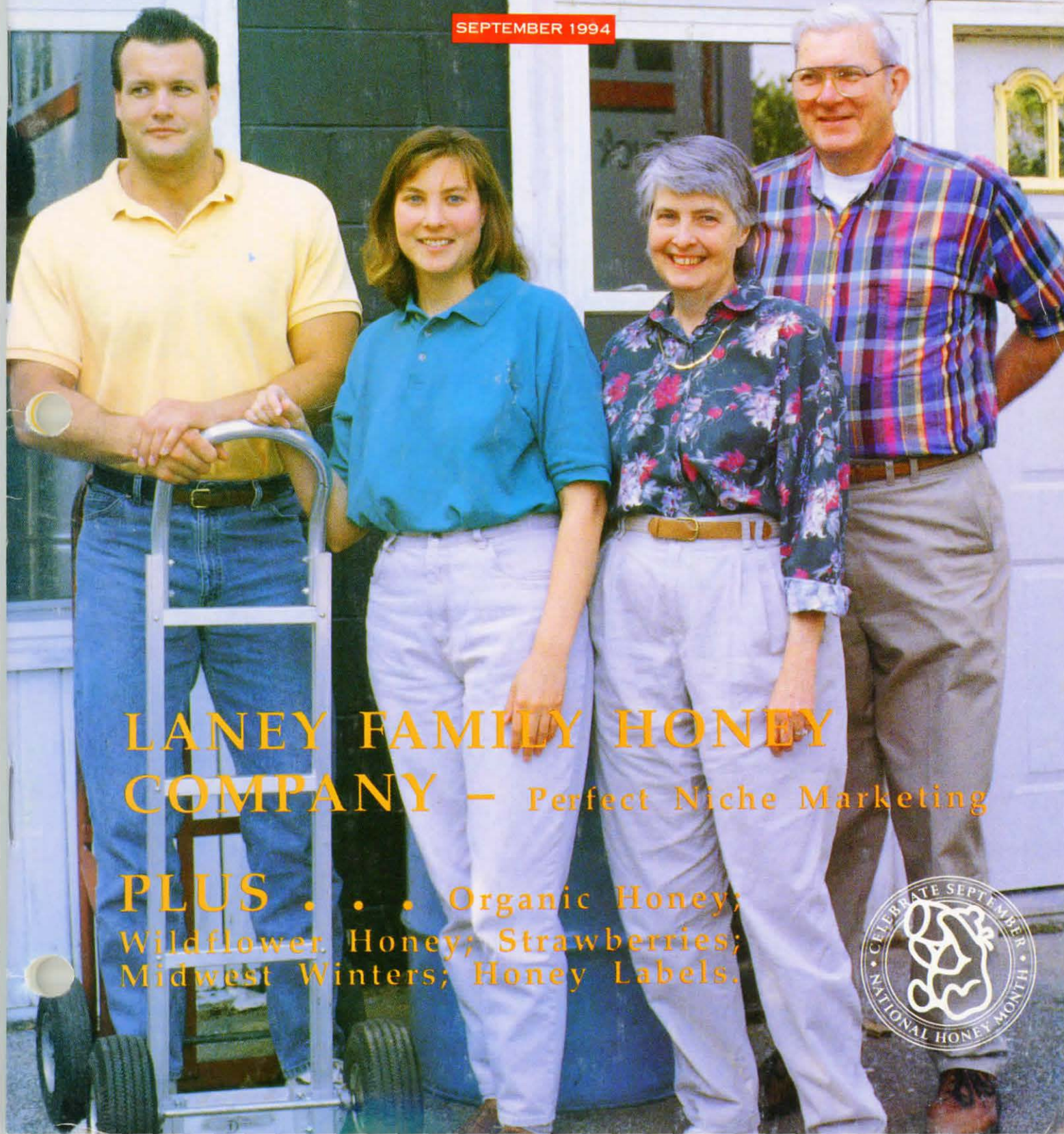




# Bee Culture

SEPTEMBER 1994



**LANEY FAMILY HONEY  
COMPANY** — Perfect Niche Marketing

**PLUS . . . Organic Honey;  
Wildflower Honey; Strawberries;  
Midwest Winters; Honey Labels.**





# September



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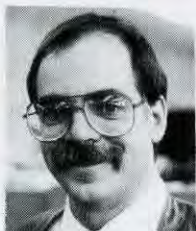
Prices shown are averages from many reporters living in a region, and reflect that region's general price structure. The Range Column lists highest and lowest prices received across all regions, from all reporters.



September Honey Report, Pg. 492



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## PLANTINGS 1975-1999

Year	Acres Planted
1985	3,100
86	1,200
87	1,800
88	4,500
89	6,000

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## Cover

The Laney Family Honey Company started with a simple idea. Provide a locally produced product in an attractive and informative container and give absolutely exceptional service. No secrets, really. Just hard work and dedication. *Left to right, Tom, Linda, Kay and Dave Laney.*

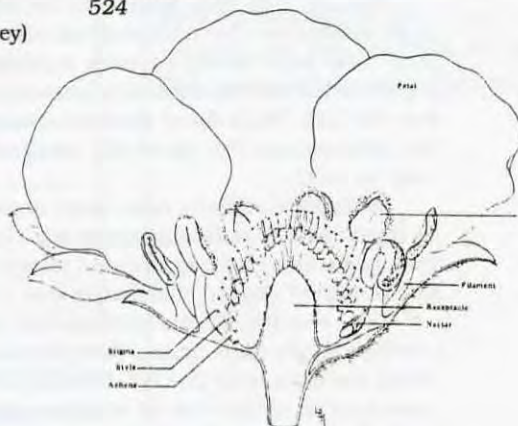


London Style, Pg. 506

Really Raw Honey, Pg. 509

**ORGANIC**  
**REALLY RAW**  
*Honey*

STRAIGHT FROM THE HIVE  
TOTALLY UNPROCESSED



Summer Strawberries, Pg. 515

In mid-July the Eastern Apicultural Society held their annual short course and conference in Lancaster, PA. The EAS, if you're not already aware, is a regional association of beekeepers from 17 states and five Canadian provinces in the northeast. They started 40 some years ago and have been growing strong since day one.

Each member state and province has a seat on the Board of Directors, who oversee the activities of, and do the work for the Society. The Board meets three times each year, fall, spring and at the annual Conference in the summer.

Besides the Conference, the Board and the Society sponsor a variety of activities aimed at improving the Society and its members. These include sponsoring awards for outstanding apicultural researchers and graduates, FFA students, membership programs and many more. Most recently they began funding research on a fairly big scale—all to make beekeeping better for their members, and the industry they are a part of.

I share this with you for both your overall information, and for some purely selfish reasons. In 1995 the EAS Annual Conference will be in Ohio, hosted by the Ohio State Beekeepers Association. I cannot help but feel some pride, and some responsibility because this event will occur in my backyard.

And, I cannot help but forewarn you that you will be hearing more of the EAS meeting that will happen, right here in Ohio, in 1995.

Stay tuned.

This isn't an easy time. Not that much has been easy lately if you're in the business of selling honey, hard core. Lots of things are going on that make that task a lot tougher than it was only a couple of years ago. Chief among them is the competition U.S. producers face when confronted with imported honey.

In spite of the (too-often true) claims made about imported honey being adulterated with various things other than honey, it continues to sell, replacing U.S. products in many markets. Some producers still haven't sold their '93 crop, and '94 honey is in even greater jeopardy of sitting in warehouses.

Though this may appear to be the problem of only large producers the trickle-down effect is pinching anybody who sells honey to even modest sized accounts — supermarket chains, industrial accounts, bakery bulk sales and the like. With these markets closed, those squeezed out are seeking other (generally smaller) outlets, and yours may be next.

In defense, efforts have been made to stem the flow by legal force. The first attempt was the ITC battle joined with pride and gusto by any and all involved and affected. For whatever reason that battle was lost.

Now, as a last ditch effort another shot is being taken — using a bigger gun — an antidumping action against China. Using the data from the ITC hearing (threat of injury) the Department of Commerce will investigate and if all goes well after three or four months action will be taken and

Chinese honey will become more competitive, price wise, in the U.S. market. This is of course a gross oversimplification of the procedure, but essentially that's how it will play out.

A couple of things work in favor of this action. First, almost every antidumping case brought against China has worked in favor of U.S. producers. Second, even the threat of a petition being filed usually results in more realistic pricing from accused countries. The probability of this being a success is very large.

But that's not all that's large.

There is a cost associated with this action. Paying the legal types responsible for carrying out their magic in Washington will cost somewhere in the neighborhood of \$250,000 - \$300,000. That's a pretty nice neighborhood.

The ITC thing cost only (only?) about \$50,000. And even though it lost, ground was gained in collecting that data and offering a united voice in opposition to Chinese imports.

And if it works U.S. producers should be repaid in full, plus, because of increased sales and markets. That's the plan, anyway. For the 1,500 or so commercial operations who make their living making and selling honey coming up with this kind of money shouldn't be too hard — it's only \$150-\$200 each. Not much when you think of the return. But for a 10-50 colony hobbyist that's a bunch of money that, it may seem, is going to a cause with little or no direct application. So it may be.

Then of course there's the loss of the subsidy program this year that is certainly going to handicap some (most?) large producers who have used it in the past. Suddenly that \$150-\$200 seems a bit more expensive. But, it is an investment. After

*Continued on Page 527*

## EAS in Ohio; Antidumping Problems.

# Reader Assistance

To subscribe to *Bee Culture* remove or copy the form below, fill it in and return it and your remittance to the address at the bottom. Please allow 3 - 5 weeks for your first copy to arrive. And Thank You!

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If you are moving, please fill in the form below so we can process the change without undue delay. Also, if you have 2 addresses during the year (i.e., winters in Florida and summers in Connecticut), let us know which months you spend where and we can pre-program your address change so you will find us waiting when you move - No Delays, No Fuss!

### FOR PERMANENT CHANGE:

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Old Address: Street

City  State  Zip

New Address: Street

City  State  Zip

### FOR TEMPORARY CHANGE:

Name:

Address No. 1: Street

City  State  Zip

Circle Appropriate Months: J F M A M J J A S O N D

Address No. 2: Street

City  State  Zip

Circle Appropriate Months: J F M A M J J A S O N D

## Next Month

No matter where you are October tends toward wind-down time for both bees and their keepers. Which means there's time for a bit of reflection on things past, some time for friends and family and a chance to catch up on some left-over chores.

One thing winter allows is the chance to get back in the shop (garage, basement). Now that you've spent some time extracting with that too-small extractor, perhaps it's time to move up - and if you want to make your own - we've got the plans to make a great radial extractor.

Now's also the time to think about some travel, and with the opening of the Soviet Block, that's one place lots of beekeepers are heading. Find out what they found out, next month.

Conducting a workshop this winter? We've got a great how-to to help you run smoothly next year - in plenty of time to get everything you need.

And, now is also a good time to brush-up on some basics - like collecting next year's smoker fuel - (which one is best, anyway?) and making some modifications to what you already have.

Workshops, smokers, extractors, travel and a bit from the past - where else can you find all this. Only in *Bee Culture*, in October.

*Bee Culture* is available on microfilm from: University Microfilms, Inc., 300 N. Zeeb Rd., Ann Arbor, MI 48103  
We encourage letters to the editor on any subject whether appearing in the magazine or not. Direct your letters to: Editor, P.O. Box 706, Medina, OH 44258. We reserve the right to edit letters for content and length, but will avoid this if possible.

A. Reader  
530 W. Hill St.  
Medina, OH 44256

290

The Editor  
P.O. Box 706  
Medina, OH 44256

# MAILBOX

## Needs Help

I have Apiculture both as a hobby and a financial project, but suffer want as regards modern methods of carrying out the trade, which methods are better than the African traditional ones I have hitherto been using.

I am certainly to regard it as a personal favor if you could send me instructions on how to go about Apiculture more efficiently. I am very grateful to you for your kindness and helpfulness which I highly do appreciate. Thank you.

John Baptist Kamya Ssebagla  
Victoria Abbey, P.O. Box 341  
Londiani - Kenya, East Africa

## Reader Talks

Because The A.I. Root Company owns *Bee Culture* and also publishes that fantastic *ABC & XYZ of Bee Culture*, I presume very important people have chosen to eliminate *Gleanings*. I keep hearing snivilers complain. What name you use is boring.

Isn't this America? Don't you have the right to call it whatever you like. I have found nine-out-of-ten articles rate well with me. I just ordered *ABJ* for 12 months and I consider myself a Bee Man now and I am looking for the "Beef."

I certainly don't have the time to read every drop from two journals. Rest assured this will be the beginning of the end for one of you. You leave advertising open for your competitors. I compliment you on that. I phoned Stan Kain in Atascadero, CA and complimented him on his article in *Bee Culture* (*Bees & Bytes*). He returned my call and gabbed with me for 45 minutes at his expense. Then he sent me a even-page "typed" letter answering 40 questions on infor-

mation available to anybody on beekeeping that has a computer. How sweet it is.

All of us are looking for more fiber in our diets. I am also looking for short cuts and money saving articles. It would be nice to have an article about Gismos and Gadgets that a handy man can make. Even if the "Root" Company were to sell the blue prints separately.

I recently traded a half cord of fire wood for a four-frame honey extractor made from a new 30-gallon galvanized trash can, that the owner said "it came from a article from *Bee Culture*." How about running that article once a year for all the new beekeepers. Hey, we need all the help we can get. I started with two hives last year. It cost me \$50 plus my best wheel barrow. Now I have eight hives and don't want no more till I get some experience. So far I've spent about \$800-\$1,000 and I still don't have what I need.

I am located 50 miles north of Ukiah, CA, 25-30 miles inland at 1,620 ft. elevation. It gets hot here and is dry from June till October. There is a summer running stream 500 yards away. Should I concern myself about water for my bees?

How many hives can this non-agriculture area handle per location? Buckeye can be seen wild only a few miles away. I think I am safe. How do bees react to buckeye?

I think that nine out of 10 would-be beekeepers decide *not* to do bees for a hobby due to the amount of knowledge needed to produce a honey crop.

So I start beekeepers by handing them a 122-page "How to keep bees book" and give them a catalog from a local bee

supplier and tell them to order *Bee Culture*.

Thanks for *Bee Culture* and all the effort that's put into it.

Del Gallant  
Laytonville, CA

**Editor's Note:** CA Buckeye produces toxic nectar and/or pollen. Locate your colonies several miles from stands if possible. And yes, provide water (see other mail) if it's very dry.

## Chalkbrood Update

I have only been keeping bees for 47 years, but I would like to point out an apparent bit of misinformation as quoted in the July 94 issue by Dewey Caron.

"The initial report of chalkbrood in the U.S. came in 1968." I took a beekeeping course at the Univ. of Nebraska College of Agriculture in 46-47 and our instructor was a 3rd generation beekeeper. He mentioned that chalkbrood was not much of a nuisance because it would go away as soon as you had a good honey flow. And it did.

We would have a little chalkbrood in early spring and the honey flow would come and it would go away. Now it is found often in several of my hives. I am more aware of it because I trap pollen the whole year.

I don't believe Nebraska was the only state that had chalkbrood in the 40's.

I'd like to hear from other older beekeepers to see if I'm correct.

I read and have read your magazine for years and I have learned a lot from it.

James Hagenmeyer  
5337 Hwy. 411  
Madisonville, TN 37354

## Arabic Beekeepers Founded

We are glad to inform you that we have finally founded our Arabic Beekeepers Union.

After six years, and more than  
*Continued on Next Page*

# MAILBOX

3,000 letters and meetings with the beekeepers and the reposables from Arabic countries, we met in Cairo on February 7-9, 1994 with representatives of beekeepers from all the Arabic countries, upon a convocation from Dr. Yahya Bakkour General Director of The Arabic Organization for agriculture development, and began the Arabic Beekeepers Union.

The goal of our Union is to protect and defend the interests of the Arabic beekeepers and to exchange knowledge and products between them by congresses and expositions we plan to hold annually in one of the Arabic countries.

We will be honored to invite you to participate in our conferences, and will be grateful to announce our Union in your journal.

Rashid Yazbek  
P.O. Box 90-1404 Jdeidet  
Beirut, Lebanon

## Animal Rights Groups

I've been busy lately, and have just gotten around to reading my April issue of *Bee Culture*. In the "Gleanings" section, there appears an article entitled "Bees Are On The Hit List: Animal Rights News."

I have two concerns about the article. On first reading, I thought I had mis-read something; despite the title, I couldn't find any mention of honey bees. On my second reading, I confirmed my initial finding, which leads me to ask "what 'hit list' are bees on?" This is of great concern to me, since many of my friends (including customers and a landowner of my apiary) are members of PETA. If animals rights activists are under some misconception that honey bees are mistreated by beekeepers, I'd like to know about it so that I can educate my friends to the contrary.

My second concern with the "Animal Rights News" articles stems from the seeming insensitivity of the author. While I am neither a PETA member, nor a vegetarian, nor do I consider myself an animal rights activist, I try to be sensitive to the beliefs and values of others. Since there didn't seem to be any

bee-related information in the article, I fear the intent was to belittle the beliefs and values of others (e.g., by using such terms as "fear of food syndrome").

