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QUARTERLY NEWSLETTER SEPTEMBER 1979

NUMBER 3

DEAR BEEKEEPING FRIENDS.

The annual Fall Meeting of the Missouri State Beekeepers' will be held at the Student Union at South East Missouri State University at Cape Girardeau on October 20. A detailed agenda of the names and topics of the speaker, the times of other activities, and the business portion of the meeting is found on the last page of this newsletter. The officers and fellow beekeepers invite and urge you to attend this Fall meeting and the executive board meeting on the preceding Friday evening.

MISSOURI STATE FAIR - On August 28 Mr. Chester Crain sent the following note on this year's State Fair.

"I (Mr. Crain) won 14 ribbons but not a single first place. Roger (Nichols) won grand champion again this year. His daughter Jan won Grand Champion in the Honey Cockery. Jerry Johnson also displayed in all of the Honey classes. Attendance and sales were down from last year. Not so much help for the booth as last year.

There was enough interest from Sedalia people to start a local there. I also promised a lot of others that we would send them a few newsletters that would explain how to join."

DUES - If you belong to a local organization, please give your \$2.00 state dues to your local treasurer. The treasurer will forward this to the state.

If you do not belong to a local organization, please send your \$3.00 to the State Treasurer Joe Maher at 9410 Eastern, Kansas City, Missouri 64138. Please be sure to include your complete address with zip code so that the newsletter will reach you.

THE PRESIDENT'S CORNER - From the Ozarks

The summer has been a good one in the Ozarks - rain every time that we needed it and all the right conditions for a bumper honey crop. This season has proved one thing to - that is, a couple locations I've been hanging on to are just simply no good for producing a honey crop. I've kept bees in these locations thinking that, if we could only get enough moisture, they would produce. But this year has proved this thinking wrong.

One location is in Taney County and the other is in Ozark County. One is in a dairy area and the other in beef cattle area. The main hay and pasture crop in both locations is fiscue with some alfalfa and green graze, all non-blooming plants. There used to be lost of clover and wildflowers in this country but now only fiscue. I get some very good honey in late May and early June from persimmon and Pennyroyal, but from the middle of June not much of anything. Maybe research will come up with a dry weather pasture and hay crop that blooms and produces nectar.

The 1979 Governor's Conference on Agriculture will be held at Tan-Tar-Resort, Osage Beach, Misseuri, from November 14 through 16. Mr. Runyal is asking for any suggestions that we may have regarding the conference. As you know, at last year's Conference Governor Teastale signed our proclamation proclaiming November as Apiculture month. So anyone having some suggestions for our input, we need this information by October. Last year we furnished 2 gallons of honey which Barbara Huelscher, home economist in the Department of Agriculture, used in cooking and baking for the Buffet, the first night of the Conference. The reading and signing of our Proclamation at the Governor's luncheon before an audience of over 400 farmers certainly brought the focus of attention on Misseuri beekeepers last year. So maybe we can be recognized in some way again this year. Put on your thinking caps and see if we can come up with something good.

Charlie Wills

"What sets the creative person off from the rest of us is that he or she has somehow managed to hold onto a childlike curiosity and an unbounded sense of creative possibility. To help rekindle your own curiosity, start by widening your herizons — especially your reading herizons. Ray Bradbury, a prolific writer of science fiction, stuffs his mind with everything he can lay his hands on — essays, poetry, plays, lithographs, music. "You have to feed yourself information everyday," he says. "When I was a kid, I sneaked over to the grown-up section in the library. Now, to make sure I'm fully informed, I often go into the children's section."

"You're Smarter Than You Think" Condensed from the KIWANIS MAGAZINE by Dudley Lynch in the READER'S DIGEST November 1978, page 252.

NEW AMERICAN BEE JOURNAL RATES EFFECTIVE SEPTEMBER 1, 1979

The following letter was sent for inclusion in this newsletter.

To Association Secretaries:

We didn't think it possible, but the U.S. Post Office has found it necessary to increase second class postage rates again. Most magazines were still trying to cope with the last rate increase when this newest announcement was made a couple months ago. In this most recent increase, the rates for second class postage have been raised by over 20 per cent!

