

Root

QUALITY

BEE SUPPLIES

The dealer who displays this trademark is the exclusive dealer in Root Bee Supplies. He is the only bee supply dealer in your area who sells New Three-ply and Wire-ply Foundations Triple-locked frames, Galvanized Steel Smokers, 35-lb. test Frame-Wire, Zipper Bee Suits, Supers with rounded, undercut handles, and many other supplies with exclusive features.

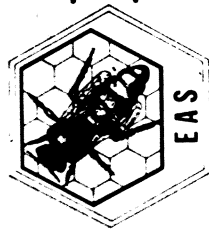
Your nearby Root Dealer will also be glad to give you advice on any beekeeping problem you may have. Stop in and see him soon. Factories at Medina, Ohio; San Antonio, Texas and Council Bluffs, Iowa.

The A. I. Root Company
Medina, Ohio

Eastern Apicultural Society
Mrs. Liz Rodrigues, Sec.-Treas.
157 Five Point Road
Colts Neck, N.J. 07722

Non-Profit Organization
U.S. POSTAGE
PAID
Litchfield, CT 06759
Permit No. 31

DONALD I HOPKINS
65 SCHOOLY'S MT RD
LONG VALLEY NJ 07853



EAS JOURNAL

Founded 1973

EASTERN APICULTURAL SOCIETY OF NORTH AMERICA, INC.

Vol. 7

No. 2

April 1979

A Great Opportunity for You and Your Family...

There's Help for You...

...if bees are your business or your pleasure. The Eastern Apicultural Society of North America is ready to assist you.

Its chief aim is to promote the art and science of beekeeping among hobbyists and professionals alike. This it does during the year by sending a 12 page news and "how to do it" magazine to its members every other month. The E.A.S. Journal carries accounts of the organization's activities and announcements about the annual conference, the speakers for it, and their topics.

THEN ONCE A YEAR...

...on a college campus in the Eastern United States or Canada, the Society holds its conference, bringing together the entire region's apicultural experts. That annual get-together is held the second week in August, starting on Wednesday and ending on Saturday.

At the various sessions, authorities discuss topics on beekeeping, exhibits are arranged on beekeeping equipment and products, and tours are made of local centers of interest. If the society's membership and leading apiculturists do not have an answer to a question, they will refer you to those that do. Most states and provinces have bee inspectors, extension personnel and a college-based apiculturist. Many offer literature on beekeeping in their geographical area.

CALLING ON YOU...

...The Eastern Apicultural Society of North America invites you to become part of its family and to attend the next annual conference. Membership costs are nominal.



EAS JOURNAL.
The official publication of Eastern Apicultural Society of North America Inc. published 6 times yearly at Litchfield Conn. 06759.

E.A.S. Journal \$2.00. Membership in EAS. Single \$3.00, Couple \$4.00, Family \$6.00. Commercial Membership \$50.00. Beekeeper Assoc. \$25.00. Individual Life Membership \$100.00. Membership will include a subscription to the Journal.

MR. J. C. MATTHENIUS JR.
CHAIRMAN OF THE BOARD
516 VICTORY AVENUE
PHILLIPSBURG, N.J. 08865
TEL. OFFICE 609-292-5440
TEL. HOME 201-454-7316

MR. R. E. ROSS HOPKINS
PRESIDENT
R.R. NO. 3 NORTH GOWER
ONTARIO, CANADA KOAZTO
TEL. 613-489-3775

MR. HUGH J. MACLEOD
VICE PRESIDENT
8 FAIRCROFT BLVD.
SCARBOROUGH
ONTARIO CANADADA M1M 2X1
TEL. 416-261-6582

MR. JOHN J. TARDIE
2ND VICE PRESIDENT
79 CENTER ROAD
ESSEX JUNCTION, VERMONT 05452
TEL. 802-878-4500

MRS. LIZ RODRIGUES
SECRETARY - TREASURER
157 FIVE POINT RD.
COLTS NECK, N.J. 07722
TEL. 201-462-4591

MR. PHILEMON J. HEWITT, JR.
HISTORIAN AND EDITOR
RICHARDS ROAD
LITCHFIELD, CONN. 06759
TEL. 203-567-9501

Editorial

From a recent letter concerning statements about the beginnings of EAS in 1955, my attention has been called to the spelling of James I. Hambleton's name. This is the correct spelling and not "Hamilton" as in the article. It is with regret that this has happened. Mr. Hambleton was from the Dept. of Agriculture and was not part of the Univ. of Maryland.

The question of EAS being a member of Apimondia has been going since 1967 when the World Congress was held in Maryland. The Congress came to Maryland that year with the official invitation given by James I. Hambleton. To make it authentic EAS Officers, with an invitation to ABK Fed. Officers, an Incorporated Assn. was formed, with By-laws, for coordinating the Congress. The Inc. lasted one year with two meetings held. EAS dues were paid to Apimondia that year. EAS has been a member since then, 1967 until 1978.

Lets keep our bees free of mites by not importing foreign bees on the side through traveling tourists. Mites are a detriment to healthy bees and our general beekeeping.

