and cap the cells. In a lot of areas it looks like a race to get the cells capped and supers off before the smartweed kicks in.

Beekeepers in less productive regions are hoping for an end of this hot and dry period and some late flowers to maintain and increase stores for winter.

Speaking of cotton areas, some of the boll weevil eradication zones have nearly completed their programs and spraying is slowing down. The final success of this program will mean that bees can be placed in cotton areas with much less risk of pesticide damage. This will be a welcome change.

Now is the time that mites and beetles must be watched. Generally, neither have caused much damage this year but they often come into their own in late summer and early fall. Therefore beekeepers need to be on their toes in monitoring for these rascals' population booms. Watch and count and don't let them get ahead of your bees.

Lastly, Colony Collapse Disorder has wiped out bees nation and worldwide. Researchers are still looking for answers. Beekeepers need to keep their bees happy and healthy and stress-free. The scientists are contacting inspection programs and wanting statistics for their research. We are their best source of data in the field but we could use your help in providing answers to their questions. Please let us know if you've experienced unexplained colony declines or larger than normal colony losses. Also, don't forget to use this sudden public awareness as an opportunity to let your friends and neighbors know about the importance of our honeybees.

We hope that your bees are producing a good surplus for you.

Africanized Honeybee Update

Enough Africanized honeybees have been detected in Union County to add it to the counties that are considered Africanized. It now joins the ranks with Lafayette and Miller Counties.

Don't Forget to Consult the Apiary Web Page

Our webpage holds lots of information, past and present newsletters, links to other beekeeping pages and much more. Check it out at www.plantboard.org. From there, go to Plant Industries and in Plant Industries you will find Apiary.

Beekeeping Associations' Meeting and Conference Schedule

(There's one near you or... there should be)

State Beekeepers Association will have its annual meeting in Mtn. View, Arkansas at the Ozark Folk Center on October 12-13. The meeting will start at 10:00 am on Friday the 12th and conclude on Saturday the 13th at noon. Room rates are \$60.00+tax at the Folk Center (1-800-264-3655)
All information and an agenda will be posted on arbeekeepers.org website.
Contact: James Rhien at (870) 656-0695

Central Arkansas Assoc.: Meets the 2nd Monday of each month at 6:00 at Gander Mountain store in North Little Rock
Contact: Richard Wells (501)835-2605

Cleburne County Assoc.: Meets at 7pm on the 2nd Tuesday of each Month at the Greers Ferry Bank
Contact: Guy Baltz (501) 536-3047

Greater Hot Springs Assoc.: Meets the last Thursday of each month at 7:00 at the Church of the Nazarene
Contact: Doyle Hawthorn (501) 623-1078

Northeast Assoc.: Meets every year on the last Saturday of January.
Contact: Rick Kiser (870) 932-7120

North Central Assoc.: Meets the 4th Tuesday of each month, Jan-Oct at the Farm Bureau Office in Mountain Home at 7:00
Contact: Nina Huddleston (870) 424-2262

Northwest Arkansas Assoc: Meets at 7pm the 2nd Monday of each month at the Washington Co. Cooperative Extension Office on McConnell Ave in Fayetteville.
Contact: Jim Pickett (479) 521-0433 or www.nwabeekeepers.com

Ozark Foothills Assoc.: Meets at 7pm on the 3rd Thursday of each month at Damascus Community Center
Contact: Sonny Chidister (501)723-8247

River County Assoc. (Independence and Sharp Co): Meets on the 1st Monday of each month
Contact: Hugh Mobley (870)799-3728

South Arkansas Assoc.: Meets the 3rd Thursday of March & October 9am-3pm at the Leola Baptist Church
Contact: Betty Scott (501) 939-2780

West Arkansas Assoc.: Meets at 7pm on the 2nd Tues of each month at the Jeny Lind Catholic Church
Contact: Bill Miller (479) 649-1957