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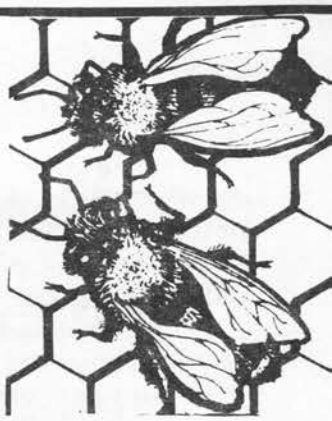

Oregon State Beekeepers Association

AFFILIATED WITH AMERICAN BEEKEEPING FEDERATION

May 1979

Vol. 3 No. 4

Washington Bee Poisoning Update

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There is NO question about the most serious problem facing Washington beekeepers. Bee poisoning has been both chronic and severe in our state for many years. When I first started working on bee research in 1953, I asked the beekeepers about the most important item requiring investigation. They said, "Bee poisoning - we get useful information about bee management from researchers working with honey bees throughout the world, but no one is answering our problems with bee poisoning."

We soon developed a comprehensive attack on the problem. We advise the Washington State Department of Agriculture about regulations aimed at reducing bee poisoning; revise precautions published annually as a part of the official tri-state Pacific Northwest insect control recommendations; present information about bee preservation to pesticide applicators, fieldmen, growers, beekeepers, and county agents; and conduct specific research studies to obtain data needed to support these programs. However, the "sad truth" is Washington still has an extremely serious problem.

Major Factors

Two important facts about Washington beekeeping are: (1) the need for bee pollination to produce a sizable proportion of Washington's crops and (2) the lack of bee forage for colony maintenance. Washington statistics for 1978 show over $480 million farm value is provided by crops dependent on bees for pollination. In recent years, Washington beekeepers have been moving thousands of colonies to California to pollinate almonds during February and March. Pollination rental fees usually pay for the costs involved in moving, but the main advantage to beekeepers is the milder climate and early forage which allows the colonies to build up strength. If everything goes well, the beekeeper will be able to make splits to replace colonies lost to poisoning the previous season. Thankfully, poor weather or misuse of pesticide have only caused a few additional severe losses during the stay in California to date.

More bee colonies are operated in Washington than there is good forage to support. Use of herbicides, although not usually directly hazardous to bees, has aggravated the problem by eliminating sweetclover, trefoil and other bee plants in waste areas, right-of-way and rangelands. Our beekeepers have been forced to place most of their colonies in diversified and intensive agricultural crop areas to obtain pollen and nectar from peppermint, spearmint, alfalfa, clovers and various vegetable crops. Here they are likely to be damaged by a continual series of insecticide spray operations.

Survey Results

Washington beekeepers have the very dubious honor of receiving the greatest amount of federal indemnity payments for bee poisoning losses for 5 of the last 6 years. Table 1 shows California had a greater number of colonies damaged in 1977, but commercial beekeepers in California operate 5 - 6 times as many colonies. Note

(Cont. from Page 1)

the greatest number of colonies were developed in 1975 and 1976 as the honey price increased. Washington is down 11,000 from the peak and additional colonies are being moved out of our state.

The highest indemnity payment, $22.50 per colony for dead-outs is only 25% of the current value of the bees and hive equipment. There is no provision for lost revenues from pollination service or honey production. Spring dwindling and dieout of colonies caused by insecticide-contaminated pollen collected the previous season also is NOT covered.

Table 1.
BEE POISONING LOSSES IN WASHINGTON AND CALIFORNIA

		No. colonies damaged or destroyed	Total No. commercial colonies	% damaged
1973	WA	31,000	76,000	41
	CA	30,000	385,000	8
1974	WA	38,000	75,000	51
	CA	34,000	385,000	9
1975	WA	39,000	77,000	51
	CA	31,000	390,000	8
1976	WA	50,000	73,000	68
	CA	46,000	410,000	11
1977	WA	51,000	68,000	75
	CA	73,000	410,000	18
1978	WA	58,000	66,000	85
	CA	52,000	405,000	13

Our beekeepers are being faced with the most destructive bee killing insecticide formulation ever devised. Methyl parathion is microencapsulated in a nylon-type plastic by Pennwalt Corporation and marketed under the trade name, Penncap-M. Residues of this material on plants have "static cling," an exceptionally strong affinity for adherence to foraging bees as they move amongst the flowers. Both capsule size and electrostatic charge are involved in this unique characteristic.

