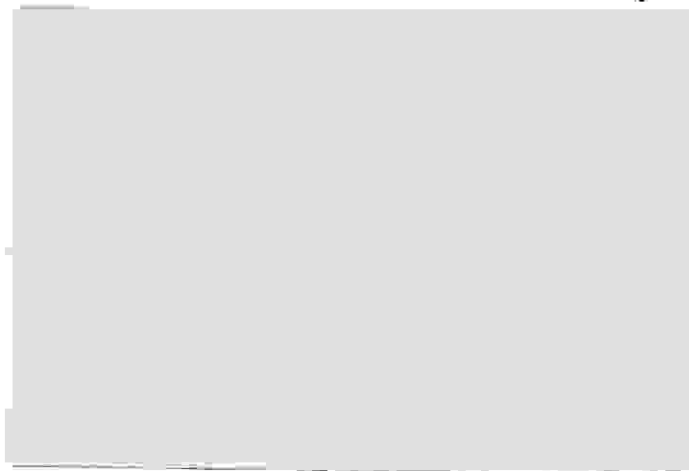


# MISSOURI STATE BEEKEEPERS ASSOCIATION

1407 Sneak Road  
Foristell, MO 63348



March 2001



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## COMING EVENTS

Aug. 9-19	State Fair	Art Gelder	Sedalia
Oct. 5 & 6	Fall Meeting	Larry Hensley	Lake of the Ozarks
Dec.	Govenor Ag Dinner	Art Gelder	Tan Tar A
Mar. 8 & 9 '02	Spring Meeting	Larry Hensley	Keokuk, IA

# Missouri State Beekeepers Association March 2001

## Message From the President

I wish to thank everyone who worked at the spring meeting this year. We couldn't have pulled it off without you. Thanks to all of you who attended the meeting, too. Without you it wouldn't have been so much fun. For those of you who didn't attend or help, boy, you missed out. The MSBA Auxiliary and MSBA sponsored a Kids 'n' Bees Expo, with assistance of Kim Lehman from Austin, Texas. This was our first time for this program and what a success! We had expected around 200 to visit the expo which was scheduled from 1 to 3 p.m. We had over 350! This is a new educational program we are starting for kids, and plan to take this around the state with our spring meetings. Let us know of any facilities in your area which might be suitable.

Mr. Paul Jackson, Chief Apiary Inspector, from Austin, Texas, gave interesting talks about Africanized bees and the history of the smoker. His smoker display was wonderful. The workshops with Joli and Cecil from Mid-Con and Harold Sumner and Steve Gill from the Missouri Department of Weights and Measures were well attended and very informative. All in all, I think the spring meeting was a success.

As some of you know, at the fall meeting last year we had a survey for the members to complete. We received 27 surveys back and have repeated it this spring again and received back 10 more. There were a lot of good suggestions. One of the suggestions from several people was to rotate the meetings around the state. At the January executive meeting the executive board did vote to rotate the spring meetings and have them on the 2<sup>nd</sup> Saturday of March. The fall meetings will be held in the center of the state at the Lake of the Ozarks on the 4<sup>th</sup> Friday and Saturday of October. With the success of the Kids 'n' Bees Expo will move that around the state with spring meetings and hopefully utilize the different Missouri Department of Conservation centers for this. There were many other great sug-

gestions and hopefully, we will be able to integrate these into our association and meetings.

I have heard reports throughout the state of high bee losses. Some of these losses are up to 2/3 to 3/4 of their hives. One person stated he has lost all 80 of his hives. The speculation for causes ranges from Apistan resistance to starving because of the prolonged cold weather and the bees not moving to the stored honey. This is very disturbing, but I hope these beekeepers don't give up or give in and quit. As all of us know, beekeeping is a gamble like most agricultural endeavors. But beekeeping is still one of the sweetest jobs around.



**SPECIAL WELCOME!** I wish to acknowledge a new beekeeping association in the state of Missouri. Parkland Beekeepers Association in the Farmington Area was formed this past year. The PBA came to be through the hard work of Jim Buxton and Mary Reed, with the help of the Jefferson County Beekeeper Association. As president of the MSBA, I want to extend a warm welcome to the Parkland Beekeepers and thank the Jefferson County Beekeepers for their hard work and guidance.

Let's get out there and get sticky.

*Art*

## MISSOURI STATE FAIR

Submit your bid sheets to Art  
Gelder  
ASAP

## Honey of a Verse

Happiness is like honey - you can pass it around,  
but some of it will stick to you.

Quick Quip

## For Your Funny Bone

Two experienced beekeeper's Sam and Tom were chatting about "what else beekeeping". When they were interrupted by a young man holding a frame of honey. He explained to them that he was a beginning beekeeper. The young man went into great detail about how well he has been trying to take care of his hives. I have a question he said "I just do not know what I'm doing wrong. This is my first



honey flow, and just look at this honey. This is the worst honey I have ever seen." The young man showed the frame of honey to the two beekeepers. Every cell was capped on both sides.

Sam and Tom examine the frame closely. They looked at each other trying to hide a chuckle. Sam handed the frame back to the young man and said "Son, your doing a fine job, but this is not honey, its your brood."

## Directors Digest

In the Kansas City area, the honey sales have been up a little bit. The winter kill on the honey bees has been a disaster. We have had some beekeepers report 50% loss and some report 100% loss. I took one load of bees to Texas for the winter and had less that 20% loss. The first week of February I went down and fed the bees and the were bringing in pollen and starting to produce brood, but they still aren't as strong as they usually are that time of year down there. I will try to make splits in Texas to replace the 50% loss that I have had in my hives in Missouri. As I have retired from my 40 hour a week job I thought I would be way ahead of the game in my beekeeping work, but I have had to spend a LOT of time cleaning up the hives left by my dearly departed bees of this terrible winter. I have just about got that job done and now I have to get ready to go back to Texas to start queen cells for the splits. Here's hoping that you have a wonderful spring and if you are also having some bee loss that

you can get them built back up to have a great crop this year.

**Glenn**

Director, NE area  
Belhill@rigger.cosimo.net

Any beekeeper having questions should contact the director of their area. They each will be writing an article. The schedule is:

March - Glenn Davis - NE MO

June - Ted Jansen - SE MO - 636-532-3372

Sept. - Dr. Richard Houseman - SW MO

Dec. - Ian Brown - NE MO

## Special Announcements

- The treasurer announces that nearly 100 members are behind in their dues, please send in your dues ASAP.
- Due to personal health problems and several close family members with serious health problems, the Newsletter Editor is reluctantly submitting her resignation. Pam has enjoyed the job, however, cannot keep up with the demand. If you will assume this position, please contact our president, Art.
- We are still searching for a someone to assume the responsibility as "Marketing Specialist". Contact Art.
- If you will work at the State Fair, please contact Chris Gibbons.
- Fall '01 meeting will feature Dr. Marion Ellis!
- Spring '02 meeting will be a tri-state meeting in Keokuk, IA, March 8 & 9.

