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Bee & Wasp Repellent

For years people have been asking me if there was any kind of chemical or other repellent that would keep bees and wasps from nesting in specific cavities. For years I said, "No," and for years I have been wrong.

There is a product on the market designed to discourage nesting, or to poison adamant insects that walk on it. Manufactured and distributed exclusively by Rainbow Technology Corporation, the product is called High Tech INSECTAPE.

The formulation (similar to mite products) is a 10% strip containing Baygon®, a carbamate called "propoxur". The strips have adhesive on the back. They are peeled off the paper backing and stuck wherever you don't want the pests: "inside aerial terminals, pedestals, cable closures, terminal boxes and other outdoor equipment or contained areas." Targeted insects include: waterbugs (oriental cockroaches), hornets,

yellowjackets, spiders, wasps, ants, bees, fire ants, and roaches.

The longevity of effectiveness depends on insect traffic, that wipes the chemical off the strips, and on weathering. The more exposure to adverse conditions, the quicker it quits. Under ideal conditions, the strips will last up to a year. Propoxur is hard on fish, but not other animals. The strips can be handled intermittently without gloves, but prolonged direct exposures should be avoided.

If you want to see whether the strips can overcome the "attractive nuisance" of comb residues following a "bee extraction," please contact Charles Chaney, Account Manager, Rainbow Technology, 261 Cahaba Valley Parkway, Pelham, AL 35124-1146 [(800) 637-6047].

Rainbow Technology, a Woman-owned Enterprise, also has a bunch of other interesting products: Halt: Dog Repellent; Sunscreen with SPF: 30; Mice and

Rat Bait; Weed Killer;
Restoration Spray for cables and
damaged wire insulation; Tool
Cleaner; Degreaser; Wasp and Ant
Spray; Power Ant and Wasp Spray
(12-15 feet); Jungle Formula
Insect Repellent; Ladder
Protective Coating; Marking
Paints; and "Knuckles" Waterless
Hand Cleaner. The company would
be very glad to send
informational materials on all
its products upon request.

Follow the Label!

Most of you do not receive Tom Sanford's beekeeping newsletter, APIS, so I have reprinted this article from his February issue.

Fluvalinate--Use it Right or Lose It!

It is now official! Resistance to fluvalinate, the active ingredient in Apistan® has been found in Varroa mites. This was published in the February 1995 issue of Bee Culture (Vol. 123, No. 2, pp. 80-81) in "9th International Congress of Acarology," by E. Sugden, K. Williams and D. Sammataro. According to these authors: "The most ominous report came from Dr. Roberto Nannelli of Italy. He has found areas where Varroa mites are over 90 percent fluvalinate-resistant, and his claims have been confirmed by German scientists."

Oscar Coindreau, representative of Sandoz Agro, the company that makes Apistan, also verified this report at the recent meeting of the American Beekeeping Federation in Austin, Texas. He indicated that resistance was patchy in Italy, but in certain areas, Apistan provided no control. And it doesn't take much resistance before Apistan loses its effectiveness, according to Mr. Coindreau, because anything less than 99 percent control, is in reality, no control. That's because mite populations tend to bounce back so readily in populous bee colonies.

All investigators indicate that the cause of this resistance is not Apistan, but beekeepers' misuse of other formulations of fluvalinate. In Europe the product is called Klartan® and in the United States, Mavrik®. All agree the use of these chemical products soaked into wooden strips, cardboard, paper towels, or in some cases, simply sprayed into colonies, is a certain recipe for developing resistant Varroa mites.

Although considered "ominous" in Europe, in the United States resistant mites mean disaster. That's because most other countries of the world have alternative treatments that are legal. According to the authors of the article: "In general, European scientists felt that the best way to slow development of resistance in the mites is to have at least two types of treatment which could be applied alternately." This advice is mirrored in many other situations where possible resistance in organisms to pesticides and antibiotics exists (see "When Bugs Fight Back," APIS, Vol. 12, No. 11, November 1994). It turns out that some European countries even have three Varroa mite treatments to turn to, rotating Apistan with formic acid and amitraz.

In contrast to those in Europe, United States beekeepers have only one legal treatment, Apistan. The only other candidate treatment at the moment in the United States is formic acid. Although generally effective, there can be many complications in using this product, including queen and

worker loss even when applied correctly. It is also caustic, one reason it is not looked on favorably by regulatory officials. According to one German researcher, efforts need to be increased to develop a formic acid-based product that is safe and foolproof, and can be registered quickly.

The authors of the article, therefore, conclude: "It may not be a question of 'if' but only 'when and where' the first super-Varroa mites will show up in North America. This should serve as a warning to all beekeepers to use control methods only as directed on their labels."