We have long known dust formulations are most hazardous to bees. However, carbaryl (Sevin) dust was the only modern insecticide previously proven to retain its toxicity to bees from one season to the next while stored in contaminated beehive frames. Our data indicates Penncap-M may retain twice as much or more of the toxicant during storage and remain at least three times as lethal to the bees as Sevin dust. This is true even though Sevin was applied at a four times greater dosage per acre and entire fields were treated, whereas Penncap-M was applied to less than a third of the field. It is obvious even a minimal exposure to Penncap-M is extremely dangerous to bees and the slightest misuse is likely to cause severe damage.

Our recent survey shows California and Washington, with strong regulations aimed at reducing Penncap-M problems, have had reduced losses since the initial severe kills of 1976. However, as the pesticide was labeled for uses in other states, their losses have increased and 1978 was the first big problem year for many. We also found Penncap-M problems continue to be commonly associated with contamination of blooming weeds.

Potential Long-term Reduction of Problems in Orchards

For many years we have prevented serious bee poisoning problems in the orchards of Washington by NOT recommending any insecticide applications during tree fruit bloom. However, with long residual hazard materials like Sevin, azinphosmethyl (Guthion) and Penncap-M, bees are killed during the summer from foraging on contaminated cover crop blooms. We advocate the removal, of cover crop blooms, but a better long-term approach for the orchardist is to establish solid grass cover crops.

Protection against freeze damage to the roots is one of the main reasons for a cover crop in our state. USDA agronomist John L. Schwendiman and WSU horticulturist Max E. Patterson at Pullman found fescues were excellent grasses for this purpose. Hard fescue is the best grass for dryland conditions, while tall fescue and creeping

(Cont. from Page 2)

red fescue are excellent for irrigated orchards. Old, heavily shaded orchards can be seeded to orchardgrass. Quack grass is impossible to remove from an orchard where it is well established, but can be used as a cover crop with addition nitrogen. All of these grasses are reasonably competitive with weeds.

Robert E. Fye, USDA, Yakima, recently showed crested wheatgrass and smooth broomgrass on ditch banks and in orchards reduced the prevalence of lygus bugs which cause catfacing injuries to stone fruits. Non-legume cover crops will also reduce the number of leafhoppers which transmit virus diseases, stink bugs and other sucking insects which cause deformed fruits, and even meadow mice which girdle trees during the winter. Legumes also disrupt effective nitrogen management, especially in pear orchards. Franklin J. Howell, USDA, Yakima has shown bertha armyworm, spotted cutworm and other climbing cutworm moths are first attracted into the orchards to lay their eggs on weeds such as lambsquarters and Canada thistle. Therefore, establishment of grass sod cover crops would not only decrease bee poisoning problems, but also decrease damages from sucking insects and climbing cutworms and provide important cultural dividends as well.

Documentation

We have initiated a honey bee monitoring program under the auspices of our extension Integrated Pest Mangement project. Apiaries will be sampled regularly throughout the season by consulting entomologists paid by the beekeeprs. We will obtain data to pinpoint which crops, insect pests, and pest control programs are mainly involved in bee poisoning problems. Information will be recorded on standardized forms for later transfer to a computerized data storage and recall system. Beekeepers desperately need such documentation to provide a basis for improving spray practices and reducing severe bee losses.

Honey Queen Tour Scheduled

There is going to be an American Honey Queen tour to Greece September 16-21, 1979. Join Miss Kimberely Arnevih, The 1979 American Honey Queen on this cruise. The costs range from $1,648 from New York to Greece, to $1,848 from Portland, per person, double occupancy, inside cabin on cruise.

The tour will take you to the International Congress of Apiculture in Athens, then there are also optional tours to Turkey and the Greek Islands. For more information contact Paul Heins, P.O. Box 517, Albany, OR 97321.

BEE-LINE LOGO CONTEST

The Bee Line is having a contest!