This fact, in addition to continually increasing production costs, means we must raise our subscription prices to compensate. We have tried to keep the increase to a minimum and, of course, association discounts of 25 per cent will still be in effect. These subscriptions must be ordered through you; the association secretary. This will help us keep our records straight, so that these subscribers will not be billed at our regular price.

Regular Rates

Association Rates

1 year. . . \$ 8.50 2 years . . . 16.50 1 years . . . \$ 6.38 2 years . . . 12.38

We hope all associations will keep in mind that we do have free literature and membership cards available upon request for your meeting

AMERICAN FOULBROOD

On the agenda for the Fall Meeting you will note a Workshop on American Foulbrood scheduled as an afternoon session. This Workshop will consider the case histories of two recent and disasterous flareups of the disease in Hayti and Nixa, Missouri.

As a preliminary to this Workshop and a follow-up to the excellent presentation on American Foulbroad by Dr. William Wilson at the Spring Meeting, here is a capfule of Dr. Wilson's discussion on the nature and symptoms of this disease.

"American Foulbrood symptoms usually begin to show up at about the time that the curled larva begins to stretch out. The larva has received spores of the disease from the mouthparts of a nurse bee while she is feeding it. The spores get in the gut of the larva and begin to multiply. This doesn't kill the larva until it is ready to go into the pupa stage. To go from the larval to the pupal stage, the developing bee must go through metamorphasis, which means a change in life. During these drastic changes the bacteria escapes from the digestive tract where it has not been causing any lamage out into the blood. Once in the blood, even one microbe or one rod (vegetating cell) has sealed the fate of the bee. The disease multiplies rapidly and consumes all the nutrients and all the blood cells and muscle tisue. The interior of the larva becomes one mass of bacteria and

takes on a coffee brown coloration. Of course, by this time, the larva itself is lead - completely consumed by American Foulbrood."

The spore or seed is the reporductive stage of the disease. It cannot be killed by freezing. If heated, it must be heated to boiling temperatures for as long as half an hour. The spores will grow after many, many years of dormancy.

Rads are the vegetative or growth stage. Roda divide every hour. Each rod produces one spore and then disintegrates. It multiplies '1000s of times in just a couple of days.

The spores contaminate the hive and any of the beekeeper's equipment that may come in contact with the foulbrood - gloves, hive tools, clothing, extractor, etc. If equipment is diseased when it is stored, it is still diseased after 25 years of disuse. So beware when huyling used or old equipment!!!

The most common methods for spreading the disease from colony to colony are rebbing and drifting. The colony weakened by the lack of young bees due to death by the disease has only the ever dwindling numbers of mature workers to defend the hive and honey. Robber bees take advantage of the situation and carry the contaminated honey to their own colonies. This honey is fed to the larva by the nurse bees and so the process begins anew. Or a field worker from a contaminated colony may drift into the neighboring colony when coming in laden with nectar. On the hairs of his body he can carry the pollen and honey from his colony containing spores. To thwart drifting paint colonies various colors (especially, landing boards) and stagger the colonies in the bee yard (no neat straight rows!).

SYMPTOMS

- odor pronounced and foul smell
- spotty brood pattern Don't confuse this with a poor laying queen or European Foulbrood. In AFB the workers die of old age and the brood die of disease. There are not enough workers to keep up the cleaning.
- perforations of the cappings <u>irregular</u> in size and <u>ragged</u> in appearance. Don't confuse this with the unfinished capping that consists of a round hole on top of the cell.
- sunken, greasy, and coffee brown
- dark cap Don't confuse with the dark cappings from a used brood comb or due to tracking or "bee foot prints".
- ropy/elastic Touch the suspect pupa with a touthpick. If the mass sticks to the pick and will stretch out from the cell in a ropy strand that snaps back into the cell like a rubber band, be aware of the foulbroad. DON'T FORGET TO BURN THE TOOTHPICK IMMEDIATELY. DON'T USE YOUR HIVE TOOL FOR SUCH INSPECTIONS.

"LET IT BEE KNOWN . . ."

The following letter was sent in by Mr. Joe Maher.

"In the mid 60's there appeared on the guest list of the Missouri State Beekeepers' Association a Mr. and Mrs. Lee O'Neal and son Jon of Fulton. They attended the state meetings regularly.