P. J. Hewitt Jr.
Editor

SEND YOUR ADS TO: Mrs. Liz Rodrigues, 157 Five Point Road, Colts Neck, N.J. 07722. RATES are as follows: \$3.00 per inch, each additional inch. \$3.00 and each additional 1/2 inch \$1.50, full page, \$48., 1/2 page, \$24. and 1/4 page, \$12. If repeat AD copy remains the same, there is a 10% discount. Rates are per issue. Deadline, the 15th. of preceding month.

EAS JOURNAL:

Advertisements and material for publication should be received by the 15th of the month previous to publication; Feb., April, June, August, October, December.

Comb Foundation Are We Using Enough?

Comb foundation, a sheet of beeswax embossed with the shape of the cells, serves beekeepers in a number of ways. For example, it will soon be time to install package bees in hives containing frames of foundation. Beginning beekeepers who buy nucs (small colonies) will probably fill out the hive with frames of foundation. Established beekeepers often place foundation in their hives to produce needed new combs and to help reduce the threat of swarming by their colonies. As the colonies grow and the nectar flows begin, beekeepers use frames of foundation in the honey supers when they have no completed or "drawn" combs and when they need additional new ones.

When we use comb foundation, we worry about whether the bees will accept it and make good combs from it: combs without drone cells, holes, and odd comb structure that don't belong. We need to learn more about getting the bees to consistently build the best possible combs from the foundation because we have invested a considerable amount of money and labor in the process and because good combs are the basis of movable-frame beekeeping. However, it may be even more important for us to learn whether foundation is a management tool which, if used in greater quantities, will help us to make more honey and profit from our bees. Let's discuss both aspects: using more foundation and how best to get it made into good combs.

The traditions for using comb foundation are not the same in Europe and in the United States. Europeans use far more foundation than Americans because they believe that old, dark brood combs are a detriment to the colony. They maintain that such combs are possible reservoirs for organisms which cause adult and larval diseases. European beekeepers believe this because the cells of combs used continually for brood rearing gradually fill with layers of cocoons and larval feces. Brood comb rapidly darkens in color and becomes black in a few years. At the same time, the cells become smaller in diameter and are then lengthened by the bees.

To offset these changes, European beekeepers regularly replace their brood combs with foundation as soon as the combs will not transmit light or after 3 or 4 years of use. Paul Fiegl, a master beekeeper in Solden, Austria, gives his colonies as much foundation as they will willingly draw out in the spring, or about 2.2 pounds (1 kg) for every 3 colonies. He says that this practice causes people to comment on how large his bees are. At Miel Carlot, a large Mexican honey company with a European background, half the combs in the brood chambers are replaced each year. An East European beekeeping textbook recommends adding 5 to 8 frames of foundation annually to each colony.

In the United States, we generally replace combs only as they become damaged, moldy, or otherwise unusable. Although we have finally realized that dark combs discolor honey stored in them, we have not generally accepted the idea that old, black combs should be replaced routinely with new sheets of foundation.

The value of using more foundation may be hidden by an overemphasis on the "uncleanliness" of old, black combs and the size of the bees that are reared in them. We should give more consideration to the possible benefits of improving our management by using more foundation. For example, at Miel Carlot, they compared the incidence of swarming in two groups of 100 colonies each. One group received 5 sheets of foundation in place of old brood combs; the other, none. Only one colony made swarm preparations among the treated hives while 23 did so when no foundation was given.

Dr. John Free of the Rothamsted Experimental Station in England has studied the behavior of queens and worker bees in relation to new and old comb. He expected to find that bees rear more brood in used combs than in new ones. Instead, he discovered that they sometimes reared less brood and that the queens showed no preference between new and old combs for egg-laying.

The worker bees definitely favored used comb when storing honey, in laboratory experiments as well as in outdoor colonies. Free believes that this behavior causes natural, or "wild," colonies to store food (nectar and pollen) in old combs that were formerly in the

Continued on page 4

the brood nest. Brood-rearing is then forced onto recently built comb. In Free's experiments, the bees also preferred to store food in combs previously used for storage rather than in new comb.

Free concluded that our beekeeping management tends to frustrate the desires of the bees to store food in the old brood area of their nest and to transfer their brood-rearing to newer combs. But the bees in turn frustrate us by filling the old combs in the brood nest with honey, leaving little room for the queen to lay. This behavior, which may help to trigger swarming, is probably accentuated when there is an excluder above the brood nest. Free's results clearly suggest that we should be renewing our combs in the brood nest regularly. The queen would lay as willingly in the new combs as in the old. The workers would be less attracted to store honey in the new combs, preferring to put it in the old brood- or honey-combs above the brood nest.

There is one snag in using more foundation. The bees do not always produce good combs from the foundation we provide them.

The bees generally make the best combs from foundation placed in the second brood chamber or above the brood nest, either during a nectar flow or while the bees are being fed. The foundation should be placed at the edges of the brood, between the outer brood combs and the storage combs. The bees are less liable to misuse the foundation if there are 10 frames in a hive body or if the frames are pushed close together.

