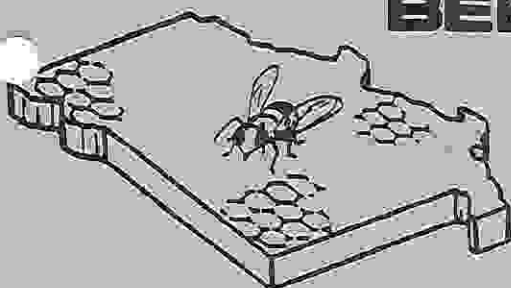


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VOLUME 23

QUARTERLY NEWSLETTER
MARCH 1985

NUMBER 1

DEAR BEEKEEPING FRIENDS,

The Annual Spring State Meeting will be held on Saturday, March 23, at the Memorial Union Auditorium at the University of Missouri at Columbia. (See last page of newsletter for directions.

The focus of the meeting will be three fold - 1) Problems encountered with the use of fumigant, 2) Pesticides and the honeybee, and 3) the Mite Threat to Missouri.

Mr. George Vanarsdall will address the first topic on fumigation. Mr. Vanarsdall has long been a very active member of the Beekeepers Associations and is known to many of you. At one time or another, he has held various in the State Association including President. And he was the recipient of the 1982 Missouri Beekeeper of the Year Award. Mr. Vanarsdall often speaks to beekeeping groups. Two most recent engagements were the Eastern Missouri Beekeepers February meeting and the 1984 Summer Conference of the Kentucky Beekeepers Association.

The topic of Pesticides and the Honeybee will be handled as a panel discussion with our First Vice President and Program Chairman Dr. Flernoy Jones as moderator. The panel will consist of Mr. Vanarsdall; Mr. Dow Croom, an aerial applicator; Mr. Ray Nabors, an entomology specialist; and a hobby beekeeper (to be announced). Mr. Croom operates a flying service at Campbell Municipal Airport. He makes applications to such crops as sweet corn, cow peas, and fruit orchards. Mr. Ray Nabors is an area entomology specialist from Delta Research and Extension Center in Portageville.

The third topic on the Mite Threat to Missouri will be presented by Mr. Joe Francka, the State entomologist. Mr. Francka will bring the latest developments on the spread of *Acarapis woodi*. He will also update us on the mite survey underway in Missouri. According to an article in "Agricultural Update", January 1985, Mr. Francka was recognized as the outstanding regulatory official in state departments of agriculture by the National Association of State Departments in 1983. "This recognition typifies the emphasis which has been placed on securing qualified professionals to assist the agricultural industry."

The Executive Board meeting will be held on Friday evening, March 22, at 7:30 pm at the Boone County Extension Center, 1408 I-70 Drive SW - approximately 3 blocks west of the Howard Johnson Motor Lodge. All beekeepers are invited to attend this meeting.

NOTICE: EACH AND EVERY LOCAL ASSOCIATION is expected to have at least ONE REPRESENTATIVE present at this Executive Board Meeting.

Since the motels are unwilling to give special group rates, no particular motel has been chosen. Below are some suggestions from those motels which have been used in past years.

HOWARD JOHNSON MOTOR LODGE
West Blvd. Exit off I-70
(314) 442-1191

BEST WESTERN COLUMBIA INN
I-70 and 63 South
(314) 474-6161

HOLIDAY INN - EAST
Providence Road and I-70
(314) 449-2491

HOLIDAY INN - WEST
Stadium Road and I-70
(314) 445-8511

* * * * *

DUES . . . DUES . . . DUES . . . DUES . . . DUES . . . DUES . . . DUES

Dues for 1985 are now due and payable!! THE DEADLINE FOR 1985 DUES IS MAY 1.

The deadline in past years has been about August 15. This has been changed for several reasons. First, some individuals have taken unfair advantage of this late date and have attempted to receive 3 years worth of newsletters and membership by strategically paying their dues over two years. Second, the record keeping becomes quite cumbersome when over 600 members are permitted to pay their 1985 dues from October 1984 through to August 1985. Third, the Association gives an extra half year's newsletters to those individuals who drop during that year. With the price of paper, postage and printing, this becomes a substantial outflow. Therefore, the deadline is now MAY 1.