Jon, a young man of approximately 25 years of age, was the real beekeper of the family. However, Jon, being crippled in his legs and arms from childhood paralysis, relied on his father for manual assistance, along with his crutches and wheelchair, and on his mother for support.

He kept the bees, studied them, and was very knowledgeable concerning them. He became active in projects that the State Association promote, and tried to get a postage stamp commemorating the hency be. He attracted the attention of the State officers with his ambition and his know-how.

In 1969 Jon was elected First Vice-President of the Association in charge of programs. He did a wonderful job. When seeking a candidate for President in 1970, the late Joe Kibbey came to me and said, "I know how you can make a young man very happy." I inquired as to what he meant and subsequently concurred in the selection of Jon as the candidate for President. He was elected and made one of the best Presidents that we have ever had. He put zip into the membership drive and he promoted educational programs with good speakers and good subjects. The organization graw by leaps during his time in office.

Jon's father drove him everywhere and assisted him in his duties. Shortly after Jon's term ended, his father was returning home from a trip when his truck overturned and killed him.

Jon had to reduce his bee population and eventuallly had to sell all of his hives. But his heart was in it and he paid his dues and kept in touch. Jon was diabetic. When we tried to take him to various meetings, his mother, fearing for his health, refused to let him go.

Last month Jon called me and told me that his mother had died of cancer He asked that V. C. Dodge and I come to the funeral. Mr. Dodge was not available and, due to the condition of my wife's health, I could not go and be with him in his time of sorrew. I told Jon to write to me and that I would keep in contact with him. He said that he was going to try to buy his sister's share of the home and live there alone

Many will remember Jon as our plano-playing president and how he could make that plano talk! He had a knack with a typewriter too! I wish all of us had that much courage and ambition. It would help to make the world turn.

Drop Jon a line of encouragement at 201 Collier Lane, Fulton, Mo., 65251."

As was mentioned in the June newsletter, both Mr. and Mrs. Maher were in the hospital this past spring. And recently Joe sent the following note

"My wife had another stroke on August 14th. Then a heart attack followed. She was in intensive care 9 days. She is now home and stable but unable to stand alone."

This has certainly not been a good year for Mr. and Mrs. Maher thus far. We wish them improved health and happier times in the last third of 1979!

Letter dated 7/22/79 from Mr. Bernie Hayes of Wellsville, New York. If you remember from the June newsletter, this gentleman often writes for The American Bee Journal. He collects seeds of various honey plants and distributes these seeds upon request to beekcepers across the country. If you wish to contact him, please write him at 121 Miller Street, Wellsville, New York 14895.

"Thanks for the sample copy of your lively Newsletter. I have mailed more seed to Mo. lately. I like the state (climate to NYS) and its beekeepers doing something about nectar resources. Many write for seed. Pagoda Locust, fall flowering, is a winter seed item which I buy from tree seed companies. (Johnny Appleseed didn't need seed catalogs, but I do!)

We need cold testing of the world's greatest bee tree, the Chinese Tallow, "Sapium Sebiferum".

A Texas beekeeper, L. D. Prestidge, plants and grows this tree. He has seen bees working this tree 250 miles inland from the Houston area. Hopefully NTS and Mo. beekeepers may find a few more •old resistant variants. (Example, I have a small Red Haven peach tree that stood 24 below zero last winter and even has one peach on it this year!)

If the fall tree seed crop is good, I expect to have free Tallow, Pagoda Locust, Paulewnia and Goldenrain seed. After Thanksgiving, write for seed and enclose SSAE plus 8¢ in stamps for hand cancelling.

A Mc. bookeeper writes that the Conservation Dept. has Autumn Olive and other seedlings for wildlife plantings. A.O. blooms at 5 years. fragrant and profusely May 1 - 10th. Fruit is edible.

Writing Joe Maher for membership."

Along with the above letter, Mr. Hayes sent a reprint of one of his articles in the February 1976 American Bee Journal entitled "Planting the Elaeagnus Russian and autumn Olive for Nectar". If you are interested in planting a unique tree, hedge, or windbreak, look into these plants. On the following page are a few excerpts from this reprint.