The best way to ensure killing as many mites as possible without developing super Varroa resistant to fluvalinate is to use Apistan right and only once. This philosophy, along with proper application recommendations, was published in the fall 1994, Apiculture Newsletter, published by the Ontario Ministry of Agriculture, Food and Rural Affairs, Guelph, Ontario, Canada. Here is what the authors (G. Grant and M. Nasr, in consultation with L. Goczan of Sandoz Agro Canada) say in their article "Apistan Strips - Use 'em Right, Use 'em Once!":

"Apistan® is a plastic strip that contains a miticide, fluvalinate. Fluvalinate is a contact poison that kills Varroa mites. But Varroa mites must contact the right dose before they die.

Fluvalinate does not mix with water, but it does mix well with oils and waxes. As bees

walk over the strip, the fluvalinate moves into the oils found on the surface of their bodies. When bees contact each other in the hive, the miticide is passed on. In a matter of hours all the bees in the hive are covered with fluvalinate. Adult mites that contact these bees will be killed by the miticide.

As fluvalinate is picked up from the surface of the strip the concentration drops. More fluvalinate then moves out from the center of the strip to the outside surface. The strip is designed to deliver the correct amount of miticide to the surface over the 42-day treatment period.

Eventually most of the fluvalinate is removed from the strip--the strip is spent. There is no longer enough miticide left in the strip to kill Varroa mites...

Why a 42-day treatment period? Worker bees take 21 days to develop from egg to adult. Drones need up to 24 days to develop. By leaving the strips in the hive for 42 days or two worker bee generations, all adult mites and their matured offspring will be exposed to the miticide. Remember, the mite must contact the fluvalinate in order to be killed. Mites in capped brood cells escape exposure until they emerge from the cell with the adult bee.

Why not leave strips in over winter? Because two potential problems might occur:

1. Residues--fluvalinate mixes with oils and waxes. Leaving

strips in over winter might result in a build up of residues in the wax.

2. Resistance--mites are not equally susceptible to fluvalinate. Leaving mites in contact with spent strips may kill the most susceptible mites, leaving the more resistant mites to reproduce in their place.

Use one (1) strip for every five (5) frames covered by bees in brood boxes. Some strong hives may need three strips, some weak hives will need only one. Place strips down between the frames so that they contact each side of the cluster. The average hive will likely need two.

Can Apistan strips be reused? No, with one exception. There is no sure way of knowing if enough fluvalinate remains in a strip to guarantee that it will work a second time.

The exception: If the strip was used once, only for three days to detect mites, and if the strip was then stored properly between uses, you might reuse the strip. You might reuse it for either detecting mites for a 3-day period or for one 42-day treatment.

Store strips in a cool, dry and dark location wrapped in aluminum foil in an air-tight bag. Avoid direct sunlight. Don't store strips near chemicals or pesticides. Don't store strips where they could contaminate food, feed or water.

In Ontario, Apistan is registered as a Schedule 3 pesticide. As with other

'homeowner' products, strips are approved for disposal in municipal landfills. Some municipalities have their own special requirements for disposal of Schedule 3 pesticides."

In the United States, the instructions on the label are the law. They must be followed, even if varying from what the authors say in the above article or other writings on the subject. In addition, when applying Apistan, or any registered chemical, the person must have in his possession a copy of the label.

Thus, when it comes to Apistan, the old adage, "use it or lose it", must be modified. If U.S. beekeepers are to maximize the utility of the one legal and effective treatment they have for Varroa, what many consider the most dangerous organism affecting beekeeping today, they must "use it right or lose it".

Apistan Studies

Jim Bach, State Apiarist in Washington, ran the following tests on the longevity of Apistan® hive strips.

"Recently I had some Apistan® strips tested by the state chemical laboratory to determine the amount of fluvalinate present on the surface of the strips pre and post use. I supplied the lab with three samples. Number one consisted of ten new strips from a package which was opened last fall. Samples two and three each consisted of ten strips which had been used in treating colonies

for 45 days. Strips in sample two were only slightly travel stained by bees. Strips in sample three were slightly more heavily travel stained showing minimal propolis and wax particles. There was only a slight visual difference in the appearance of the strips between samples two and three.

The lab used alcohol swabs to remove available fluvalinate from the surface of the strips, then tested the swabs to determine the amount of fluvalinate retrieved. Sample one (new strips) indicated 809µg (micro grams). Sample two shows 201µg (248% of new). Sample three showed 142µg (17.6% of new).

These results may explain the observed reduced effectiveness of Varroa treatments reported by various beekeepers when Apistan strips are reused to treat colonies."

Honey Board Moved

The National Honey Board has a new street address in Longmont, CO: 390 Lashley Street, with a zip of 80501-6010. If you haven't contacted them about free, low cost, or more expensive honey promotional materials in a while, this would be a good time to do so. They have a great variety of items that may be of use to you. Give them a call at 800-553-7162. Have your VISA or Mastercard ready. They will take either.