The rules are simple. Send to the address of the secretary-treasurer a black and white ink drawing of a bee for our logo. The drawing should be of a "realistic" bee or an emblem which would represent the Oregon State Beekeepers Association. The size should be the same as our present logo. The contest will end on July 15. Try your hand and give us a new bee for 1979. We are looking forward to your submissions.

MAGAZINES

Members of Oregon State Beekeepers Association can subscribe to the American Bee Journal and Gleanings in Bee Culture for reduced rates. Gleanings has only a one year subscription rate of $6.00 per year. The American Bee Journal has two rates; one year $6.00 and two years $11.63. These are members only rates and your checks should be sent to OSBA, Rt. 1, Box 162, Jefferson, OR 97352.

Rowland's Report

By OSBA President
Jack Rowland

The U.S. Department of Energy has included beekeeping under agriculture which, along with commercial fishing and logging, has been given the highest priority for allocation of gasoline and diesel fuel. The Oregon Department of Energy has 3% of the monthly supply of gasoline and 4% of the diesel fuel held in reserve for spot shortages. On May 11 the Oregon Department of Energy held a public hearing. I submitted a statement on the important role that beekeepers play in Oregon agriculture and the problems which beekeepers have in obtaining fuel. At the hearing the Department of Energy and the farm suppliers of fuel both reported that requests for fuel were greater than their supply. It was suggested, if there is a problem, the first step is to go to the local suppliers with the information that agriculture (beekeeping) has the highest priority. If this does not help, information for requesting an emergency allocation can be obtained by calling the Oregon State Department of Energy toll-free 1-800-452-7813 extension 2138. From Salem the number is 378-2138. It would be helpful if you would send me a note describing any fuel problems which you have so that these can be included in future presentations.

Beekeepers are urged to keep their bee locations current in the ASCS voluntary pesticide notification program. This is not a perfect solution to the pesticide problem but it is the best we have at the present time. I have been discussing with pesticide applicators the possibility of using a notification system which operates through a telephone answering service (such as is in use in California) in which beekeepers call in the location of their colonies and applicators call in before applying pesticides. The answering service then notifies all of the beekeepers within a given distance. We are working up a proposal for a pilot program which if it appears feasible will be presented to the beekeepers and applicators for consideration.

The importance of a good record of pesticide kills and suspected pesticide kills cannot be overstated. You are urged to complete Mr. VanNatta's form for all occurances. We must have better information so that we can evaluate the problem. This is emphasized by the government report which showed that the average ASCS in indemnity paid in 1978 for all colonies in the state was 29 times greater for the State of Washington as for Oregon.

The Oregon State Beekeepers Association has accepted an invitation to meet with the Washington State Beekeepers Association for the winter conference. Tenative arrangements are for the last of November and the first of December in Portland.

You may have discovered that the ethylene oxide fumigator is not in operation. Among the problems which must be solved before the service is restored are: finding a suitable location, properly training personnel, and the necessary financing.

NEW HONEY LEAFLETT AVAILABLE

Honey--The Natural Sweetner. This 6-page leaflet is designed to provide the consumer with some basic information about honey and its uses. The text covers the flavors and colors of honey, plus the types available. Information is included about storing honey and using it in cooking, canning, and preserving. There is a table showing the composition of honey. No recipes are given.

The cover of the leaflet catches the eye with a black-and-yellow print of an old-fashion honey bottle. The leaflet is ideal for point-of-scale merchandising wherever honey is sold. Copies are available from the Agricultural Publications Office, 123 Mumford Hall, University of Illinois, Urbana, Illinois 61801.

1-9 copies ---- Free
10-99 copies ---- 5 cents per copy, postpaid
100 or more ---- 4 cents per copy, postpaid

Make checks payable to the University of Illnois.

OREGON STATE BEEKEEPER'S ASSOCIATION PESTICIDE DAMAGE QUESTIONNAIRE

The Oregon State Beekeeper's Association successfully initiated a rule limiting the application of PennCap-M because of its highly toxic nature which has resulted in widespread losses of honey bees. It is the intent of the Association to seek rules or legislation restricting the use of any other pesticides involved in widespread beekill unless the damage is the result of illegal applications. In that event we may seek stricter enforcement and more substantial penalties. In any case, YOUR ASSOCIATION MUST HAVE TIMELY DATA.

