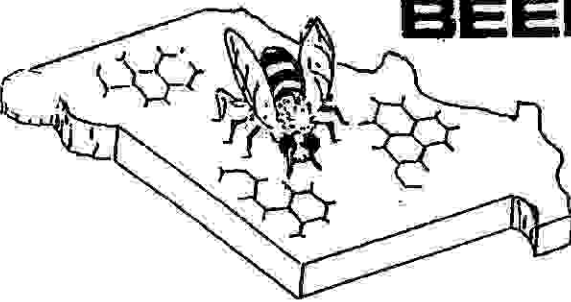


# MISSOURI STATE BEEKEEPERS ASSOCIATION



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QUARTERLY NEWSLETTER  
SUMMER, 1991

NUMBER 2

DEAR BEEKEEPING FRIENDS:

It's time to be thinking of your entries for the Missouri State Fair. It looks like we all should be having a good honey crop this summer. Parts of the state had a lot more rain in May, which kept the bees at home thinking of swarming instead of honey gathering. That all should be past now, and if your colonies are strong, they should be adding a lot of weight this week.

The last newsletter had an article by Clarence Collison on the preparation of honey for honey exhibiting. This issue will include the rules from the State Fair book. There are many changes, so please read carefully. A complete book can be ordered from the Missouri State Fair, P.O. Box 111, Sedalia, Mo. 65302. There is a mistake in the book. Pages 30 & 31 are turned around, i.e., page 30 should be 31 and page 31 should be 30. I have placed them in the correct order. Please Note: The class requirements will be followed exactly. Anything that does not meet the requirements will be disqualified. No Exceptions.

## VOLUNTEERS NEEDED FOR THE STATE FAIR HONEY BOOTH

We need help at the honey booth on August 14th for the set-up, and on the 15th through the 25th for sales. Mike VanArsdall will be in charge this year; and the members of the executive board will determine how it will be operated. Since Mike is now in Nebraska for the summer, Sharon Gibbons will take the names of volunteers for him. Her address is 314 Quinnmoor, Ballwin, Mo. 63011; (314) 394-5395, or (314) 446-0447 in Rocheport. It worked very well last year when local associations volunteered for the entire day. We need at least 4 people each day, and more on weekends. The Honey Booth is the best way to promote honey in Missouri. Since our state treasury is low in funds, it also is a good way to make additional money.

I do not know how many passes will be available. The fair committee has reduced the number of free passes in recent years. This year the book reads: The moderate price of admission to the Missouri State Fair is made possible by the "everybody pays policy." This applies to officials of the Fair, employees, exhibitors, performers, concessionaires and visitors. On Wednesday, August 21st, admission will be \$1 to those who have reached the age of 60.

FALL BEEKEEPERS MEETING IS OCTOBER 19, 1991

Dear Beekeeping Friends

A great time was had by all who attended the Tri State meeting in Keokuk Iowa. On Friday afternoon and Saturday morning tours were given at Dadants home office in Hamilton Illinois. You could view the "sheeter", a machine that makes continuous rolls of thin beeswax. Colored foundation as well as natural was being processed before our very eyes. The sewing room where all the veils are assembled and folded for shipment, was viewed by the crowd. A full line of extractors from 2 frame to 120 frame was on the floor for demonstration. This demonstration was presented by Rod Little, Dadants Engineer for metal goods.

Gene Killions presentation on queen rearing received a huge amount of interest. He explained that he has had greater success starting his cells from a queen right swarm strength colony rather than a hive that has been made queenless and forced to start cells. During break many beekeepers passed up the opportunity to partake of the doughnuts and various beverages that were available. Simply because they wanted to learn more about Gene's experiences.

Bob Cox had the finest presentation on mites that I have ever seen. A video of actual live Varroa and Trachea mites was shown. Methods of control and application were discussed in detail. Bob studied under the supervision of Bill Wilson as I understand was given credit for devising and approving extender patties for the treatment of American Foulbrood prevention. Bob had a good teacher, and Iowa is lucky to have him as their state apiarist.

The Honey Board's new director Bob Smith presented a video called "Let it Bee". The video explained the value and goals of the future, as well as the many hurdles it has managed to make over the past 5 years. Bob explained who will be able to take part in the referendum to decide on the future of the honey board. He noted that anybody producing over 6000 pounds a year for the past 2 or 3 years could obtain a ballot through their county ASCS office.

Several items were brought to the attention of our state members. On a high note I am happy to announce to you that Sharron Gibbons has been elected "Beekeeper of the Year". She has earned this prestigious award many times over. She has been very active in our association, producing the newsletter to promoting honey at the fair. She has served the National Honey Board in various positions where she was needed. She continues build her bee business and expand the honey market she has made. Congratulations Sharron!!

Robyn Deboard the National Honey Queen was present. She explained that there is a very good chance that the American Beekeeping Federation meeting of 1992 will be held in the KC area. Punch was served on behalf of the Queen Program.

We the executive committee are very sad to lose Jim Hausam as our state treasurer. He has served the organization for the past several years by managing the fair booth. Craig Oliver has been appointed treasurer until the fall meeting elections, to be held at Cape Girardeau.

Glenn Davis and I were chauffeured by his wife Joanne, as we sat and enjoyed the ride home. Mushroom hunters were out in abundance. The fruit trees were just reaching full bloom. Beekeeping stories were thicker than flies at an August picnic. The day ended with a beautiful orange full moon.

Your Beekeeping friend Mike.

\*\*\*\*\*

MISSOURI STATE BEEKEEPERS ASSOCIATION FALL MEETING will be held on OCTOBER 19, 1991 at the HOLIDAY INN in CAPE GIRARDEAU, MO. Details about the program and room rates will be available in the next newsletter. Please mark your calendar, and if you want to be sure that you will have a room, please call the Holiday Inn early. Mention that you are with the beekeepers group. Since this is a college town, there could be a home football game, or parents' weekend; that would tie up rooms at the hotel. Remember that all of you can attend the Executive Board Meeting at 7:30 on Friday, Oct. 18th. This is where most of the work of the association is done. This fall will be time to present a slate of officers for the coming year. If you are interested in being an officer, or you know someone who would be a good candidate, please attend this meeting; or call Glenn Davis.