## For Our Health

### **A Honey of an Energy Lift**

By Michael Axley  
HealthScout Reporter

TUESDAY, May 2 (HealthScout) -- If you're exercising hard and gulping sports "nutrition" gels to keep from getting tired, you may be better off with nature's own energizer -- honey.

If you eat honey less than an hour before you exercise, you may not wind up as exhausted as you would be if you took other simple sugars or supplements, says a new study.

Consider Kathrine Switzer, who regularly uses honey when she races. She is program director of the Avon Running Global Women's Circuit, has run 35 marathons and in 1974 won the New York City Marathon.

"I'm a honey user anyway and have [been] for years," she says. "A substance that's been around for thousands of years can't be all wrong." As a supplement, says Switzer, honey is versatile and seems to work better than other supplements with high sugar contents.

"It has the potential to be a good energy source," says Conrad Earnest, vice president of human sciences at IMAGINutrition, of Aptos, Calif. "It is not going to blunt or hamper" an athlete's performance.

Researchers at IMAGINutrition co-wrote the paper, which examines the effect of carbohydrate gels, compared to honey, on blood sugar -- glucose -- and insulin. Some people in the study took gels containing one of the following sugars: fructose, dextrose, sucrose, maltodextrin or honey. Others ate the commercially available product, PowerGel, or just took a placebo. Blood tests were taken at intervals for up to an hour after the substances were eaten.

Not everyone was sold on honey as a solution for exercise fatigue.

"At best it's a preliminary study," said Donald K. Layman, a professor of nutrition at the University of Illinois at Urbana-Champaign. "I don't think we can jump to it being some sort of miracle. That would be premature."

The study indicates that glucose, the body's main food source, is released more slowly into the blood after honey consumption. Slow release of glucose is a plus, said Earnest, because when glucose is released too rapidly the body increases its production of insulin.

Insulin, in turn, causes a "rebound hypoglycemia," actually decreasing the amount of glucose in the blood over the long haul. It also causes muscles to use their internal stores of energy, called glycogen, faster.

The study, presented recently at the annual Experimental Biology meetings in San Francisco, was sponsored in part by the National Honey Board.

"It's not like the energy you get from a cup of coffee, where you feel more awake or more active," said Earnest. "It's about when push comes to shove and you have to go longer and work harder than the guy next to you."



Layman, however, stressed that honey may have some features that call into question its ability to provide a long-term lift. Honey, he said, contains one molecule of fructose and one molecule of glucose. This is why honey tastes sweeter than sugar; fructose is sweeter than glucose. But fructose is not as readily available to the muscles. "Fructose is not metabolized like glucose," said Layman. "It doesn't stimulate insulin. Likewise, it's probably not much of an energy source." Switzer disagrees. "It's an instant energy source and it's something I like to take

because I don't get an artificial sugar rush."

### What To Do

For those with no dietary constraints, there is no downside to eating honey before exercise. However, it should not be substituted for meals or depended on as a primary source of energy during endurance training.

Forwarded by Sharon Gibbons,  
Eastern Missouri Beekeeper

## Honey in Oriental Cooking

### Spring Chicken Rolls - makes 18

18 spring roll wrappers - each 1.25 cm square

1 T corn flour blended with 1 T water

Vegetable oil for deep frying

### Filling

375 g lean chicken mince

2 green onions chopped

1 clove garlic, crushed

3 T honey

2 T soy sauce

1 T hoisin sauce

### Method

1. To make filling, combine chicken, onions, garlic, honey and soy and hoisin sauces in a bowl.
2. Brush edge of each wrapper with a little cornflour paste. Place 2 tablespoons of filling along one edge. Fold in sides and roll up.
3. Heat oil in a wok over a medium heat until a cube of bread dropped in browns in 50 seconds.
4. Cook spring rolls, in batches, for 3-5 minutes or until golden and filling is cooked. Drain on absorbent kitchen paper. Serving suggestion: These spring rolls are delicious served with plum or sweet chili sauce for

dipping.

Cook's tip: When working with spring roll wrappers, place them under a damp tea towel so that they do not dry out.

### Chinese Leeks with Honey Mustard

3 T olive oil

3 c Chinese leeks, cut into 1/2" slices

1/3 c honey mustard salad dressing

In a wok or frying pan, heat olive oil until hot. Add Chinese leeks, stirring often. Cook until tender. Toss with salad dressing or chill until serving time.

### Hoisin Dipping Sauce

2 T hoisin sauce

2 T catsup

1 t rice vinegar

1 t honey

1 t soy sauce

Combine the ingredients in a small bowl and mix well. Refrigerate until ready to serve

### Lo Mein - serves 4

3 dried Chinese mushrooms

1/2 pound Chinese noodles

3 T peanut oil

1 onion - chopped

2 c shredded cabbage

1 small zucchini - in 1/2" cubes

3 T light soy sauce

1/2 c reserved mushroom soaking liquid

1 t honey

1/2 t salt

Soak the Chinese mushrooms in 1 c of hot water for 30 minutes. Meanwhile, bring 4 qts. of water to boil in a large pot. Stir in the noodles and cook 3 minutes, just until tender. Drain, rinse in cold water, and toss with 1 tablespoon of peanut oil. Set aside. Remove the mushrooms, but strain and reserve 1/2 cup of the soaking liquid. Trim and discard the mushroom stems. Coarsely chop the caps and set aside. Combine the ingredients for the sauce in a small bowl. Stir to dissolve

the sugar and set aside.

Place a wok over medium-high heat. When it begins to smoke, add the mushrooms, onion, cabbage, and zucchini. Stir-fry for 2 minutes. Pour sauce over the vegetables. Add the reserved noodles and stir until heated through, about 3 minutes. Serve immediately.

### **Stir-Fried Broccoli and Chinese Mushrooms - serves 4**

6 dried Chinese mushrooms  
1 bunch fresh broccoli  
1/2 c mushroom soaking liquid  
2 T light soy sauce  
1 T rice wine or dry sherry  
1 t honey  
3 T peanut oil  
1 T cornstarch

Soak the Chinese mushrooms in 2 cups of hot water for 30 minutes. Strain and reserve 1/2 cup of the soaking liquid for the sauce. Trim and discard the mushroom stems, and cut the caps in half. Set aside. Rinse the broccoli and cut the tops into florets. Peel the stems and diagonally cut them in 1/2-inch slices. Mix the ingredients for the sauce in a small bowl, stirring to dissolve the sugar.

Place a wok over medium-high heat. When it is almost smoking, add the peanut oil. When the oil begins to smoke, add the broccoli and the mushrooms. Stir-fry 2 minutes, then pour in the sauce and bring to a boil. Cook 1 minute. While the vegetables are cooking, dissolve the cornstarch in 2 tablespoons of cold water. Pour into the wok and stir constantly until the sauce thickens, about 30 seconds. Serve immediately.