For beekeepers who belong to local associations, the State dues per year is \$3.00. These dues are paid to the local association treasurer. The local treasurer then sends the names and complete addresses with a check made out to the MISSOURI STATE BEEKEEPERS to the State Treasurer Mr. Truman Hardin
1829 W. Washita
Springfield, Mo. 65807

If you do not belong to a local association, the State dues per year is \$4.00. The check should be made payable to the MISSOURI STATE BEEKEEPERS ASSOCIATION and sent along with your name and complete address to the State Treasurer Mr. Truman Hardin.

Thank you for your cooperation!!

* * * * *

The following excerpt is taken from an article in the May 1984 issue of the American Bee Journal.

"An insecticide, Spur, has been found by two of the leading apiologists in the country to be one of the safest pesticides for use in crops pollinated by honeybees. According to Larry Atkins of the University of California in Riverside, it would take 18 pounds per acre of the material to produce a lethal effect on a bee colony. By comparison, only 0.05 to 0.15 pounds of active ingredient per acre is needed to control most seed crop pests. Dr. Carl Johansen of Washington State in Pullman says the insecticide can be applied to bees themselves with little or no effect, although he doesn't recommend it. Spur is so safe that it is the only insecticide that can be sprayed over a crop while the bees are foraging. Spur is a pyrethroid insecticide.

"Spur (fluvalinate) is extremely effective on alfalfa weevil larvae and shows some promise against aphids in 20-acre alfalfa seed field tests. It has been tested in citrus crops for control of caterpillars with excellent results. Zoecon Corp., the manufacturer of Spur reports that it is the only pyrethroid/insecticide registered that also controls spider mites. "As our full registrations come into effect in 1985, we expect that almonds, apples, citrus and other permanent crops will be our prime opportunity," says Harry Mercado, product manager for Spur. "A product that can control insects and mites from 1 to 3 weeks after spraying, yet is bee safe, should find considerable use. Spur will be used for thrips, aphids, leafhoppers, mites and general fruit and nut pests."

* * * * *

For clover to secrete nectar, the soil temperature must be about 70 degrees. For the best yield, day temperatures should range from 75 to 85 degrees and night temperatures above 65 degrees. Also there should be 1 inch of rain every ten days or so.

* * * * *

FROM AROUND THE STATE

Eastern Missouri Beekeepers Association

Mr. Curt Dennis has been chosen the 1984 Eastern Missouri Beekeeper of the Year. He was honored at a banquet on Thursday evening, March 7, at the Heritage House.

Curt has long been a member of Eastern Missouri and the State Associations. He has been President of the local association for three years. In past years Curt has helped arrange and hold short courses for "beeginners", worked at the annual picnics, and been available to many beginners.

Thank you and congratulations, Curt!!!

At the annual installation dinner of the Kirkwood Area Chamber of Commerce, two Eastern Missouri beekeepers were honroed. Mr. William (Bill) Spencer was named the 1984 Kirkwood Citizen of the Year. Mr. Francis Scheidegger received the Achievement for Public Service award for his 22 years of service to the City of Kirkwood.

Mr. Spencer has been a member of the Eastern Missouri and the State Associations for over 10 years and Mr. Scheidegger for 7 years. Both men have made many contributions of their time and energy to the Associations. Congratulations, gentlemen!!!

Lincoln County Beekeepers Association Officers - 1985

President - Dave Crouch, P.O. Box 125, Troy 63379
Vice President - Carl Klotz, 305 E. College, Troy 63379
Sec-Treas.- Margaret Hornburg, Rt. 1-A, Box 314, Hawk Point 63349

Boone Regional Beekeepers Association Officers - 1985

President - Wayne Thomas, 2514 Brookside Court, Columbia 65201
Vice President - Barbara Schuette, Rt. 1, Hartsburg 65039
Secretary - Clayton Johnson, 1010 Eastwood Circle, Columbia 65201
Treasurer - Stanley Whitaker, 841 Sun Valley Drive, Columbia 65201

EDITOR'S NOTE: Each and every local association is asked to send in articles and information for the newsletter. Some suggestions are 1) an interesting program or speaker, 2) the status of membership in your association, 3) the wintering of the bees, 4) the state of the honey flow, 4) any community work with bees and beekeeping (schools, 4-H, Boy Scouts), 5) visits to beekeepers in other states, 6) gadgets or inventions for the beekeeper, or 7) helpful hints or techniques.