In the future issues of *Bee Culture*, please try to be a little more sensitive to (or at least tolerant of) those who might hold values that are different from the "mainstream."

Jeff Frontz  
Columbus, OH

**Editor's Note:** PETA, as well as other animal rights groups do indeed have commercial beekeepers on their 'hit list. The belief is that commercial beekeeping is detrimental to bees because "brushing bees from combs damages their wings," (see article in Aug. issue); and that commercial beekeepers "take all the honey and feed back sugar syrup, an unnatural food" Though no beekeepers I know of have been targeted, the threat remains that the more extreme members of these groups could indeed bring about the havoc that has been witnessed by other farming and research groups. Beekeepers do indeed need to be aware of the practice and philosophy of these groups.

## Doubled Harvest

This October marks the two-year anniversary of the arrival of two colonies of bees to my stewardship, compliments of my dad. I wrote you then of their arrival to a pristine apiary prepared with the enthusiasm and care of a bridegroom. Well, it must be a potent union, because now there are four colonies in a soon to be overcrowded beeyard.

But let me back up a little and recount the tale. Wintering went fine. (I'll spare the details, as I'm too green to really share with understanding all that dad and I did, plus I didn't take good notes.) In mid-winter I got involved with restoring an old tractor, and here was the downfall. Spread too thin for time, days when I should have been beekeeping I was painting fenders or chasing for parts. One fine day in late May, early June, my youngest son burst into the house to report to me, (then resting comfortably on the couch), that my bees had just flown by, enroute to

the neighbor's farm. "Sure," I said half laughing. "Some new bug hatch" I assured him. I continued my rest. As it would be, two days later I opened the hive to a handful of bees. I rushed to the phone, called dad, and retold of the farewell salute of migrating honey-hopes. He had the "I told you so" voice while I was looking for sympathy, so we ended our conversation. The queen was still present, so the process of rebuilding was engaged; to the result of the only surplus of the year, (a token, dad thought I needed for encouragement) one small jar.

But there were two hives, remember. They were a fine healthy lot, but in the floods of '93 odd things happened. After the rains and about a week before something of a flow could be expected, I came upon, in a midday walk-by inspection, hundreds of bees laying dying all over the place! I was beginning to wonder how anyone ever gets honey at all! Not destroyed but sidelined for the season, this hive in its second winter was very strong and has provided me with the numbers to do a split this spring. The swarmed hive looked very good going into winter, but minus 85°F windchill brought it down about mid-February with food all around it. So, two new packages and one split and now I've got double the trouble. The tractor has been finished since last August and this year I've got my eye on those rascals. One hope is that the worst spring rains and the worst winter cold will not fall in one calendar year again in my lifetime. So Lord willing, the weather cooperates and we'll double the surplus two small jars, at least.

John Kopecky  
Reedsville, WI

## Illegal Aliens

While traveling in Hawaii in May, I came across a newspaper article about bees shipped from California to Hawaii. The bees were impounded and killed. I felt the subject of the article was very newsworthy to beekeepers, and was certain I would soon see something about it in a future issue of *Bee Culture*. Having seen no mention in the June or July issues, I am

# MAILBOX

wondering if anyone has made you aware of the story?

Unless the California queen breeder just emerged from a life-long coma, he certainly knew that he could not legally ship bees or queens to Hawaii, even if the Maui beekeeper did not, which I would suggest is highly unlikely. If one were disposed to a cynical view of human nature, one might be led to the speculative conclusion that the California queen breeder was attempting to level the playing field somewhat with his Hawaiian competitors by intentionally infecting Hawaii with tracheal and *Varroa* mites, both of which could have been present in that package.

I am entirely convinced that both mites were brought into the U.S. on queens or attendants smuggled into the country by some unwitting beekeeper. The earliest documented discoveries of both mites have further led me to believe that the smuggler was probably a queen breeder, or a commercial beekeeper who raised his own queens, looking for new genetic material. Although I know neither bee journal is interested in casting advertisers or industry principals in any disparaging light, and the trail here is somewhat cold, considering the economic havoc that has been wrought on the beekeeping industry and beekeepers in this country due to the criminal negligence of some beekeeper, were I you, I'd investigate this story further, and name names.

Mark Kellberg  
Evanston, IL

## Keep 'em Home

I'm an amateur beekeeper for quite a few years with two hives about 200 feet from the house.

My wife and I live about three miles from Mountain Home and as far as I know my brother-in-law's swimming pool, about a quarter mile from my house, is the only swimming pool for miles around. Because he lives in a wooded area he covers his pool at night. And in the morning, around 10 or 11 when he goes to take the cover off

there are a myriad of bees drinking from the little pockets of water that were left there when he rolled the cover over the pool. He didn't exactly complain but he let me know that MY bees were somewhat of an annoyance.

I had never read about it, at least as far back as I can remember, when what has turned out to be a stupendous stroke of genius on my part, I put just plain tap water in a couple of Boardman feeders and set them on the hives. Within a day except for one or two bees, which I imagine were old field bees and held on to old habits, my brother-in-law's pool was bee free.

My question: What damage can I do to my hives by continuing this practice? Or can I impede their ability to get nectar? Or because the water is so plentiful (they use about a pint every four or five days) it will make it harder for them to bring the honey down to a specific gravity so they can cap the honey?

It certainly would seem to me that this is a wonderful public relations ploy for people who have hives in a suburban area where pools are plentiful and most certainly would extend the life of some of the bees for more important jobs like gathering nectar.

Robert S. Hanke  
Mountain Home, AR 72653

## Kraft Answers Back (badly!)

**Editor's Note:** Kraft recently ran an ad depicting a wasp nest as a home for honey bees. Hundreds perhaps thousands of beekeepers contacted them. Below was Kraft's stock response.

Dear Incensed Beekeeper:

Thank you for contacting us regarding an advertisement for Kraft Honey Dijon Dressing. We appreciate your interest.

The design of the beehive model shown is based on several factors. Beehives are usually located inside trees in nature which creates difficulties if you want to depict them, as we have done, in an external environment. A honeycomb, like seen hanging from a tree branch or in a beekeeper's box, is usually covered with bees and is not very appealing. When depicted for commercial purposes, beehives

have historically taken on a more generic "hive" appearance. The model of the beehive in our advertisement is very similar to past *Disney and other commercial artist's renderings of beehives.*

Thank you again for your comments. We are enclosing a complimentary coupon for your enjoyment.

Paulette J. Trometer  
Consumer Representative

Enclosure

\$.35 off any KRAFT Product (1)  
Free Kraft Dressing (any variety) (1)

## You Can Import Pollination!

Nova Scotia, Canada is one of a few areas in North America that remains free of both *Varroa* and Tracheal Mites. This status is currently under attack because some blueberry growers in the Province want to bring U.S. bees here for pollination. The reason is simple: American beekeepers are undercharging for pollination services. The average pollination fee for blueberries in Nova Scotia is \$65.00 Canadian, or about \$50.00 U.S. Most growers here consider that fair value for the tremendous benefit they receive from honey bee pollination. However, the pressure here is building to open the border to bee movement because migratory American beekeepers are charging under \$35.00 U.S. on average for blueberry pollination in Maine. Obviously, American beekeepers are underestimating the value of their pollination services.

Much is made in the U.S. bee journals about cheap imports of honey into the American market. I hope Nova Scotia's beekeepers can count on our American counterparts not to dump underpriced bees in our pollination markets. Even better, I hope American beekeepers realize the true value of the pollination service they provide to Maine's blueberry growers.

Tom Cosman  
Nova Scotia, Canada

## Miffed At Mallow

I'd better start by congratulating you on your milestone 100

Continued on Next Page  
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# MAILBOX

issues and say that I like the magazine, especially Richard Taylor. (His Jan. 94 article was his best.) Until now, none of the changes you've made were of particular concern for me, and I know the name change, especially, got you a lot of flack.

But your July cover story on "Peters Mountain Mallow" is of real concern that you are getting as far away from bee culture as possible. Frankly, you are playing into the hands of, and helping perpetuate the goals of environmental extremists who have been using the Endangered Species Act to wreak havoc on our country.

Mallow (*Malla neglecta*) is a common weed that grows in waste places world wide and is listed as a noxious weed in some agricultural states. To list an only slightly different subspecies as endangered, with all the attendant ramifications that listing involves, is ludicrous.

We all recently learned about a Subspecies of the Kangaroo Rat in California that was put on the endangered species list. Home owners, who for years had disked a firebreak around their housing developments, in a high fire danger zone, were forbidden from taking that precaution because it would allegedly "disturb the habitat of these subspecies rats." Many of us watched the scenes of those California fires and resulting huge property losses. Kangaroo Rats are not endangered - there are thousands upon thousands of them, but a slightly different subspecies was listed as endangered directly contributing to these losses.

In WA, OR, and CA a subspecies of the Northern Spotted Owl was placed on the endangered species list. Mind you, Northern Spotted Owls are not endangered - merely this very slightly different subspecies. The logging industry in those affected states has been devastated. The economies of whole towns ruined. Tremendous financial suffering by many people - to say nothing of the skyrocketing cost of lumber for new home construction throughout the country. All of this to protect a subspecies now found to be far

more plentiful than at first alleged.

Soon after the Endangered Species Act was passed, so called environmentalists clamored to list species such as: the American Alligator, African Leopard and Cheetah. None of these were at that time endangered and, in fact, all had healthy, expanding populations. Nevertheless, once listed, it took many years, reams of studies, and great expense before this listing was removed.

Next, apparently by reading the fine print in the Act, these zealots and environmental whacos found they could get obscure species such as snail-darter minnows and subspecies snails listed - halting development on, or use of, private property inhabited by such things.

Now comes the "Peters Mountain Mallow" a mere subspecies of a worldwide noxious weed as an "Endangered Specie," and now A.I. Root Company attempts to cash in on these ungodly, destructive, disruptive, and costly uses of the Endangered Species Act by printing front and back with pictures and selling prints. I know you would like to profit by the "Environmental Movement," but suggest possibly starting another publication for that purpose.

As I said, I like your magazine and didn't mind, even approved of, your changes; however, you can't be all things. Please stick to Bee Culture, and spare us politically correct "endangered species" foolishness we are force fed from all other media.

Rick Reakoff  
Warrens, WI

**Editor's Note:** We hardly think that four plants (*Iliamna corei*) living on the side of a mountain in Virginia will pose any of the problems you mention, but perhaps they may. Nevertheless, the relationship between disappearing plants and disappearing bees remains tenuous - hence our interest.

And yes, we stand to profit from the sale of the print, as does the artist. But this profit provides a valuable work of art for your home or office, and supports an artist in her quest to find, and make known other plants on the verge of extinction.

Erring on the side of preservation is not wrong, although, as you correctly point out, abusing that right

is. We feel this is not.

## More on the Info Highway

If you send a 10 by 13 manila envelope, addressed to yourself, and with \$2.90 in postage for return mailing, you can receive a free Internet "telephone book." Send self addressed, stamped envelope to: Aldea Communications, Inc., 7720 B El Camino Real, Box 117, Carlsbad, CA 92009, Ph (619) 943-0101.

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Stan Kain  
Atascadero, CA

**Editor's Note:** Stan Kain wrote the recent article on Getting On The Super Highway, Bees & Bytes.

## Needs Info

Recently, I've come into possession of an unusual and interesting object, which I presume has some relationship to beekeeping.

It's a silver metal round piece about the size and resembling a pocket watch. There are engraved numbers around the metal rim, and numbers around the white face. Printed on the face is **Watkins Bee Meter and Made in England**. A small "magic eye" diagram occupies the six-o'clock position.

I would be most appreciative of any information you could supply as to its use and literature references. The many beekeeping books I've looked at do not mention this.

Joseph Chersky, M.D.  
201 S. Camden Dr.  
Beverly Hills, CA 90212

# MAILBOX

## Covered?

When I received my April issue of *Bee Culture*, it looked as though it had begun the recycling process before actual delivery took place.

I am curious as to whether there exists a possibility it could be placed in a plastic wrapper if we all paid a small cost to our present subscription rate.

R.W. Colwell  
Spring Mills, PA

**Editor's Note:** We have discussed pros and cons of wrapping our magazine in plastic, corn starch film and paper. The cost, in real dollars, added weight, added land fill and the like have dissuaded us to do so. If the Post Office mangles your copy let us know, we'll replace it. It's easier and cheaper than arguing with "that" system.

## Regular Honey O.K.

Reading about feeding corn syrup and feeding sugar to the bees, reminded me of a woman who wanted to buy some honey from me. The second question she asked was if I feed my bees sugar, as if to ask that she might get sugar mixed with her honey. Having been asked this question before a dozen times or more, informing them when sugar syrup is feed to them and why, most beekeepers are honest, and not to worry about it.

With a straight face and looking her in the eye I said no, I don't feed my bees sugar. I feed them low calorie Sweet & Low. With a blank look on her face, I couldn't keep from laughing and she knew I was kidding. I told her about feeding bees and when this is done, and that honey that turns to sugar doesn't mean that it was mixed with sugar syrup. The woman calls me each year wanting to know if I have any low-cal honey. I laugh, and tell her no, just the regular honey, which seems to be O.K.

Donald Stambaugh  
Prestonburg, KY



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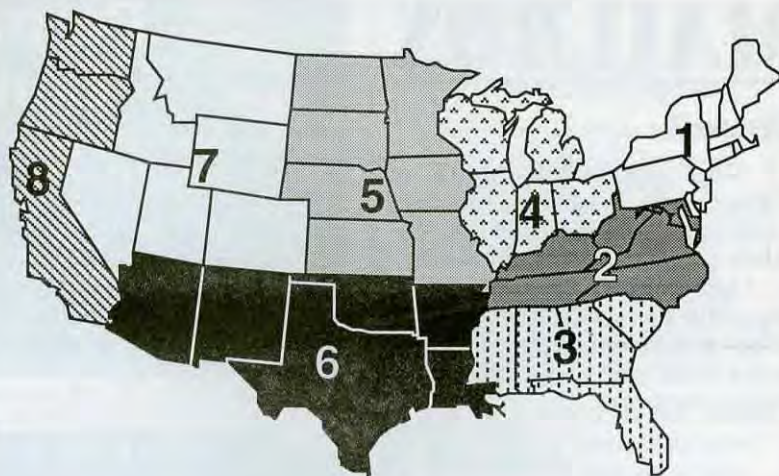
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# SEPTEMBER Honey Report

September 1, 1994

## REPORT FEATURES

Prices shown are averages from many reporters living in a region, and reflect that region's general price structure. The Range Column lists highest and lowest prices received across all regions, from all reporters.



	Reporting Regions								Summary		History	
	1	2	3	4	5	6	7	8	Range	Avg.	Last Month	Last Yr.
<b>Extracted honey sold bulk to Packers or Processors</b>												
<b>Wholesale Bulk</b>												
60# Light	40.45	44.00	41.26	42.70	41.26	42.58	44.70	41.20	30.60-50.00	43.17	41.58	42.14
60# Amber	38.74	42.78	37.50	38.50	50.00	40.63	40.00	38.00	24.00-50.00	40.97	39.81	39.66
55 gal. Light	0.52	0.48	0.59	0.58	0.53	0.50	0.52	0.60	0.45-0.77	0.54	0.57	.604
55 gal. Amber	0.47	0.45	0.46	0.55	0.52	0.46	0.48	0.53	0.40-0.67	0.50	0.53	.549
<b>Wholesale - Case Lots</b>												
1/2# 24's	21.64	28.48	18.00	21.60	26.27	20.25	22.50	18.40	16.80-39.60	22.42	24.61	19.96
1# 24's	28.97	31.40	30.00	30.00	36.00	30.50	31.68	28.60	24.00-36.00	30.39	31.10	30.29
2# 12's	27.41	30.28	28.40	27.68	34.80	26.75	28.75	32.00	22.80-36.00	29.09	31.67	28.43
12 oz. Plas. 24's	25.59	28.80	36.00	24.60	28.51	25.25	27.50	24.10	22.80-36.00	26.72	28.04	26.40
5# 6's	28.76	31.50	34.50	30.80	30.77	27.25	27.75	29.15	25.80-36.00	30.51	30.69	30.90
<b>Retail Honey Prices</b>												
1/2#	1.45	2.30	1.11	1.19	1.02	1.59	1.10	1.11	0.90-3.50	1.44	1.46	1.15
12 oz. Plastic	1.57	1.76	2.00	1.54	1.44	1.74	1.50	1.49	1.29-2.00	1.65	1.58	1.59
1 lb. Glass	1.77	1.94	1.92	1.64	1.87	1.92	1.92	1.77	1.39-2.25	1.85	1.79	1.77
2 lb. Glass	3.00	3.40	3.18	2.92	2.98	2.99	2.95	2.69	2.55-4.00	3.13	3.19	3.10
3 lb. Glass	4.04	4.72	4.50	4.29	3.60	3.86	4.50	4.11	3.50-4.99	4.29	4.42	4.23
4 lb. Glass	5.04	5.40	5.40	5.64	5.78	5.10	4.95	6.45	4.95-6.45	5.51	5.69	5.45
5 lb. Glass	6.30	6.97	6.90	6.57	6.00	6.02	5.95	6.49	5.95-8.50	6.58	6.79	6.83
1# Cream	2.12	2.32	2.27	1.79	2.03	2.90	2.10	1.89	1.59-3.25	2.22	2.68	2.29
1# Comb	2.76	2.17	2.75	3.75	2.73	3.71	3.50	2.59	2.00-4.00	2.96	2.85	3.22
Round Plastic	2.57	2.50	1.80	2.83	2.83	3.50	4.00	2.64	1.70-4.00	2.78	2.84	2.86
Wax (Light)	1.48	1.15	1.57	1.30	1.68	1.35	1.85	1.45	1.00-2.50	1.53	1.69	1.80
Wax (Dark)	1.18	1.05	1.25	1.23	1.33	1.08	1.10	1.20	1.00-1.75	1.23	1.25	1.36
Poll. Fee/Col.	27.58	32.75	28.75	32.50	27.00	20.83	35.00	32.00	12.50-40.00	29.35	30.07	30.68

### MARKET SHARE

Will Chinese honey rise in price, now that they've got their act together (and have quit cutting their own profits)? Will this give U.S. producers a chance to sell honey where none have for years? Will Argentina's, Mexico's and Canada's prices stay the same? Will NAFTA change the prices? Will a new farm bill next year really make any difference? Inquiring minds want to know. U.S. producers need to know!