### **Tofu, Cashews, and Vegetables**

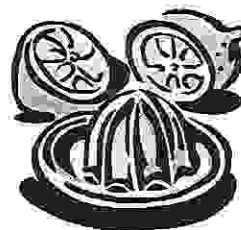
1 T light soy sauce  
1 T water  
1/2 t cornstarch  
2 t honey  
1 t hot bean sauce

2 t sweet bean sauce  
3 T peanut oil  
1 carrot - in 1/2" cubes  
1 zucchini - in 1/2" cubes  
2 1/2 oz. bamboo shoots - in 1/2" cubes  
8 oz. tofu - in 1/2" cubes  
1/2 c frozen green peas  
1/2 c roasted unsalted cashews

Combine the ingredients for the sauce in a small bowl. Stir to dissolve the sugar and cornstarch and set aside. Place a wok over medium-high heat. When it begins to smoke, add the peanut oil, then the carrot. Stir-fry 30 seconds. Add the zucchini, bamboo shoots, tofu, and peas; stir-fry 30 seconds. Stir in the cashews. Pour in the sauce and stir until it thickens, about 1 minute. Serve immediately. Serves 4 to 6.

### **Honey - Walnut Prawns - 4 servings**

1/2 c walnuts  
5 c water  
1 c sugar  
2 c oil  
16 med Prawns, peeled and cleaned  
1/2 c cornstarch  
1/2 c egg whites  
2 T honey  
3 T mayonnaise  
1 T fresh lemon juice  
1/2 T condensed milk  
1/2 c oil



Here's a goody. Rinse walnuts, then boil in 5 cups water, continually changing water until clear. When clear, boil with sugar until sugar dissolves. Heat 2 cups oil until almost smoking, then deep-fry walnuts until they're shiny and brown, no longer golden. Remove walnuts to cookie sheet, let cool. Mix cornstarch and egg whites together to form a thick, sticky texture and mix well with prawns. Set aside. Mix honey, mayonnaise, lemon juice and condensed milk in a medium bowl until smooth. Heat oil until boiling, then deep fry prawns until golden brown. Drain, then fold in honey-mayonnaise mixture. mix well, sprinkle with



walnuts, and arrange on platter.

### Chinese Beef Jerky

3 lbs. Flank steak - or London broil

Marinade:

1/2 c light soy sauce  
4 1/2 T honey  
4 1/2 T dry sherry  
6 lg garlic cloves - minced  
1 1/2 T ginger - fresh, minced  
1 1/2 T Sesame oil  
1 1/2 T Red pepper - crushed  
Dash freshly ground white pepper

Cut meat in half lengthwise and slice diagonally crosswise into paper-thin strips 1-1/2 to 2" wide and 4" long. Transfer to shallow pan. Combine marinade ingredients and rub thoroughly into meat. Arrange meat on racks and let dry at cool room temperature overnight (do not refrigerate). Preheat oven to 250 F. Line two large baking sheets with foil and set wire rack(s) on top of each. Arrange meat on racks in single layer. Bake 30 minutes. Reduce heat to 175 F and continue drying meat another 40 minutes (meat should be lightly browned but not burned). Let meat continue to dry on racks at cool room temperature overnight before packing into jars. Dried meat can be brushed lightly with sesame oil for additional flavour and shine. Makes 36 pieces or 10 buffet servings.

Bon Appetit, June, 1981

### Garlic Chicken

3-1/2 lb. frying chicken, cut into serving pieces, or the equivalent in chicken parts  
3 T peanut oil  
1 head garlic, peeled and coarsely chopped  
2 small dried hot red peppers  
3/4 C distilled white vinegar  
1/4 C soy sauce  
3 T honey

Heat oil in large heavy skillet and brown chicken well on all sides, adding garlic and peppers toward the end. Add remaining ingredients

and cook over medium high heat until chicken is done and sauce has reduced somewhat, this will not take long, less than 10 minutes. If cooking both dark and white meat, remove white meat first so it doesn't dry out. Watch carefully so sauce doesn't burn or boil away. There should be enough sauce left to serve with the chicken, and the chicken should appear slightly glazed. (Remove chicken to platter, then reduce sauce if necessary.)

### Lemon Chicken

2-3 chicken breasts (or 5-6 half breasts)

Marinade:

Approx. 1/8 - 1/4 t orange oil  
Approx. 1/4 - 1/2 t lemon oil sauce  
8 T lemon juice  
6 T Sherry / Chinese Cooking Wine  
3 T honey  
2 thick slices fresh ginger

Breading:

1/2 c corn starch or Cornflakes



Notes: Orange and Lemon oils should not be in prolonged contact with plastic utensils or bowls. The capfuls in question are from bottles approximately the size of the usual small extract bottles. Rub one small capful (approx. 1/4 to 1/2 t) of lemon oil and 1/2 small capful (approx. 1/8 to 1/4 t) of orange oil onto the chicken. Let sit for 10-20 minutes.

Method I: Frying In a large skillet, heat peanut oil sufficient to fry the chicken. When the oil is very hot, add the two ginger slices to the oil. Coat the chicken breasts with corn starch. Add the coated chicken breasts to the oil, and fry until crispy, golden brown. Remove and drain the breasts. Pour off all but 2 T of the peanut oil, and put the pan back over low heat. Add the remaining ingredients, and simmer for 5 minutes. While the sauce is simmering, cut the chicken breasts into slices. Then add the chicken slices to the sauce, spooning the sauce over the chicken, and remove from heat.

**Method II: Baked** Put the Cornflakes in a plastic bag, and crush them into as fine a mixture as you can. Put the chicken in the bag, and shake well, then place the chicken pieces in a baking plate and put them in an oven at 350 degrees until cooked. Construct the sauce by heating the liquid ingredients in a sauce pan and then pouring over the cooked chicken, optionally you may cook in ginger to taste.

### **Asian-style Honey Vegetable Stir Fry**

1/4 c honey  
1/4 c prepared stir fry sauce  
1/4 -1/2 t. crushed red pepper flakes  
4 t. peanut or vegetable oil  
2 c small broccoli florets  
2 c small mushrooms  
1 sml onion, cut into wedges and separated, about 1-inch strips  
1 medium carrot, cut diagonally into 1/3-inch slices



In small bowl, combine honey, stir fry sauce and crushed red pepper flakes; set aside. In wok or large skillet, heat oil over medium-high heat; add vegetables and toss while cooking, about 2-3 minutes. Add honey sauce, stir until all vegetables are glazed and sauce is bubbly hot, about 1 minute. Serve as a vegetable side dish or over steamed rice or noodles for a main dish. Prep: 10 minutes Cook: 5 minutes. Serves 4.