The questions and answers on this page and the following page are taken from an excellent publication by the A. I. Root company entitled 500 ANSWERS TO BEE QUESTIONS. This book would be valuable to every member. The cost is only \$1.50 plus 63¢ postage. Catalog No. XII. Send order to The A. I. Root Company of Iowa, P.O. Box 6, Council Bluffs, Iowa 51502.

Feeding Fermented Honey

Q. I have 100 pounds of partly fermented honey. Can I use this in any way to feed the bees in the fall or spring?

A. Yes, honey that is slightly fermented can be fed in the spring after the weather is warm enough for the bees to fly freely nearly every day. Such honey should not be fed in the fall in your locality or in any locality where the bees are confined to their hives for long periods during the winter. Fermented honey can be greatly improved by heating.

Uniting Queenless Bees with a Weak Colony

Q. What is the best way to add a queenless package of bees to a weak colony in the spring?

A. When adding a package of queenless bees to a weak colony, it is well to feed the weak colony and also the bees in the queenless package sugar syrup before uniting. The queenless bees, when filled with syrup, may be shaken out in front of, or into, the hive containing the weak colony. The queenless bees are anxious to have a queen, whereas the bees in the weak colony do not object to the queenless bees so long as they are filled with sugar syrup.

Room Needed for Spring Brood Rearing

Q. If each brood frame is filled full of brood and contains no honey, how many combs of standard size would it take for a good colony to build up to full strength in the spring?

A. A good colony of bees will sometimes have brood in 12 to 16 combs in the spring. If the brood and honey were separate, no doubt all of this brood would be contained in 9 or 10 standard combs. A standard frame when filled with perfect comb contains about 7000 worker cells. Ten such combs would, therefore, contain 70,000 cells of brood if all were filled at the same time. However, it is not best to attempt to crowd all of the brood into the smallest possible number of combs during the spring building-up period, for this may bring on swarming.

Uniting Bees by Newspaper Plan

Q. What is meant by newspaper method of uniting bees?

A. The plan is as follows: Remove the cover from one of the hives to be united, spread over the top a sheet of newspaper having a few pinholes punched through it, lift the other hive from the bottom board and set it directly on top of the newspaper. The bees gradually enlarge the holes until they get through. In gnawing away the newspaper the bees unite without fighting. As a rule, the weaker of the two colonies united should be the one that is moved from its stand and placed on top of the other. If one of the colonies is queenless, this is the one that should be moved from its stand and placed on top of the other.

Dividing Colonies in the Spring

Q. Would it be advisable to divide my colonies in the spring making two four-frame nuclei out of each since I want to increase my colonies?

A. The best time for making increase depends upon your locality. In the clover region the division you plan to make will be satisfactory providing the divisions are made early, in middle or late April, using young laying queens in each division. With satisfactory weather these divisions will harvest surplus honey. A minimum of six weeks is required to bring these divisions up to strength for the main honey flow. Keeping the division over a strong colony, separated by a double screened inner cover will aid in their build up.

Utilizing Combs from Dead Colonies

Q. Is it safe to give newly-hived swarms combs from colonies that starved during the winter and which contain dead larvae but no foulbrood?

A. Yes. If you are sure that the colony did not have one of the brood diseases, it is perfectly safe to give swarms on such combs. The dead larvae or pupae that perished because the colony starved will be carried out by the bees and the combs cleaned up.

When to Confine Queen to Lower Story

Q. After bees have bred up in a two-story brood chamber in the spring, how is the correct time determined for confining the queen to one brood chamber?