". . . these two asiatic trees, or shrubs, are among the few nonlegumes that fix nitrogen in the soil by means of bacterial root nodules." . . If the seedlings are set close together then it becomes a shrubby hedge spreading as wide as 12 feet, or more, while if pruned to a single stem it makes a suitable shade tree growing to about 20 feet at maturity. . . . Given adequate moisture, nursery transplants may reach four feet the first year and they will flower early, from 3 to 5 years. It makes an ideal helge, furrow planted or on tilled ground. For the first year, cultivation or a mulch is desirable against weed competition. . . they will (not) spread into used pastures or fields. . . USDA leaflet No. 517 (1962) points out that it yields nectar in June-July from its small, yellow highly fragrant flowers, which bloom profusely enough to provide surpluses. The fruit is an edible wildlife food, hanging well to the plantings and appears like dried navy beans in size. The wood makes a good fuel, something to be noted in these energy shortage days. . . . The red colored fruit is edible for human consumption, having a pleasant taste... seedling trees and shrubs are available to landowners at low rates from their state conservation departments for nonernamental

Those of you who live in St. Louis or travel through can see long hedge rows of Russian Olive at the cloverleaf of highways 270 and 40. "Its silvery color makes a pleasing contrast against the green foliage of the trees."

Letter dated July 27 from Joe Francka, State Entomologist.

"I thought you might be interested in the enclosed article which I photocopied from the magazine, AGRICULTURAL RESEARCH, June 1979, Volume 27, No. 12, published by the United States Department of Agriculture." The following are major excerpts from this article.

NEW BEE . . . FOR SMALL-SCALE FARMERS

"A new import from Japan, a species of bee called "Osmia cornifrons", now under study at the Beltsville Agricultural Research Center, may help solve pollination problems for homeowners and small-farm fruit tree growers.

Large-scale fruit growers maintain their own bee colonies or rely on commercial keepers to supply bees as needed for pullination. But this costs money and is economically impractical for small crchards - 50 trees or so - and for homeowners with only a couple of trees....

About two-thirds the size of a honey bee, the little insect has a lot of pluses which make it ideal for small-scale fruit-growing operations. The adults are shortlived and don't have to be managed the year around; they produce no honey or beeswax which makes them less susceptible to certain diseases and damaging insects that afflict honey bees; and they are more active than other bees when temperatures are cooler. This means they can fly an! pollinate earlier. Generally their life cycle is in tune with fruit tree blossoming; they store no honey so marauding

honey bees leave them and their nests alone; they rarely range more than 100 yards from their nests; and on top of all this, the little insects are extremely Cocile.

Males can't sting; females rarely do, and then only if highly provoked. But the sting parallels that of a mosquito bite with about the same after-itch. Consequently, these bees are very safe to work with, and children, or anyone for that matter, can watch close up and in relative safety these little wonders of nature do their thing.

The Beltsville study began in 1977 after research entomologist Suzame Batra successfully imported 600 of the bees from Japan's Tohoku Nation Agricultural Experiment Station. "O. cornifrons" have been used for apple tree pollination for more than 30 years in some northern areas of Japan. . . .

"O.cornifrons" in nature nest in hollow reeds or any hole long enough with a certain diameter. Batra's bees nest in bundles of common soda straws with each bee having its own straw. The male bees, which live and mate for about 4 weeks, are the first to appear. In early april, they emerge and begin pollinating in their search for food. About a week later, the females emerge and mating is accomplished during the following week. Then the females, while continuing to collect and store pollon, begin to lay eggs in their individual straws.

First the mother puts in a mixture of pollen and honey, lays an egg, then builds a mud wall to separate the egg from the next. One egg - onechamber, and so on until the tubular condominium is filled. Then she proceeds to fill another straw. Each straw holds about 5 to 10 chambers. The female dies after a relatively short, but work-filled 6-week lifespan. The baby bees develop in the straws and hibernate over the winter until they emerge as adults in the spring.

A point of interest about the horn-faced ssmia society is that there are no queens. Numbers of males and females are about equal even though the male is not menogamous. His primary role is mating. The female handles the rest. She even determines the sex of the progeny. After mating, she retains the male sperm and fertilizes only those eggs she wants to become females. Unfertilized eggs hatch out males. Interestingly, it's the eggs laid last in the straws that are unfertilized, which accounts for the initial emergence of males in the spring. . .

Batra says "it seems that the East Coast climate with its higher humidity agrees with the bees. And the bees seem to be aggressive foragers which is good for pollination".