\*\*\*\*\*

#### FROM THE EDITOR:

Thank you for the advance orders for the booklet, "Honey Bee Diseases & Pests". They have not arrived yet; so if you have prepaid, please be patient. This is another money making project for our club in order to keep the dues low. If you want us to save you a copy, please contact either Glenn Davis or Sharon Gibbons. At the American Federation of Beekeeping meeting in Mobile, AL, the Kansas Honey Producers and the Missouri State Beekeepers Assn. joined forces to officially extend an invitation to the Federation to hold it's 1993 annual convention in Kansas City. Glenn Davis, Ron Vivian, Roger Nichols, Craig Oliver, and Sharon Gibbons; along with Kansas beekeepers, met with Troy Fore in Overland Park, Ks. to talk about our involvement in hosting a national meeting. We will find out in August if our invitation is accepted.

This newsletter is shorter than most of my newsletters. There is concern about the cost of a 12-page newsletter, and I have been asked to make it smaller. I would appreciate feed-back from members about the newsletter, especially those of you who do not attend our semi-annual meetings, when topics such as this are discussed. Only one-fourth of our membership attends the meetings. The rest of you have to depend on the newsletter for information. Do you read it, or am I wasting my time,

Sharon Gibbons, Editor

This is a letter I received several months ago:

Dear Sharon,—Enclosed are 1991 dues. The newsletter is my main contact with MSBA. Work in the orchard, greenhouses, and fish hatchery doesn't allow much time to get around to meetings. I keep enough bees to pollinate the orchard, which is absolutely essential. The informative technical pieces in the newsletter are a much appreciated help to beekeeping. Best Regards, Bernie Donahue

# Insist on the Best!

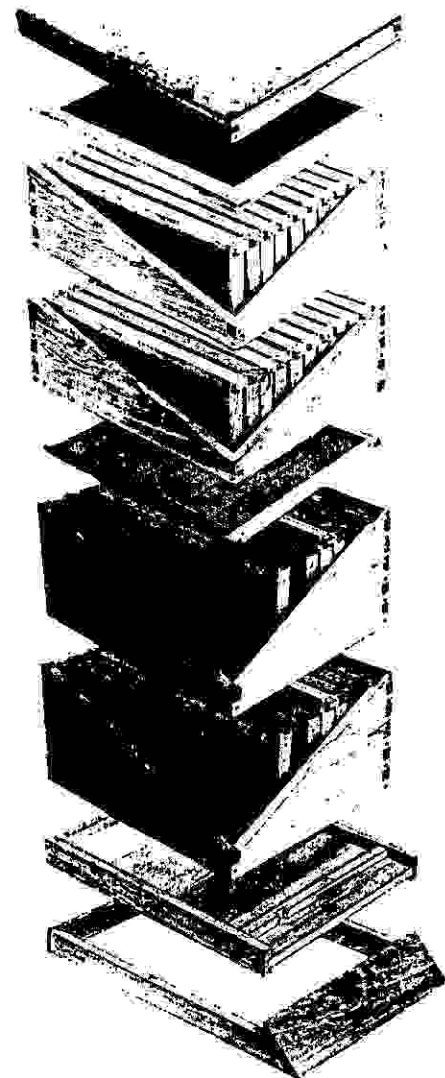
# adant Quality Woodenware

**Quality Dadant Woodenware** has been the standard of the industry for many years. Our woodenware is manufactured from ponderosa pine which has been hand selected to be free of imperfections. Each board is carefully metered to be certain it is of the right moisture content before it is skillfully milled into the finished product. Commercial grades in bulk quantities are available.

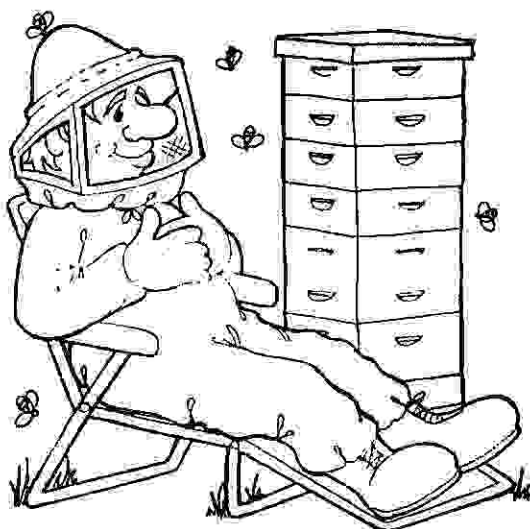
**We offer four basic sizes of supers** all utilizing strong dovetail construction. The dovetails have been bored or "pre-drilled" at the factory to help eliminate splitting during assembly. Complete listings, along with the appropriate frame-foundation combinations for the Hive Body, commonly referred to as a deep super, the Dadant depth 6 $\frac{1}{2}$ " super, the shallow 5-11/16" super and the comb honey super.

Frame selection is dependent upon the type of foundation to be used. Dadants offer two basic types of wooden frames. The first and most popular, is a **wedge top bar-grooved bottom bar frame**.

The **grooved top bar-grooved bottom bar frame** is quickly growing in popularity. It is designed to be used mainly in conjunction with Duragilt foundation.



- **WE OFFER FOUR BASIC SIZE SUPERS**
- **TWO STYLES OF WOODEN FRAMES TO CHOOSE FROM**



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## GENERAL INTEREST INFORMATION:

Mid-Missouri Beekeepers Assn. announces that they have honored a member as Beekeeper of the Year. Lawrence Snelson, a member of our bee club since its' beginning, and a beekeeper himself for the past 63 years, was given the award. The plaque was presented by President Glenn Staggs. The award read as follows: Presented to the Beekeeper of the year 1990 by Mid-Missouri Assn. in recognition of 63 years of beekeeping and your unselfish devotion to all the members of our club.

Eastern Missouri Beekeepers Assn. honored long-time member Ted Jansen as 1990 Beekeeper of the Year. As a result, Ted was interviewed by a local TV station, making a positive statement for beekeeping.

Eastern Mo. Beekeepers also found a great way for increasing their treasury, and getting cooperation from beekeepers to collect swarms. A donation to their organization was asked for when collecting the swarm. Swarm donations have exceeded \$1000.

## FOOD PROCESSORS WORKSHOP

UNIVERSITY OF MISSOURI, COLUMBIA--THURSDAY, JUNE 27, 1991--9:00 a.m. to 3:00 p.m.