### Region 1

Crop looks a bit smaller than expected earlier coming in just a bit below 'average'. Clover, alfalfa, wildflower dominate harvested varieties, with most finishing in a month or so. Sales off a bit due to imports, but some markets strong looking for 'local only' honey.

### Region 2

About average crop reported for the region, with a few strong areas, especially southern parts. Clover and tulip poplar dominate the harvest, with some others, especially wildflower thrown in. Extraction finishing up by late Nov., with demand strong for 'fresh' and 'locally purchased' honey.

### Region 3

Overall, reports of less than average season prevail, but close to average is about right. Typical crops - palm, pepper, cotton, sumac in summer and fall harvest. Demand strong at local level, but large scale sales difficult due to both Chinese and Mexican imports.

### Region 4

Wildflower and clover main reported crops, but lots of spring tree honey also harvested this year. Overall, above average, to way above average crops reported. Demand steady to strong, especially at farm market level. Harvesting complete by Oct., then demand will increase.

### Region 5

Clover and wildflower dominate, with clover the strong suit. Average yields this year, which still means lots and lots of honey. Demand average at local level but still weak at bulk sales. Extracting usually done by October.

### Region 6

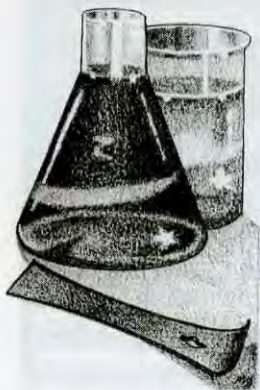
An about average to a bit less so seems to be the crop this season. Dry, hot weather held some areas back. Demand for local honey remains strong, even in hot weather.

### Region 7

Average is the best it gets in most areas, with spray damage extensive this year. Alfalfa and wildflower and clover dominate. Reduced yields will help prices at all levels.

### Region 8

Average to below crop due mostly to weather. Mixed crops, clover, alfalfa and thistle dominate. Extracting done in October mostly, later in the south. Demand all over the map - strong local, weak in bulk.



# RESEARCH REVIEW

roger morse    cornell university    ithaca ny

*"Are Bumble bees as good as everyone says they are? Maybe, maybe not."*

**R**eports on numbers vary, but at least several thousand colonies of bumble bees are being sold for greenhouse pollination in North America, mostly for use on tomatoes. One promotional paper states the number of bumble bee colonies sold worldwide is over 125,000 a year. More recently, I have seen advertisements suggesting that buying bumble bee colonies might be a good option for outdoor pollination as well.

The prices from one company in Pennsylvania vary from a low of \$99 for a mini-hive (30 to 35 bees), to \$195 for a "B" quality, and \$315 for an "A" quality with 100 to 150 bees, including shipping and handling. All of the bumble bee colonies sold in the U.S. and Canada are *Bombus impatiens*, a native American species. However, the colonies sold in this country are started and grown in Belgium where apparently the best technology for growing these bees exists. See this magazine (September, 1992) and this column (July, 1993) for some bumble bee technology.

In Europe, this same Belgium company grows and sells *Bombus terrestris*, a native European species. Both the U.S. and the Canadian governments forbid the sale of European bumble bee species in North America. I find it amusing, and perhaps even ridiculous, that the Europeans allow American bumble bee species onto their continent but the reverse is illegal. Which species might be best for greenhouse pollination is apparently not a consideration insofar as American governments are concerned.

Are bumble bees really better for greenhouse pollination than honey bees? I know of no data to demonstrate that bumble bees are superior in any way but the bumble bee promoters have a better song and dance

team. And promotion and advertising are a big part of any sales campaign. Besides, bumble bees are big, noisy and easily seen.

I have checked the literature on tomato pollination as well as that pertaining to greenhouse pollination. Additionally, I grew some tomatoes in our Cornell greenhouse this spring, introduced a colony of honey bees and observed that my bees did visit tomato flowers. Fruit size and quality are usually affected by the number of seeds present and tomatoes may have 73 to 346 seeds per fruit, McGregor, (1976). Each of these seeds must be fertilized by a pollen grain.

The following review of some of the pertinent experiments and literature suggests that we could be using honey bees for greenhouse pollination more extensively. This might be a good market for beekeepers to exploit.

**Nectar and pollen** According to references cited by McGregor (1976) tomatoes produce little or no nectar but bumble bees and other wild bees apparently collect pollen from them. Free (1993) says tomato flowers have no nectar. Cribb (1990) observed honey bees with tomato pollen in their pollen baskets but I have not found other authors who have made this observation.

**Flower morphology** Tomato flowers may be fertilized by their own pollen. In most varieties the style (female part) is short and when the pollen is shed from the anthers (the male part) it falls onto the stigma and fertilization is done. However, in some varieties the style, with the stigma at its tip, grows beyond the anthers and the opportunity for cross pollination, that is, receiving pollen from another flower, is greater.

**Greenhouse pollination** As early as 1907 (see Free, 1993 and

McGregor, 1976) it was observed in greenhouses in Michigan that shaking or otherwise artificially pollinating tomato flowers was necessary to set a maximum amount of fruit. Outdoors, tomato flowers are shaken sufficiently by the wind to bring about pollination.


**The controversy** Several researchers report that using bumble bees or hand vibrators to force pollination in tomatoes works better, or slightly better than when honey bees are used alone. For example, Neiswander (1954) found that when flowers were vibrated in addition to having bees present, the plants set slightly more fruit than when bees only were present. However, he also wrote, "A difference in the action of different strains of bees was also observed. Caucasian bees seemed to work more actively and at lower temperatures than others used."

**Why are bumble bees favored?** Bumble bees will fly at lower temperatures than honey bees and they will also fly in a light rain. Bumble bees fly and forage well in a greenhouse but so will honey bees. However, in the case of honey bees, when the population on the flowers reaches a certain level the rest of the bees fly to the ceiling and continue to hit against it causing growers to wonder why all of the bees aren't working. One can force only a certain number of bees to visit a given number of flowers, a fact set down by Bonnier in 1906 (see Phillips, 1927). I suspect bumble bees would do the same thing if there was an overpopulation of them. Another statement made about bumble bees is that they fly faster and visit more flowers than honey bees in a given period of time.

Bumble bees forage naturally on flowers such as tomatoes that have long, porose anthers that release pol-

len only when they are vibrated. Bumble bees cause the flowers to release their pollen by shivering their indirect flight muscles, something honey bees do not do. However, Cain et al. (1993), after seeing honey bees collecting pollen from cranberries which also have porose anthers, observed that the honey bees drum the flowers using their forelegs and thus release the pollen. They state, "This behavior of anther drumming represents an alternate and at least somewhat effective means for *Apis* bees to harvest pollen from flowers with porose anthers."

**Conclusions** At present, bumble bees seem to be favored for use in greenhouses. However, honey bees can be used effectively under the same circumstances. This is proven by their extensive use in greenhouse strawberry pollination in Japan where over 70,000 colonies are rented each year for this purpose. Honey bees can collect pollen from greenhouse tomatoes but some strains of bees may be more efficient than others.

In approaching this question, one piece of information is not being used: certain strains of honey bees have been found that collect more pollen than others. Hellmich and Rothenbuhler (1986) showed that honey bees could be selected for their pollen-collecting and pollen-hoarding traits. This suggests to me bees that collect more pollen are the ones we should be using in greenhouses. 

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# ? DO YOU KNOW ?

*Fall Prep*  
clarence collison

Effective honey bee management requires the beekeeper to understand basic bee biology and behavior. As fall approaches, colony management is primarily concerned with preparing colonies for the winter. The essential considerations for wintering include colony strength, adequate food stores, upward ventilation, easy commu-

nication from comb to comb, colony health, protection from extreme climatic conditions and reduced entrances.

How familiar are you with bee behavior and recommended fall management practices? Please take a few minutes and answer the following questions to determine how well you understand these important topics.

*The first nine questions are true or false. Place a T in front of the statement if entirely true and F if any part of the statement is incorrect. (Each question is worth 1 point.)*

1. \_\_\_ Queen excluders and frames with undrawn foundation should be removed from the hive in preparation for wintering.
2. \_\_\_ Colony reproduction (swarming) is primarily a spring phenomenon, however, limited swarming also occurs in the fall.
3. \_\_\_ European foulbrood is most prevalent in the fall and Terramycin treatments are recommended.
4. \_\_\_ Uniting weak colonies in preparation for winter is a recommended management practice.
5. \_\_\_ Yellow jackets in the fall are a serious menace to the colony since they rob the hive of honey and brood.
6. \_\_\_ Fumagillin is normally mixed with powdered sugar and one tablespoon of the drug and sugar mixture is sprinkled on the top bars of the broodnest, two treatments 7-10 days apart.
7. \_\_\_ Entrance reducers are normally placed in the hive entrance in the fall for the purpose of aiding the colony in regulating cluster temperature.
8. \_\_\_ Bees begin to form the winter cluster when the temperature drops below freezing.
9. \_\_\_ It is important to reduce the hive space provided for wintering since the winter cluster heats the inside of the hive.

Multiple Choice Questions (1 point each)

10. \_\_\_ Skunks visit colonies to feed on:  
A) Adult Bees  
B) Adult Bees and Brood  
C) Brood and Honey  
D) Adult Bees, Honey and Pollen  
E) Honey and Pollen
11. \_\_\_ Treating colonies with fumagillin in the fall is done to suppress \_\_\_\_\_.  
A) Chalkbrood  
B) Tracheal Mites  
C) Nosema Disease  
D) Varroa Mites  
E) American Foulbrood

12. \_\_\_ Fluralinate is the active ingredient found in \_\_\_\_\_.  
A) Para-Moth®  
B) Apistan Strips®  
C) Bee-Go®  
D) Fumidil-B®  
E) Honey Robber®

13. Robbing is often a problem in the fall. What are the primary conditions that initiates the robbing instinct? (2 points)
14. Please explain why the introduction of a new queen in late summer/early fall will normally increase the probability of winter survival. (2 points)
15. Please explain why treating colonies infested with *Varroa* mites is considered most effective after the bees have formed the winter cluster. (1 point)
16. List three characteristics you would expect to observe in a colony with laying workers. (3 points)

As you prepare your colonies for winter what action would you recommend upon finding the following situations: (1 point each)

17. A moderately strong colony with a large population of drones.
18. A colony with most of the bees and brood in the uppermost hive body and the bottom hive body filled with honey.
19. A weak colony with a few wax moth larvae tunneling in the outside combs of the brood chamber.
20. A colony with two full-depth hive bodies containing brood, honey and pollen with an empty medium-depth honey super on top.
21. A strong colony with inadequate food stores (approximately 20 pounds less than recommended for your region).

Answers on page 528

# Bee Flu

mark winston

I was channel-surfing through TV-land a few nights ago, and my wandering, tired brain was riveted back to attention by grotesque images of dead people rotting in their cars inside of the Lincoln Tunnel in New York City. The show turned out to be a Stephen King made-for-TV special in which a mysterious and lethal flu devastates the United States, killing most Americans and leaving only a very few survivors to re-establish civilization. The swollen, decomposing bodies in their cars reminded me of something, and the next morning I realized where I had seen this before: sacbrood-infected bee larvae dead in their cells. Yes, change the flu virus to the sacbrood virus, make the show about a devastating new variety of this bee disease, have the new virus wipe out most of our colonies, and you end up with a made-for-TV bonafide Stephen King beekeeping horror movie.

Human viruses, of course, are no joke. The virus that causes influenza, for example, appeared in a particularly lethal variety at the end of World War I and killed about 20 million people. The HIV virus that causes AIDS now infects over 10 million people world-wide, yet was virtually unknown only 15 years ago. The worst part about viruses is that there are few effective treatments. Viruses are not like bacteria, which generally can be medically defeated with antibiotics. For viral infections, physicians can only treat the symptoms caused by the virus and hope that the natural course of the infection completes its cycle with the patient still alive.

Bee viruses, in contrast, are not as serious as some of the human ones. Most bee diseases caused by viruses are more like the common cold than a deadly flu. They can cause some damage to the colony, and severe cases are known but, in general, bee viruses are a low-level nuisance and usually are not high on beekeepers'

disease priorities. The greatest danger from bee viruses is not from the ones we know about today, but rather from as-yet unevolved and possibly more virulent descendants of today's relatively benign bee versions.

The word "virus" means "slimy liquid" or "poison," and the existence of viruses was not discovered until early this century. Viruses are not classified as plants, animals, or bacteria, but occupy their own unique taxonomic position as a separate kingdom in the world of living organisms. They are among the most primitive of organisms and are tiny; the largest virus is about 0.000002 inches across. Viruses also are the ultimate parasite, depending almost completely on the host organism for most of their life-sustaining functions. They cannot make proteins or generate energy, but must take over host cell functions in order to survive.

A virus is basically nothing more than a minimal amount of genetic material encased inside a membrane. When the virus finds a host cell, it injects its genetic material inside the host, and the virus' genome inserts itself into the genes of the host, thereby taking control over the host

cell's activities. The viral command center then forces the host cell to create an ideal environment for viral growth and reproduction, usually resulting in cell death and the release of many more viruses that move through the infected organism searching for more host cells. Viruses also can lie dormant within a host for years, and can be transmitted easily between hosts even in their non-symptomatic stages.

The identified bee viruses come with a bewildering array of names and symptoms. The known bee viruses include such interesting-sounding names as Chronic Paralysis, Cloudy Wing, Kashmir, Egypt, Sacbrood, Arkansas, Half-Moon, Slow Paralysis, Black Queen Cell and Acute Paralysis. Most larval and adult bees have a number of these viruses present in their bodies, but symptoms usually don't develop unless colonies are stressed. When symptoms appear they can be variable, but frequently include larvae that liquefy, darken in color and fail to pupate. Adults may

*Continued on Next page*

**The identified bee viruses come with a bewildering array of names and symptoms. The known bee viruses include such interesting-sounding names as Chronic Paralysis, Cloudy Wing, Kashmir, Egypt, Sacbrood, Arkansas, Half-Moon, Slow Paralysis, Black Queen Cell and Acute Paralysis.**

have bloated abdomens and dislocated wings and are found in front of colonies, crawling pathetically on the ground. There are no treatments for any of the bee viruses, but requeening colonies often reduces or eliminates the problem, suggesting that simply changing the genetic background of bees in a colony can be an effective response to viral infections.

**T**he known bee viruses can be a nuisance, and occasionally cause a serious problem, but by themselves don't seem to be serious enough to justify a major research effort to further understand how they are transmitted, how they effect bees, and whether they can be treated. However, I have been hearing increasing interest among beekeepers in expanding viral research. The potential for the introduction of new viruses is beginning to have an impact on bee policy decisions such as importations of European stock into Canada and the United States for breeding purposes, and the potential opening of United States borders to widespread bee importations from countries such as Australia or New Zealand. Further, U.S. and Canadian regulatory officials are considering conducting a broad survey of North American bee viruses to better define what is currently present in North America.

This recent flurry of interest in viruses has not been stimulated by the current level of viral impact on bees, but rather by the fear that a new virus species or variety may appear

in North America that could devastate our industry, much as the HIV virus that causes AIDS is wreaking havoc among human hosts. Indeed, AIDS provides an excellent example of how quickly a new virus can mutate from a non-virulent form into a serious disease-causing organism. The AIDS virus HIV likely evolved about 50 to 900 years ago, depending on which research source you want to believe. There are at least 14 identified human and monkey viral relatives of HIV, none of which are virulent, and all of which probably move freely between humans and monkeys. For some reason the HIV virus mutated into the deadly form that now infects humans.

**H**ow likely is this scenario for honey bees? The greatest viral danger to our bees may reside within the closely-related Asian honey bee species. Much like HIV in humans and monkeys, a non-virulent virus in an Asian honey bee could mutate slightly and become highly virulent when hosted by *Apis mellifera*. We all are familiar with a similar incident involving an Asian mite. Remember *Varroa*, the mite that causes almost no problems for its Asian host *Apis cerana*, but is highly destructive in our colonies of *Apis mellifera*?