### **Asian Glazed Chicken & Stir-Fry Vegetables**

3 T cornstarch  
1 can (14 1.2 oz.) Swanson's Chicken Broth (1 2/4 c)  
1/3 c each cider vinegar and honey  
1 T soy sauce  
1/4 t crushed red pepper  
4 boneless chicken breast halves  
1 c thinly sliced carrots  
1 can (8 oz.) sliced water chestnuts drained  
2 c snow peas  
4 c Broth simmered rice

Mix cornstarch, broth, vinegar, honey soy and pepper in cup until smooth.

Cook chicken in nonstick skillet until browned. Add cornstarch mixture, carrots and water chestnuts. Cook until mixture boils and thickens, stirring. Cover and cook over low heat 5 minutes or until done. Stir in snow peas. Serve with Broth simmered rice. Serves 4.

Broth simmered rice. Cook rice in Swansons Chicken /Broth instead of water. No need to add salt or butter.

### **What's your beef?**

Enter the national beef cookoff for a chance to win \$50,000. Just submit your favorite beef recipe that contains HONEY!

<http://www.beefcookoff.org/beefcookoff/>

## **Pollination Power**

### **Book on Pollination**

A new book entitled Crop Pollination by Bees, authored by K. S. Delaplane and D. F. Mayer is now available from CABI publishing. According to publicity accompanying the announcement, the volume is an accessible, practical and authoritative research-based guide to using bees for crop pollination. It emphasizes conserving feral bee populations, but also includes information on culturing and managing honey bees. An important chapter is a detailed description of the care and rearing of bumble bees. This book is in keeping with the philosophy that pollination management and consulting will be increasingly important in the future of agriculture.

The authors seek to have their volume complement the pollination bible, S.E. McGregor's Insect Pollination of Cultivated Crop Plants, Agriculture Handbook 496, published in 1976

"Crop Pollination by Bees" is hardback with 352 pages and costs \$100. It is available from CABI's New York Office, 10 E. 40th St., phone 212-481-7018, fax 212-686-7993.



## **Craft & Hobby Corner**

### **Homemade Lip Balm**

Homemade lip balm, infused with your favorite scented oils, will make your lips delicious while smoothing and softening them. It's surprisingly easy to make. Combine the essential oils of lime, lemon, tangerine, grapefruit, or peppermint with flavorless oils and wax. The basic recipe, which yields 1/2 ounce, combines 3 teaspoons grated unbleached beeswax, 5 teaspoons carrier oil (sunflower, castor, or jojoba); 6 or 7 drops essential oil; and 1 teaspoon honey for flavor. Melt the beeswax and carrier oil together in the top of a double boiler, stirring to combine. Remove from heat; add honey and essential oil. Mix thoroughly so the honey does not clump. To add a little color, stir in a tiny dab of lipstick with a coffee stirrer. Pour the mixture into containers; let sit 20 minutes before covering or moving. For glossier lip balm, use 2 teaspoons wax and 8 teaspoons carrier oil.

Martha Stewart

### **Beeswax**

#### **Hanukkah Candles**

Give your celebration a special glow with these hand-rolled candles, made from sheets of beeswax in the subtlest shades of ivory, butter yellow, and deep olive. Make a set for yourself, and make more to give as holiday gifts that are both pretty and useful; during the eight days of Hanukkah, a total of forty-four candles are lit.

—Using a utility knife and ruler, slice wax sheets into 2-by-4 1/2-inch rectangles.

—Cut wicking into 5 1/2-inch lengths; make a knot close to one end.

—Warm wax with a blow dryer until just pliable, 10 to 15 seconds.

—Lay wicking along edge of wax with 3/4 inch of wick hanging beyond wax.

—Roll wax around wicking; press seam with your finger to smooth and seal.

Martha Stewart

### **Know Your Own Beeswax**

Beeswax is good for more than just candles. Here are 12 ways it can be handy to have around:

1. Use beeswax for your pincushion to keep pins sharp.
2. Run thread through beeswax to make it sturdier. (This is especially good when you are using thread on a heavy surface such as denim or to fix a button on a coat.)
3. Rub beeswax over your eyebrows before plucking.
4. If you have stuck drawers, rub on some beeswax to make them glide smoothly.
5. Archery hunters can use beeswax to wax their strings.
6. Use beeswax to make candles or to harden paraffin used in regular candles.
7. If you are fixing jewels, put a touch on your toothpick to help you set them in place.
8. If your iron doesn't push smoothly, a little beeswax will lubricate it.
9. Rub some beeswax on a zipper that sticks to fix it.
10. If your handsaw binds, a little beeswax on the teeth will help.
11. If you apply beeswax to screws and/or nails they will be easier to put into wood and it will help prevent wood from splitting.
12. If you want to make your own wood finish mix some beeswax with linseed oil for a beautiful, old fashioned finish.



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Beekkeeping supplies, bees, queens, honey,  
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## Spring is Just Around the Corner

Well, spring is just around the corner! I was out in the bee yard, the first part of Feb. when it got up to 59 degrees and checked to see how things were, my 12 hives are still a live! From the way its looks the bees got out to do their duty. I took off the top cover, from looking into the hole on the inner cover there were a lot of bees. I picked up the back side and it seemed heavy. Also, on my inter cover I cut a notch on top side so in case the bottom board gets blocked with bees or snow, they have a way to get out if we get a warm day.

Well, I hope you had time in Dec. & Jan. to get your equipment fixed & painted. Time is getting close for medications, to get ready and reverse the bottom box to the top and check for bad frames and comb & replace with new foundation. Do this in each box and in 5 years you should have all bad combo replaced.

Eastern Missouri Beekeepers Association is putting an observation hives in the Butterfly House we hope to promote more beekeepers, we will have literature and other information. Working with me on this project is Joe Norton, and Director Ted Jansen. You are urged to visit the exhibit, the address is:

Sophia M. Sachs Butterfly House &  
Education Center  
15193 Olive Blvd  
Chesterfield, MO. 63017

**Don**

Don Reinkemeyer  
Missouri State Member at Large  
Eastern Missouri Beekeepers

**MISSOURI STATE FAIR**

**AUGUST 9-19**

## Auxiliary

2001 Officers are:

President: Sharon Gibbons

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[bellhill@rigger.cosimo.net](mailto:bellhill@rigger.cosimo.net)

Acting Secretary: Kerry Caylor, 28926 Olympic  
Ave., Anabel, Mo. 63431, [ctr7@mcmys.com](mailto:ctr7@mcmys.com)

Treasurer: Rose Terrill, 9401 S. Hardsaw Rd.,  
Lone Jack, Mo. 64070, (816) 697-3434,  
[RMT486@aol.com](mailto:RMT486@aol.com)

Queen Chairman: Vera Gelder,

Since our elected secretary, Judy Levinskas, has not been at the last two meetings, we appointed Kerry Caylor as acting secretary.