DESIGNED FOR: SMALL & INTERMEDIATE SIZED FOOD PROCESSORS

PRESENTATIONS ON:

The importance of label and package design; Determining your product 'fit' in the marketplace; Should you be concerned about nutritional labelling?; How to achieve uniform quality in your product; Good business practices; Marketing strategy; Health Department and USDA requirements; and other related topics. Also included: Visit M.U. Food Processing Pilot Plants; Luncheon buffet; free parking.

COST: \$20.00 - Before June 15 (\$25 after this date)

## NEWS FROM USDA-APHIS:

As of May 17th a total of 31 Africanized Honey Bee Swarms have been captured and destroyed in South Texas. These swarms have ranged from Brownsville to Eagle Pass, Texas. Bee colonies in the tip of Texas will remain under quarantine until further notice. On May 20th, a gardener in a trailer park riding on a lawn mower was stung by honey bees. The bees have been confirmed as Africanized.

Missouri State Entomologist, Joe Francka mentioned that after the first documented human stinging fatality occurs from the Africanized Honey Bees, we should be prepared for many questions from the general public. We might be asked to remove our colonies from a populated area, and we may have to attend city council meetings as honey bees may be included in nuisance regulations.

Remember to let them know that beekeepers are the "good guys" who can help them with their swarm problems, in event that the Africanized Bee reaches Missouri. When contacted by a reporter, remember to give accurate facts. The media is paid to report sensational bits of news. If you don't feel that you can give them the correct information, please direct them to Joe Francka in Jefferson City, or Dr. James Tew at (216) 264-3911.

Dr. James Tew was a speaker at the Tri-State Meeting in April. He mentioned that there are several points to remember when giving an interview that includes questions about the Africanized Honeybee. Let the reporter know that beekeepers are prepared to deal with the AHB, that we are aware that they could cause a problem, but that the problem is manageable. Mention that research is being conducted that offers promise that the AHB can be controlled. Mention also that this is a Beekeeping problem, not a public problem. As an additional comment, you could say that it is more likely that they would be struck by lightning twice, before they would ever be stung by Africanized Honeybees.

A fact sheet is available on : Frequently Asked Questions about the Africanized Honeybee. Write to: U.S. DEPARTMENT OF AGRICULTURE, USDA BACKGROUNDER, OFFICE OF PUBLIC AFFAIRS, RM. 404-A, WASHINGTON, D.C. 20250

1991 E.A.S. Convention at Sheraton Resort & Marina in New Bern, NC

Short course: July 22-24

Convention: July 24-26

For more information and the schedule of speakers, you can contact: Dr. John T. Ambrose at 1114 Grinnells, Box 7626, N.C. State University, Raleigh, N.C. 27695.



Dear Beekeeper:

Shortly, you will be receiving a ballot with two questions:

1. Should the Honey Board be continued?
2. Should refunds be eliminated?

The purpose of the National Honey Board is to give maximum value for each dollar you invest by conducting the highest quality programs for promoting honey and honey products.

It is important for the Honey Board to do a few things well and build for the future:

- In 1990, the National Honey Board generated over three million dollars worth of publicity for honey and beekeeping. The approximate return on investment is 17:1.
- Retail sales of honey are rebounding from a downward trend.
- Introductions of new honey products are growing at a rapid rate with 279 new products entering the market in 1990 alone.
- Schools are provided with educational materials for their students.
- Foodservice operators receive the necessary tools to increase honey usage.

You are part of the future. These efforts would not be possible without the support of thousands of beekeepers across the country, like yourself.

This summer, you will have an opportunity to decide the course of the future for the honey industry. Please vote.