Another problem with viruses is that they cause more damage in weakened colonies, and the combination of *Varroa* and tracheal mites is providing plenty of weak colonies for viruses to grow in. Beekeepers in my area, the Fraser Valley region of British Columbia, experienced aver-

age colony losses of 66% this past season due to combined infestations of the two mites in conjunction with an unusually bad season last summer. Was this extraordinary colony mortality due only to mites and weather? I think not. Rather, it seems to me that another factor was at work here, possibly bacterial and/or viral infections that may have provided the final bullet to finish off colonies weakened by mite infestations and a rainy summer.

There is some evidence that this scenario is plausible. Preliminary studies in some American laboratories have indicated that mite-infested bees have higher levels of bacterial infestations, and antibiotics administered as part of mite treatments seem to improve their effectiveness. If bacterial infections are higher in mite-infested colonies, then viruses likely are too, and may be contributing to colony death. Further, *Varroa* and tracheal mites may also be involved as vectors that transmit viruses and bacteria between colonies, in addition to producing a weakened colony environment in which pathogens can thrive.

**U**nfortunately, there is very little we can do about the potential for the evolution of new and more virulent strains or species of bee viruses. The only effective way of controlling a new bee virus would be to destroy infected colonies and hope that the virus had not spread too widely, but the current dependence of North American beekeeping on migration would make it difficult to effectively isolate and destroy a new viral pathogen. We could reduce the potential for off-shore viruses coming to North America by limiting bee importations, but there is no evidence that there are any viruses elsewhere in the world that we don't already have here. Also, the current mood in both Canada and the United States is leaning towards increased importations, particularly from New Zealand and possibly Australia. It seems heavy-handed to limit those importations only because of a hypothetical virus that may or may not appear, and is just as likely to appear first in North America as elsewhere.

I think we're left with the

**At the very least, we should begin a regular monitoring program for viruses to get some sense of what is currently out there, and to quickly pick up any changes that might pose more severe problems than we see in the current viral environment.**



Stephen King horror movie scenario, in which a virus could evolve that might wreak havoc in our industry. Fortunately, this possibility seems remote, but should it occur there is little, if anything, we could do about it. At the least, we should begin a regular monitoring program for viruses to get some sense of what is currently out there, and to quickly pick up any changes that might pose more severe problems than we see in the current viral environment. We also can look to modern medicine and molecular biology, and monitor their increasingly sophisticated ability to understand and possibly eventually control viral pathogens. If a prevention or cure for the human AIDS virus is ever found, then treatment for a new bee virus would not be far behind. I hope we make progress quickly; I hate Stephen King movies. **BC**

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# THE DARKENING OF AMERICA'S BEES

roger hoopingartner & e c martin

At the beginning of this century the majority of the bees of North America were descendants of the German, or black, bee of Europe. This was the stock that was brought over by the early settlers. The black bees were from the area of Europe that contained the original described species of honey bee, *Apis mellifera mellifera*. These bees were not very well liked, as seen by the following description written by Phillips early in this century.

"The German or black bees of the United States combine many of the undesirable qualities of all other bees. They are less prolific than Italians, they (and especially

"The 20th Century was the era of the golden Italian. We're heading into a period where the stock is a different color."

crosses with Italians) are cross but respond to smoke, they build more queen-cells than Italians and develop fertile workers more readily (less in this last respect than the eastern races), they do not clean the hive well or resist moths completely, they run badly on the combs and fall off the corners of the combs during manipulation and they swarm more than Italians. *Their greatest fault is that they succumb so rapidly to European foulbrood that it is most difficult to rid a colony of black bees of this disease.*" (Emphasis ours) In contrast the Europeans did not seem to have the same complaints about the dark bees, however there had been little effort to improve these bees in America.


From the early 1900s there was a concerted effort to

"Italianize" most of the bees in America. Canadian county offices displayed posters encouraging beekeepers to change to Italian stock and rid their colonies of European foulbrood disease (EFB). As a result of these campaigns, or because of the ease by which the EFB was eliminated by Italianizing a colony, by the 1930s most of the colonies had been requeened with Italian stock. There were undoubtedly some colonies or apiaries or regions where the German black bees persisted for some years after this period. As a result of the change to Italian stock most colonies had eliminated the EFB problem.

Many years later EFB returned to infect colonies with Italian stock. However, because of the lack of stored genotypes from this early period we will never know which organism changed – the disease bacterium or the honey bee. A good guess would be that the EFB organism mutated to more readily infect the Italian strain of bees.

Now, a century later, we find beekeepers are shifting back to the darker bees because most strains that have resistance to tracheal mites are at least dark colored "Italians." Those colonies that survived the invasion of tracheal mites had genes that were linked, at least in part, to the genes for dark color.

And the situation with *Varroa* mites? There the answer may not yet be clear. Well established resistance patterns have not shown up. One thing that is known is that *Varroa* does not seem to grow as rapidly into damaging populations in the colonies of Europe. Beekeepers in Europe have generally favored the Carniolan strain – a dark-bodied bee. The "Yugo" strain of bees that has been released is certainly a dark bee. Yugoslavia is a region where Carniolan bees are raised.

Thus, it would appear America's honey bee colonies will not contain the gold Italian strain as many have for the last 100 years. We have noticed a majority of colonies seem to be much darker than they were just four or five years ago. This may only be our perception, but the evidence seems to be pointing to the use of a different strain of bees today. Maybe the 20th Century was the era of the Italian bee and we are now headed into a period where the stock is of an entirely different color. 

Roger Hoopingartner is Professor and Apicultural Extension Specialist at Michigan State University, East Lansing Michigan. E.C. Martin held that position previous, and is now retired.

# Almond Acreage Cranks Up

Joe Traynor

“This bodes well for beekeepers . . . since almond pollination remains the backbone for many operators.”

After a 10-year hiatus, California farmers are planting almonds again and bearing almond acreage will resume the upward trend that was halted five years ago. It takes three to four years for newly planted trees to come into bearing.

For the past five years, almond acreage has held steady at around 400,000. The economic life of an almond orchard is about 25 years, give or take a few years, and in order to maintain 400,000 bearing acres, 16,000 acres of new plantings are needed annually.

From 1983 to 1993, new plantings fell woefully short of acreage maintenance levels for a number of reasons: drought years, unstable almond prices, tight money, uncertainty as to how the market would absorb new plantings and a general pessimism about agriculture in general. What triggered the record number of acres planted this year (and probably for the next few years) was the realization that significant almond acreage would be coming out (due to old age) so that new plantings would have less of a disruptive effect on the market. Other factors contributing to the planting surge are: end of the drought, more stable almond prices (due to increases in both ex-

ports and domestic consumption), an expanding global economy, an increased optimism about agriculture and a growing awareness that there are not many places in the world where almonds can be successfully cultivated.

When California farmers sit down and contemplate what crops have the most long-term financial stability, they find that almonds are hard to beat, mainly because of the unique climatic requirements that greatly limit their growing area. California grapes, particularly wine grapes, have come under pressure in recent years now that wines of excellent quality can be made from grapes grown in Washington and Texas; as a result, some grape growers are making the switch to almonds. A California apple planting boom in recent years came to a halt when it was realized that markets would probably not withstand the increased production (and that China was embarking on similar growth). Large scale plantings of oranges in Brazil and Mexico have California orange growers concerned.

## ACRES OF NEW ALMOND PLANTINGS 1975-1999

Year	Acres Planted	Year	Acres Planted
1975	22,000	1985	3,100
76	7,500	86	1,200
77	5,700	87	1,800
78	13,500	88	4,500
79	26,000	89	6,000
1980	26,000	1990	4,200
81	35,000	91	7,000
82	17,000	92	3,600
83	6,400	93	6,000
84	3,500	94	27,000

1995- 30,000  
1999 per year\*

\*estimate

It takes 16,000 acres of new plantings annually to maintain 400,000 bearing acres (based on 25 yr. tree life).

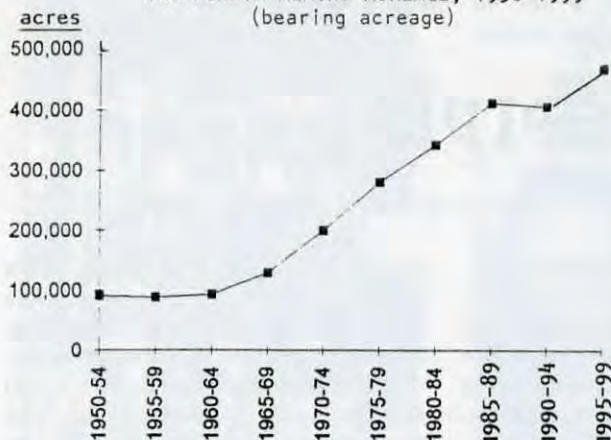
## BEARING ALMOND ACREAGE & RAINFALL BY AREA

Area*	Annual Rainfall	Bearing Acreage	
		- 1994	1999 (est.)
Northern	24"	83,000	80,000
Central	12"	209,000	265,000
Southern	6"	107,000	105,000
<b>Total:</b>		399,000	440,000

\* Northern = Sacramento to Red Bluff  
Central = Stockton to Madera  
Southern = Fresno to Bakersfield

Most of California's new almond acreage will be planted in the central part of the state; the northern and southern regions will not see as much of an increase. The reason for this is related to rainfall in the three areas. The heavier rainfall in the northern almond areas means a greater chance of rain in February, when almonds bloom. California receives 15 to 20% of its annual rainfall in February and over the years there has been a strong inverse correlation between almond crops and February rainfall. Yields in southern orchards usually exceed those in the other two areas because of less rain in February, but the southern area is short of water (because of its lower rain-

CALIFORNIA ALMOND ACREAGE, 1950-1999  
(bearing acreage)



fall) and relies heavily on canal water transported from northern California. Increasing environmental restrictions on this water transfer (especially in regard to flows into the bay area delta to maintain wildlife) have caused what has come to be known as a "regulatory drought" in the southern area, particularly on the water-short west side. Ground water is expensive in the southern area (and unavailable on the west side) due to a greater depth to the water table. Banks won't loan money to farming operations unless prospective borrowers can demonstrate a

firm water supply. As a result, west-side acreage will decrease; it remains to be seen if east-side acreage in the southern area will take up the slack.

The state-wide almond acreage increase bodes well for the beekeeping industry. At a time when income from honey production is decreasing (and may become a thing of the past) almond pollination remains the backbone of many bee operations.

Does the increased almond acreage mean a bee shortage for pollination? Probably not, because there are still ample out-of-state colonies that can fill the need. In addition, a number of beekeepers (both local and out-of-state) sacrificed this year's orange-honey crop (in April) in order to make divides and increase colony numbers for almonds. Beekeepers that are established in California almond orchards are aware of bee needs a year ahead of time and are poised (or have friends who are poised) to take up any slack. Bringing bees to California without a firm almond pollination commitment would be unwise.

There has been little price-cutting of almond pollination fees because beekeepers have found such tactics to be self-defeating. Many almond pollination fees are in the \$40/hive area. At these prices, and with the continued deterioration of the honey market, feedlot beekeeping may be here sooner than we think. **EC**

*Joe Traynor is an agricultural consultant in California specializing in, among other things, almond culture and pollination. He is the author of "The Almond Pollination Handbook - For Almond Growers and Beekeepers", released last year.*

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# Honey Merchant

## London Style

— howard scott —

Vacation is the time for rest, renewal and a change of pace. But it's hard for die-hard beekeepers to ignore their primary interests. So it was on our summer vacation to England that I spent many hours with beekeeper, honey-product creator and honey retailer James Hamill at his store, *The Hive*, in Battersea, London.

Ironically, Hamill is a transported Californian who has resided in England for 10 years so we had no trouble understanding each other. There was no Scottish burr, no thick Cockney, and no pronunciation variations to get through. Plus the tall, thin, handsome Hamill, who is also an actor, is an enthusiastic talker.

His shop, the only store in London which devotes itself exclusively to bee products, is a relatively new venture, now in its third year. How *The Hive* got to be is an interesting story in itself. Ten years ago, Hamill arrived in London from New York City to pursue an acting career on stage. With free time on his hands during the days, he resumed beekeeping, an activity he had taken up as a teen-

ager growing up in Long Beach, CA. Hamill steadily built up to 60 hives, and began selling his wares at fairs. Not content to peddle the basic bee standards, he began experimenting with honey-based products and working with many recipes collected during travels to Wales, Scotland and Greece. His German-born wife, Ute, focused on body creams and conditioners using honey bases.

Together they created such unusual edibles as English Lime Tree Honey, Honey and Pecans, Honey and White Chocolate, Honey and Ginger, Honey and Orange, Honey and Vanilla, Honey Fudge Sauce, Honey and Cognac, and emulsifying creams such as Honey Boot Polish, Honey and Cinnamon Shampoo, Honey and Rosemary Hair Rinse, and Honey and Almond Cream Bath. These products were such a big success at fairs that Hamill decided to open up a shop featuring his potpourri of goods. Today, he eschews fairs, preferring to focus on his retail store. Hours are 10:00 a.m. to 6:00 p.m. Tuesday through Saturday. When business is slow

Hamill can always keep busy with projects. In the back room are his tools, extractor and laboratory. The basement doubles as a storage room.

*The Hive* is a small store – 1,500 square feet, on Webbs Road, one street away from Northcote Road, the busy shopping district of Clapham Junction, Battersea's center. Although the traffic count isn't high, as Webbs Road is primarily residential, Hamill hopes to build up trade through word-of-mouth. On the front sidewalk stands an old-fashioned WBC empty hive. The store front has an attractive wood decor with four brass lamps and a carved wooden golden skep overhead. The glass front lets the viewer peer into the store. Inside, attractive wall units contain body creams on the left and edibles on the right. A center display features natural dried flowers, surrounded by other offerings. At the far end stands a counter and beyond this is his makeshift laboratory. Shelves contain ingredients he uses in his experiments. In one corner of the shop is a working beehive, glass-fronted for easy viewing; customers love to spot the red-dotted queen. Everything, including the carved skep, was built by Hamill.

Hamill says, "What we have here is a real full-scale bee store. There are new and different products. There's always something interesting going on. I can answer any questions. We're really a curiosity here."

As we spoke, an older woman came in with a honey bee in a small watchbox. She said the bee seemed injured, and asked Hamill for his advice. He opened the box, saw that the bee wasn't too active, and fed it some honey. When it seemed to revive, he nudged the insect out of the box and it flew away. In gratitude, the woman purchased honey jam. So, I guess, along with his other attributes, Hamill is also a bee doctor.

How are retail sales going? Hamill

The store front of *The Hive*, showing the WBC hive, flowers and honey display.





A close up of the store window.



James Hamill, store owner, standing in front of lab.

says it's too early to tell, for word-of-mouth is slow and the store does no advertising. However, monthly sales are going in the right direction. Hamill says, "if we can just keep paying the bills, and sales keep increasing, we'll be in good shape." In addition, Hamill sells product from a few select outlets, such as Fortnum & Masson.

Hamill continues, "What I really like is making new products. I find ideas everywhere. Customers give me suggestions. I read something, and that starts me thinking. The more you learn, the more ideas come. For example, when I found out that honey was used as an embalming agent in ancient Egypt, that gave me thoughts about preservatives. When I found out that people used to wash their hair with honey, that got me involved in hygroscopics. When I travel, I always exchange recipes. Last year, in Greece, someone gave me a recipe for mixing nuts in honey."

However Hamill admits that the government agencies are not easy to deal with in getting products on the market. There are tests and bureaucratic red tape and labelling issues and packaging requirements that Hamill has to work through. But he's managed to maneuver through the minefield of regulation with 40 different products. These days, he is in the process of copyrighting his products in the U.S. and the U.K. so people can't duplicate the ingredients. He has already trademarked most of his products.

As for his hive activity, Hamill is

currently expanding from 100 to 600 hives. He obtains two harvests – one in Spring and a second in July. He accomplishes this by moving the hives to inner London parks, where bees take advantage of local flowers. The honey is white, almost clear, and needs some sweetening up, so he blends it with honey from the first harvest. He says, "The key is placement." With good placement, you'll really get those bees to put out." The proof is in the results. Hamill expects an average yield of 175 to 200 pounds per hive.

To speed up the extraction process, Hamill is changing all of his hives to Langstroth deep supers. Before he used a mish-mash assortment, including WBC, National, deep National, Commercial and Langstroth. Hamill believes that with standardization, he'll be able to cut his harvesting time in half. Although he now uses a small hand-held blower, he wants to upgrade to a commercial blower when money permits.

This points to another problem – availability of equipment. Hamill says English manufacturers are not very satisfactory, and American products are not easily available. Hamill finds that French manufacturers make the best, most durable, easy-to-operate equipment, from hives to extractors.

Another side is Hamill's scientific research. He is an active member of the British Bee Farmer Association, of which there are several hundred members in London. He has been involved in experiments to revive the British Black Bee, which existed dur-

ing World War II, and participated in studies to eliminate *Varroa* mites. In fact, he published his first scientific paper, "Studies on *Varroa* mites," in the November, 1992 issue of *Bee Craft*, the English equivalent of *Bee Culture*. He has been to Kirshhaime Bee Institute in Germany, where he studied artificially-inseminated docile bees.

Hamill says of that experience: "I couldn't believe these bees. When I took out a frame, they clung to the sides. They didn't move around. With no protective clothing, I didn't get stung once."