You can attract bees into a full super of foundation by exchanging a couple of frames for completed combs from the lower hive body, preferably ones containing some unsealed honey. Honey bees vary in their willingness to draw foundation. If you find a colony that does it well and quickly, you can exploit it to make extra combs for use on other colonies. Strong colonies will usually build good, new combs from foundation during the Spring nectar flow from fruit and dandelion bloom.

The cost of using more foundation for managing bees may be prohibitive, at least until we are certain that it pays off. The wax obtained from the increased number of combs rendered can help offset such costs. Beeswax is currently valued at about \$1.80 per pound and can be exchanged for foundation and wooden goods. Without low-priced labor or discounted labor costs, however, we may find that the use of more foundation is not feasible if based only on the direct returns from the practice.

This is a good problem for interested beekeepers and researchers to study. We intend to compare the behavior of colonies with new and old combs in the brood nest to determine whether any differences are evident in their response to excluders. We will also look at their tendency to swarm and their honey production. If you have any thoughts and experience on the subject, please share them with us.

Important press release

IBRA Research News

It is vital to prevent the further spread of the bee pest Varroa throughout the world and this leaflet should receive the widest distribution; a single copy will be sent free. INTERNATIONAL BEE RESEARCH ASSOCIATION, Hill House, Gerrards Cross, Bucks SL9 0NR, England.

The Varroa Mite

By Dr. Eva Crane

IBRA RESEARCH NEWS NO. 16

In the last few years bee journals in almost every country seem to have carried articles on the Varroa mite, and readers may have been puzzled at the apparently sudden eruption of these mites in different parts of the world. It is explained here how this came about, and how further spread can be prevented. A guide is also provided to the more substantial publications on Varroa.

HOW BEEKEEPERS HAVE SPREAD THE MITES

Varroa jacobsoni was first reported in 1904, on Apis cerana in Java. By 1963¹ it had been found on A. cerana in Malaya, and also on Apis mellifera in Hong Kong. An analysis published in Bee World in 1968² showed that by then it had been recorded on A. cerana in India, the Far Eastern Province of USSR (on the Pacific coast), and possibly in mainland China. It had also parasitized A. mellifera in the Philippines, Japan, Vietnam, and the USSR Far East. The mites have been causing heavy colony losses in these areas. Then they were found in European USSR, and 1975 Bee World carried a note of warning³ by Drs. Akrtanakul and Burgett "Varroa jacobsoni: a prospective pest of honeybees in many parts of the world." The mite has now spread as a parasite of A. mellifera to many European countries via European USSR, and to South America from Japan.

Professor V. V. Alpatov has provided me with some details, and the story seems to be as follows. Apis cerana bees were indigenous in the Far East of the USSR, living wild in the forests of Ussuriysk. Peasants who migrated there from European Russia in the last century tried to keep these bees in log hives, but they had difficulties and lost many colonies through swarming⁴. These bees, like Apis Cerana in much of its habitat, were parasitized by VARROA*. Later, peasants from the Ukraine settled in the area, taking with them their own Ukrainian bees (Apis mellifera), which in due course became infested with Varroa. This seems a likely fate for any European bees taken into cerana territory.

In most recent years, there have been many reports of high honey yields in the Far Eastern Province, which led some beekeepers in European USSR to believe that the bees there must be of a very good strain, although the high yields are in fact due to excellent flows from limes (Tilia) and other plants. Queens of these "honey-getting" strains were purchased from the Far East for apiaries in European USSR, and with these queens came Varroa as well. The next European country to find the mites was Bulgaria, presumably introduced with queens imported from USSR. Beekeepers in other countries, too, imported foreign queens and Varroa with them. There has also been at least one direct importation of Varroa into Europe on Apis cerana, brought from Asia to Germany for experimental purposes, but this infestation seems to have been quickly contained. Bees imported from Japan brought Varroa to Paraguay in South America, and thence to Argentina.

*The first known evidence for this comes from V. G. Bregetova⁵, according to whom the mite had been observed in wild Apis cerana in the Far Eastern Province of USSR since 1950.

HOW THE MITE DAMAGES COLONIES

Up to twelve eggs are laid by the female in a single brood cell, just before it is capped. The nymphal stages of the mite feed on the haemolymph of the immature honeybee, and can kill it. The mites also attach themselves to emerging adult bees, and gain access to the haemolymph through the less chitinous parts of the exoskeleton, for instance near the wing base. Mites, which are brown about 1.1 X 1.6 mm, overwinter in the colony, and readily move from one bee to another, inside or outside the hive. So the mites spread easily from one hive, apiary or area to another—even at the other side of the world if infested bees are sent by airmail.

Individual bees may appear to have deformed wings, and colonies may be killed within a few years or less; it has been reported that in one recent year 55000 colonies were destroyed in the USSR alone. No very satisfactory cure has yet been found, although many acaricides have been tried. The most effective so far is a Japanese fumigant Varostan-Bayer, but this is also quite toxic to bees⁶. Phenothiazine can also be used.

HOW TO CHECK IF VARROA IS PRESENT IN A SUSPECTED COLONY

The mites can be seen with the naked eye and are slightly smaller than the bee louse, Braula coeca. They may be anywhere on the adult bee, but especially where the chitin is softer, on the intersegmental membrane and the wing bases. A single bee may carry a dozen mites.