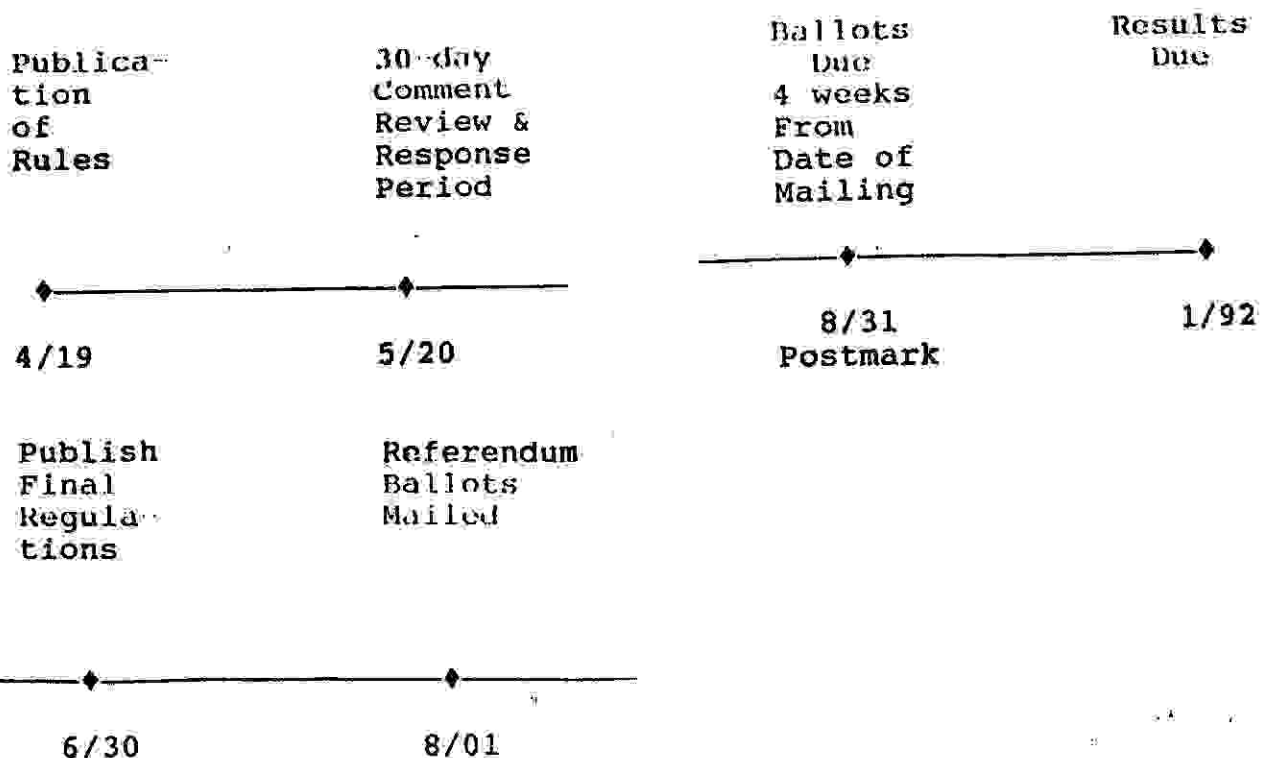
*Shaun Gibbons*

Chairman  
Missouri "Let It Bee"  
Committee

# MECHANICS OF VOTING NATIONAL HONEY BOARD REFERENDUM

- Referendum is scheduled for Summer, 1991.
- All producers and importers who pay the assessment will receive a ballot by mail.
- Ballots will contain two questions:
  1. Should the Honey Board be continued?
  2. Should refunds be eliminated?
- Ballots will record votes on both questions, as well as 1990 pounds of honey produced.
- Ballots will be mailed by United States Department of Agriculture, Agricultural Marketing Service.
- Ballots will also be available at ASCS offices.
- Ballots need to be returned by mail to USDA, AMS.
- USDA, AMS will audit ballots. The reported poundage must represent 1990 honey production.
- USDA will publish the outcome of the voting. At publication, these results will become final.

## TIMELINE NATIONAL HONEY BOARD REFERENDUM



When You're Ready to Pull Honey Use

## HONEY ROBBER

Just a few drops will move bees out of the supers quickly. Whether it's cool or hot you can count on **HONEY ROBBER**. Contains the same active ingredient as "Bee-Go" but it smells much better. The sweet smell of cherries makes **HONEY ROBBER** a pleasure to use and it costs less too!  
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**BACK TO  
THE FAIR**  
OZARK EMPIRE FAIR • JULY 26-AUGUST 4  
Springfield, Mo

Registration Deadline  
July 1

### SECTION 6 - HONEY COOKERY

MISSOURI STATE BEEKEEPERS ASSOCIATION will award \$3 to the exhibit judged Champion in Classes 1-3, \$3 to the exhibit judged Champion in Classes 4-7, and has contributed all premiums in the Honey Cookery Section.

Premiums: \$2.00 - \$1.50 - \$1.00

#### Class

1. Honey, in comb, cut
2. Honey, in comb, frame
3. Honey, extracted
4. Honey cake

#### Class

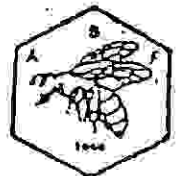
5. Honey cookies
6. Honey quick bread (5 muffins, fruit/nut loaf, etc.)
7. Honey whole wheat bread

# BEEKEEPING SUPPLIES



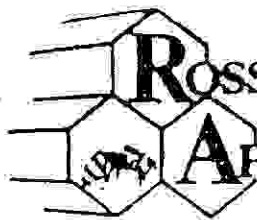
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# Missouri State Fair Sedalia, Missouri

## August 15 - 25

### 1991 FAMILY LIVING &

## SPECIAL EVENTS PREMIUM BOOK

### A Division of the

Missouri Department of Agriculture

### Section C

## APICULTURE

Superintendent - Michael Brown, Lees Summit, MO

Asst. Superintendent - Honey Cookery -

Loretta Weiler, Jefferson City, MO

### Judges

Bee Culture - Kurt Gross, Sparta, IL

Honey Cookery - Viola M. Young, Columbia, MO

Amount offered by Fair in this Section ..... \$1,335.00  
JUDGING PROGRAM - Thursday, August 15, 9:00 a.m.

### RULES AND REGULATIONS

1. Exhibitors in Classes 1, 2, and 17 are requested to pre-enter by mail and entries should be received by 5 p.m., August 7.
2. Exhibits that are to be shipped must be on the grounds not later than 3:00 p.m., Wednesday, August 14. All exhibits must be in place by 5:00 p.m., Wednesday, August 14.
3. No entries will be accepted after August 14.
4. All exhibits must have been produced in a Missouri apiary of the exhibitor since the 1990 Fair. Bees-honey may be a 1990 product but produced since the 1990 Fair. All exhibits must be under the direct management of the exhibitor. Premiums will be paid to Missouri exhibitors only.

5. No two exhibits of the same class shall be made by the same person or any member of his or her family, or from the same apiary. In the case of a company or partnership, the exhibitor shall be entered in the name of the firm or company.

6. A class tag must be on each entry.

7. Exhibitors of Honey Cookery must have recipe shown with the exhibit. The recipe must be correct. The foods may contain some sugar, but this must be stated on the recipe. Preference will be given the exhibits containing the least sugar, other things being equal.

8. Shallow Frame, Brood Frame, Cut and Section Comb honey should not be covered by an opaque covering on either side.

9. The exhibitor may place his name and address on his exhibit after the judging has been completed.

10. Signs on Apiary exhibits will be limited to 10" high x 14" wide in size.

11. Exhibitors may distribute honey recipes, bearing their name and address from their exhibit space.

12. Exhibitors will not be allowed to rearrange or remove any part of their exhibit, except bees which may be removed into the evening to permit flight.

13. The judge will prepare a score card for each exhibitor in each class in both divisions, for the purpose of helping the exhibitor improve his or her exhibit.

14. Entries will be released at 5:00 p.m., Sunday, August 25 and must be claimed by 8:00 p.m., August 25, or they will be forfeited to the fair management.

### Division A

### BEE CULTURE

Amount offered in this Division by State Fair ..... \$609.00

Specials: A Grand Champion Ribbon and \$25 will be awarded to the outstanding exhibitor in Apiary Products who has won the most premium money. In the event of a tie the Grand Champion Ribbon and money will be awarded to the exhibitor who has won the most blue ribbons. Further ties will be broken by proceeding to the next lower ribbon until a winner is determined.

### HONEY

#### Individual Classes

1 Display of Apiary Product, including bees in one frame observation hives, one 5 3/8" or 6 1/4" frame of honey permitted above if desired, beeswax and at least 150 pounds of honey. Must include classes 2 to 14. Exhibitor has the privilege of pyramiding exhibit. The winner will be determined by the most total points accumulated on the score sheet in Classes 2-14. In the event of a tie the winner will be determined by exhibitor who has won the most blue ribbons in Classes 2-14. Further ties will be broken by proceeding to the next lower ribbon until a winner is determined.