From these scientific pursuits, Hamill has created other sidelines: a clipping and marking service, hive removal, and queen rearing and sales. Rather than just paint a dot on a queen, he uses numbered disks. For his queen sales, he has engineered his own process using jerry-rigged equipment. First, he cuts the queen cells off the bottom of frames. He stores them in an old refrigerator (his queen cell incubator), which has a heating element that keeps the temperature a constant 70°. He has a 75% success rate, meaning 75% of the eggs produce queens. He charges 12 pounds (\$18) to ship a queen anywhere in England.

What's next for this ambitious beekeeper? Hamill envisions a Stonehenge-like bee circle, where all types of beehives are set out, and people can come from far and wide to view these hives and their bees.

One thing for sure, James Hamill is one remarkable beekeeper. **BO**

# REALLY RAW ORGANIC HONEY

dewey caron

You may come away from a visit to Really Raw Honey Company convinced that Really Raw Honey is the best there is available. Really Raw markets honey unheated in any way above hive temperatures. It is certified organic and packaged unfiltered and unstrained. To certify their claims, samples of honey are sent to an independent food laboratory to verify that it's organic and free from chemical additives. Not all consumers want this product but Really Raw has found an important market niche for organic honey.

Victor and Mimi Bennett, owners and operators of Really Raw Honey, prefer to market light color honey and honey that produces small crystals. Their product will crystallize before the consumer finishes it. Their attention to quality shows in the esteem outlets hold for Really Raw Honey. Gourmet Natural Foods of Washington, DC says "Really Raw Honey has become the *best selling honey* in our honey section." Miles Natural Food of Albany, NY says "Really Raw Honey is a purely superior product. It is far and away the best selling honey in our store."

Tom Wolfe, owner of International Health Food Products Inc. says "Really Raw Honey is the fastest selling honey we have carried in 15 years of retailing." Really Raw Honey was selected by Food & Wine Magazine as one of the products in a roundup of "some of the best natural healthful products." They liked it as "certified organic, creamy white honey (that) has a mellow sweetness without any harsh bite."

The Bennetts became organic honey salespeople because they use honey in their home. The family needed to take a son off sugar for medical reasons and honey was the substitute they came to depend on. Word of mouth to friends about honey and sales of the organic honey in a family store in Brooklyn, NY, convinced them there was a large market for pure organic honey.

Thus, the Bennetts have been selling organic honey since 1985, with sales increasing by an average of 40% a year. The Bennett's take great effort to insure their product is organic. Honey is extracted and then bottled as soon as it comes from the colony. It is dripped through a large-mesh screen but is not otherwise processed before packaging.

Really Raw obtains organic honey by careful selec-

tion of their suppliers. They buy from beekeepers in several states from New England to the West. Really Raw sends jars to their suppliers and specifies how to harvest, extract and bottle the product. In the future they intend to move toward a more centralized extraction system to have better control over their product.

Victor Bennett says "selling organic honey is not the problem; getting the quality product to sell is." They run out of honey each year but a number of their outlets hold

*Continued on Next Page*

*Victor Bennett and some of his Really Raw Honey.*



**Really Raw Honey**  
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 certified by independent laboratory testing

Nutritional Information per serving:		Fat	0 g
Serving Size:	1 Tsp (7.06 grams)	Saturated Fat	0 g
Calories	23.33	Monosaturated Fat	0 g
Calories from Fat	0.67	Polyunsaturated Fat	0 g
Protein	0 g	Cholesterol	0 mg
Carbohydrate	5.67 g	Sodium	1 mg
Complex Carbohydrate	0.67 g	Less than 2% of U.S. recommended daily allowance of Protein, Vitamin A, Vitamin C, Thiamin (B1), Riboflavin (B2), Niacin, Calcium, Iron.	
Sugars	5.0 g		
Total Dietary Fiber	0 g		

The color, texture and taste of Really Raw Honey depends upon the nectar of the flowers.



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shelf space for them because they like organic honey and customers specifically ask for their product. Victor says Really Raw "strives for a product that is not dirty." This is a dilemma because customers looking for organic honey have come to expect bits and pieces of bee pollen, propolis and wax. Some beekeepers are unhappy when they see a jar with this material. Also since crystal size

textured. Product presentation is a universal problem for all beekeepers but is it especially a dilemma for those who sell to the organic market.

The Bennetts market Really Raw Honey throughout the Northeast and mid-Atlantic states as well as Florida. They have developed a mail order business and ship honey via UPS to customers all over the U.S. Business has grown by word of mouth as the product hasn't been extensively advertised. Market outlets are health food stores, some gourmet shops and organic sections of supermarkets.

Victor Bennett has been active in one national organization of organic growers. He and others in the organic market have found that certification of honey as organic does not fit well for standards that are being developed by organic marketing organizations. He hopes to help insure that standards for honey are realistic yet rigorous enough to enable its being called organic. He continues to send his product to an independent food laboratory to certify that his honey is pesticide-free.

Interest in organic honey led Victor Bennett into becoming a beekeeper. He keeps about 100 colonies on organic farms in the mid-Atlantic region. Bennett learned how to care for the bees by attending the EAS Beekeeping Short Course held in Salisbury, MD and from the Central Maryland Beekeepers Association which conducts an annual beekeeping course. He feels that being a beekeeper helps him better understand and sell his product.

The Bennetts are looking for new sources of honey they can certify as organic. Honey from their own colonies is not intended to replace suppliers of organic honey. Maintaining high standards means running out of product rather than dealing with poorer quality. They have learned that the people who want the kind of honey they market specifically ask for it and see further expansion of the organic honey market. **BC**

*Dewey Caron is Professor and Entomology Extension Specialist at the University of Maryland. He is also Chairman of the Eastern Apicultural Society.*

is not controlled the pack sometimes is gritty or rough-

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# Laney Family Honey Company

Attractive Packages, A Local Product and Exceptional Service Have Made This Family Operation A Success

kim flottum

In 1972 Dave Laney was working and living in Philadelphia. That's when he started keeping bees, setting up a couple colonies in his backyard. And that's when Laney Family Honey Company started. But Dave didn't know that yet.

The business Dave was working for, in 1974, decided to move from Philadelphia down south, and given the option of an early out or moving Dave made what was an easy choice. By then he was up to 50 colonies and, more of the same seemed a better idea than following that job. He took the early out.

It wasn't long after that he moved his bees, and his family to a farm in North Liberty, Indiana, just outside South Bend. Over the next several years he and his wife, Kay raised their family in rural Indiana and gradually built up the colony collection. Selling honey part time and doing some pollination kept things going. By 1991 they were up to 300 colonies and pollination, and even honey production was taking time away from the business of selling honey, which has been refined to an art over the years. Laney Family Honey Company was really a business. Finally.

The business started slow with a sound idea that made sense to the Laney's. Provide a variety of high quality, locally produced products and follow up with absolutely exceptional service.

To keep things relatively simple they started with honey products produced in the Indiana and Michigan area - blueberry, starthistle, basswood, trefoil and wildflower. At first they offered 6.5 oz. sample sizes in the few stores they were in to give customers a choice, and to see which varieties were most popular in each area.

As they refined their approach they continued to gain customers, expanding their base, their sales and the work involved. By now Dave was spending more time dealing with the business of sales, and mak-

ing honey and moving bees was becoming less and less economical.

One of the unique things Dave started was to supply the stores they were in with a custom made display shelf for their own honey. The shelf was built to fit the space the store allowed - exactly - and was used only for Laney Honey. This was a relatively easy task since Dave had always made his own equipment and is a skilled woodworker.

"The advantages are obvious" Dave said, "With our own stand we weren't sitting on the shelf with other products, we had room for as many products as the stand would hold, and we built them to capture existing light to make our labels stand out."

The stands are furniture quality and can be tailored to fit the decor of most stores, though they retain their own distinctive 'country' look.

Over the years the bottles (and their labels) that sit on these stands have evolved, too. Each variety has a distinctive colored label that reflects the source of the honey inside - blue for blueberry, yellow for wildflower, purple for starthistle and the like. Basswood honey displays a light green basswood leaf. Even the bears have color coded tips on the caps. Labels are simple, but well done. They consist of colored paper and ink of the same color but a darker shade. Some are white paper with colored highlights and black copy while others are colored paper with black copy.

The bottles, too, are simple and sizes kept to a minimum, and to what are most popular with their customers. They have a 6.5 oz. 'sampler' squeeze, a 12 oz. bear, a 12 oz. cylinder, a 19 oz. jumbo cylinder, and half pint, pint and quart canning jars. They sell larger containers occasionally, but they focus on the smaller sizes.

An added touch is that the stands can hold information

*The Laney Honey House. The second floor is devoted to woodworking - building store shelves - and extraction during the season. Dave Laney still runs 50 or so colonies. Half the first floor is set aside for storage of bottles and honey. The other half is packing, labeling and storing finished product.*



Continued on Next Page



A sample of prepared product. Note the different colored tips on bears and cylinders.

**LANEY FAMILY HONEY ... Cont. From Pg. 511**

cards telling about the products the customer is looking at. The cards are color coded, and list several items – like the varieties present – in some detail, or, if a particular variety is to be featured, an in-depth bit of information is provided with an actual label on the card.

The increase in business required an increase in the number of people running the operation. But, like the other steps Dave Laney took, these, too were careful and well thought out.

Today, Laney Honey has four family members employed, two part time employees and uses, though to only a small degree, a couple of people who handle very remote sales.

Tom Laney, Dave's son, received his degree from Purdue in Communications and Marketing and has dramatically improved the sales part of the operation. His chief responsibility is marketing – getting the product into new stores, complete with custom shelf, and then maintaining each of those accounts. That means visiting each of the 200 or so stores, refilling the shelves, (removing and replacing crystallized jars counts here, too), maintaining or replacing the shelves and trying to move more product.

This is, obviously, a full time job for Tom, but his background in beekeeping (he helped his dad), marketing and sales makes his job easier than it sounds.

"The hardest part is getting into a new store" he said. "After that, the rest is easy to stay. Our shelves work well, we give exceptional service and we like what we do" he added. "Also, we *don't* work in stores that want slotting fees. We just won't do it. And we don't use brokers (with the minor exceptions already mentioned) because we tend to lose that 'hands-on' control and quality we want" he said.

Linda Laney, Dave and Kay's daughter, has a degree in Civil Engineering and spent a couple years working away from home before returning to North Liberty. Since back, she has taken on several responsibilities for the company, including Office Manager, accounting and book-keeping. In this view she takes care of the tax 'stuff' in-

cluding the required quarterly reports.

But she's becoming more involved in what she calls 'sales research' Developing a mail order business is high on her agenda, especially for the other products they sell (Nuts & Honey, and Fruit & Honey spreads) has been taking up more of her time. That, along with creating brochures, labels, shelf signs and the like make her job full time plus for the Company.

Kay Laney, Dave's better half does a little bit of everything around the business from helping with brochure design to office work to honey house setup to phone work. "Necessary everywhere" is how Dave summed up her duties.

And Dave? After retiring from one career Dave has found himself in the middle of another, and sometimes wonders what he got himself into.

After the early years of keeping bees on a fairly large scale, moving for pollination and honey production, plus selling what he made and building his own equipment his duties now tend more toward the administrative side. Which, by his own admission, doesn't bother him too much.

His primary responsibilities now include preparing the bottling room with the right amount and variety of honey his two part time "packers/labelers" prepare. They come in two or three days a week to bottle and label what needs bottled and labeled. They are paid piecework, so occasionally take some things home to make work go faster – thus make more money.

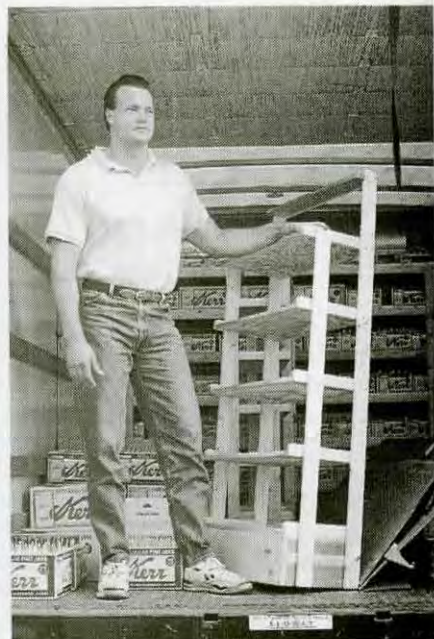
The honey house isn't high-tech, at least yet, and most of the activities are labor intensive. Honey in barrels is pumped into warming/holding/bottling tanks, then into whatever containers, the bottles labeled, boxed and eventually delivered.

Besides making sure that operation runs smoothly, Dave is constantly on the lookout for honey.

"Finding variety honey in barrel size quantities is difficult" he said, "sometimes impossible for a year's worth of sales. And, of course, it's got to be 'local' for our market. We started with just Indiana and Michigan



The bottling and labeling are completed by two part time employees. Very dedicated, they often take work home to speed things up at work.



Tom Laney holds one of the custom shelves built for a customer. Tom is standing in the back of a rented truck they have outfitted with custom shelves. They are buying an identical model this year.

sources" he said, "but two things have happened. First, our operating area has grown, so 'local' has changed, and second, there aren't that many sources in the area. Or, at least we can't find them" he added.

To keep in touch with 'local' beekeepers, Dave is President of the Michiana Beekeepers Association, and on the Board of Directors of The Michigan Beekeepers' Association.

"But we're always looking" Dave said. "Looking for new sources, and new flavors. We don't shop price and generally pay a bit higher to keep suppliers" he added, "and, we buy lots of small amounts. Variety and

quality are more important than quantity, but a five to 10 barrel supply is great" he said.

Laney Family Honey Company has discovered what hundreds of other, small family owned businesses already know. There's always cash flow to watch, few bureaucratic problems, lots and lots of work at all hours, and certainly, the satisfaction of watching a hobby grow from a few hives in the backyard to a recognized and respected business. **EO**

To contact Laney Family Honey Co. write to them at 25725 New Road, North Liberty, IN 46554. (219) 656-8701.

*Typical cards used on the stands.*



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other blossoms of early summer such as black locust and clover. But the flavor and color of basswood still dominates. We think you'll find Laney's Basswood Honey worth a try!

Laney Family Honey Company, North Liberty, Indiana 46554

# Honey!

Laney  Honey







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-  **Blueberry Blossom** - A by-product of intensive honeybee pollination of blueberry orchards, this honey is rich with a distinctively spicy overtone.
-  **Trefoil** - This mid-summer flower, birdsfoot trefoil, yields a very light, very mild honey which is preferred by many to the American standard, clover.
-  **Dune Country** - As its name implies, this mild, rich honey originates with the unique mixture of flowers of the Dune Country counties of Lake, Porter, and LaPorte, Indiana.
-  **Autumn Wildflower** - Coming chiefly from the late-blooming plants such as aster, goldenrod, mint, and heartsease, this honey is dark and strong flavored.

As a rule of thumb, the darker honey is, the stronger the flavor. Whatever your tastes may be, we hope you enjoy our great honeys of Indiana and Michigan.

Laney Family Honey Co.  
North Liberty, Indiana 46554  
Telephone (219) 656-8701

# Next Year, Treat Yourself & Your Bees To ALL SUMMER STRAWBERRIES

— mary & bill weaver —

Late summer can be a time of dearth for the bees here in south central Pennsylvania. Although an alfalfa field blooms about a quarter-mile from our 20 home hives, I've rarely seen a single bee working the pale lavender flowers. And we're not far from several soybean fields. I've read that bees in some areas work soybean flowers for both nectar and pollen, but they never seem to visit the ones near us.

A pasture overgrown with Queen Anne's lace across the road attracts some bees. Looking closely, you can watch them probing each tiny floret in rapid succession with their red proboscis "drinking straw."

Spearmint and apple mint on the back hill attract a lot of bees. The mint must secrete nectar somewhat continuously because these flowers are visited all day long by a steady stream of bees.

But the main attraction for our bees this time of year is our garden and those of our neighbors. Any time we visit the garden, we see bees at work. Because of a lucky impulse-buy last spring, we have some flowers blooming now that aren't generally found this time of year, 25 of *Tristar* and 25 of *Tribute*, the day-neutral strawberry plants recommended for the east and midwest.

These are full of flowers and fruit right now, because day-neutral strawberries, unlike other strawberries, flower and fruit continuously through the summer and well into the fall, until they're cut down by frost. We've been delighted by the steady supply of strawberries.

The bees visit the small, white, round-petalled flowers for both pollen and nectar. The honey bee is quite large in relation to the size of the strawberry flower, so no matter whether the bee is scrabbling around the ring of anthers for pollen or sipping nectar, she is sure to contact both the pollen and the stigma and effectively pollinate the flower.

Each strawberry flower has many, many stigmas on the small, cushion-shaped mound in the center of the

flower. To produce a large, nicely-shaped strawberry, all or nearly all must receive their individual pollen grain.

This makes strawberry pollination a trickier proposition than, say, peach pollination. To produce a peach, only one ovule needs to be pollinated, not the several hundred required of some strawberries.

Each pollinated ovule in the strawberry, then, produces a seed, or achene, which gives off hormones called auxins. These hormones stimulate the development of the flesh in their part of the strawberry fruit. The more pollinated seeds, the larger and better shaped the fruit. If most of the stigmas do not receive their pollen grain, the strawberry formed will be misshapen or a nubbin.