At the spring meeting just concluded, the auxiliary along with the members of MSBA, held a Kids n' Bees Expo. Although I wasn't there, I heard it was a great success. Between 250 and 300 children attended. We worked on advance contacts of every school in Columbia and Jeff City. We also contacted home school groups, girl scouts and boy scouts. The weather was so bad but they came anyway. We had help from Marla Young from the Mo. Dept. of Agriculture. The Dept. also handled media press releases. The Dept of Conservation added extra volunteers and staff help. Since the room turned out not to be large enough, they let us spread out into the children's amphitheater. I thank all the volunteers who helped with it. It was money well spent. The volunteers were Joanne and Glenn Davis, and their grandsons, Blaine and Emmitt; Ed and Jean Fisher, Kerry Caylor, Joyce Wiley, Pam Brown, Eugene Makovec, Rose and Bill Terrill, Chris and Ceanne Gibbons, Shirley Batton, Vera Gelder, Frank Parrish, Delores Vivian, and Honey Queen Jessica McNabb. If I missed anyone who volunteered, please call me. We hired Kim Lehmann from Austin, Texas to coordinate the program. Special

thanks to Ed Fisher for picking up Kim at the KC airport and returning her to KC. I think we were successful in our directive to educate children.

Dues for the Auxiliary are \$10 and can be paid to Rose Terrill. It allows you to attend all beekeeper meetings and auxiliary meetings.

The cookbook that is being produced by the Auxiliary will be ready by June. It will contain about 300 recipes and be entirely different from any that we have done. The cover will be in full color.

*Sharon*

## **Cookbook Update**

We are in the final countdown. The cover and format have been selected and recipes are being entered. The comment was made at the auxiliary meeting "I have helped with 4 previous cookbooks and this is the first one I've gotten excited about." A thank you to those who have sent in recipes. We are planning on having the cookbook ready for the State Fair. Preliminary orders are being taken. With your help, this will be the best MSBA cookbook ever.

*Vera*

## **American Beekeeping Federation Convention**

The convention will be held in Savannah, GA, January 16-19. Hilton Head Island is located 42 miles from the Savannah airport. Ian & Pam Brown have a 3 bedroom, 3 bath (2 have whirlpools) condo that sleeps 6 to 8 on Hilton Head. They are offering it to any beekeeper wanting to use it before, during or after the convention, the rate is \$1000 per week. This includes 4 rounds of golf a day and one hour of tennis, heated outdoor and indoor pools and hot tub. The condo is located on the Shipwreck Plantation, with private beach access. The condo comes fully fur-

nished, including linens, dishes, cookware, washer, dryer and two adult bicycles. Cost for non beekeepers is \$1800 per week. If additional people want a condo, we have friends that will rent theirs. In season, this same condo rents for \$2500 to \$2800 per week, but a special price will always be offered to beekeepers. Contact Ian or Pam.

## **Requeening Without Looking for the Queen**

One of the big stumbling blocks for many beginner beekeepers is that problem of how do you actually get the queen into the hive. The fundamentals -- the colony should be queenless, it should be well fed and it should have young bees emerging.

How do you actually go about doing it? Most books tell you simply to find the old queen, kill her, and introduce your young queen in the mailing cage she came in. Fine, you think. Until you go out to look through your (strong) (aggressive) (agitated) colony for the queen. And knowing that you have your valuable, newly-arrived queen sitting in the house just waiting to be installed!

So this message will be mostly devoted to giving you a method of introducing new queens to your hives without ever having to look for the old queen. And like any such system, it is not fool-proof. It works for me and for many other beekeepers, but if it doesn't for you, first make sure you are following directions. Then consider special problems you might have, especially as they relate to the 'golden rules' of queenless, well-fed, with plenty of young bees.

The system I will describe is not new, and it was not my idea. It's a combination of all sorts of ideas. It's the sort of management technique that develops when you have a fair idea of what you want to do, but you're not sure how. Then, rather than just making up your system, you sit back and think about bee behaviour and try to work effectively within the bounds of the ways bees will \*usually\* respond to certain stimuli.

and presto! You have your nucleus colony ready for introducing the young queen. It is queenless (because the queen couldn't come up through the excluder). It has plenty of young bees (because they have come up to take care of the brood you lifted). And it has plenty of food (because you provided them with two frames of honey). All the conditions have been met for ideal queen introduction. You can expect that some of the bees will drift back to the main colony, but the young bees taking care of the brood will most likely remain - the new unit shouldn't drop in bee strength too drastically.

This system could be used on a larger number of hives. By the time the beekeeper has worked through the yard, shaking bees from brood and honey to lift into the new box, the first hive would have been left long enough for the bees to come up.

Introduce your young queen into the top and wait a week. Don't disturb them in this time if at all possible; until the new queen is established and laying fully, the bees haven't really fully accepted her. Disturb them during this period and it is possible for them to turn on her. After a week, you will have a parent colony on the bottom, only slightly reduced in strength by the bees, brood and honey you took. And you will have a nucleus colony headed by a young queen above the split board, all set for your next decision.

You can either use it to re-queen the parent colony, or you could place it on its own floor to use for increasing your colony numbers. If you choose the second option, it would be best if you actually moved it several miles away to avoid the loss of field strength through drifting. If you want to re-queen the parent colony, you could now go through it, looking for the old queen, preparing to unite the two colonies by replacing the split board with a sheet of newspaper for them to chew their way through. But that would defeat the whole point, wouldn't it? We're supposed to be doing this without ever looking for a queen, aren't we?

If you can go through and find the old queen, aided by any tricks/knacks you might have to quickly locate queens, so much the better. You're certain of results then.

But, believe it or not, you have the odds of success heavily in your favour if you simply newspaper the two units together without looking for the old queen at all. In almost 90% of the cases, if you unite two colonies with the young queen on the top of an old queen, the young queen will be left to head the resulting hive.

Why this happens is open to argument. Some beekeepers will tell you that the bees always select the best of the two queens. I doubt that. My explanation goes along the lines of the young queen's bees are confined in the top box when you replace the split board with newspaper. As well, her field bees returning cannot use their normal entrance, the slot on the split board. They then drift down to the main colony entrance. As they are foragers returning with a load, they will be accepted without causing outrageous fighting at the hive entrance. I think the old queen is then probably killed by the 'scissor' effect of bees foreign to her coming at her from both directions - down as the bees confined above the newspaper chew through and move down in the hive, and up by the foragers from the top unit coming in through the bottom entrance and finding a 'strange' queen in 'their' hive.

It has certainly worked for me, and if the thought of trying to find queens is an impossible one for you, the system might be worth considering. You might just want to experiment with it to see if the time savings will repay the small amount of uncertainty involved.

It's not the answer to all of a beekeepers problems, but it just gives you an idea how by thinking a little bit about bee behavior, you can sort out your management system to make your life a little easier while doing all you can in the interests of maximum production.