A. The queen should be confined to the lower hive body at about the beginning of the main honey flow from clover in your locality. Usually, if plenty of room is given the queen will go into the upper story, but will not go back into the lower story to lay eggs. After she has been in the upper story for about three weeks or just before the brood has all emerged in the lower story, she should be put back into the lower story and confined there by means of the excluder.

Maples as Honey Plants

Q. Do maple trees have nectar and pollen or pollen only?

A. The different species of maples yield both nectar and pollen. The importance of the maples as honey plants is probably not fully appreciated. Because they bloom so early surplus honey is not often stored from this source. The red maples, the box-elder or ash-leaf maples and the silver maples are especially valuable, but bloom quite early in March and early April in the North. The sugar maple, which blooms later, sometimes yields large quantities of nectar. If the colonies are strong in the spring and the weather is favorable even for a few days when the maples are in bloom they sometimes store rapidly.

Dead Bees at Entrance

Q. In two of my colonies I find the entrances filled with dead bees and a pint or more around the entrance. The other hives have no dead bees to speak of. What is wrong with these colonies?

A. There should not be many dead bees around the entrance of the hives in the spring, under normal conditions. It sometimes happens that some colonies go into winter with a large proportion of old bees which die off early in the winter. In such cases there will be many dead bees about the entrances after the bees have been confined to their hives for some time. When bees are flying freely the old bees usually leave the hive to die so that they are not noticed; but when the weather is too cold for them to go out they may accumulate rapidly in the hive or at the entrance in front of the hive.

Congestion of Brood Nest

Q. Now that we have been given the real cause of swarming, how can we tell surely when the brood nest is congested with young bees?

A. Whenever brood rearing is increased with great rapidity in the spring so that colonies have a large amount of sealed brood, we can be sure that the brood nest will be congested with young bees when this sealed brood emerges. If brood rearing is delayed in early spring by adverse weather and is then stimulated by favorable weather, together with considerable nectar from early flowers, there will follow a congestion of young bees in the brood nest. If there is a dearth of nectar at the time this congestion occurs, there should be no swarming; but, if the honey flow comes on at this time, swarming may be expected unless measures are taken to prevent it.

Giving Second Story for Comb Honey Production

Q. When producing comb honey should a second story of empty combs or foundation be added in the spring to give sufficient room for brood rearing, and then removed at the beginning of the honey flow?

A. If the brood chamber becomes crowded with brood, honey and pollen before the main honey flow begins, a second story should be given whether comb honey or extracted honey is being produced. As a rule, the bees should be given all the brood rearing room they can fill, previous to the main honey flow. At the beginning of the honey flow, most of the brood may be put into one hive body and the other tiered up on colonies not being used for comb honey production. Under good management, colonies often become so strong before the main honey flow that the second story can be taken away at the beginning of the honey flow and used for a nucleus. In this case, enough bees should be left on the combs to take care of the brood and a ripe queen cell should be given.

Examining Colonies for Swarming

Q. How often should hives be examined for swarming?

A. During the height of the season, when honey is coming in rapidly, it seems advisable to examine colonies at least once a week, especially if section comb honey is being produced. When extracted honey is produced, less manipulation of colonies is required. The main thing is to get supers on in plenty of time to avoid congestion in the hives. As you may know, congestion is considered the main cause of swarming.

Simple Way to Detect Queen Cells

Q. This coming summer I aim to inspect my colonies weekly for swarming cells. Will it be necessary to look at the bottoms of both brood chambers, or only at the bottoms of the lower ones? I use double brood chamber hives.

A. When colonies are operated in double brood chambers throughout the season, swarming cells, when started, will usually be found in the upper chamber near the bottoms of the combs, just above the bottom bars. It is a simple matter, therefore, when swarming is prevalent, to tip one end of the upper brood chamber up a bit to examine the bottoms of the combs. If swarming cells are found it is usually necessary to remove the combs for examination in order to avoid missing one or more cells. A number of beekeepers who operate colonies in double brood chamber hives use this system of tipping the upper brood chamber up, or raising it in order to detect queen cells that may be present.