In the initial experiments, the bees appear to effectively pollinate apples, plums, apricots, peaches, cherries, blueberries, and some varieties of pears. Batra says, "As soon as the colony is large enough, I hope to extend the range of the experiments to locales as far north as the apple-growing country in midstate New York and as far south as the peach areas of Georgia".....

"Because of their relatively short operating range, these bees are not too practical for commercial operations, but they're ideal for lesser activities. They could be a fun and practical bee for small orchards.

A WINTER OBSERVATION by Truman C. Hardin, Springfield

"My good friend Charles Wills and I have often talked of ways of preventing winter stress in our colonies. It only stands to reason that the strong winter winds and the very low temperatures surely cause the bees to consume more winter stores in order to maintain suitable temperatures within the cluster.

Last fall, when preparing the colonies for winter, I used some of the ideas that Wills and I had discussed. All of my hives are a story and a half (one deep and one shallow super) and all are off the ground from 8" to as much as 18". I cut a piece of 30 lb. black roofing felt to fit the sides and one end and stapled it to the hive, leaving the south end (entrance) uncovered. Under the hive I placed a suitable size of 3/4" asphalt impregnated insulation board (next to the bottom board) to prevent radiated celd from entering the hive. I have always used an upper entrance cut into the inner cover. I used some 1/2" insulation board - unpainted on the bottom side - and fashioned somewhat like the one sold by Happy Hive. It also had an opening dadoed out for use as an additional upper entrance. Finally, the front entrance was reduced to 3/8" x 3". At my home yard I used some plywood crating, measuring at least 3' x 4' and larger, wired directly to the hive in a vertical position on the north end of the hive for wind pretection.

All of the colonies were very heavy and had the advantage of the fall flow of aster so that each went into the winter with adequate stores. All of you know the past winter was rough on the boos.

For a simple weighing device, I purchased a 200 lb. spring scale, fashioned a tripod of surplus 3/4" pipe, and made a strap of pelyproplene line. With the use of a small block and tackle I was able to weigh all of my hives without disturbing the bees and could accomplish the weighing without help from someone else.

On March 3rd, I weighed all of the colonies. At the home yard, the colonies with the plywood windbreak averaged 111 lbs. each. At the Wilson Creek yard, the colonies weighed 75½ lbs. each. These had absolutely no wind protection of any kind and were subjected to the north and northwest winds all winter. At the third location, the hives had been placed about 35° south of an embankment that was about 6' higher than the colonies. These colonies averaged 94 lbs. each. At this location, the wind obviously passed over the hives to some extent.

I realize that this was not a truly scientific experiment but on the surface it appears that a wind break is most important in preventing stress and the use of stores. The actual weighing of the colonies gives a better knowledge of actual stores rather than " hefting" the back of the colony.

Weighing has another use according to Jim Robins. He says that he will be weighing all of his colonies in the full and, if they are low in weight and upon inspection a weak colony, he will combine it with another colony in order to save the bees and the stores. So, it may be that weighing might be another tool in bee management."

Excerpts taken from a feature article entitled "This man employs 80,000" written by Cynthia Fernald in the Thursday, July 26, issue of The Cuba Free Press.

A Contractor once tell Otto Aiple rather proudly how many men he had working for him. He supervised a fair-sized crew of workers, but Aiple was not impressed.

"I've got almost 80 thousand working for me now," Aiple pointed

out with a grin.

Aiple is a beekeeper, and his workers not only number in the ten

thousands, but they are among the most industrious in the world.

Consider this: bees must fly the equivalent of three times around the world for every pound of honey they produce. The average hive needs about 200 pounds of honey a year to sustain itself and nourish new worker bees. . . .

On top of this, a hive may produce up to three or four hundred pounds of excess honey in the best beekeeping states, such as California, Florida, and Nebraska. In Missouri, where "people sow too much fescue for cows" for it to be good bee country, according to Aiple, the average hive produces about 50 extra pounds of honey which can be harvested without harming the hive.

Aiple said his hives usually run above average, up to 90 pounds harvestable honey for a mature hive. He said that the most he ever got from one hive was 120 pounds of honey. Last year, he sold about 1.000 pounds of honey. . . .

Aiple pointed out, a honeybees' comb is so perfectly formed that at one time the French considered using it for a basis of measure-

ment. . .