\$40 \$35 \$25 \$15

2 Store display for retail outlets of a permanent nature. May be displayed as a table or floor display occupying approximately nine square feet of surface area. It may include comb and extracted honey, posters, flowers, and any other items that add aesthetic appeal to the display. This class will be judged on attractiveness, quality of product, arrangement and appeal to customers, and should be a display from which honey would be sold.

\$25 \$20 \$15 \$12 \$10 \$8

3 Display of light extracted honey in standard honey jars, assorted sizes, 25 to 50 pounds.

\$12 \$10 \$8 \$6 \$7 \$6

AGRICULTURE/APICULTURE

## AGRICULTURE/APICULTURE

- 4 Cut comb honey in plastic boxes, all sides visible. Six packages of approximately one pound. \$12 \$10 \$9 \$8
- 5 Round or square section comb honey, six packages, with top and bottom of comb visible. \$12 \$10 \$9 \$8
- 6 Light bulk comb honey, six 2 or 2 1/2 pound jars \$8 \$7 \$6 \$5
- 7 Dark bulk comb honey, six 2 or 2 1/2 pound jars \$8 \$7 \$6 \$5
- 8 Light extracted honey, six 1 pound jars \$10 \$8 \$6 \$5 \$4 \$3 \$2 \$1
- 9 Dark extracted honey, six 1 pound jars \$10 \$8 \$6 \$5 \$4 \$3
- 10 Sealed honey, white, brood size frame (9 1/8" x 17") \$7 \$6 \$5 \$4
- 11 Sealed honey, white, shallow-depth honey frame (5 3/8" or 6 1/4" x 17") \$7 \$6 \$5 \$4
- 12 Canded honey, six 2 pound jars, produced in 1990-1991 \$7 \$6 \$5 \$4

## BEES AND BEESWAX

- 13 Yellow Beeswax, 3-pound cake not over one year old \$6 \$5 \$4 \$3
- 14 Queen and her bees, with emerging brood, in one-frame observation hive. One 5 3/8" or 6 1/4" frame of honey permitted above bees if desired. Identification of Race preferred. \$13 \$10 \$8 \$7

## Division B

## APICULTURAL PRODUCTS

- Amount offered in this Division by State Fair ..... \$78.00
- 15 Art designs in beeswax, 1 to 3 items of molded or sculptured beeswax. \$20 \$15 \$10 \$5
  - 16 Beeswax Candles, six candles that are either molded or dipped. Minimum length of 10 inches. \$10 \$8 \$6 \$4

## Group Competition

Any Missouri local beekeeping association may exhibit in any one or all classes listed below. All entries will be governed by the same rules as apply to individual competition. However, premium money will be paid to the local beekeeping association responsible for the entry, and ribbons will be awarded to the individual preparing the entry. Only one entry per class per individual will be permitted, however, other individuals may enter the same class from the same local association. A Grand Champion Ribbon and \$25 will be awarded to the association winning the largest amount of premium money. In the event of a tie the Grand Champion Ribbon and money will be awarded to the association that has won the most blue ribbons. Further ties will be broken by proceeding to the next lower ribbon until a winner is determined.

NOTE: Entries under group competition will not be competing against individual entries.

## Division C

## HONEY, GROUP COMPETITION

- Amount offered in this Division by State Fair ..... \$348.00

## Class

- 17 Store display for retail outlets of a permanent nature. May be displayed as a table or floor display occupying approximately nine square feet of surface area. It may include comb and extracted honey, posters, flowers, and any other items that add aesthetic appeal to the display. This class will be judged on

attractiveness, quality of product, arrangement and appeal to customers, and should be a display from which honey would be sold.

- 18 Display of light extracted honey in standard honey jars, assorted sizes, 25 to 50 pounds. \$25 \$20 \$15 \$12 \$10 \$8
- 19 Cut comb honey in plastic boxes, all sides visible. Six packages of approximately one pound. \$12 \$10 \$9 \$8 \$7 \$6
- 20 Round or square section comb honey, six packages, with top and bottom of comb visible. \$12 \$10 \$9 \$8
- 21 Light bulk comb honey, six 2 or 2 1/2 pound jars \$8 \$7 \$6 \$5
- 22 Light extracted honey, six 1 pound jars \$10 \$8 \$6 \$5 \$4 \$3 \$2 \$1
- 23 Dark extracted honey, six 1 pound jars \$10 \$8 \$6 \$5 \$4 \$3

## Division D

## HONEY COOKERY

- Amount offered in this Division by State Fair ..... \$302.00

Special: A Champion Ribbon and \$25 will be awarded to the outstanding exhibitor in the Honey Cookery Division and will be decided on total ribbon points; 4 points for 1st, 3 points for 2nd, 2 points for 3rd, and 1 point for 4th. In case of a tie, the exhibitor with the most total points on the score cards will be the winner.

Note: The score card used in judging the Foods exhibits will be used in judging honey cookery and awards decided on total points. The recipes will receive consideration. They must be attached and correct. Preference will be given exhibits containing the least sugar, other things being equal.

## Class

- 24 General display of uses of honey in preparation of bread, pastries, candies, also canning. (No open liquids.) Recipes attached. \$20 \$15 \$12 \$8
- 25 Honey Fruit Cake, recipe attached \$12 \$10 \$8 \$6
- 26 Light Honey Cake, recipe attached \$10 \$9 \$6 \$4
- 27 Dark Honey Cake, recipe attached \$10 \$8 \$6 \$4
- 28 Box of Assorted Honey Cookies, 1 pound (six kinds). Recipes attached. \$10 \$8 \$6 \$4
- 29 Box of Assorted Honey Candies, 1 pound (six kinds). Recipes attached. \$15 \$12 \$10 \$8
- 30 Loaf of Honey Whole Wheat Bread, recipe attached. \$10 \$8 \$6 \$4
- 31 Loaf of Honey Quick Bread, recipe attached. \$10 \$8 \$6 \$4

## SCORE SHEET FOR JUDGING APIARY PRODUCTS

## EXTRACTED HONEY

(Classes 3, 8, 9, 18, 22, 23)

- |                      |                 |           |
|----------------------|-----------------|-----------|
| 1. Degree of Density | 0 or Disqualify | 20 points |
| Above 18.6% moisture | 10              |           |
| 18-18.6              | 15              |           |
| 17-18                | 10              |           |
| 16-17                | 20              |           |
| 15-16                | 15              |           |
| below 15             | 10              |           |