At the early stages of an infestation, when it may not be easy to find mites, the following methods may be used⁷:

1. In the apiary: Insert a piece of stiff white paper into a suspect hive through the flight

Continued on page 6

entrance, and ignite a Folbox strip at the top of the frames in the hive. Remove the white paper carefully 20-30 minutes later, and examine for Varroa mites.

2. In the laboratory: Collect about 100 live bees in a cage with a wire-mesh base, and insert it in an oven at 46-47°C, RH, 20-30%, with the cage and contents on a white card, and search for mites as in 1 above. The whole operation takes 10-15 minutes.

PUBLICATIONS ON VARROA

For those who want to read more about these mites, the damage they can do to honeybee colonies they infest and methods tried for killing them, there is plenty of material. Apimondia has published a book (available from IBRA) which includes reports from a 1976 meeting on Varroa in Bulgaria, and a list of 163 further references. An annotated Bibliography was prepared by Dr. R.A. Morse in 1974 and revised in 1976, with fifty items, some not in the book mentioned above. In 1977 a conference on Varroa was held in Lunz-am-See, Austria, and Ing. H. Ruttnier kindly sent a copy of the conference papers to IBRA. Another 1977 publication is a collection of articles from the USSR, "Varroa infestation of honeybees," edited by Professor V.V. Alpatov and others. Mrs. Kathleen Donaldson has kindly translated four of these papers into English (items 3-6 opposite).

THE PRESENT POSITION

As far as can be ascertained, Varroa now occurs in all countries in Asia as a parasite of *Apis cerana*, and as a parasite of *Apis mellifera* wherever this bee is present. In Europe it already parasitizes *A. mellifera* in parts of Bulgaria, Hungary (June 1978), Poland, Romania, USSR, and Yugoslavia; it is also present in Argentina and Paraguay in South America. The following countries are believed to be free from Varroa: in Europe, Austria, Czechoslovakia, Finland, Greece, Ireland, UK; in America; all countries except Argentina and Paraguay; also Africa, Australia, New Zealand and the Pacific Islands. As we write, Varroa is reported in Iran and Tunisia. We should be grateful if readers would send corrections and additions to the above list.

CONCLUSION

The story of Varroa should serve as a cautionary tale in respect of transporting queens from one country to another, or indeed between different ecological regions within a single country. If queens had not been transported from the Pacific coast of Asia to northern Europe, Varroa could have been confined to Asia, where indeed it causes great problems in beekeeping. The only gain from its spread across the world may be the greater attention now given to devising control methods, and it is to be hoped that this will in the end help beekeepers in Asia. Governments of many countries are hastily amending their bee disease legislation in an attempt to prevent the importation of Varroa into their own countries. If the beekeepers of the world will refrain from importing bees or queens from infested areas (and from purchasing any that have been imported), whether or not such imports are prohibited by law, the spread of Varroa to countries now free from the mite can be prevented.

REFERENCES

1. Akrotanakul, P.; Burgett, M. (1975) Varroa jacobsoni: a prospective pest of honeybees in many parts of the world. *Bee Wild* 56:119-121
2. Alpatov, V.V.; 6 others (1977) Varroa infestation of honeybees. Moscow, USSR; Izdatel'stvo Nauka 117 pages.
3. Alpatov, V.V. (1977) Varroa jacobsoni in other countries. pp. 9-12 from item 2
4. Alpatov, V.V.; Lange, A.B.; Natskii, K.B.; Tatsii V.M. (1977) Work on the testing and application of treatments against Varroa. pp. 19-23 from item 2
5. Alpatov, V.V. (1977) Towards a method of developing therapeutic preparations and evaluating their effectiveness against Varroa. pp. 33-36 from item 2
6. Alpatov, V.V.; Lange, A.B.; Tatsii, V.M.; Natskii, K.B. (1977) The selection and development of substances for use against Varroa. pp. 61-66 from item 2
7. Apimondia (1977) Varroasis, a honeybee disease. Bucharest: Apimondia Publishing House.

8. Borneck, R.; Lavie, P. (1976) Informations pratiques sur la varroalose ou varroase. *Rev. franc. Apic.* (348): 534-535
9. Brezetova, V.G. (1963) Parazitol. Zbornik 15:302-308
10. Bussey F.F. (1896) The migration of peasants into Ussuriysk in 1883-1893. SPB p. 165
11. Crane, E. (1968) Mites infesting honeybees in Asia *Bee Wild* 49:113-114
12. Delfinado, M.D. (1963) Mites of the honeybees in South-East Asia. *J.apic. Res.* 2:113-114
13. Morse, R.A. (1976) Annotated bibliography on Varroa jacobsoni and *Tropilaelaps clareae*. IBRA Bibliography NO. 15
14. Ruttnier, F. (1978) Die Varroa-Milbe: Erkennung und Behandlung. *Bienenvater* 99 (4): 166-169
15. Ruttnier, H. (1977) Kurzbericht über die Varroa-Konferenz. Wien: Bundes-Lehr- und Versuchsanstalt für Bienenkunde

Eva Crane
Reprinted from *Bee World* 59 (4): 164-167 (1978)

Dependability of Nectar Sources

By Francis O. Holmes

Beekeepers often find that a plant which is regarded as an important source of nectar in one area is of little or no value in another. One beekeeper wrote to me some time ago that he had grown a large proportion of the plants that are widely advertised as nectar sources, but that his bees were using only one of them, a species of *Leonurus*. My own honeybees used many nectar plants that year but not *Leonurus*, although that was then available to them.