Aiple said he supplies each hive with a new queen about every two years. Usually he sends away to other beekeepers for a new queen to introduce a new bloodline to the hive. . . .

Aiple began beekeeping on the rocftop of his home in St. Louis about 30 years ago. While in the city, he kept the Caucasian strain of bees rather than the Italians he now keeps (in Leasburg) because the Caucasians are the more gentle, though they don't keep quite as neat a hive.

Sometimes his city bees would get into some strange sources of nectar. On one occasion he traced a bright red nectar one hive was collecting back to a jelly factory, where some raspberry jelly had been thrown away outside. . . .

Gardens surround the house. Aiple grows many plants especially for his bees: sweet clover(five acres in a field near the hives), honeysuckle, sourwood trees ("they produce the best honey in America") and Annie's Hysop. He also experiments with some more unusual varieties, such as Paulowina, a flowering hardwood that resembles Catalpa,

"Bees are man's most useful insect. They're essential here; they pollenize our crops." Aiple said. "Without the honey bee, this country would be like a wasteland. One quarter to one third of all the world's food production is dependent on insect pollination.

"People just don't know how important and wonderful this bee is. They just kill it off," Aiple lamented. "The bee has been here since God created things. It's mentioned in the Bible 68 times."...

MISSOURI STATE BEEKEEPERS! ASSOCIATION

FALL MEETING OCTOBER 20, 1979

CAPE GIRARDEAU

314-334-4491 for reservations.

STUDENT UNION

OCTOBER 20, 1979	
A.M. 8:30 - 9:00	Registration - no fee
9:00 - 9:10	Meeting called to order - President Charles Wills
9:10 - 9:20	WELCOME to Southeast Missouri State University - Dr. Bill Meyer, Chairman, Department of Agriculture Response - Dr. Flernoy Jones, University of Missouri
9:20 - 9:30	Introduction of State Officers and local Association Presidents
9:30 - 10:00	Break - Coffee and donuts
13:00 = 10:45	FOLLINATION OF FRUITS AND VEGETABLES (with slides) Dr. Elbert R. Jaycox, Professor of Apiculture, University of Illinois
10:45 - 11:00	Questions and answers - Dr. Jaycox
11:00 - 11:40	QUEEN REARING - Mr. David McDonald, Arkansas Apiaries, West Mcmphis, Arkansas
11:40 - 11:55	Questions and answers - Mr. McDonald
11:55 - 1:00	Lunch (On your own. Ample fast food service available
P.M. 1:00 - 1:20	UPDATE REPORT ON THE MISSOURI BEE LAW AFTER ONE YEAR Mr. Joe Francka, Department of Agriculture, Jeffersom City
1:20 - 2:30	WORKSHOP - American Foulbrood - Case history of 80 colonies near Hayti, Mo., and 77 colonies near Nixa, M
2:30 - 3:00	Buzz session
3:00 - 3:45	President's message and business session with committee reports.
3:45 - 4:00	Door prizes and adjournment.
EXECUTIVE BOARD MEETING - State officers and delegates from local Associations plus other interested be excepters will meet at the HOLIDAY INN, Rto K and I-55 in Cape on Friday, October 19 at 7:30 p.m. for a business session. The phone number of the Holiday Inn is 314-334-4491 for reservations.	

Beekeepers with a special project, precedure, or gadget which you have found helpful in your own apiary, please bring it for display and discussion. Display tables will be available for your exhibit.

THANK YOU TO THOSE WHO CONTRIBUTED TO THIS NEWSLETTER!!!! Let's hear from some of you who have never written before or sent in an article. Also, if you have any questions to which you would like answers, or opinions, please write to me Carol Boeckmann, 619 Mendelsohn Drive, Kirkwood, Missouri 63122. I will make sure that one or more of our experienced beekeepers responds in the next newsletter to your questions.

Since the Thanksgiving and Christmas holidays will be upon us as we go into our next newsletter, I ask that you submit your material and questions by November 17. With this deadline I hope to have the newsletter in your hands before the Christmas mail rush!!!

Hope to see you at the Fall State Meeting on October 20!!!

Carol Boeckmann

MISSOURT STATE BEEKEEPERS' ASSN. 619 Mendelsohn Drive Kirkwood, Missouri 63122

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