If you have had any pesticide bee damage or know of any beekeeper that has, please complete this form and mail it to your Association Pesticide Committee.

Date_____ Location of loss_____

Date of Pesticide Damage_____

Your Name, Address, Zip Code and Telephone Number_____

_____

NATURE OF LOSS
Colonies Killed_____
Colonies with severe loss_____
Colonies with moderate loss_____

Owner's estimate of replacement value of bees at time of loss_____

Owner's estimate of replacement value of equipment (if any)_____

Owner's estimate of loss of income in year of loss for pollination services_____.

Owner's estimate of loss of income from decreased honey production_____

Owner's estimate of loss of income from nucs that could not be made_____

CAUSE OF LOSS (if known)

Type of pesticide_____

Type of application (airplane or ground)_____

Crop or crops involved_____

Applied by (commercial applicator, farmer, public agency)_____

Did the Department of Agriculture confirm the loss_____

Were your bees registered with the Agricultural Stabilization and Conservation Service_____

Describe the circumstances of the damage on the back of the page_____

Did you report the loss to the Department of Agriculture_____

Did you or they gather samples_____

Have you filed for or received any damages_____

PLEASE RETURN COMPLETED QUESTIONNAIRE TO OREGON STATE BEEKEEPER's ASSOCIATION Attn: Fred Van Natta, P.O. Box 135, Salem, OR 97308

Burgett on Bees

Editor's note:
Dr. Michael Burgett, a Ph.D. graduate of Cornell University, is Oregon State University's Apiculturist.

As a University "expert" in apiculture, individuals interested in becoming beekeepers often ask me the best way to learn the art of beekeeping. In discussion with growers of bee pollinated crops, I am often asked how one distinguishes an expert beekeeper from one not so knowledgeable. To the novice wishing to become a beekeeper my answer is to find a good, practical beekeeper and learn from "on-the-job training." The problem is how does one recognize a good beekeeper from a not so good beekeeper? It would verge on rudeness to be so bold as to ask someone with some experience, "Are you a good, bad, or mediocre beekeeper?!" There are a few key questions however, that one can ask of another beekeeper that should allow you a good appraisal without appearing ill-bred.

When visiting a bee yard, look at an "average" colony and ask the owner: "How old is the queen of this hive?" A good beekeeper will know. Experienced beekeepers understand that the heart of a colony is the queen and all else being equal, the quality of a queen is found in her egg laying rate. Research has shown us that the younger the queen, the higher her ovipositional rate. That is to say generally, queens one year or less in age are better than two year old queens, which are better than three year old queens. Good beekeepers know this and practice a systematic coding system that allows them to tell at a glance the age of a queen in any given hive. Of course there are exceptions regarding an individual queen's quality and her age, and the best beekeepers will maintain colonies with older queens for breeding purposes.

A second critical question which winnows out the less than expert beekeepers is: "Do you rear your own queens?" It is widely felt that one of the most difficult beekeeping skills is sucessful queen rearing. Queen rearing is very much like wine making in that it is relatively easy to make wine, but difficult to make good wine. Many experienced beekeepers have felt dissatisfied with the quality of southern bred, mass produced queens and have taken upon themselves the development of queens better "designed" for their particular locale or conditions.

Queen rearing involves manipulative skills in grafting larvae, preparing cell builders, and the requirements for mating the queens produced. All these areas require an intimate knowledge of bee biology. Rearing queens is not the same as breeding queens. Therefore additional skill and knowledge are needed to understand practical genetics and the selection of stock with which to rear queens and the stock which will provide the drones. A knowledge of the mating behavior of honey bees is also essential. None of the above mentioned skills are acquired overnight, and those beekeepers who possess them have taken years to attain their artistry.

Evaluting a beekeeper by evaluating his or her own queen program should not be singularly used to judge the overall quality of a particular beekeeper. However, based solely on this type of evidence you can be fairly certain of his of her skill.

Another area where you can ferret out the better beekeepers is in economics. A question such as, "How much did it cost you to produce a pound of honey last year," can bring any number of revealing answers. The best beekeepers will give you an exact figure that would probably range between 40 to 80 cents for the past year. In providing you such a figure the beekeeper discloses to you that he or she knows full well that honey is not given to us by bees without cost.