I can remember only one nectar plant that has seemed immune to changing seasons and changed environments over many years of observations. That one is the common milkweed, *Asclepias syriaca* L., a plant that is usually deep rooted. Dry times that cause Dutch white clover to wilt and fail to attract honeybees, have seemed unable to stop the nectar flow from milkweed.

At one time I thought that another milky-juiced plant, Dogbane or Indian Hemp, shared this immunity to damage by dry seasons, but this year the flowers of Dogbane went untended during a dry period whereas honeybees visited the flowers of the common milkweed from morning to evening.

It would be helpful to beekeepers everywhere if members of the Eastern Apicultural Society of North America could contribute to the compilation of a list of nectar plants that are unfailing, or nearly unfailing, sources of nectar despite changes of weather and soil conditions. I would nominate chives for consideration. Has anyone found that the blossoms of chives fail to attract honeybees in some years or in some places? Onion growers often have trouble in attracting honeybees to pollinate onion flowers for seed production and this has been attributed to high potassium in the onion nectar, but I do not remember failure of honeybee visits to the closely related chive plants at flowering time in recent years.

BOOK REVIEW

A newly acquired book on beekeeping is one called "PRACTICAL BEEKEEPING" by Enoch H. Tompkins & Roger M. Griffin, Pub. Garden Way Pub., Charlotte, Vt., 3rd. ed. 1977, pgs. 218, ill. black and white photos, drawings, tables, table of contents, a glossary, a miscellaneous bibliography, and is indexed, size of vol. is 6" x 9" with a stiff oaktag cover. This volume covers from starting, with a package of bees or a swarm, and following through to the end of the season to extract a honey crop. The various steps are detailed. Disease, pests, and poisons are dealt with too. Using honey in cooking is included. Information in the book is from a wide source of material. This book is a worthwhile addition to your library.

P.J.H., Jr.

Skunks in the Bee Yard

In some localities, skunks are a serious threat to successful beekeeping, since they hamper the development of strong colonies. Being insectivorous (insect-eating), they will raid the bee yards nightly, consuming large numbers of bees. Such attacks are most common in the spring but can occur throughout the summer and fall. In order to capture their prey, the skunks will scratch at the hive entrance, and when the workers come out to investigate the disturbance, they are knocked down and eaten. A successful skunk will repeat the process several times and may feed at the hive entrance for an hour or more. In addition to rapidly decreasing the bee population, they cause a colony to become very aggressive and mean since they usually return night after night. Besides the front of the hive being scratched and muddy, the grass in front of the hive will be packed down or torn up and there will be small piles of chewed up bee parts. The skunk chews the bees until all the juices are consumed, then spits out the remains.

Since strong colonies sometimes give the skunk a bad time, weaker colonies usually fall victim. Therefore, maintaining strong colonies is a partial deterrent to skunk attacks. Skunks may also be discouraged by screens or queen excluders attached to the front of the hive above the entrance and if it climbs up the screen over the entrance, then its belly becomes vulnerable to stings. Fencing the bee yard or placing the colonies up on stands would be an effective technique but the cost may make it prohibitive. Moving your bees to a new location is also considered to be an impractical approach in most cases. At the present time, there are no chemical repellents or toxicants labelled for controlling skunks. In Pennsylvania, the skunk is classed as a fur-bearing animal, therefore it is protected except during the annual trapping season which occurs late in the fall. However, the landowner has the right to kill wild animals that are engaged in the material destruction of cultivated crops, fruit trees, vegetables, livestock, poultry or bee-hives.

Occasionally, opossums and raccoons will attack an apiary in a similar manner. They are also protected by state game laws. If you have any additional questions in regards to controlling these pests, contact your district game protector.

Current Status of Some Chemicals and Bees

The people of the IR-4 Program work to get clearance of pesticides for minor or specialty uses. They have recently reported about activities on behalf of beekeepers.

Union Carbide is requesting prepermission to add the fumigation of bee equipment to two of its labels on ethylene oxide (ETO). Approval would make possible the nationwide use of ETO for fumigating equipment from colonies infected with AFB. Presently, special state registration is required.

The data are nearly complete in support of granting a safe tolerance or an exemption from a tolerance for resmethrin insecticide in honey and beeswax.

The IR-4 group is supporting the efforts of a potential registrant who wants to market sulfathiazole for the control of AFB. The necessary tests should be completed by next summer. Sulfathiazole is not approved currently for use on honey bee colonies.