Swarming Cells and Supersede Cells

Q. What is the difference, if any, between swarming cells and supersede cells?

A. Swarming cells are queen cells built in preparation for swarming. These are started usually about a week before the swarm issues. Supersede cells are queen cells built to raise a young queen to take the place of an old or failing queen. Supersede cells may be built at any time during the summer, but swarming cells are built only during the swarming season, usually in the spring. When queen cells are built outside of the swarming season, and especially if there is no honey flow at the time, one may be quite sure that these are supersede cells. If they are built during the swarming season it is necessary to note the condition of the brood and the number of queen cells started, to distinguish between swarming cells and supersede cells. If the queen is failing there will not be as much brood as in normal colonies, and it is usually scattered instead of being in compact form.

The bees build fewer queen cells for supersede than they do for swarming, sometimes building only one or two cells at first, then starting one or two more later, so that there may be several cells varying greatly in their stage of development. In the case of swarming cells the bees usually build from a half dozen to twenty or more queen cells, these all being in practically the same stage of development.

Swarming Before Queen Cells are Capped

Q. Do bees ordinarily swarm before capping the queen cells? If so, about how long before?

A. Italians frequently swarm before any of the queen cells are capped, but black bees and hybrids usually swarm just after the oldest of the queen cells have been capped. If the weather is favorable, black bees and hybrids follow this rule almost invariably, but Italians do not. While they may wait until some of the queen cells are capped, they may swarm several days earlier. During seasons when there is much swarming, an occasional colony of Italians may swarm soon after the queen cells are started and many swarm two or three days before the queen cells are capped. During seasons of moderate swarming most Italian colonies may wait until the cells are ready to seal before swarming.

Empty Chamber Below to Prevent Swarming

Q. What is your opinion of the efficacy of placing a super containing only empty frames beneath the brood chamber as soon as winter is over, to prevent swarming?

A. This will, of course, delay swarming, and in some cases if this delay is sufficient to carry the colony past the critical period for swarming or to the close of the honey flow, swarming is prevented; but in this country, especially in the North, it can not be depended upon to prevent swarming. This is the principle of the Stimulant method, the theory of which is that, as long as combs are being built below the brood, there will be no swarming. This plan was tried out in this country many years ago and abandoned as being not at all dependable when swarming is bad.

Super Room to Prevent Swarming

Q. Can swarming be prevented by giving plenty of super room?

A. The giving of ample room in supers as needed greatly reduces the tendency to swarm. In some seasons swarming can be almost, if not entirely, prevented by careful supering, especially when empty combs are given in producing extracted honey. In comb honey production, strong colonies may be induced to begin work in several supers at once by placing the new supers between those already started and the brood chamber during the early portion of the honey flow, thus expanding the super room and bringing about conditions somewhat comparable to those in extracted honey production. However, it is more difficult to prevent swarming in comb honey production, and it is not possible to prevent swarming entirely by giving ample super room in either comb honey production or extracted honey production. Under some conditions bees will swarm even when ample super room is provided in plenty of time.

"Put Up Plan" for Swarm Control

Q. What is meant by the "put up plan" for swarming?

A. The "put up plan" is the name used by Dr. Miller to designate a treatment for colonies that swarm. The hive is moved away and a new hive put in its place, the new hive containing two or three frames of unsealed brood, but there must not be any queen cells on these combs. The old hive is then set on top of the new one so that the bees in returning from the field will all enter the new hive. This so depletes the old hive of its bees that the colony gives up swarming and the queen cells are destroyed. After about 10 days the old hive is put back in its former position and the new one taken away for increase. Instead of setting the old hive on top, it can be placed at one side with its entrance turned far enough away so the returning bees will not enter it; then a few days later, turned back so the entrances are close together before reuniting. When the old hive is set on top, it is placed bottom and all, above the cover of the new hive, there being no connection between the two hives, each colony having its own entrance.