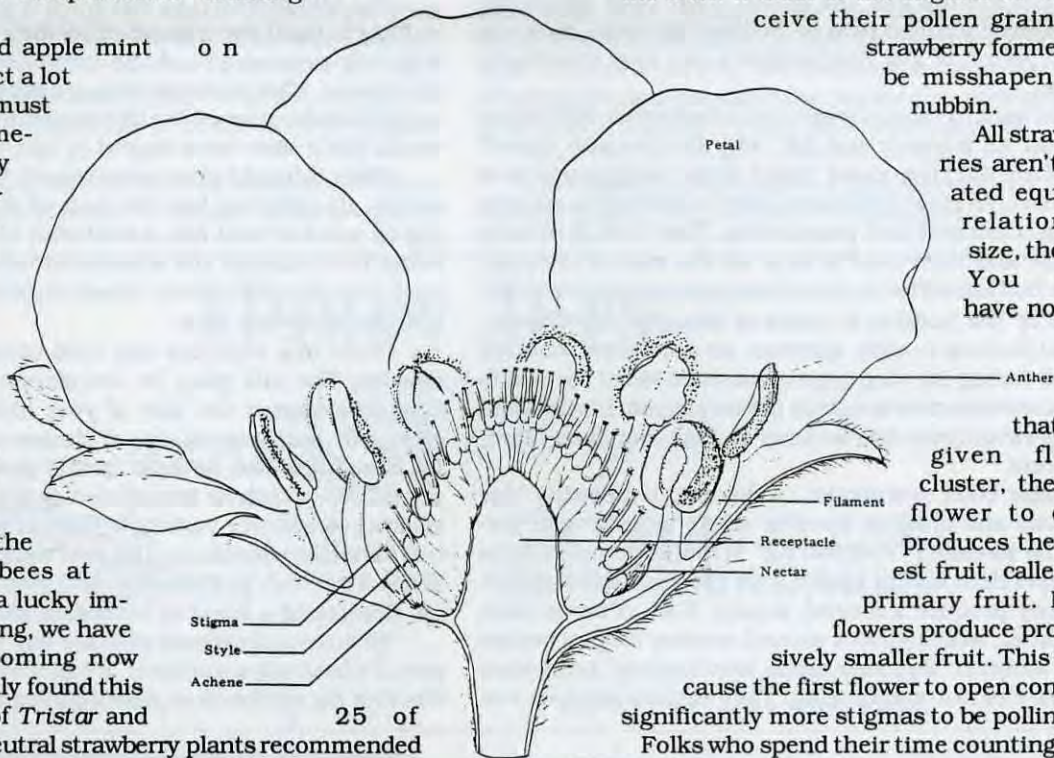
All strawberries aren't created equal in relation to size, though. You may have noticed

that, in a given flower cluster, the first flower to open produces the largest fruit, called the primary fruit. Later flowers produce progressively smaller fruit. This is because the first flower to open contains significantly more stigmas to be pollinated.

Folks who spend their time counting such things tell us that the first or primary flower may have as many as 500 stigmas, while later flowers can have as few as 80. So these later flowers just don't have the potential to produce as large a fruit as the primary flower.

Although honey bees work strawberry flowers and are important in their pollination, they're not the whole story. Dr. Marvin Pritts, small fruit specialist at Cornell, sums up strawberry pollination this way: strawberries are 70% wind pollinated and 30% insect pollinated.

In that 30% of insect pollination, honey bees are only part of the picture. According to Dr. Pritts, a number of insects besides honey bees are important in strawberry pollination. Five species of bumble bees, for example, work strawberry flowers in our part of the country, as well as



Continued on Next Page  
515

wild and solitary bees, and syrphid flies.

The consensus among the fruit-growing professionals we spoke with is that an adequate fruit set of strawberries can be obtained with the pollinating action of the wind and wild insects, in most cases, without going to the expense of renting bee colonies.

However, Dr. Joseph Fiola, small fruit specialist at Rutgers, told us that growers in New Jersey who grow strawberries for shipping, where large size really counts, do sometimes rent hives of bees. A lot of other New Jersey growers, he told us, have the benefit in their strawberry fields of hives rented for the pollination of other fruits and vegetables on the farm. Dr. Fiola said a number of growers have expressed the opinion that they get a better fruit set and larger, better shaped berries with bee-hives close by, although results are difficult to quantify, and he knows of no studies that have been done on the subject.

Temperatures also play a role in strawberry pollination. Even if the pollen grain gets to the stigma, if temperatures are too low, the pollen grain can't germinate and produce a pollen tube to fertilize the ovule. So a prolonged period of low temperatures can hurt strawberry fruit set.

But back to those day-neutral strawberries that bloom and fruit all summer and fall. Why the peculiar name? And where did they come from? Some background is in order here. As most gardeners know, strawberries are generally a boom and bust proposition. They fruit gloriously in June, and then they're over for the rest of the year. Flower bud formation in June-bearing strawberries is controlled by the number of hours of daylight. After flowering and fruiting in early summer, no new flower buds are formed during the long days of summer, when the plants produces runners or daughter plants instead. It's not until the days shorten in late summer and fall that more flower buds form.

These buds overwinter, to flower the following May and June and produce another single large crop of berries. The so-called "everbearing" strawberries are a little less dependent on day length than the June-bearing variety. They produce a second, smaller flush of flower buds in summer, which yield a second, smaller crop of berries in late summer. But their name "everbearing" is misleading. They're not everbearing. They merely produce two

crops a year instead of one.

Day-neutral strawberries, first released in 1980, are not tyrannized by the sun. True everbearings, the day-neutrals flower and fruit continuously all summer and fall, regardless of day length. "Everbearing" would be an appropriate name for day-neutrals. To distinguish them from the older so-called "everbearing," though, their developers decided to name them day-neutrals to show their independence of day length in flowering and fruiting.

Day-neutral strawberries were developed at the University of California at Davis by strawberry breeder Dr. Royce Bringham. We were fortunate in being able to talk for over an hour to Dr. Bringham, now retired.

As a strawberry breeder, he remembered the wild strawberries that he'd feasted on as a child along the trails high in the Wasatch Mountains of Utah. He was interested in finding new genetic material to use to improve existing strawberry varieties, so one summer he went back to Utah to hike the trails of his childhood and gather wild strawberry plants to take back to the university for breeding purposes.

The wild parent that made the day-neutrals possible was not in itself day-neutral, according to Dr. Bringham. It merely produced its single crop of berries very late in the season. This lateness was a valuable trait high in the mountains because earlier blooming flowers and their fruit would likely have been nipped by late frosts.

When this wild plant was crossed with cultivated varieties, its offspring had the trait of flowering and fruiting all summer and fall, a trait that Dr. Bringham saw could revolutionize the strawberry industry. He discovered that the day-neutral characteristic is controlled by a single dominant gene.

Often new varieties can take considerable time to develop. The wild plant Dr. Bringham started with had tiny strawberries the size of your little fingernail. But after only four generations of crosses and back-crosses, Dr. Bringham had, he says, "pretty good stuff." The variety SELVA, which he introduced, is hailed as the second ranking strawberry variety in California today. Day-neutral varieties suitable for the east were developed at the USDA Fruit Lab in Beltsville, MD from a descendent of Dr. Bringham's Wasatch Mountain plant.

We've been delighted with our day-neutrals this summer. Following instructions, we picked off all flowers for the first six weeks after planting. Then we let later flow-

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ers bloom, and soon we began harvesting. They've grown a steady supply of berries through July and August, and give every indication of going till frost, as day-neutrals generally do.

Because of their long-term flowering and fruiting and other special plant characteristics, day-neutrals are handled somewhat differently from June-bearing strawberries. If you would enjoy having strawberries straight through the season for your family, and strawberry flowers for your bees, we recommend a booklet from Cornell on how to grow day-neutrals by Dr. Pritts. Written primarily for the commercial grower, the booklet also gives the serious gardener all the information needed for success. Order #1551IB215, "Day-Neutral Strawberry Production Guide," Resource Center-GP, 7 Business and Technology Park, Cornell University, Ithaca, New York 14850. Make a check payable to Cornell U. for \$2.50 to cover costs.

If you'd like to grow day-neutrals next year, there are two steps you can take this fall to get ready. First, have your soil tested for pH. If the pH is below 5.5, add lime soon. Lime takes time to dissolve and sweeten the soil. A pH of 6.2 is ideal.


Second, dig all the organic matter you can get your hands on into your strawberry bed: spoiled hay, chopped leaves, sawdust, compost, etc. Day-neutrals, even more than ordinary strawberries, require a steady supply of moisture retaining properties of a soil high in organic matter.

As you plant and care for your strawberries, it's nice to know that the strawberry is a sturdy, adaptive plant,

able to survive and thrive when growing wild throughout much of the world, and as far north as the edge of the Arctic Circle.

Early American settlers found an abundance of wild strawberries. In 1643, for example, Roger Williams wrote that he'd seen enough wild strawberries to fill the hold of a ship within the radius of a few miles. In the early days of America, no one grew cultivated strawberries. It was simpler to go out and gather the wild berries that grew in abundance.

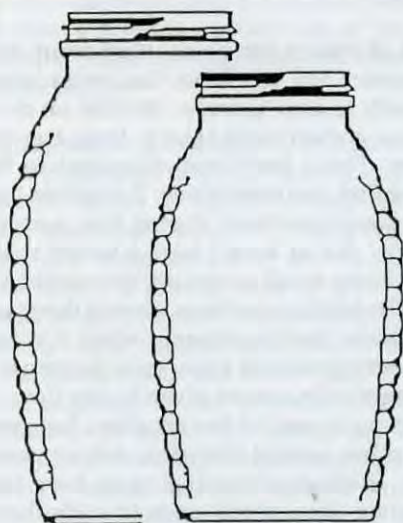
The wild strawberries of North America, *Fragaria virginiana*, are, however, quite small. The genes to produce today's large-fruited strawberry came from the wild strawberry of South America, particularly Chile, *Fragaria chiloensis*. These large strawberries were prized by the South American Indians, and were cultivated by them along with maize, pumpkins, potatoes and beans.

A French spy in the 1700s, who was observing Spanish fortifications in the New World for the French King, noticed these unusually large strawberries, and carried five plants back to Europe. It was there that the marriage between the wild strawberries of North and South America was made. With the genes for hardiness from the wild North American strawberry, and the genes for producing large fruit from the wild South American strawberry, the offspring of this cross paved the way for the modern hardy, large-fruited strawberry that we know today. 

*The Weavers grow strawberries, along with the rest of their bountiful garden, and raise bees in Pennsylvania.*

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# COLORFUL EXTRACTIONS

## MAKE MORE FROM YOUR CROP THIS YEAR

— richard bonney —

**H**ere where I live our product is primarily New England Wildflower, a light amber or amber honey that I consider delicious. Way back in time, as a novice beekeeper just starting to expand, color was never a concern to me. Occasionally a customer would want to know why the honey was so dark, or would ask for clover honey, but usually they shared my preference. It tasted good even in those occasional years when it was darker than usual. But then a number of events came together one year to get me thinking more seriously about honey colors. The first of these was the purchase of a new uncapping tank. The second was a particular honey show. The third was the action of a farm market operator. (He fired me.)

Up until that time I was a small operator, uncapping into a tub and then placing the frames directly into the extractor. I didn't have many hives and wasn't handling a lot of honey. I also wasn't seeing the honey from the time it was whirled out of the frames until it sat in a bucket or tank, all one blended product. I didn't really see its color until it was bottled. My uncapping tank changed that.

Now I could uncap as many as 20 frames and hang them in the tank while they waited their turn in the extractor. Of course, each of these frames dripped honey as it hung there, and a shallow, broad stream of honey ran the length of the tank to the drain outlet. (If you want to know what your honey really tastes like, sample some of this. Not counting comb honey, these drippings are as pure and unprocessed as you can get.)

As that thin layer of honey ran along the tank bottom, I saw what color it really was. Not just dark and light, but a palette of colors - different shades of brown, red, yellow, and even green. Together, these made up the ultimate shades of amber of our final product. All of these colors weren't to be found in a single frame, of course, but two colors might be, and in a single super, more than two might show up. It was a revelation.

One day at about this same time I was helping out at a honey show, receiving and registering entries. I suddenly realized that some individuals were entering honey in two, three, or sometimes even four different color classes. Not only had they seen those different colors but they were isolating them.

Then, one of my customers, a farm stand operator, decided he no longer wanted to handle my honey. Even though he was selling two or three cases per month, for some reason he became convinced that his customers didn't want dark honey. He started buying his supply from an out-of-state producer of light honey. I was disappointed but there was little I could do about it on short notice. I had no light honey.

I did start thinking, though. How could we isolate

those individual colors? We don't have large acreages of nectar-yielding crop lands in this area, and we usually have nectar coming in from more than one source at once. The bees often blend colors as they store it. We do have some periods of lighter or darker honey, though. The early season with apples and other tree fruits yields a light, mild honey. Mostly the bees use this themselves in their spring buildup, but occasionally some of it goes to surplus. The tree fruits are followed by brambles of several kinds, another source of light honey, with more chance for a surplus. As we move along into summer, sumac comes into bloom yielding a golden honey, then black locust with pale yellow, and basswood with a light, perhaps greenish, yield.

As the summer moves along, the honey begins to darken. This is an interesting phenomenon, since very few plants are acknowledged in the literature to yield dark honey. (Of course, this depends on your definition of dark.) Perhaps the few that are dark have an undue influence or perhaps it is the combination of colors and shades from several plant sources that creates a darker whole. In spite of their reputation for yielding dark honey, even goldenrod and asters, the mainstays of our fall flow, are not necessarily dark. The honey from the first is considered golden, the second, light to medium amber, according to one source. Of course, to someone who produces so-called water white honey, these would be considered dark.

**T**his is all beside the point. If we want light honey, experience has taught us that we must get it from the early season sources. *How do we do that?* The obvious answer is to take it from the hive in the early season. This I have been reluctant to do, for two reasons. The first is convenience. It requires firing up my extracting operation twice during the season, with an extra cleanup. But at least I have a honey room where I can do this. Many small operators are working in temporary space, the kitchen perhaps, closing down completely and storing away their equipment when it is not actually in use. Extracting twice is a real inconvenience for them.

Then there's the nature of our honey flows. This may not apply in your part of the country, but perhaps you have some other special situation. Adjust your thinking accordingly. In much of our region we have two distinct flows, the main flow, which ends in early July, and the fall flow which commences in August. From about mid-July until mid-August we usually experience a dearth - no nectar to speak of. It's a trying time for the bees.

If we take early honey from the hive, say in June, we may have problems later. There are no guarantees in nature and if the main flow falls off early, or if the fall flow doesn't happen or is poor, we have left the bees with few

resources. Feeding may be necessary to help them over the dearth period, and massive feeding might be required to prepare for winter. This sort of thing doesn't happen often, but it does happen.

**T**here are ways around this. For instance, maybe you don't see it as a problem as I do. Perhaps I am overly cautious. I know that a number of experienced, successful beekeepers in our region do take off early honey every year. So one approach is to just do it, and if problems come later, so be it. Take care of them then.

As a hedge, you can take off the early honey, extract it, and then store part of it in bulk temporarily. It is then available to feed back to the bees in time of need. If that time doesn't arrive, bottle it up and sell it. Don't, of course, remove full supers from the hive and attempt to store them. Granulation, absorption of moisture, wax moths and rodents are very real problems for supers of honey that have been removed from the hive and stored in the house, garage or cellar. While it is on the hive the bees do an outstanding job of protecting the honey.

Another approach is to isolate that honey while leaving it on the hive. This may require a little extra time inspecting and manipulating frames and supers, but it is worth it at season's end. As supers fill during the early season, and assuming they contain light honey, move them up. Bottom super each time you add an additional box, moving that light honey up and away from the immediate attention of the bees, but keeping it on the hive where it is protected. If the bees have need of some of the surplus, they will first go to the honey which is stored closest to the brood nest, that is, the later-gathered and presumably darker product. Unless you are experiencing a really poor season, that light honey will stay up above and still be available at season's end.

During this early season, if you do want to isolate the lighter honey, you do have to keep a close watch on things. Inspect the individual frames periodically, watching for changes of color. If you see that the color is changing before a super is completely filled, you may want to move individual frames out of the mainstream of hive activity, or up to an empty super, giving them new space below to put that darker honey.

**I** am talking rather glibly here about dark and light honeys, and perhaps making it sound as though you can look at frames or supers of capped honey and recognize gradations of color. This is not necessarily true. What you really should be able to recognize, is whether your honey is grossly light or dark, one or the other. Perhaps in the extreme you will be able to identify three gradations—light, medium and dark. However, there are several variables which will affect what you see. The nature of the cappings is one of these. Some colonies leave a slight airspace under their honey cappings, while others do not. With these latter, the cappings touch the honey, making it appear darker. Travel stain, which results from the bees walking on the cappings with 'dirty' feet, is also a factor, as is the way a given color appears through the cappings. Further, the reds, the greens, the yellows are seldom apparent until you actually uncap. However, you have made a start. Keep looking. As with anything, practice perfects.