Beware of Japanese Bamboo

An Illinois beekeeper recently recommended the widespread planting of Japanese bamboo (*Polygonum cuspidatum*) as a source of nectar for bees. About the same time, the magazine *Weeds Today* featured the plant as a serious pest species. It is a persistent and hardy plant that is difficult to control. It is easily spread and quickly becomes a pest. Japanese bamboo is too tall for roadside planting and could easily spread from there into farm fields. Although the nectar may be valuable to the bees, it may have an undesirable flavor like that of its close relative, heartsease or smartweed. Japanese bamboo is not the kind of plant beekeepers should spread, at least on land they do not own.

COMMENT

- The first AUCTION sale of its kind - that of breeder queens, will be held in the city of Chico in Northern California on Feb. 10th. Each queen is in a one frame nuclei box with her bees. Buyers can see their queens through the glass sides of the nuclei box. This was reported by Homer Park of Palo Cedro., Ca. during his talks to the Ontario Beekeepers Annual Meeting at the Royal York Hotel in Toronto Dec. 1st., 1978

- Keeping the ears open, picked up two western crop averages at the Saskatoon Honey Council Meeting. One in Manitoba was a 250 lb. average for one commercial outfit, and in Sask. one commercial beekeeper is supposed to have confided a figure of 350 lbs. average. The eastern based beekeeper has the people for the market. Sell, sell, sell - the western based beekeeper has the extra honey.

- Toronto District Beekeepers were told at their present meeting that the retail price of honey in Germany at the present time is \$3.28 cents per lb. An excellent collection of colored slides were shown of beekeeping in Germany by Otto Schuldt, Burlington, Ont. He is quite familiar with the beekeeping in Germany scene of beehouses and looking after bees from inside a building. One could even sit back in an easy chair for a smoke and a rest before opening the next drawer of combs. One picture was of a well guarded ant hill in the Black Forest area whose ants harbour the aphids that make the honeydew that the bees collect.

- The above information reminds us that hobbyist Esther Walther designed a very attractive label to sell her honey. She brought a sample to the OBA Convention at the Royal York Hotel telling us that she was able to sell all her honey in 1/2 lb. jars at \$1.00 a jar. No-not in a retail store but at her church bazaars.

- Joe Parkhill (Honey Inc.) took 18 years to complete his all honey recipe Cook Book that sold 65,000 copies its first year. He has delivered over 140 lectures to date. This lecture on Honey and Nutrition and his movie "Cooking with Honey" has proven interesting to both men and women everywhere in the U.S. and he would accept engagements to speak in Canada. See ad to advertise his 160 page book "The Wonderful World of Honey."

- Talk about being first - we read Cam Jay on taking a look at raising your own queens this summer and presto we have Maxant's new ad giving us inexpensive Queen Boxes. The purchase of Queen Box includes a 10 page instruction book, entitled "Valuable Swarm Control Data."

- Incidentally Maxant's instruction book is \$2.00 in U.S. funds and the \$2.00 is counted as a credit on a Queen Box. (offer good for sixty days).

- Readers will notice Mr. Leslie Weber's figure of 12,000 beekeepers estimated as a combined figure for those keeping bees in Ontario and Quebec. In contrast, the Bureau of Statistics figure for 1978 is 4000 in Ontario and 2,700 in Quebec. One reason for the large discrepancy has been advanced suggesting that the wave of new beekeepers was so fast that Mr. Burke and Mr. Beauchesne have been unable to keep up with the lists? or the new beekeepers out there have not heard of the necessity of being registered with their respective Departments of Agriculture, or very likely the truth is that there are indeed a number of those keeping bees who have not registered as required because they never heard of it. Next time you buy something at the bee supply house - pick up a Registration Form. Registration is free of charge.

We have used only two pages of the Red River Assoc. excellent Newsletter dealing with their delegation to the CANADIAN HONEY COUNCIL Meetings in Saskatoon. The reference to Birch Hills, I believe, refers to Gary Hastings' operation to produce breeder queens; and enterprize begun by his father Everet Hastings. The isolated bush location where the queen breeding operation is carried out is some forty miles north of Birch Hills and consequently Candle Lake could not be included in what was a full day bus tour. The Hastings family residences are in the town of Birch Hills, Sask. and cottages for the summer operation are at Candle Lake.

Name That Honey

The use of a pollen analysis to decide what kind of honey is in the barrel just has to be something less than accurate. In the case of alfalfa honey and the pollen gathering bees storming off to find some rape plants for a pollen supply - the pollen would indicate rape honey. Why? Because honeybees do not collect alfalfa pollen. It is too large and lumpy to stick to the bee.

Here I have a small story for posterity. Back in the 1950's C.E. Meilicke of Prince Albert, Sask. and myself were looking for evidence that honeybees trip alfalfa blossoms. One late afternoon, dark clouds came in suddenly that brought the bees home in a hurry. However, it did not rain immediately and the bees by the thousands were observed all over a small alfalfa field in full bloom, that was in front of an apiary composed of some twenty colonies. The bees landed on the blossoms and proceeded to press their bodies downward using all six legs for leverage. As soon as the floret tripped - a bee crawled over to an adjacent floret and proceeded to do the same thing.