Demaree Plan for Swarm Control

Q. What is meant by the Demaree plan for swarm control?

A. The Demaree plan is the term now generally applied to taking the combs of brood out of the brood chamber and placing them in another hive body which is then placed above a queen excluder, the queen being confined below where empty combs or frames of foundation have been put in the place of the combs of brood. If this is done after queen cells have been started preparatory to swarming, some prefer to have only empty combs or frames of foundation together with one or two empty combs below; but, if done before any queen cells have been started, the usual practice is to put one comb containing a little unsealed brood below. This brings about a condition somewhat similar to that brought about by swarming, the swarm being below the queen excluder and the parent colony above.

Complete Swarm Prevention

Q. Would it be possible to maintain 20 colonies of bees without a single one swarming during the season?

A. Yes. It would be possible, but not practicable in all cases. To prevent entirely the issuing of any swarm in an apiary of 20 colonies would, under some conditions, require closer attention than would be profitable. In the best managed apiaries an occasional swarm may issue and return to its hive during the beekeeper's absence unless every colony is examined carefully at least once a week during the swarming season. One of the most dependable methods for swarm control is that of examining each colony every week or ten days to look for queen cells built in preparation for swarming. When queen cells are found the queen is removed from the hive or killed, all queen cells destroyed, then nine or ten days later all queen cells are again destroyed and a young laying queen introduced. By this method it is seldom that a swarm will issue provided these examinations are kept up throughout the swarming season. Under some conditions some other method may be preferable, but usually not quite so dependable if it is desired to prevent completely the issuing of any swarms.

Uniting Swarm with Parent Colony

Q. When a hive swarms is it advisable or is it possible to combine the bees left in the parent hive with the new swarm?

A. It is possible to unite a swarm with the bees in the parent hive from which the swarm issues. To do this, a new hive should be placed on the parent stand to receive the swarm. This hive should contain either drawn combs or frames with full sheets of foundation. One or more supers over a queen excluder should be placed on the hive, then the parent hive with all queen cells destroyed may be placed on the top. This keeps the colony in one unit and as a result a larger crop of honey will be secured. Later on the hive on top may be let down directly over the bottom chamber in order to have a double story hive.

Uniting Two or More Swarms

Q. Is it advisable to unite two or more swarms as they issue, to secure an extra-strong colony?

A. It is sometimes an advantage to unite two or more swarms in order to make extra strong colonies during the honey flow. This is especially true if the main honey flow comes on just after the swarms have been united, as in a clover locality where the swarming season comes during the honey flow. This plan brings good results if the colonies are not as strong as they should be, so that the swarms are not large. However, if the honey flow does not come until a few weeks later, it would not be wise to unite swarms in this way. Neither is it advisable to do so when the colonies are abundantly strong to begin with, for it is sometimes difficult to induce a great mass of bees to work with proper vigor when crowded into one hive.

MISSOURI BEEKEEPING TIME CAPSULE

State Meetings

by
Mike Roling

We have all been to our state beekeepers' meetings and are familiar with their format. (Well, shame on you if you haven't been to those meetings.) But today, let's look backward and see what the old time beekeepers' meetings were like. Were they that different from today's meetings? Were they better or inferior? Could we learn something from those earliest conventions?

The years examined in this episode are 1890 to 1892. The locations of the meetings were Marshall, Mexico, Boonville, Sedalia, and Warrensburg, Missouri. Locations were decided by members at each meeting. The meetings lasted two days in April and two days in October. Sessions were held in the morning, afternoon, and evening, usually in the county courtrooms. Officers included president; vice presidents for the central, northwest, northeast, southwest, and southeast; secretary; and treasurer.

Note that the meetings were highly mobile. They were held throughout the central portion of the state, one or two counties north and south of the Missouri River. Thus, no geographical location was favored. Presumably, this arrangement accommodated the greatest number of participants and equalized some of the rigors of travel. Just imagine the logistics of attending a meeting coming from an outlying rural area. You didn't just hop into your car and roar off down the road. Establishment of multiple vice presidents appears to be an attempt by the organization to include all parts of the state at the executive level, insuring good state-wide representation on all matters.