## AGRICULTURE/APICULTURE

1.	Freedom from crystalline and freedom from foam	10 points
2.	Degree of cleanliness (clarity)	20 points
3.	Cleanliness and neatness of containers	10 points
4.	Flavor and aroma	20 points
5.	a. Absence of: Off-flavor, overheating, and fermentation	
6.	Color	10 points
7.	Appearance and suitability of containers	5 points
8.	Accuracy and uniformity of volume	5 points
9.	Total points possible	100 points

**CUT COMB HONEY AND BULK HONEY FRAME**

(Classes 4, 5, 10, 11, 19, 20)

1.	Uniformity of appearance	20 points
2.	Absence of uncapped cells	10 points
3.	Uniformity of color	15 points
4.	Absence of watery cappings	10 points
5.	Cleanliness of section and frame (freedom from stain)	15 points
6.	Freedom from granulation and pollen	5 points
7.	Uniformity of weight	15 points
8.	Uniformity of entry	10 points
9.	Total weight of entry	100 points
10.	Total points possible	

**BULK COMB HONEY**

(Classes 6, 7, 21)

1.	Neatness of cut	15 points
2.	Ragged edges, parallel cuts, four-sided cut, and uniformity of size of cut	
3.	Absence of watery cappings, uncapped cells, and pollen cells	15 points
4.	Cleanliness of product	20 points
5.	a. No travel stain, specks of foreign matter, flakes of wax, foam and crystallization	
6.	Uniformity of appearance	25 points
7.	Density, flavor and appearance of liquid part	20 points
8.	A. Density determined as #1 under extracted honey	
9.	Uniformity of volume	5 points
10.	Total points possible	100 points

**CANDIED HONEY**

(Class 12)

1.	Appearance, suitability, and uniformity of containers	10 points
2.	Color	15 points
3.	Crystallization (texture - smooth and fine)	20 points
4.	Firmness of set (not runny but spreadable)	20 points
5.	Absence of impurities, including froth, no blemishes	10 points
6.	Flavor and aroma	20 points
7.	Uniformity of volume	5 points
8.	Total points possible	100 points

**BEE SWAX**

(Class 13)

1.	Color, between straw and canary yellow (undamaged by propolis, iron stain, etc.)	30 points
2.	Cleanliness, freedom from surface dirt, honey and impurities	25 points
3.	Freedom from cracking, shrinkage and marks	15 points
4.	Aroma	15 points
5.	Texture (grain)	15 points
6.	Total points possible	100 points

**BEEES IN OBSERVATION HIVE**

(Class 14)

1.	Bees, uniform color, size and correct type	15 points
2.	Queen: age, size, shape, behavior and marking	20 points
3.	Brood: compact pattern, show all stages	20 points
4.	Variety: presence of queen, workers, drones, brood honey, pollen, etc.	15 points
5.	Cleanliness and suitability of the comb	10 points
6.	Appearance cleanliness and suitability of observation hive	10 points
7.	Correct number of bees for interest and ease of observation	10 points
8.	Total points possible	100 points

**STORE DISPLAY**

(Classes 2 and 17)

1.	Attractiveness (pleasing and eye-catching)	20 points
2.	Quality and variety of products in the display	40 points
3.	Originality of arrangement	20 points
4.	Sales appeal; display from which honey is sold	20 points
5.	Total points possible	100 points

**ART DESIGN IN BEE SWAX**

(Class 15)

1.	Color between straw and canary yellow	25 points
2.	Cleanliness (free from honey and impurities)	25 points
3.	Novelty of mold or sculpture	25 points
4.	Neatness of workmanship	25 points
5.	Total points possible	100 points

**BEE SWAX CANDLES**

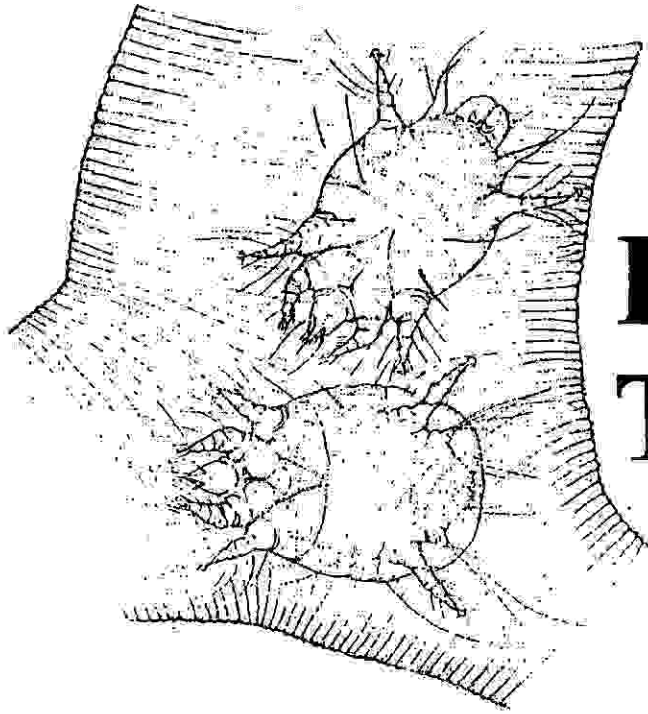
(Class 16)

1.	Color between straw and canary yellow	25 points
2.	Cleanliness (free from honey and impurities)	25 points
3.	Freedom from cracking, shrinking and marks	25 points
4.	Neatness of workmanship	25 points
5.	Total points possible	100 points

**CLASSIFIED ADS**

Wanted: part-time employee to extract and package honey. Must live near Columbia, Mo. Please write: Gibbons' Bee Farm, 561 S. Hwy. O, Rochepore, Mo. 65279





# Honey Bee Tracheal Mite

Figure 1. - Male and female tracheal mite within the adult honey bee trachea.

The honey bee tracheal mite, *Acarapis woodi* (Rennie) is an internal parasite that infests the respiratory system of adult honey bees. This mite is responsible for causing acarine disease or acariosis. The western honey bee (*Apis mellifera*), the Africanized honey bee (*Apis mellifera scutellata*), and the eastern honey bee (*Apis cerana*) are the only known hosts of this pest. Drones, workers, and queens may be infected.