Honey Board Announces New Reduced Reporting Level

As its meeting January 21, the National Honey Board approved a new reduced reporting level that will affect those who pack less than 100,000 pounds of their own honey.

"Formerly, reduced reporting only applied to those who packed less than 20,000 pounds in a year. Under the new higher pound limit, many more producer/packers may now qualify for reduced reporting," said Julia Pirnack, compliance coordinator for the National Honey Board.

Those producer/packers who pack less than 100,000 pounds of their own honey for sale at local retail stores, for use in bakeries or for food manufacturers, may qualify. "Purchases of honey from other producers will still be reported monthly," said Pirnack, "however, a producer/packer's own honey that is prepared for sale can be reported only twice a year instead."

If any producer/packer feels that their business qualifies for the reduced reporting schedule, contact Julia Pirnack or Marlys Lloyd at the National Honey Board for further information.

Sweeten Your Sales

The National Honey Board has created two honey sales kits to help honey sellers market their product to either foodservice or industrial users.

The foodservice kit includes honey product information (nutritive composition, storage and handling tips, substitution suggestions, etc.) on the folder and includes six sales sheets with honey use and merchandising tips. The sales sheets focus on honey's use in various applications: breakfast, beverage, sauces and dips, side dishes and desserts. The kit is appropriate for foodservice distributor representatives, honey brokers, packers or producer/packers who want to sell to the foodservice industry.

The industrial honey sales kit is a package of information to help sell honey to the \$400 billion food manufacturing industry. The kit includes basic information about honey (flavor, colors, etc.) and the food industry's use of honey.

If you are a seller of honey, or want to sell honey to the foodservice or industrial segments, call the Honey Board for a complimentary copy of one or both of these sales tools.

Pollination Suggestions

Members of the California Farm Bureau Federation Honey Bee Advisory Committee felt that it would be a good idea to compile some recommendations for using honey bees in crop pollination. The suggestions on the following page deal with recurring problems that can be avoided by sound planning on the part of the grower and the beekeeper.

Coming Soon...Hang Tags to Help
Hook Customers

The National Honey Board will soon be developing "hang tags" for honey containers.

The full-color, eight-panel hang tags will include honey use and storage information as well as easy, delicious honey recipes. Each tag will fold to 2" x 2" and have an elastic cord for easy attachment to queenline jars and squeeze bears.

The tags will be sold in packs of 500 at a cost to cover the Honey Board's actual printing and shipping costs only-- estimated at 3.25 cents per tag.

Plan on "hooking" new customers by adding these attractive and informative tags to your containers in 1995.

Days of Wine and Honey

DATE CHANGE! The organizers of the 4th Annual Days of Wine and Honey Festival have just informed me that the Festival will be held one week earlier than previously announced. The new dates are May 6 and 7, 1995.

The Festival has educational displays, live hives, bee products and honey tastings. Honey vendors can rent a 10'x15' exhibit space for \$50. Everyone else pays \$200-300.

Festival organizers are spending \$40,000 to advertise the event in over a million households in the Bay Area, San Jose region, and the Central Valley. This is an excellent opportunity to introduce potential customers to your products.

Livermore Main Street, Inc., the non-profit sponsoring organization, can be reached at (510) 373-1795.

Bee Schools

The Sacramento Area Beekeepers Association is offering two beekeeping workshops this spring. The Beginning Beekeeping instructor is Randy Oliver, a commercial beekeeper from Grass Valley, California, who also raises queen bees and produces packages of bees. The Beginning Beekeeping workshop is one day, Saturday April 8, 1995, 8:00 am to 4:00 pm at the Sacramento County Cooperative Agricultural Extension Auditorium, 4145 Branch Center Road, Sacramento, CA (at Kiefer Blvd. one block west of Bradshaw Road). Cost is \$25 per person or \$40 for a family of two or more (parents and children).

The Intermediate Beekeeping instructor is Dr. Eric Mussen, who is the Extension Apiculturist at the University of California at Davis and a noted authority on beekeeping. The Intermediate Beekeeping workshop is one day, Saturday April 29, 1995, 8:00 am

to 4:00 pm at the same location listed above. Cost is \$25 per person or \$40 for a family of two or more (parents and children).

Please register for either or both workshops as soon as possible. Send registration fees to Sacramento Area Beekeepers Association (SABA), 2110 X St., Sacramento, CA 95818. Please include your name, mailing address, telephone number, and indicate which workshop(s) you will be attending. For additional information please telephone Pam or Nancy at 916/451-2337 Tuesday through Saturday between 10:00 am and 4:00 pm.

Sincerely,

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