The real substance of these meetings can be divided into these arbitrary categories: out-of-state speakers, in-state speakers, the question box, and committees on questions. The out-of-state speakers never delivered their address. The usual format consisted of those people sending their text and the text was then read by a member of the state organization. Some of the out-of-state personalities and their associated topics were:

James Heddon, Michigan--"Should Any Person So Desiring
Keep Bees?"

Dr. C.C. Miller, Illinois--"What Measures Should Bee-
keepers Take Against the Bogus
Honey Business?"

S. Brantigan, Colorado--"Economy in Beekeeping"

R.B. Williams, Tennessee--"Which is Most Profitable--
Natural or Artificial Swarming?"

E.T. Flanagan, Illinois--"The Future Outlook for Honey Production"

Dr. Wm. F. Clarke, Ontario--"Apicultural Literature, its Influence and Effects"

In most cases, the text took no more than two pages in the record, indicating that they certainly did not dominate the proceedings. However, they provided a spring board for discussions, as well as providing outside sources of opinion and information. The selection of speakers indicates that the organization was not unaware of the outside world of beekeeping and readily sought new ideas and opinions, much like current organizations.

Dr. Miller's topic, bogus or adulterated honey, was a real irritant. This particular issue culminated with the adoption of a series of resolutions that "denounce the practice of adulterating extracted honey with glucose or grape sugar". They also resolved that beekeeping organizations of other states cooperate with them in "presenting this subject to the consideration of the International American Bee Association that they may memorialize Congress to pass laws regarding the matter". Bogus honey, adulterated honey? Sounds very familiar!

The in-state speakers' presentations were more numerous and the larger portion of a meeting was usually taken with these papers and discussions following the papers. Twenty presentations were made by the members over a period of five meetings. The participants of the meetings were interested in a wide range of topics and many of those topics are present on current beekeeping agendas. Take for example these titles: "Beginning in Beekeeping", "What is the best way to build up colonies in the spring to prepare for the honey harvest?", "Grading Honey", "Some Light on the Winter Problem", "Spring Dwindling", "Queen Restrictors", and "Hives and new methods against swarming and its causes".

On the other hand, there were topics discussed that we currently do not deal with often. J. W. Rouse of Mexico, Missouri, talked of patenting bee fixtures. The man was definitely opposed to the patenting of equipment for beekeeping, giving some of the following reasons: cost doubled, reduced numbers of beekeepers because of the increased cost, and most fixtures invented were not the work of just one man. Rouse related a story that indicated just how passionately he disliked people who were in the patenting business.

"We remember when we first started in the business of visiting a noted beekeeper, now a member of this association, and while he found us very inquisitive, he answered all of our questions and gave us a great deal of valuable information besides; and, in addition to all that, lodged us while there free of costs to us, and treated us to the first honey we had had for quite a while."

"We have ever endeavored to carry out this same liberal spirit since then, except on one occasion, and that was when a patent-right man lodged with us we charged him for it, . . ." The discussion that followed indicated similar feelings toward the patent. Of the six participants in this conversation, five felt that there was little or no need for this process. Three of the five included supply dealers.

E. R. Garrett of Appleton City tackled what should have been an unpleasant topic, "Should Bees Be Taxed?" The talk was optimistic in favor of taxing bees if the tax could be returned to that area of agriculture. "We conclude then that taxation is not of itself an evil, but a blessing, and I think if bees were taxed, the Government Experiment station would be as liberal in this pursuit as they are in every other pursuit. Then we would be entitled to our representation, . . ." Of the five people responding in the discussion section, not one was bitterly opposed. Four actually thought it was an out-and-out good idea. The fifth participant was not sure if bees should be taxed or if they should be considered under property taxes. The attitudes expressed here reflect different times and thinking. However, this question would resurface for Missouri beekeepers in the 1920s and cause considerable discussion.