News From The Locals

The Umpqua Valley Beekeepers meet the second Tuesday of every month at 7:30 p.m. in the Church Annex of the Douglas Count Courthouse. At the June meeting the program will feature Dave Passon, County Extension Agent, who will speak about pesticides and feasible spraying times. Their current officers are: Donald Fenn, President; Melvin McCord, Vice-President; and Wilma Gore, Secretary-Treasurer.

The Willamette Valley Beekeepers Association meets the last Monday of each month in the basement of the Agricultural building in Salem at the corner of Capitol and Union streets.

MEMBERSHIP

Whether you keep one hive for pleasure or are a commercial beekeeper, the best way of keeping up with technological advances and of enjoying the fellowship of other beekeepers is to join the Oregon State Beekeepers Association. At state conventions, seminars, and social occasions members exchange ideas and share experience. You can learn the latest in both research and practical application within the OSBA. The more you participate as a member, the more knowledge you will gain. And that single new idea can both earn you money and enhance your enjoyment in keeping bees. Your membership will also strengthen the Association's ability to work for you. An application blank is attached for your convenience.

MEMBERSHIP DUES:

MEMBERSHIP APPLICATION
INCULDES SUBSCRIPTION
TO THE BEELINE
(FOR OSBA MEMBERS ONLY)
PLEASE CLIP FORM AND MAIL
WITH YOUR CHECK TO:

Secretary Treasurer
JOHN & DIANA VAN DRIESCHE
Rt. 1 Box 162
Jefferson, Oregon 97352
327-3609

Oregon State
Regular Membership

Dues: 0 -5 colonies,	$5
6 -24,	$10
25 -99,	$15
100 -299,	$20
300-499,	$25
500or more	$30

Affiliate membership:

Commercial	$25
Individual	$5
Youth	$3

American Beekeeping
Federation Dues:

0 - 199	$10
200 or more	5cents per colony

Western Apicultural
Society:

Individual
Member:

Regular	$10
Junior	$3
Senior	$5
Couple:	$15

Name _____

Address _____
Street

_____
City State County Zip

Oregon State
Beekeepers
Association

Dues For Year____

_____
Telephone Number of colonies Occupation

Amount I Have Paid_____ Date I Paid On_____

The Local Beekeeping Chapter I belong to_____

I do not Belong to a Local, but would like information on the nearest one in my area:_____

I am a member of the American Beekeeping Federation____

I am a member of the Western Apiculture Society_____

Card sent____ Information Sent____ Sec Initials____

CLASSIFIED ADS

For Sale: 6 hives of bees and all my equipment: 20 deep supers, 4-frame hand-power extractor, uncapping knives etc. Unable to care for them any longer; please contact Cam Milum, 4068 April Ct NE, Salem, 97301.

For Sale: 8 colonies of 2-story bees. 3 4-H boys want to sell out. Would like $55 per colony + $10 per extra super. Call Oliver Petty, Club Leader, at 928 - 7924.

Italian Queens after May 2nd. $5.50. David Kerr, 535 W. 10th., McMinnville, OR 97128. 472-5497.

80 Shallow (5 3/4") supers with drawn comb, inner covers, telescoping covers, miscellaneous equipment. 745-5206. Michael Meyer.

Bee Trailer- 14' x 7', tandem axel, tilt bed, haulls 35 single stacked or 70 double stacked, pulls easily. $900. 745-5206. Michael Meyer.

TOLLETT APIARIES
Italian Queens -- Breeder Stock Selected in Canada and Northern California for Honey and For overwintering. May thru June $4.00 per Queen. Minimum shipments 25 Queens. 4422 Honey Lane, Millville, CA, 96062. 916-547-3387.

CLASSIFIEDS:

Do you have beekeeping equipment or supplies that you wish to sell, swap, or give away? If you do, send an ad to The Bee Line, Rt. 1, Box 162, Jefferson, OR 97352. The price is $1 for members; $1.50 for nonmembers. Please be concise.

OREGON STATE BEEKEEPERS ASSN.

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