## Geographical Distribution

This mite was first reported in 1921 on the Isle of Wight in the English Channel and was originally believed to be the cause of Isle of Wight disease which caused heavy losses in hives. The Honey Bee Act of 1922 was enacted by Congress primarily to prevent importing live honey bees infested with the mite into the United States.

Before 1980, the mite was never found in North America. In 1980, however, the mite was isolated from adult honey bees in Mexico, about 200 miles from the United States border. From 1980-82, the USDA Bioenvironmental Bee Laboratory at Beltsville, Maryland, in cooperation with the Animal and Plant Health Inspection Service (APHIS), conducted a survey of apiaries in the United States for mites of honey bees. The tracheal mite was not found in bee samples collected from 4,400 apiaries.

The honey bee tracheal mite was first detected in the United States on July 3, 1984, in a commercial beekeeping operation in Weslaco, Texas. Tracheal mites are now widely distributed throughout the United States. The rapid

spread of the mite in North America can be traced through the movement of migratory beekeepers, sale of queens, packages, and nucleus colonies (nucs). Within the first 13 months of discovery, the mite was found in 17 states, which illustrates the mobility of beekeeping in the United States.

## Description

Both female and male mites are whitish in color and microscopic in size. Females are .004-.007 inches (143-174 microns in length and 77-81 microns in width) and males .003-.005 inches (125-136 microns in length and 60-77 microns in width). The body is oval, widest between the second and third pairs of legs, with a shining smooth cuticle. A few long fine hairs are present on the body and legs. It has elongate, beaklike mouthparts for active feeding on the host.

## General Biology and Life Cycle

The entire mite life cycle is spent within the trachea or breathing tubes in the thorax of adult honey bees except for brief migratory periods. Mites are also occasionally found in air sacs in the thorax and abdomen. Within the trachea, the mite reproduces and feeds. Mites penetrate the breathing tubes with their mouthparts and feed on blood. Normal thoracic tracheae are clear, colorless, or pale amber in color. Infested tracheae deteriorate progressively and show patchy discoloration. In a slight infestation, one or both tracheal tubes contain a few adult mites



and eggs which can be detected near the spiracular openings (breathing pores). At this stage, the tracheae may appear clear, cloudy, or slightly discolored. The tracheae of severely infested bees have brown blotches, with brown scabs or crustlike lesions, or they may appear completely black, and are obstructed by numerous mites in different stages of development, as well as mite debris. Trachea that are normally elastic and flexible become stiff and brittle. Discoloration and atrophy of flight muscles may also occur. As a result of mite feeding, the blood of infested bees has a higher than normal bacterial count.

Within 24 hours after worker bees emerge from their cells, female mites migrate into their trachea by passing through the first thoracic spiracle and remain there for life's duration or until their host dies. Each female mite lays 5 to 7 eggs within 3 or 4 days after entering the trachea and continues to lay eggs throughout her life. The eggs require 3 to 4 days to hatch. The life cycle consists of an egg, larva, resting stage, and adult male or female. The males are mature after 11 to 12 days and the females on the 14th or 15th day. All stages of the mite may be found in older bees. The highest number of mites per bee is attained in bees 11-12 days old, and the mite population declines in bees more than 21 days old.

Mites are spread within the colony as a result of bee-to-bee contact. Mated female mites leave the breathing tubes where they developed and climb to the tip of a body hair. As bees come in contact with one another, the mites attach themselves to the hairs of a passing bee and enter the tracheae through the thoracic spiracles. If the mite does not locate a new host within 24 hours, it will die. Mites leave the tracheae after the death of the bee. Drifting bees between hives and swarms from infested colonies are ways that the mite can be spread within the apiary and between apiaries.

### Host Susceptibility to the Mite

Large variations in susceptibility to infestation among U. S. bee stocks have been found. Worker bees become rapidly less susceptible to infestation as they age, and bees more than 9 days old rarely become infested. Gravid female mites (females with mature eggs) migrate preferentially to young bees less than 4 days old, and newly emerged bees, less than 24 hours old, are especially attractive. Queen honey bees also exhibit a rapid decline in susceptibility to mite infestation with increasing age.

### Economic Damage

Acarine disease can persist in a colony for years causing little damage, but combined with other diseases, unfavorable conditions, scarcity of pollen and/or a poor foraging season, the disease can contribute to the death of a colony. Heavy mite infestations are most likely after seasons of poor honey yields and in situations when brood rearing is suppressed during the summer.

The foraging activity of worker honey bees at the hive entrance has been measured and used to study the effects of infestation by tracheal mites. No significant differences were found between infested and noninfested bees for the number of foraging trips, frequency of foraging trips, round trip times, frequency of pollen collection, or time between foraging trips. Nectar loads collected by forager honey bees infested with mites were compared with loads collected by noninfested foragers. The difference in mean honey sac volumes was not significant. Survival of worker bees as a function of mite infestation was determined by comparing, during a 6-week period, the ratio of infested to noninfested bees in subpopulations that were aged in common colonies. Stable infestation ratios throughout the experiment indicated no significant reduction in survival because of infestation. These results strongly indicate that mite infestations do not have a detectable economic effect on colonies when brood rearing is active and honey production is underway.

When the infestation is light or in its early stages, the bees behave as if not adversely affected. Infestation levels tend to decline in colonies when they are actively foraging. Colonies rarely show signs of infestation in summer or fall. Even the relatively few colonies with a large population of infested individuals in spring contain very few infested bees after a good season. The old infested bees from which mites are migrating are busy foraging during a nectar flow, so they become separated from the young susceptible bees and prevent most migrating mites from finding suitable new hosts.

Acarine disease shortens the lives of adult bees, affects flight efficiency, and causes a large number of crawling bees that are unable to fly. In extreme cases, colony populations often dwindle and, ultimately, the colony dies. Infested colonies may not develop normally and may exhibit symptoms of dysentery and exhibit an excessive swarming tendency. Often, however, severely infested colonies appear normal until their death during the winter. Colonies are most affected during winter confinement and early spring as with other stress diseases. Mite infestations are at a maximum in the early spring when the population is comprised of primarily older bees. Only old and heavily infested honey bees are killed by the mite. Whole colonies that have more than 30 percent of the individuals infested are often destroyed during late winter.