New Zealand Beekeeping- Febvruary 2000  
Description of requeening a hive without having to look for the old queen. Variation of an article that originally ap-

## **Swarm Control and Prevention**

When honey bees swarm it is a natural process where the colonies divide. In essence, it is nature's way of trying to increase bee colony populations. Beekeepers can not stop all swarming. However, swarm prevention should be incorporated into a beekeeper's management program, if he/she is interested in obtaining a good honey crop.

The following are some things that can be done to reduce swarming.

- 1) Colonies should be requeened every 2 to 3 years. This can be done in the spring, fall, after a honey flow or as conditions dictate.
- 2) Clipping the wings on a new queen is another attempt to prevent swarming. This procedure slows down swarming, but may result in the colony swarming anyway with a virgin queen.
- 3) Reversing the hive bodies in the spring results in having an empty hive body being placed above the brood chamber, thus providing more room for queen laying, pollen and honey storage. This procedure may be done several times in the spring.
- 4) Colonies can be split. This entails dividing the colony population in half to make up 2 hives. This is an effective method in swarm control.
- 5) Cutting queen cells is a method many beekeepers use. However, the bees usually win out. Once the queen cells are eliminated the bees will produce more queen cells.

## **A Word of Warning**

There is a nasty trick going the rounds at the moment, adulterating honey to make it look like buckwheat honey. A friend of ours was out visiting the North of Ontario recently and came across a seller who had some 'Buckwheat Honey' for sale! So he bought some for me to have a look at it. What a mess, it's adulterated with molasses, stinks to high heaven and looks

totally wrong. Buckwheat honey when held up to the light has a red tinge to the color, where this stuff looks black. So if anyone offers Buckwheat honey, then just be cautious, you won't like this stuff!

The Bee Works, 5 Edith Drive, R R # 2,  
Orillia, Ontario, L3V 6H2, Canada.  
Phone (705)326 7171 Fax (705)325 3461  
David Byre, Owner  
<http://www.beezworks.com>

A tip I have just picked up from the BeesCene magazine, something I had never heard before, household bleach as a propolis remover. Soak small items in a small container of bleach, within a short time the propolis disappears. Larger items can be cleaned on a plastic sheet, given a good shot of bleach and use a stiff brushing. Just be careful of your eyes and bare skin, bleach can burn.

The Bee Works

## **Missouri Revised Statutes**

Chapter 264  
Apiaries  
Section 264.065

August 28, 2000

### **Quarantines inside state—seizure—inspection—notice—eradication—lien for expenses.**

264.065. 1. Whenever the director shall find that there exists in this state, or any part thereof, a harmful disease or pest of honey bees new to the state, which, for the protection of the apiculture industry within the state, should be prevented from spreading and be controlled or eradicated, the director may adopt and carry out such restrictive and control measures as may be deemed necessary and advisable and may cooperate with other state agencies and with the United States Department of Agriculture.

2. The director may promulgate rules establishing quarantines and quarantine restrictions covering areas in the state affected by these honey bee diseases or pests, and other areas within the state which are likely to be affected by\* such diseases and pests.



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3. Under such quarantines the director or authorized personnel may prohibit and prevent the movement, shipment or transportation without inspection of any honey bees, used beekeeping equipment or any other regulated material or article of any character capable of carrying such disease or pest in any living state of its development, originating in or which has been stored in such quarantined areas or in any area outside of the state infested with such disease or pest, except under such conditions as the director may prescribe as to inspection, treatment and certification. In carrying out the provisions of this section the director or authorized personnel may intercept, stop and detain for official inspection any person, car, vessel, boat, truck, automobile, aircraft, wagon or other vehicles or carriers whether air, land or water, and may open and inspect any container or shipment thought to be carrying such disease or pest in any living stage of its development. Any honey bees, used beekeeping equipment or any other regulated articles moved, shipped, or transported in violation of such quarantine may be seized and treated, destroyed or otherwise disposed of in accordance with the instructions of the director.

4. Under such quarantines the director may require the treatment or destruction of infected or infested honey bee colonies as may be necessary to effectively destroy or prevent the development of such diseases and pests of honey bees. It shall be the duty of the owner or person in charge of such apiary or any other thing connected therewith within such quarantined area, upon due notice, to take such ac-

tion as is required within the time limit specified and in the manner designated by the director.

5. In case the owner or the person in charge of such apiary, used beekeeping equipment or other regulated materials within the quarantined area shall neglect or refuse to carry out the instructions of the director contained in such notice within the time limit specified, the director or authorized personnel may take the action so required, and the director shall have and enforce a lien for the expense thereof against the place in or upon which such expense was incurred in the same manner as liens are had and enforced upon buildings and lots, wharves and piers for labor and materials furnished by virtue of contract with the owner.

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**Honey Bee Educational  
Resources in Arizona**

The University of Arizona has published a number of resources concerning honey bees, now that the African bee has taken up residence in the southern part of the state. These include Safely Removing Wild Honey Bee Colonies (30-minute VHS video, \$30), Africanized Honey Bees in Arizona Training Manual (slides with script, \$55) and Homeowner's Guide to Safe Honey Bee Swarm Control (26-minute VHS video, \$25). To order, contact the University's Publication Distribution Center, College of Agriculture, 4042 N. Campbell Ave., Tucson, AZ 85719, ph 1-877-763-5315.

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1-877-220-1963***

The MSBA has an audio visual library, and as a member you are eligible to use the films, videos and slides. Contact Pam Wright - wri@townsq.com

**To request apiary inspection or information regarding honeybees leaving or entering the State of Missouri contact:**

Michael Brown  
State Entomologist  
Missouri Department of Agriculture  
PO Box 630  
Jefferson City, MO 65102  
(573) 751-5505 / 5507

### ***MISSOURI STATE BEEKEEPERS ASSOCIATION AND AUXILLIARY MEMBERSHIP APPLICATION***

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip+4: \_\_\_\_\_  
Phone: \_\_\_\_\_  
E-Mail: \_\_\_\_\_

Membership for MSBA - Single \$10 \_\_\_\_\_  
Membership for MSBA - Family \$15 \_\_\_\_\_  
Student - \$5.00 \_\_\_\_\_  
Auxiliary - \$10 \_\_\_\_\_

#### **Subscriptions:**

*American Bee Journal* - \$14.44 \_\_\_\_\_  
*Bee Culture* - \$13.10 \_\_\_\_\_  
*Speedy Bee* - \$13.60 \_\_\_\_\_

If you belong to a local beekeeping organization, please pay your state dues through the local treasurer. If not, make checks payable to: Missouri State Beekeepers Assn. or to the Missouri State Beekeepers Assn. Auxiliary and mail to:

Ron Vivian  
MSBA  
P.O. Box 448  
Oak Grove, MO 64075

Rose Terrill  
MSBAA  
9401 S. Hardsaw Rd.  
Lone Jack, MO  
64070

## **Honey Bees as Biological Control Agents: Fungal Control of Fungus**

"It is difficult to think how a bee could be more useful." This sentence begins an article in the September 28, 2000 edition of The Economist <<http://www.economist.com/>>. The honey bees' incredible utility may be intuitively obvious for beekeepers, but not for everyone it seems. According to the article, Scientists at Cornell University in New York state have created and patented a honey bee "footbath" that uses the insects to disperse beneficial micro-organisms to strawberry flowers <[http://www.economist.com/printedition/displayStory.cfm?Story\\_ID=383001](http://www.economist.com/printedition/displayStory.cfm?Story_ID=383001)>.