Another approach is to wait until you are actually

## UNDERNEATH

Even if you are not going to try isolating different colors of honey this year, extracting time is a good opportunity to start developing your eye for what's behind those cappings. In the honey room, pick out some representative frames and as you handle each one while preparing to extract, first study the cappings. Presumably they were made with clean new wax, but depending on how long ago the cells were capped, the wax may be darkened to varying degrees. This won't effect the color of the honey but it can affect your perception. Note also the absence or presence of air under the cappings. Then, as you look at the frame overall, does the honey appear to be light, dark, or somewhere in between?

Also note the comb that the honey is stored in. Is it old or new, dark or light? This, too, is going to affect your perception of the honey, although it may or may not affect the actual color of the honey.

After you have studied a frame, uncap it. Does the honey appear light or dark in the cells? Perhaps you can see some color—red, yellow, greenish. Drip a small amount of the honey into a flat, light-colored pan so you can observe a thin layer. (Save some aluminum pie pans for this.) Now what does it look like? Are colors apparent? Later, drip honey from other frames into the same pan without cleaning out the original drippings. This gives you a chance to see honey from different frames comparatively. You may find that some honeys look the same in the frame but are actually a little different when extracted.

There are practical limits to what you can do here, but if you can get some of the honey into glass jars at this point, you will have another view of the color. And even if you don't take this step, keep in mind that just as paint on the wall will look darker than the chip you studied in the paint store, honey in a jar will look darker than a thin layer in a pan.

With this experience behind you, next year you will be seeing your frames differently, and the next year you will be an expert.

ready to extract before you pay any attention to your potential colors. You may lose some of the variety as the bees mix, match and blend over the season, but it is less work for you at the hive and the effort at extracting time is not onerous.

**B**ack in your honey room, just prior to uncapping, have a space where you can spread your supers around a little, and have handy a couple of empty supers or hive bodies to help you do some sorting. Eyeball each frame and sort them as best you can into whatever color gradations you can identify—dark and light at least. Then, of course, keep each batch separate as you extract and bottle.

What's the payoff here? More variety for your customers. More variety for your gift packs—a jar of light and a jar of dark, for instance. More opportunities to win

*Continued on Page 522*



# MIDWEST WINTER

—marla spivak—

The last article of this series is on preparing colonies for a Minnesota winter. But I'd like to begin with a story about my introduction to these winters. It was 75° in Tucson the first week in November 1991 – the week of my job interview at the University of Minnesota. The bees were still bringing in pollen and birds were singing in the desert behind my house in Tucson. Minutes before I was due to leave for the airport, as I was trying to decide whether to carry or pack the heavy coat and boots I had dragged out of my closet, I looked up to see a cactus wren flying through the living room. After a bit, I managed to direct the wren out the back door and, running late, grabbed my bags, slide carousel and an outline of my interview seminar (which had been laying on the coffee table). To my horror, I noticed the wren had christened the outline, leaving a large multi-colored blob right in the middle of the paper. There was no time to print out another copy; it HAD to be a good sign.

When I arrived in the Twin Cities three hours later, there was 28 inches of snow on the ground from the infamous Halloween storm. Traffic had come to a standstill because the snow plows were allegedly still equipped for scooping leaves off the street. Most migratory beekeepers hadn't moved their colonies south yet, and many locals hadn't packed their colonies for the upcoming winter. I couldn't believe I was considering moving here to do bee research.

Well, I got the job. I packed my stuff and drove to Minnesota in March, 1992. It was raining when I arrived in St. Paul, and that night the temperature dropped considerably. In the early morning, I found my car sheathed in a thick layer of ice under three inches of heavy snow. The car doors were frozen shut, except for the hatchback. I decided to warm up the car while I scraped the snow and ice

and crawled in through the hatchback. It slammed shut behind me. There I sat, trapped in my own car. I decided right then that if the bees could get through a winter up here, I could too. Only they do it instinctively – I had to learn.

Dr. Basil Furgala is the expert on wintering bees in Minnesota. I can only summarize what I've learned from him and his research. The following instructions are taken from his Basic Management Manual for beginning beekeepers.

## SELECT COLONIES

- In August or early September, following the honey harvest, select colonies to be wintered.
- The colonies to be wintered should consist of three deep hive bodies.

*Around the 1st of November, place a black cover over the colonies to be wintered. The colonies should have 75-90 lbs. of honey in 3 deep hive bodies.*



- Each colony to be wintered must have a large adult bee population (cover 10-15 frames) and have a young, productive queen of European origin. (This is one of Basil's Four Principles of Productive Beekeeping.)
- Position the entrance reducer using the 1/4" x 3" opening facing the bottom hive body.

## INSPECTIONS

- In early September, inspect each colony.
- Determine whether there are adequate food reserves (another Principle) for winter. 75-90 lbs. of honey are required and 3-5 frames of pollen are desirable (gross hive weight of 180-200 lbs.)
- Determine whether the winter honey reserves are properly located within the three deep hive bodies. The top hive body should have approximately 45 lbs. of honey distributed so that seven outside frames are full of honey, and the two center frames have some empty cells just above their bottom bars to encourage cluster movement. There should be approximately

35 lbs. of honey distributed toward the outside in the middle hive body and 10-20 lbs. in the bottom hive body.

- It is often difficult to determine whether there are adequate pollen reserves because pollen is often stored under honey. An insufficient amount of pollen is remedied by feeding pollen substitute and/or supplement in late winter and early spring.
- When preparing colonies for winter, avoid using light-colored combs, especially in the top hive body. This will not be a problem if the hive bodies are reversed at the beginning of the major nectar flow.

#### FEED AND TREAT

- Before mid-October feed a minimum of two gallons on 2:1 sugar syrup containing fumagillin (Fumidil-B) to ensure that colonies remain *disease free* (a third Principle of Productive Beekeeping) during winter. Extra unmedicated syrup may be necessary if colonies contain less than the optimal food reserves.
- If the bees were not treated for *Varroa* and/or tracheal mites in the spring, they should be treated now, using registered treatments (Apistan strips containing fluralinate for *Varroa* mites and menthol crystals for tracheal mites. Recent research indicates that extender "grease" patties with terramycin are also effective

the upper entrance.

On a 40°F day in winter, the bees will take a cleansing flight leaving patches of yellow snow in front of the colony. There are few dead bees in front of the entrances; this is a good sign.



September 1994



University of Minnesota colonies in mid-February, 1994. Notice that an upper entrance has been cut in the black cover to match the 1" hole in the top hive body.

- It is desirable to have a dead-air space under the hive such as that provided by a commercial hive stand.
- If a good apiary site was chosen, *protection* from prevailing winds, *good air drainage* and *full sunlight* will help ensure successful wintering.
- All colonies not selected for wintering should be killed

A healthy, winter cluster of bees. If your bees winter successfully, they will look like this in April.



Continued on Next Page  
521

against tracheal mites.) Provide the menthol as early as possible to take advantage of the warmer weather earlier in the season.

#### PROVIDE PROTECTION

Approximately Nov 1.

- Plug the auger holes in the bottom two supers with corks or masking tape, but leave the hole in the top super open for ventilation and as an emergency exit.
- Remove the telescoping outer cover. Place an insulite board over the inner cover. This acts as a moisture-releaser that allows moisture to escape from the hive during winter. It also provides for a dead-air space on top of the colony.
- Place a commercial winter carton over the hive. A black carton made of cardboard or plastic is sufficient and effective.
- Replace the telescoping outer cover and secure with a rock. The outer cover should not "telescope" over the winter carton.
- Cut a hole in the winter carton that is aligned with

when fall brood rearing has stopped (approx. Nov. 1). This equipment should be inspected, repaired, cleaned and properly stored.

Basil Furgala recommends that all parent colonies from his Horizontal 2-Queen system not be allowed to winter (this system of management was explained in full in previous articles). The parent colonies contain queens that have survived two summers and one winter, and his extensive experience has shown that these queens usually don't make it through a second winter or, if they do, they don't produce enough brood to ensure adequate spring build up. He recommends that all parent colonies be depopulated or, in plain language, killed off. The divides, however, are wintered and become the parent colonies of new divides the following spring.

One idea Basil has toyed with is the possibility of selling the parent colonies to migratory beekeepers in the fall to move South for the winter instead of depopulating them. The colonies would then be requeened in the early spring down in the southern states, or could be requeened with queens reared in the North before they are moved. What's the advantage of requeening in the North? One obvious and imminently important one is that the queens would be of European origin, and would have mated with European drones. I don't think we will be able to ensure that all the bees in the southern states will be European in the next 5-10 years, but I think it's safe to bet that the bees in the North will be. In any case, it's important to begin thinking about alternative sources of bees and queens to avoid propagating and transporting Africanized bees.

Many people are amazed that bees can winter well in Minnesota with only a thin black cardboard covering as "insulation." Basil did quite a lot of research on wintering and found that heavy wrapping with straw and tar paper did not significantly improve wintering success. If the bees are kept in three deep hive bodies with 75-90 lbs. of honey stores and a young queen, are provided an upper entrance and an insulite board to help reduce moisture build-up, are located in a good apiary site and treated for diseases and mites, they will make it through winter in fine style.

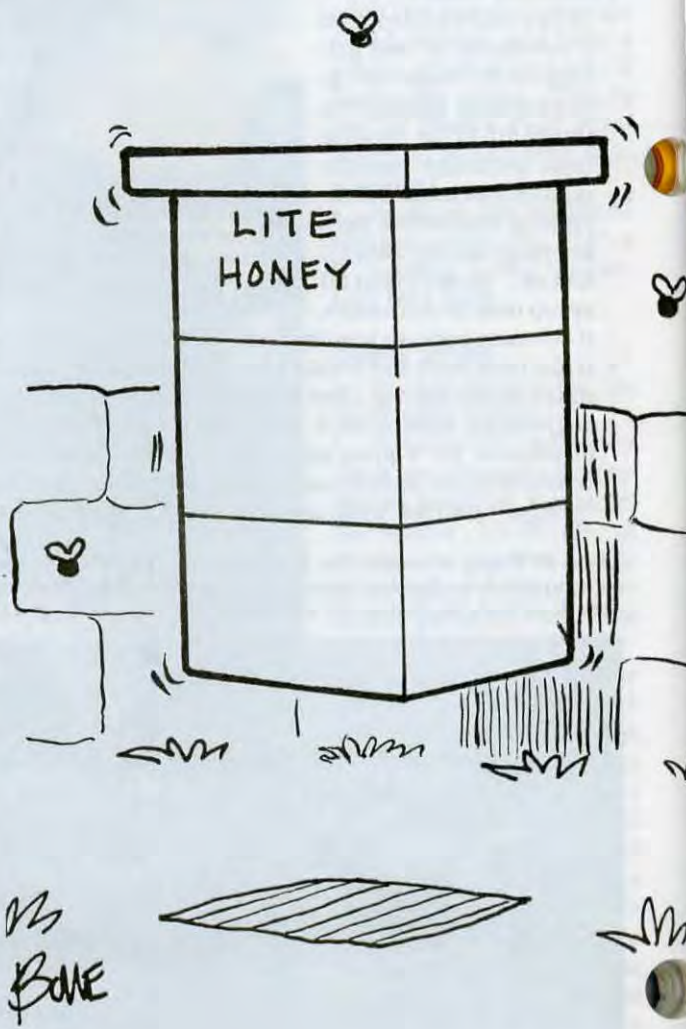
I've kept bees in many states and countries and I enjoy and appreciate the fact that all beekeepers know the BEST way to manage their bees. I believe that if a system works consistently and profitably, then it probably is the best way to manage bees for that beekeeper in that area. However, few management systems are backed by as many years of research and experience as is Basil Furgala's Horizontal 2-Queen system. It is ideal for beginning beekeepers because it really is foolproof. If you doubt this, try this system yourself. **BC**

*Marla Spivak is Assistant Professor and Extension Specialist in Apiculture at the University of Minnesota, St. Paul.*

*If you are interested in obtaining a copy of the "Beekeepers' Management Short Course" which outlines the Horizontal 2-Queen in full, send request to: Marla Spivak, Dept. Entomology, 219 Hodson Hall, Univ. of Minnesota, St. Paul, MN 55108.*

at the honey show. And finally, more skill as a beekeeper - you can't do any of this without understanding the bees and their ways better, to your ultimate advantage. **BC**

*Dick Bonney is the Extension Apiculturist for the state of Massachusetts and the author of two books on beekeeping.*



# WHAT TO DO WITH WILDFLOWER HONEY

— ann harman —

"What kind of honey is this?" asks the customer. "It's Wildflower" the beekeeper responds proudly. In truth, many flowers of all descriptions contributed to that jar of honey. Only a very few honeys can be considered "pure", i.e. from a single flower source.

What's the definition of "wildflower" honey? Well, you can look in all sorts of bee and honey books and find out that "many flowers" contributed to that jar of honey. Beekeeping books mention the pure sources, such as tupelo or citrus and evade a definition by ignoring the word "wildflower" However, to the consumer, the word "wildflower" seems to carry with it a walk through the woods or a view out over a meadow. Both of these images are pleasant and so the image of "wildflower honey" is a pleasant one. Some customers will continue to query about which wildflowers are in this honey in the hope that you will name something familiar. Some customers will wonder why your wildflower honey is light and someone else's is dark. Some ask why your honey is light this year and was dark last year. These questions deserve an answer but sometimes the answer is difficult to find.

Take some flights with the bees in your hives. You will find them working on quite an assortment of flowers during the nectar-gathering months. Remember that bees can cover as much as 10,000 - 50,000 acres in their foraging. As you travel with them you will find large fields of crops, narrow roads and wide highways with their own assortment of "weeds" vegetable gardens, flower gardens, lawns, orchards, woods, and even desert.

Over this great area we can have drought one year, too much rain the next year, late frosts, ice, hail and other weather horrors. All of these influence not only the available flowers but also the available nectar for our bees. Blossoms may look spectacular but if the weather is too cold that particular flower will not participate in your honey crop.

No wonder our honey is dark and rich-flavored one year, pale amber and sweet the next, and even in some years actually not very nice in taste. No wonder that "wildflower" is the best name we can give it.

But what about the customer who remembers your honey from last year as dark, rich, flavorful and "the best honey I've ever tasted"? This year you are offering a light amber, with no distinctive flavor, nicely sweet, but undistinguished. And the label is the same — "Wildflower" Perhaps we beekeepers need to consider how we can keep the customer informed and still happy with the purchase. Many approaches can be taken.

## **This Year Not Just 'Wildflower' Try These.**

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- Spring Flowers -
- Desert Beauty -
- Summer's Best -

## **These Will Give A New Level Of Class To Your Product**

One, of course, is an informative leaflet that explains how bees forage and perhaps naming some of the bees' favorite flowers in your vicinity. Recipes, naturally, should accompany the jar of honey. It would be nice to explain how the food you prepare will change flavor depending on the flavor of honey used. Consumer education is one of our best forms of advertising, especially today when the Africanized bee is casting a shadow on our image of gentle honey bees.

So often we do "education" with observation hives, bees in walls and swarms on bushes. "Consumer education" also includes honey — where honey comes from, the blossoms bees like and

those that bees cannot use (you would be surprised at the number of people who ask for honeysuckle honey), flavors, use of honey (besides in tea) and why "wildflower" honey is different from year to year and from beekeeper to beekeeper.

Do you separate your honey by color before you extract? It is very easy to do. Simply hold your frames up to a light. Extract light color first, then medium, then dark, if you have it. Now you can taste and decide if you have a "premium" or "specialty" honey. Yes, all the honeys may be wildflower, origin unknown. But now you can promote the honeys as different and appeal to differing tastes of your customers. Maybe you have a small quantity of a dark honey you do not usually have. Bottle it, saving back a taste sample, and call it "Summer's Richness" or "Autumn Harvest"

You can glorify your wildflower honey and make it into a seasonal delight. Furthermore, customers may well buy "a jar of each" especially if you give a taste sample. Here are some suggestions for phrases that can be used in any combination to give your label a distinctive statement.

Summer Glory, Fall Festival, Summer's Delight, Wonders of Spring, Bounty of Fall, Spring Extravaganza, Mountain Meadow, Desert Beauty, Garden Blossom, Field of Beauty, Mountain Pride, Desert Bounty, Summer Supreme, Wildflower from the Banks of the River Whatever. Now you make up some extravagant words or combine some of the thoughts given here to give your honey a touch of class.

It does not matter if you have extracted honey or honey in the comb. Even if honey is in the comb, the customer can see that some is dark and some is light and some combs may have both. Yes, it is all wildflower, but giving a mixed comb a name such as "Summer Sampler" sounds more interesting than saying "Well, it's a mixture" Besides the customer may well come back for a comb or jar of "that dark honey"

Great! "That dark honey" is Summer Glory Wildflower, or whatever name you chose for it.

What if all your honey looks the same and tastes the same, but it is still "wildflower"? That does not matter. Give your honey a distinctive name that refers to your area: Desert Bounty Wildflower, Rolling Fields Wildflower. You live in a suburban area? How about Flower Garden Wildflower. There are so many ways you can give your wildflower honey a bit of zip!