A third item of interest, particularly in light of today's world, was the status of women. When the secretary's report is examined, you find that new members were listed. If a woman was entered into this list, her name was usually followed by the word "honorary" in parenthesis. By simply looking at this, you may think that women came with their husbands and that was the last of their contribution. But in reality this was far from true. Two women in particular were quite active. Their names were Mrs. Milton Cone and Mrs. J. M. Null. Mrs. Cone addressed the meeting with a paper entitled "How can we best educate beginners, keeping only a few bees, not to ruin the honey market for those who are making the production of honey a business?" Mrs. Null presented two papers: "Is Beekeeping a Suitable Occupation for Ladies?" and "What are the essential qualities for making a successful beekeeper?" Mrs. Null felt beekeepers must possess courage, patience, an elastic temperament, be observant and progressive. In regard to women beekeepers, she was quite optimistic. That was not to say that everything was a "flowery bed of ease". "There are to be endured the bedraggled skirts on dewy morns. The persistent efforts of the little pests to get beneath our attire and perambulate at random taking sleeve, bust, and waist measure, and also their own time for making to exit. Then the long, hot days in June, when the mercury dances around one hundred and the perspiration just flows in sheets. But then what cosmetic is superior." Now that's a dedicated beekeeper! Despite the "cosmetic" she was respected by fellow members as evidenced by her position on committees and election, on the second ballot from a slate of six, to represent the state organization in Jefferson City to secure funds from the Legislature's World's Fair commission. The other committee member was not elected until the fourth ballot.

If no out- or in-state speakers were presented, the time was utilized by question boxes or by the questions asked or answered by an appointed committee. This was very similar to our panel of experts who respond to questions from the audience. In these sessions, many topics were dealt with in rapid succession. Questions pertained to: inverting frames to tear down queen cells; swarms without drones; has anyone tried alfalfa; greatest mistake made this season; should beekeepers join the Union; are wooden guides

reliable; what is a colony of bees; what is more profitable--being a honey producer or a supply dealer; should full sheets of foundation be used in surplus boxes or in brood chambers; etc. Some of these questions elicited answers that tell us some of the current trends of the day. For example, the last question mentioned, "Does it pay to use full sheets of foundation in the brood chamber?" A vote was taken on this question and resulted in nine in favor of full sheets and one opposed. Other members, approximately thirteen, did not vote due to lack of experience. Thus, fifty percent or more were not familiar with one of the major improvements of the day. We can only speculate what that vote reflects in regard to the entire number of beekeepers in the state. Certainly, only a small minority knew of and even fewer used any type of foundation. It was not that foundation was unavailable. An address by Rouse indicated that there were two foundation mills of considerable size and a number of smaller ones in the state at that time.

In at least two conventions, some statistics on the number of hives and productivity were collected and printed. With twenty-four members reporting, the numbers of colonies reported in the fall of 1889 were one thousand nine hundred and eighty. In the spring of 1890, these same members reported one thousand eight hundred and seventeen, a loss of one hundred and sixty-three colonies. The largest loss by any one member was ninety-five out of three hundred. Nineteen wintered their bees out of doors; three used cellars and two chose both the cellar and out of doors.

An October 1890 report showed the statistics for twenty-one members. In this report there was a thirty-six percent increase in the number of colonies; one thousand eight hundred and sixty up to two thousand five hundred and thirty by fall. The largest operator in the state had nine hundred colonies. The twenty-one members produced 66,096 pounds; fifty-five percent comb and forty-five extracted. The average for the year was twenty-six pounds per colony. (So much for the good ole days!) The amount of extracted honey reported here may surprise many because we tend to think of those days as the time of comb honey. However, statistics for one hundred and forty-two beekeepers for the same year, in another report, showed more extracted honey being produced than comb.

Considering over ninety years difference in our comparison, our meetings are remarkably similar in structure and the topics discussed. Were those meetings better or inferior? Could we learn anything from these meetings? You be the judge.

NOTICE ---

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The following page enclosures supply information on insurance available for beekeepers. Mr. Loring Miller was present at the Fall State Meeting and talked to individuals interested in this. He wishes to make beekeepers aware that such coverage may be obtained through their own agents.

Mr. Miller supplied the enclosures at his own expense. This is for your information only and does not constitute an endorsement by the State Association.