## Diagnosis

Detection of a tracheal mite infestation is difficult since there are no obvious outward signs of the disease. Accurate diagnosis can be done only by examination of the tracheae for the presence of the mites, which requires a delicate dissection and magnification of 100-250 times.

## Control

Many chemicals have been developed and tested for the control of tracheal mites in Europe. To date, only menthol crystals are currently approved in the United States.

Menthol is a crystalline alcohol obtained from oil of peppermint that is commonly used for odor and cooling properties in items such as candies, cigarettes, and shaving creams. Menthol crystals start to evaporate at about 70 °F and will melt to a liquid at 102-105 °F. The vapors are heavier than air, and the best evaporation rate for menthol is between 80 and 85 °F.

Menthol crystals were first approved in the United States for the control of tracheal mites in January 1989. The effectiveness of menthol treatments depends on temperature, formulation (crystals or pellets), dosage, colony size, condition of equipment, position within the hive, and exposure time. Crystals are normally placed in 7-inch square plastic screen packets, with the mesh size small enough to keep the crystals inside. Each packet should contain 50 grams (1.8 ounces) of crystals. A rounded one-third measuring cup is very close to the 1.8 ounce amount. When daily temperatures are 60 °F or less, these packets should be placed on the top bars. If the temperature reaches 80 °F, the packets should be on the bottom board. Placement of the packets on the top bars when it is too warm outside may drive the bees out of the hive.

Menthol is a fumigant and must change from a solid crystal state to a gas to be effective. Replace the packets with fresh packets as needed to maintain menthol in the hive. Do not use menthol during surplus honey flow periods. Remove packets at least 1 month before the beginning of a surplus honey flow to prevent contamination of marketable honey. Ten to twelve weeks after the initial treatment, remove all menthol packets from the hive. The use of menthol in a manner not described above, or in areas where there is not a break in the brood-rearing cycle, may result in reduced honey production or other adverse effects.

## Warning

Beekeepers should briefly vent treated hives before working the bees. As with all pesticides, it is a violation of Federal and State laws to use menthol in a manner that is inconsistent with the label. A copy of the label must be in the possession of the beekeeper at the time the menthol is applied. Menthol used improperly can be hazardous to humans and domestic animals. It causes irreversible eye damage. It is harmful or fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles and chemical-resistant gloves. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**If swallowed:** call a physician or Poison Control Center immediately. Do not give anything by mouth or induce vomiting to an unconscious person.

**If inhaled:** remove victim to fresh air. Apply artificial respiration if needed.

**If on skin:** remove contaminated clothing and wash affected area with soap and water. Get medical attention if irritation persists.

**If in eyes:** flush eyes with plenty of water for 15 minutes. Call a physician immediately.

Prepared by Clarence H. Collison, Head and Professor of Entomology  
Illustration by Chris Jung, The Pennsylvania State University

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Publication 1753

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(1M-3-91)

# MISSOURI STATE BEEKEEPER ASSOCIATION

## FINANCIAL REPORT

Cash in Bank--10-17-90 \$ 839.20

### Income:

Dues	\$ 973.00
Interest	16.08
Cook Book Sales	85.00
Fall Meeting Meals	586.63
Fall Meeting Raffle	200.00
Spring Meeting Meals	1075.00
Subscription	<u>29.19</u>

Total Income \$ 2964.90

### Expenses:

State Meeting--Springfield	1045.33
Newsletter	373.12
Honey Promotion	332.86
Postage	37.95
Phone Calls	14.48
Booth--Ozark Empire Fair	240.00
Bank Service Charge	36.00
Subscription	<u>29.19</u>

Total Expenses \$ 2108.93

Cash in Bank--4-23-91 \$ 1695.17

### ASSETS:

Checking account	\$ 1695.17
Fair Merchandise	<u>229.79</u>

TOTAL ASSETS \$ 1924.96

## ADVERTISING INFORMATION

MSBA is published 4 times per year, with an average mailing of 460 newsletters.

Advertising requests should be sent to:

**WILLIAM RANDALL**  
Rt. 1, Box 32  
AUXVASSE, MO 65231

Deadlines for Advertising:	
DEADLINE	PUBLICATION
February 15	March 1
June 1	June 15
September 1	September 15
December 1	December 15

### ADVERTISING RATE

Business ads per issue:

Business Card size	\$ 7.50
Quarter page	25.00
Half page	40.00
Full page	75.00

Classified ads, per 30 words:

MSBA member	\$2.00
Non-member	3.00

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### CHANGE OF ADDRESS

If you are moving or receiving more than one copy  
of MSBA newsletter, please let me know immediately.

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
STATE \_\_\_\_\_ ZIP \_\_\_\_\_

Send changes to: Sharon Gibbons, 314 Quinnmoor Dr., Ballwin, Mo. 63011.

We no longer can afford to send out returned newsletters by 1st. class mail. The cost to reissue a newsletter that is returned for incorrect address is \$.95.

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### 1991 MEMBERSHIP DUES

**Notice to Local Beekeeping Clubs:** if any of your members have not paid 1991 dues, their name has been removed from the mailing list. We have had a change in Treasurers, so if a mistake has been made, please contact Sharon or Craig Oliver. The dues have increased to \$5.00 for the year. Please send dues and information to: Craig Oliver, 210 W. 7th., Fulton, Mo. 65251

### 1991 MSBA OFFICERS

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## TO MEMBERS:

We are interested in each and everyone of our members. Although we cannot give each one the individual attention we would like, we try to make your membership meaningful and trust that it adds zest, pleasure and profit to your beekeeping endeavor. You may not even have bees, but your interest in bees and what the bees contribute to our nations economy will lead to prosperity for all.

If you have a few minutes, I would appreciate having a few lines from you, and you may be sure that it will make the job of editor more pleasurable. If you know of any beekeeper who does not belong to Missouri State Beekeepers Assn., please pass this newsletter on to them and encourage them to join.

Dues are \$5.00 per year. Make check payable to Missouri State Beekeepers Assn. If you belong to a local association, pay your dues through local treasurer.

ENCLOSED IS \$\_\_\_\_\_for\_\_\_\_\_YEARS OF MEMBERSHIP.

NAME:\_\_\_\_\_

ADDRESS\_\_\_\_\_

CITY\_\_\_\_\_STATE\_\_\_\_\_ZIP\_\_\_\_\_

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