After about ten minutes of observation of what I now believe was some sort of phenomenon, we hurried off to find the alfalfa grower to show him that honeybees really trip alfalfa blossoms in mass action. Being the Apiarist with the Dept. of Agric. and sure that I was seeing something unusual, I captured a random sample of bees with pollen loads in their pollen baskets. Before we could get back with the farmer it started to rain and both Meilicke and Arnot never did see anything like it again or did we read where anyone else had made a similar observation. The sequel of course was the reply sent to me by Dr. Cecil Jameison from Ottawa. The pollen was identified as sweet clover pollen that those bees must have been carrying on the way back from a sweet clover pasture.

We concede of course that the pollen analysis methods used in Europe to slow down honey exports is the best way known to identify honey after it is in the barrel; but and since there is the element of doubt, researchers could take up the challenge and find a better way. Meanwhile, the collaboration of the beekeepers involved, if they were asked, could conceivably improve the situation to everyone's satisfaction. On the other hand, if one views the barrier as a non-tariff barrier that is being used, we could be looking at a temporary situation and price may be the really important factor. Meanwhile, let's name that honey beyond a shadow of doubt or can we?

Quebec Moves on Fumigation Program

A modification of the method to use ethylene oxide gas to fumigate beekeeping equipment has been adopted for use in the Province of Quebec. The usual practice of using the gas in a mixture with freon in a vacuum chamber (previously described in Can. Bee, of the work carried out by the Canadian Dept. of Agriculture in Montreal) has been changed by a Quebec staff under the direction of Provincial Apiarist, Francois Beauchesne to a system of using ethylene oxide in a sealed chamber at close to atmospheric pressure in which all air has been replaced by carbon dioxide (CO₂).

Mr. Beauchesne and staff point out that the method tried out in Quebec in 1976 to 1978 was first developed in the U.S.A. by Dr. Cantwell and Dr. Newton and is now being used in Connecticut in a small 64 ct. ft. chamber. In contrast, the Quebec chamber holds 600 supers of combs in a 45 foot tractor trailer van constructed in 1978. This mobile unit will be the largest on the continent or anywhere in the world serving this purpose. It is a semi-trailer truck designed to carry out the work of fumigation on a beekeeper's premises anywhere in the Province. As soon as the supers of combs from which all honey has been extracted are loaded in the chamber on pallets, the rear door is sealed shut.

The first step is to remove all the air from the chamber by introducing carbon dioxide (CO₂) to replace the air at the same time as the air is being removed. After a conditioning period at 38 degrees C (100 degrees F) the liquid ethylene oxide is then added and the warm mixture circulated in the chamber in order to vaporize the liquid in the presence of the CO₂. By circulation, the gas mixture is dispersed evenly everywhere in the chamber.

The preliminary work in 1976-78 appears to have been highly successful and Mr. Beauchesne and his staff are enthusiastic about the new unit now being used. They are seriously considering the construction of another and similar unit in order to extend the service to beekeepers in Quebec.

Looking into the future, the move away from the need for medication of colonies of bees may be a step in the right direction. The rest of the Canadian bee world will be looking closely at the degree of success the Quebec Department of Agriculture will be able to achieve.

Beekeeping Short Course
Cornell University, Ithaca, N.Y. 14853

July 20, 21, 22, 1979
(\$10 Advance Registration Required)

Friday evening, July 20:
5:00 - 8:00 p.m. Registration: 7:30 p.m. Movies on bees.
Saturday, July 21:
8:00 a.m. Registration: 8:30 Beekeeping Equipment - Prof. Morse; 9:30 Seasonal Management - Prof. Clarke; 10:30 Rearing Queens - Mr. Robinson.

Continued next page

REGISTRATION FORM
FOR
SHORT COURSE IN BEEKEEPING
CORNELL UNIVERSITY
ITHACA, NEW YORK
July 20, 21, and 22, 1979

Please type or print all information

Name: _____ MIDDLE INITIAL(S) _____
LAST NAME FIRST NAME(S)

Address: _____

Participants are expected to arrive by Friday evening. A registration clerk is available in the North Campus Union Building 24 hours per day to show guests to their dormitory rooms. The cost of the short course, including a single room for two nights, three meals on Saturday, two meals on Sunday, and all instructional materials is \$70 per person. The cost for persons occupying double rooms is \$65 each. A non-refundable registration fee of \$10.00 per person must accompany this application and will be deducted from amount mentioned above.

Confirmation of your reservation and a receipt will be sent to you, together with a map of Cornell University Campus. Please be prepared to show your receipt at registration if necessary.

Please indicate as near as possible:

I will arrive on: _____ at _____ time
date

I will arrive by: car, air, bus (please circle one)

I will depart on: _____ at _____ time
date

I prefer a single room _____

I prefer a double room and expect to room with _____

The registration fee of \$10.00 per person should be received on or before June 15, 1979. Checks and money orders (in U.S. dollars) should be made payable to Cornell University and mailed with this form to:

Office of Apiculture
Department of Entomology
Cornell University
Ithaca, New York 14853

RETURN THIS FORM BY JUNE 15, 1979

1:00 p.m. Bee diseases and pesticides - Mr. Stevens; 2:00 The sense world of the honey bee - Mr. Nowogrodzki; 3:00 Producing comb honey - Prof. Morse; 4:00 Honey plants - Mr. Sierigk; 6:30 Dinner - speaker.