"Strawberries, along with many other soft fruits, suffer from grey mould, a troublesome rotting disease. Although the fungus mainly damages the fruit, infections actually start in the flowers. One effective treatment is to spray those flowers with another fungus called Trichoderma harzanium 1295-22 <<http://www.nysaes.cornell.edu/ent/bcconf/talks/harman.html>>. This organism competes with the grey mould in flowers, thus eliminating it before the berries form, but causes no harm to the fruit itself.

"Dr Kovach's system works by putting spores of Trichoderma into a specially designed tray. This is encased inside a plastic housing which is then fixed into the entrance of a hive. That means that the tray can be removed and replaced as easily as a tray of photocopier toner. Bees pick up the spores on their legs as they walk out of the hive, and deposit them on to flowers they visit as they search for pollen and nectar.

"The researchers say that bee-delivery is nearly twice as effective as spraying the spores around by conventional methods, and uses a fraction of the quantity of spores because the insects deliver them directly to the blooms rather than wasting them on the leaves, stems and ground. The result, they claim, is that bee-delivered Trichoderma offers as much protection as the

chemical fungicides preferred by most strawberry farmers. And an added bonus is that simply adding a beehive to a field of strawberries improves yields by 20-30%, because of better pollination.

"Dr. Kovach has high hopes for extending the use of his system. Not only is it likely to be effective with other fruit, such as raspberries; it could also be filled with other biological-control agents, such as beneficial bacteria and viruses, which separate studies have shown that bees can also deliver. Indeed, according to Dr Kovach, the system could be used to "vaccinate" plants against disease as well as treating them. A group of newly discovered chemicals that can stimulate a plant's immune system to resist infection would be eminently deliverable by bees.

"Bee lovers around the world need not be concerned, however. The actual payload carried by the insects is very small, and their fungal footbath has no effect on their health. Honey lovers need not worry either. Trichoderma is found naturally on strawberry flowers, and in any case the honey produced during strawberry-bloom time is eaten by the bees themselves; the stuff harvested for human consumption is made much later in the year.

"The system does have a couple of drawbacks. Bees will fly about only in good weather, so if your crop blooms on a rainy day, too bad. And bees are fickle. Although they can be trained to feed on a particular crop, if they find a sweeter, more delectable flower nearby they will be tempted away to new pastures." The article concludes, therefore, that although a good idea, it is not necessarily the bee all and end all. Biological control never is, however, whether in berries or honey bees themselves.

Tom Sanford  
ApisApicultural Information and Issues  
Florida Extension Beekeeping Newsletter  
Volume 19, Number 2, February 2001

## MISSOURI STATE BEEKEEPERS SURVEY – 2001

To better serve your needs and interests, to build a stronger organization and to have informative and interesting meetings, we need your advice and views. Deposit the completed survey in the basket on the registration table. Please see an officer or director if you have additional comments or suggestions. Send to Art Gelder.

1. Are you interested in (check all applicable):

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> pollination  | <input type="checkbox"/> beeswax         | <input type="checkbox"/> honey                  |
| <input type="checkbox"/> producing pollen   | <input type="checkbox"/> apitherapy      | <input type="checkbox"/> queen rearing          |
| <input type="checkbox"/> gift baskets   | <input type="checkbox"/> cooking w/honey | <input type="checkbox"/> uses for beeswax       |
| <input type="checkbox"/> making mead  | <input type="checkbox"/> marketing       | <input type="checkbox"/> labeling               |
| <input type="checkbox"/> accounting   | <input type="checkbox"/> health benefits | <input type="checkbox"/> hive management        |
| <input type="checkbox"/> nectar sources   | <input type="checkbox"/> new equipment   | <input type="checkbox"/> Mo. Health regulations |
| <input type="checkbox"/> information on _____                                     |  |   |
| <input type="checkbox"/> speaking about _____                                     |  | at state or local meetings                      |
| <input type="checkbox"/> assisting with teaching at beginner's beekeeping classes |  |   |
| <input type="checkbox"/> helping or assisting at state meetings                   |  |   |
| <input type="checkbox"/> being a state officer – which position _____             |  |   |

2. Would you like to rotate state meetings throughout the state? Would you like the fall or spring meeting to always be at one location with the other meeting to be rotated? How far would you travel to a meeting? Would you attend a multi-state meeting? And if so, again how far would you travel? \_\_\_\_\_

3. And would you like the meetings to be held a certain weekend? For instance, always the first weekend in November and April or the fourth weekend in October and March? \_\_\_\_\_

4. Do you have any suggestions on the format of the meetings? For instance: workshops, social hour, length, registration, speakers, presentation, topics, banquet, etc. \_\_\_\_\_

5. Do you have any suggestions for specific speakers you would like to have at a meeting? \_\_\_\_\_
6. On a scale of 1 to 10 (1=poor, 10=great) what is the value for your money of the MSBA meetings? \_\_\_\_ If the score is less than 10, what would your suggestion(s) be for improvement? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
7. What about the Queen Program? Do you have any suggestions or requests? \_\_\_\_\_  
\_\_\_\_\_
8. What suggestions do you have for the State Fair booth? What about participation in working at the booth? \_\_\_\_\_  
\_\_\_\_\_
9. Auxiliary: should this be totally separate with a separate program and activities or does the present format work? Separate \_\_\_\_ Present \_\_\_\_
10. Are the officers of the MSBA doing their job? Yes \_\_\_\_ No \_\_\_\_ If no, what needs to change? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
11. Any other comments or suggestions? \_\_\_\_\_  
\_\_\_\_\_

PLEASE COMPLETE SO WE MAY CONTACT YOU IF WE HAVE QUESTIONS

Name \_\_\_\_\_ Location \_\_\_\_\_

\_\_\_\_\_

## Missouri State Fair Bid Sheet

To be returned to Art Gelder by July 9, 2001 along with 4 to 6 oz. sample of honey, if you are bidding on honey.