Sunday, July 22:
9:00 - 12:00 Workshops: Homemade equipment, diagnosing diseases, queen rearing, cooking with honey, judging honey wax working, comb honey equipment, making good combs.

1:00 - 3:30 p.m. Open house and demonstrations - Dyce Laboratory: Extracting, bottling, mead tasting, making colony inspections, solar wax extractor, queen rearing techniques, removing honey, installing packages, wintering bees, beekeeping gadgetry, bait hives.

Instructors include Professor Roger A. Morse, Cornell Lecturer Jon C. Glase, New York State Chief Apiary Inspector Gerald Stevens, retired Extension Specialist in Apiculture at Pennsylvania State College Professor W. W. Clarke, Author and Lecturer Bess Clarke, Author and Lecturer Dr. Grant D. Morse, Commercial Beekeeper Jonathan P. Ryan, and graduate students Richard Nowogrodzki, Willard Robinson and Steven Sierigk.

Participants are invited to bring honey samples for judging on Sunday morning. A beekeeping supply dealer will have his wares available at Dyce Laboratory on Sunday afternoon.

Participants will stay in student dormitories and eat in the university dining room. Lecture and demonstration rooms are air conditioned; the dormitory dining room and lecture hall are within a few hundred feet of each other. Enrollment will be limited. The cost is \$70 per person. This includes a single room for two nights, three meals on Saturday and two on Sunday, all instruction materials and registration fees. Double rooms are \$5.00 less per person (total \$65.00). Full linen service is provided. Registration forms may be obtained from: Office of Apiculture, Department of Entomology, Comstock Hall, Cornell University, Ithaca, New York 14853.

MISCELLANEOUS NOTES

The emblem on our EAS Journal mast head was approved and adopted in 1973 and was done by Mr. Allan Miller.
 From the Canadian Beekeeping News. Vol. 7, no. 9, 1979 a report is made of the first known auction sale of queens was held in Chico, Cal. Feb. 10, 1979. These were breeder queens among their own bees and were held in 1 frame nuclei boxes with glass sides for viewing the individual queens before purchase.
 Would EAS member State Assns. and district Assns. like to be listed once in the Journal?'

**Sting Resistant
White Coveralls**

\$4.00 each postpaid
 Sizes S-M-L-XL-XXL
**V&V Company, P.O.
 Box 101
 Central Station,
 Jamaica, N.Y. 11435**

**Buy the
best..
visi-checkTM**



**ROSS
ROUND COMB SECTION EQUIPMENT**

P.O. Box 485
 Massillon, Ohio 44846
 Telephone: 216-637-9778

SEND YOUR ADS TO: Mrs. Liz Rodrigues, 157 Five Point Road, Colts Neck, N.J. 07722.
RATES are as follows: \$3.00 per inch, each additional inch, \$3.00 and each additional 1/2 inch \$1.50, full page, \$48., 1/2 page, \$24. and 1/4 page, \$12. If repeat AD copy remains the same, there is a 10% discount. Rates are per issue. Deadline, the 15th. of preceding month.

**NORTH SHORE DEALER
 FOR
 DADANT & SONS, INC.**
**HONEY MASTER NO-SWARM
 CLUSTER FRAMES**
HASZARD ASSOCIATES
 36 Maple Street
 Wenham, Mass., 01984
 Tel. 617-468-2330



Subscribe to
THE SPEEDY BEE
 Monthly Beekeepers' Newspaper
 Rt. 1, Box G-27, Jesup, Ga. 31545 USA
\$4. per year in U.S. & Canada
\$7. per year foreign



DADANT & SONS, INC.

**A Name You Can Trust for Quality Beekeeping
 Supplies and Service.**

Whether you are a hobbyist or a commercial beekeeper, Dadants has a wide variety of beekeeping supplies from which to choose. Our helpful branch managers and dealers are available to answer your questions and give you advice. If you are not already on our mailing list, then please send for a free Dadant & Sons Beekeeping Supply Catalog. We are sure you will be pleased with our quality and prices.

Conveniently located dealers over most of the Eastern Seaboard.

Home Office
 Dadant & Sons, Inc.
 Hamilton, Ill. 62341
 Ph. 217-847-3324

Branch Office
 Rte. 2, Box 186-A, P.O. Box 267
 Waverly, N.Y. 14892
 Ph. 607-565-2860

Branch Office
 2425 Carroll Ave.
 Lynchburg, Va. 24501
 Ph. 804-846-0666

Other branch locations: Umatilla, Fla.; Wayland Mich.; Watertown, Wis.; Sioux City, Ia.; Hahira, Ga.; Paris, Tex.; Fresno, Calif.

Application for Membership

Eastern Apicultural Society of North America, Inc.
 Single \$3.00 Couple \$4.00 Family \$6.00 Individual Life Membership \$100.00

For Enclosed Amount (_____) Date _____ 1979

To: NAME _____

ADDRESS _____

CITY _____ STATE _____

Zip No. _____

Send Application To: Mrs. Liz Rodrigues, Sec. Treas.
 157 Five Point Road Colts Neck, N.J. 07722