You may bid on one or as many items as desired, it is the winning bidders responsibility to have items at the booth site Aug. 6 or 7, (8:00AM til 5:00PM) & picked up August 19 at 6:00PM. All winning bidders agree to take back unsold items and present the treasurer a bill within 15 days of close of fair. All honey must be produced in the State of Missouri, and all bidders must be members of MSBA. Committee reserves the right to reject any and all bids or product

ITEM	QUANTITY NEEDED	QUANTITY YOU ARE BIDDONG ON	YOUR COST	SUGGESTED RETAIL PRICE
<u>Extracted Honey</u>				
Gallon - plastic	10 cases	_____	_____	
1/2 Gallon - plastic	10 cases	_____	_____	
Quart jars - glass	10 cases	_____	_____	
2 lb. jars - glass	10 cases	_____	_____	
1 lb. jars - glass		_____	_____	
Light	10 cases	_____	_____	
Dark	10 cases	_____	_____	
24 oz. bears	10 cases	_____	_____	
12 oz. bears	5 cases	_____	_____	
<u>Chunk</u>				
Size	5 cases	_____	_____	
_____		_____	_____	
_____		_____	_____	
<u>"Giblet"</u>				
Size	5 cases	_____	_____	
_____		_____	_____	
_____		_____	_____	
<u>Comb</u>				
Cut Comb	10 cases	_____	_____	
Ross Rounds w/flat unstamped labels	5 cases	_____	_____	
<u>Creamed</u>				
	10 cases	_____	_____	
<u>Honey Sticks - assorted flavors</u>				
	8000	_____	_____	
<u>Beeswax</u>				
Candles				
Rolled	25	_____	_____	
Dipped	10	_____	_____	
Molded	15	_____	_____	
Novelty	10	_____	_____	
1 lb. blocks	20	_____	_____	
3/4 lb. blocks	20	_____	_____	
1 oz. blocks	50	_____	_____	
Soap containing honey &/or beeswax		_____	_____	
<u>Pollen</u>				
8 oz. jar	24	_____	_____	
1 lb. jar	24	_____	_____	
<u>Dippers</u>				
	30	_____	_____	
<u>Honey Pots - list style</u>				
_____		_____	_____	

Clothing - describe

Flags

Stationary - describe

Jewelry - describe

Books

"Beekeeping in the Midwest" 24  
"How to Keep Bees and Sell Honey" 24  
"Making Mead" 12  
"A Year in the Life of an Apiary" 12  
"Bee Pollen Miracle Food" 24  
"Honey Bee Diseases & Pests" 12  
"Coloring Books" 500

Other

Video

Stuffed Animals

Other Items

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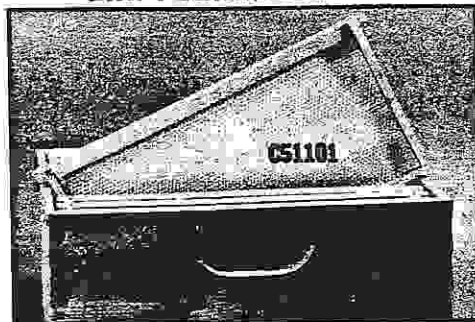


- 10-9<sup>1</sup>/<sub>8</sub>" Grooved Top Bar Frames with Beeswax Coated Plasticell foundation
- Superiorly constructed 9<sup>5</sup>/<sub>8</sub>" Commercial Ponderosa Pine Hive Body
- Metal frame rests
- Telescoping cover with galvanized metal top
- Inner Cover
- Reversible Bottom Board for summer and winter bee entrance

Ship Wt. 50 lbs.

C52101 Carton of 1, ..... \$78.00 ea.  
5 or more, ..... \$72.50 ea.

## Hive Body with Frames and Foundation



C51101 comes assembled with 10-9<sup>1</sup>/<sub>8</sub>" Grooved Top Bar Frames with Beeswax Coated Plasticell foundation installed in the frames. Commercial grade wood.

Ship Wt. 33 lbs

C51101 Carton of 1, ..... \$39.25 ea.  
20 or more, ..... \$36.75 ea.

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C75210 comes assembled and packed 10 per carton. Commercial Grade Wood. Ship Wt. 11 lbs

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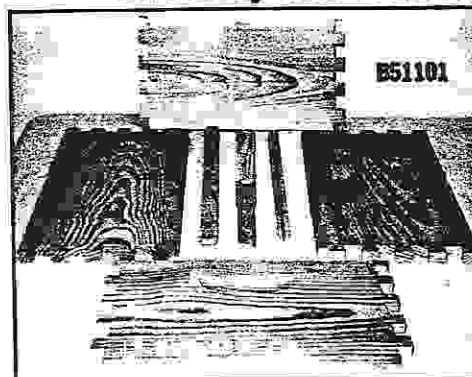
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- Superiorly constructed 9<sup>5</sup>/<sub>8</sub>" Select Grade Ponderosa Pine Hive Body
- Metal frame rests
- Telescoping cover with galvanized metal top
- Inner Cover
- Reversible Bottom Board for summer and winter bee entrance

Item Number	Quantity	Ship Wt.	Price
B52101	Carton of 1	35 lbs.	\$52.50
B52105	Carton of 5	160 lbs.	\$215.50

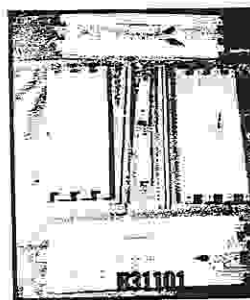
## Hive Body with Frames



B51101 comes unassembled with 10 Wedged Top Bar Frames. Nails and Frame Rests included. Select Grade Wood. (See page 9 of our catalog for your favorite Dadant foundation.) Ship Wt. 17 lbs

B51101 Carton of 1, ..... \$29.50 ea.

## Honey Supers With Frames



B31101 and B32101 come unassembled with 10 Wedged Top Bar Frames. Nails included. Select Grade Wood.

(See page 9 of our catalog for your favorite Dadant foundation.)

6 5/8" Depth Super with Frames

Ship Wt. 13 lbs

B31101 Carton of 1, ..... \$19.50 ea.

5 11/16" Depth Supers with Frames

Ship Wt. 13 lbs

B32101 Carton of 1, ..... \$19.50 ea.

## Dadant & Sons

51 South 2nd Street • Hamilton, IL 62341

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E-mail: [Dadant@dadant.com](mailto:Dadant@dadant.com)

Web: <http://www.dadant.com>



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(913) 768-8967

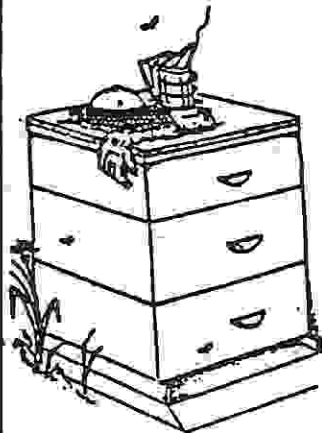
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**Mid-Con carries a complete line of beekeeping supplies.**

**We carry containers, woodenware, wax, medications, gift items, candle making supplies....ordering**

**is just as easy as a phone call...use our toll free 800 # to place your order.**

**We also attend the Missouri State Beekeepers Meetings and will be happy to deliver your order there!**



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