For those of you who give taste samples via a cake or a dip, what better way to demonstrate your wildflower honey than by making the recipe with two different honeys. A dip for crackers or grapes that is made with light, mild wildflower honey can be quite different when made with a dark full-flavored wildflower honey. Your customers will learn to appreciate the versatility of wildflower honeys and will learn that honey can come in a myriad of colors and flavors.

Would you like a recipe that can demonstrate this variety of flavors? Try this for grapes. Customers can stick a toothpick into a seedless grape and dip in the sauce.

### Delicious Grapes

- 1/3 cup honey
- 2 tablespoons brandy
- 2 tablespoons lemon juice
- 2 cups sour cream
- 1 pound seedless grapes.

Mix all ingredients except grapes. Then either serve as a dip with grapes or pour mixture over grapes and stir well. Chill. Can be served as a dessert or a snack.

Now if you would rather have a spread that can be used for breads or crackers, try this next recipe — with different wildflower honeys, of course.


### Orange Cream Spread

- 1 8-ounce package cream cheese
- 1/4 cup honey
- 2 tablespoons orange juice
- 1/2 teaspoon orange peel

Combine softened cream cheese, honey, orange juice and orange peel, blend well. Refrigerate at least one hour — overnight is better. Spread on rolls, muffins, or a croissant or plain crackers or melba toast.

*A Honey Cookbook*  
The A. I. Root Company

Another effective way to demonstrate the flavors of wildflower honey is to make honey marshmallows. Use a different flavor for each batch. Marshmallows are very easy to make and really help sales of honey.

Wildflower honey is special. After all, your bees collected it! 

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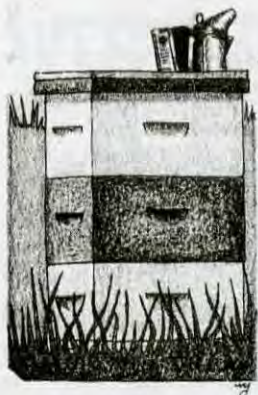
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# BEE TALK

richard taylor

*"We always know less than we think, and the bees are going to fool us over, and over and over again."*

**T**he realization that you know everything there is to know about a given subject is a very pleasant one. You know that no one can tell you a thing in that area and, in case someone tells you something that doesn't quite fit with what you already know, then you can dismiss him as mistaken. Oh, it is a good feeling, just to know it all.

The trouble is, that feeling is an intoxicant that blinds you to your own ignorance and guarantees that you are going to do nothing to improve upon that ignorance. The result is that you don't learn anything. You don't even learn what a fool you are.

I've been keeping bees for a very, very long time, and I've read a lot about the craft, and more than once I've had the feeling that there is very little, if anything, left for me to learn there. But every time I get to feeling that way I get humbled by some sharp reminder that, like any other know-it-all, I can still be a colossal fool when it comes to beekeeping.

For example, I have long believed that the way to increase the number of your colonies, or to revive winter killed ones, was to split out nucs from your stronger ones and give them new queens. These, I have long been saying, will build up faster than package bees. And that does make sense. A nuc, unlike a newly installed package, already has developing brood. But now I see that what I so confidently preached seems to have been doubtful. The three-pound packages I bought this spring built up faster than any nuc I ever saw. So, I've learned something, and I'll be a better beekeeper for it.

The late Edwin Anderson, who for years taught beekeeping at Pennsylvania State College, once told me the following story about E.F. Phillips, who had been his professor of apiculture at Cornell. He said that Phillips, in casual conversation, had made the remark: "Well, I think we have got to the point now where we know everything there is to know about bees." That must have been 50 or 60 years ago, and just think what has been learned since. Every year we learn new and astonishing things from the biologists whose research is directed to honey bee behavior. Indeed, it often seems that the more that is learned about bees, the more avenues of ignorance are disclosed; that for every question that gets answered, two more questions emerge. So what I am saying, about the need to be aware of our ignorance, applies not only to practical, backlot beekeeping, but to the most sophisticated science as well. It is a lesson which needs to be driven home to those who, believing they know it all, still refuse to address the results of investigations concerning the bee dance and other aspects of honey bee communication.

**I** always feel especially uncomfortable when I hear beekeepers discoursing on honey flows. They state with great confidence where this or that honey came from, without realizing that they are engaging largely in guesswork. For years beekeepers in Connecticut talked about their basswood flows, until the late Allan Latham, who always had his eyes open to new discoveries, showed them that the honey they thought was coming from basswoods was really coming from

sumac. Most of those beekeepers did not even know that sumac was a honey plant. Since they "knew" it was basswood, there was no need to check it out.

I used to think that bees could not make much honey in a season of drought, until I saw it happen, several times. By then I had concluded that you could not get a good honey crop if it rained almost every day. But then I got one of my biggest crops ever in just such a season.

**A**nd what does this sort of thing show? That we always know less than we think, and that the bees are going to fool us over and over again. Indeed, I long ago concluded that *every* season has its surprises for the beekeeper, some of them pleasant ones, some not. The one thing you cannot do very well is predict, because you just do not know enough about what is going on there, and you never will. Maybe you know a lot about bees. Maybe you know a lot more than the rest of us. But one thing is pretty sure: You know less than you think, and you have little chance of learning much if you don't bear that in mind. Keep your eyes and (especially) your ears open, and your mouth shut, and you are sure to learn something, maybe something that will be very useful to you. **BC**

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all, if less expensive Chinese imports are slowed or stopped, U.S. producers will then be able to sell their honey, right?

Well, maybe. Actually, probably, this year anyway.

But there's a bigger question that needs to be addressed. Will U.S. producers resort to these actions for every country that wants to sell honey at prices lower than 'normal' in the U.S.? That could get really expensive.

And there are countries that can do that. Brazil is coming on strong after initial setbacks with the AHB, as are Argentina and Mexico. Canada is increasing output, too. But these are small compared to what will happen when the many countries of the former Soviet Union get a head of (beekeeping) steam and start looking for new markets and ready cash. Even with the existing trade agreements in place, and others we may, or may not enter, it will be, I think, an aggressive honey market at the local A & P.

To prepare for that day, for those who want to stay in the honey business, some changes are in order. Diversification, propolis, wax, pollen, royal jelly, venom, pollination and certainly bees. You've got to squeeze every nickel out of every colony to keep going.

Diversification, for honey too, is required. Producing, packing and marketing, known varieties can only make your crop more valuable, which means moving bees to where the honey is, when it is. Moving for extended production will come into play, which couples well with producing known types.

Find out what else you can do besides managing bees well for honey production. In some way value must be added to the product, middlemen eliminated or other products produced in order to make more money without expending additional resources. Leaner and meaner and smarter, if you will, which means honey production may become less and less important as a revenue source for your business.

We must become more efficient, more diversified and more market oriented in order to compete with the rest of the world. If we don't, somebody else will.

Kim Flothum



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## ?Do You Know? Answers

1. **True** Colonies should not be wintered on foundation, and all queen excluders should be removed. These two items will interfere with the formation of the winter cluster and movement of the cluster upwards, as the winter progresses.
2. **True** Most swarming occurs in mid-spring, usually sometime in May or June. Some swarms, however, will emerge in late summer and early fall. These late swarms are a form of population control and have little chance of survival.
3. **False** European foulbrood is considered to be a stress disease and is most prevalent in spring and early summer. This disease frequently begins to disappear with a nectar flow. Occasionally the disease remains active throughout the entire foraging season. The antibiotic Terramycin can be fed as a preventive measure against the disease.
4. **True** In the northern regions, only strong colonies should be overwintered. Weak colonies should be united with strong colonies in late summer/early fall so that they have time to arrange their brood nest and food stores.
5. **False** Yellow jackets in the temperate regions cease brood rearing in late summer/early fall, therefore they no longer need a source of protein derived from insects/animals to feed their young. Adult foraging behavior switches to a carbohydrate diet, thus yellow jackets often become a menace around honey beehives, as they attempt to steal honey.
6. **False** Fumagillin treatments are most effective when fed with sugar syrup. Research has shown fumagillin's effectiveness is limited when fed with powdered sugar, extender patties, candy or pollen supplements. Colonies should receive a minimum of one gallon of medicated syrup in the fall.
7. **False** Entrance reducers are placed in the hive entrances in the fall to keep mice out and reduce the area that the colony has to defend when the bees are not clustered.
8. **False** When the temperature of the air immediately surrounding the bee reaches 57°F (14°C) the cluster becomes well defined. The colder the temperature, the more compact the cluster becomes.
9. **False** The winter cluster plays a role in regulating the temperature in the brood nest and does not attempt to heat the inside of the hive. When forming a cluster, honey bees on the surface establish an insulating shell which varies in thickness from 1-3 inches. Heat is produced within the cluster and generated to the cluster surface. Only the immediate area of the cluster is heated.
10. A) Adult Bees
11. C) Nosema Disease
12. B) Apistan Strips®
13. Lack of a honey flow (nectar dearth)  
Exposed honey supply
14. Vital to successful wintering is a large population of young bees that can live five to six months. A young queen in comparison to an old queen will lay eggs later into the fall, providing a higher proportion of young bees in the population.
15. Chemicals used for *Varroa* mite control do not penetrate capped brood cells so treatments must last three weeks in order to completely break the mite brood rearing cycle. Only female *Varroa* mites are found on adult bees in colonies that have ceased to rear brood and have formed their winter cluster. Thus, a broodless condition increases mite exposure to the chemicals.
16. Drones are being reared in worker-sized cells  
Multiple eggs per cell  
Eggs are laid on the sides of the cell instead of at center of the base  
No evidence of a queen present  
Large population of undersized drones

17 Upon finding a large population of drones in the fall, the beekeeper needs to search for the queen, eggs and worker larvae. In a queenright colony, the drones are evicted in the fall, whereas in a queenless colony, the drones are allowed to remain.

18. Distribution of food in the hive is another important consideration when preparing colonies for winter. During the winter, the cluster eats its way upwards, thus the uppermost hive body should contain a large proportion of the honey and pollen. In addition the bees and brood should be in the lower portion of the hive in the fall. In this particular colony the hive bodies should be reversed to give the proper food arrangement.

19. A colony that is so weak that it cannot adequately defend itself from the invasion of wax moth should be either killed or preferably united with a strong colony using the newspaper technique. The weak colony should be placed below the strong colony.

20. The empty medium-depth honey super on top of the hive should be removed in preparation for winter. Leaving it on the hive would result in the cluster arriving in the top hive body and not having adequate food stores. Even if a colony is starving in late winter, it will not move back down to get food.

21. Upon finding a colony lacking in adequate food stores, the colony should be fed. The options available to the beekeeper include feeding concentrated sugar syrup, transferring combs of honey from another hive if you are sure that disease is not present or providing sugar candy. Feeding the sugar syrup is probably the best option if the weather will allow the bees to handle the syrup and ripen it.

There were a possible 25 points in the test this month. Check the table below to determine how well you did. If you scored less than 12 points, do not be discouraged. Keep reading and studying - you will do better in the future.

### Numbers Of Points Correct

25-18 Excellent

17-15 Good

14-12 Fair



# Questions?

## New Queen Intro

**Q** Is there any way to introduce a new queen to a colony without finding and destroying the old queen?

Marion L. Rea  
Virginia Beach, VA

**A** None that I know of. A colony will not accept a new queen if it has anything, such as a queen cell or laying workers, that it considers to be a queen. Some beekeepers have claimed to be able to requeen by putting a ripe queen cell up in the supers. The idea is that the old queen will not destroy the cell up there, and that the virgin will then find her way down and kill her. I do not believe this approach has been tested in any careful way, however.

## Heat Wave?

**Q** I had several hundred bees and brood die during a heat wave. A gallon of sugar syrup mixed with a teaspoon of terramycin was in the division board feeder at the time. Could the hot weather have spoiled the mixture causing the bees to die? Or was I feeding too late? And will the colony have time to rebuild before cold weather?

Richard Weiford, Jr.  
Moorestown, NJ

**A** I have never heard of bees dying from a heat wave, provided the hive is open so that air circulates in it, nor do I have any idea what could have killed both bees and brood. Any disease that would attack one would be unlikely to affect the other. You were indeed feeding too late, but if the syrup was caused to spoil from the heat that should not have seriously affected any bees. Yes, the bees will easily recover, provided the loss was not caused by mites or disease.

**Editor's Note:** Two other thoughts come to mind. Feeding terra in sugar syrup is not recommended because the efficacy of the drug is very short lived when added to water. Applying, as a dust or in an extender pattie would be far more effective.

Pesticides could have been responsible for this type of loss, although the number affected seems small, more could have died without your noting.

## Separate but Equal?

**Q** How does one keep separate the different types of honey from overlapping flows?

Matt Ter Molen  
Evanston, IL

**A** I have always found that supers ready to harvest usually contain honey from only one source. Exceptions to this occur when supers are left on the hives too long. The bees will usually fill an entire super easily from a decent honey flow, and when two nectar sources bloom at the same time, they tend to gather from whichever source is most bountiful, more or less ignoring the other.

## Grease For Mites

**Q** I have heard that tracheal mites can be controlled by putting a rag soaked with vegetable oil on the bottom board. Is this true?

Jesse E. Hurst  
Portland, IN

**A** I have never heard of that one, but it is well known that vegetable oils can be used in various ways to control tracheal mites. An expert beekeeper friend of mine gets good results by mixing three pounds of Crisco, six pounds of granulated (not powdered) sugar and one quarter cup to TM-50 together, then putting two or three scoops of this mixture (about a quarter pound), ladled out with his hive tool, onto the top bars of the brood frames (between supers if two are used). The TM-50 should not be included in the mixture when

honey supers are about to go onto the hives, but otherwise the honey will not be contaminated. During a honey flow use only the grease and sugar. Include the Terra from fall to spring.

## Never Naphthalene!

**Q** Last summer I used moth crystals instead of para crystals to protect against wax moths. Can the combs be used again, or should I put in new foundation?

Glenn Long  
Washington Boro, PA

**A** Naphthalene moth balls and crystals should never be used for this purpose. The wax will absorb the odor and the chemical. Remove the wax and add new foundation.

## Storing Honey

**Q** After extracting honey I store it in five gallon plastic buckets where it crystallizes until I am ready to heat, strain and bottle it. Often I have more on hand than I can sell or give away, so it remains granulated for years in my unheated barn. Questions: How long can granulated honey be stored and still be good to eat? And, is it okay to feed only honey back to the bees? If so, how?

Kent Drew  
Rushville, MO

**A** Honey is not at all hard to sell. I urge you to get in touch with your local or state bee associations, where you will find beekeepers who cannot keep up with the demand and will be glad to buy your honey in the buckets. Now to your questions: Contrary to widespread belief, honey does deteriorate somewhat over time, especially if it gets warm, as it must in your barn in summer. But you can always liquefy a sample and try it yourself for quality. And yes, it can be fed back to the bees by diluting it with water, enough to make a kind of syrup, and feeding as you would sugar syrup. But beware: It will ferment if not taken by the bees rather quickly.

Please send questions to Dr. Richard Taylor, Box 352, Interlaken, NY 14847, enclosing a stamped envelope for response.

# Answers!

Richard Taylor

# Gleanings



SEPTEMBER, 1994 • ALL THE NEWS THAT FITS

## 18½ Years In The Ranks

### GENE KILLION RETIRES



On June 30, 1994 Gene Killion retired from the University of Illinois after 12 years as Extension Specialist in Apiculture. This position is not being continued. Gene was supervisor of apiary inspection in the Illinois Department of Agriculture for 18½ years succeeding his father who had served for 32 years. Father and son headed the Illinois inspection program for 50½ years.

Prior to his public service, Gene and his father operated 1,000 colonies of bees strictly in the production of fancy comb honey. They had their own queen rearing operation, requeening their colonies annually using their selective bred queens to produce the finest comb honey in the world. Winning the top award in the National Honey Show for several years will attest to the quality of honey they produced. In 1951, they broke the world's record in producing an average of 336 one pound sections of comb honey on 100 colonies. Most of their honey was sold to other beekeepers and packers in the United States and overseas. Killion and Son Apiaries were the first in experimenting with removing excess moisture from comb honey and were pioneers in selling the pollen trap and pollen supplements.

Gene has collaborated with both the Federal and State agencies in various experiments and projects. Besides authoring articles for the leading bee journals and newspaper, he wrote the "Guidelines for sanitary, manufactured, processing, packaging or holding of honey" release No. 22 for the Illinois Department of Public Health. These guidelines have been adopted by the National Honey Packers and Dealers Association of America. He revised his father's book "Honey in the Comb" published by Dadant and Sons, Inc., and authored the chapter "The Production of Comb and Bulk Comb Honey" in the new edition of "The Hive and the Honey Bee." He has been an international lecturer on apiculture and has judged numerous state and national honey shows. The honey bee embossed envelope and honey bee stamp issued by the United States Postal Service was from the efforts of Gene Killion who continued his father's desire to have the honey bee so honored.

A few of the numerous awards Gene has received throughout his career include: two Governor of Illinois Certificate of Appreciation Awards, Illinois Director of Agriculture Service Award, two Meritorious Service to Apiculture Awards from the Illinois State Beekeepers' Association, Certificate of Appreciation from USDA-APHIS, Distinguished Service Award from Apiary Inspectors of America, Honor Award for Regulatory, National Association of State Departments of Agriculture, and Superior Service Award in Apiculture, United States Department of Agriculture. He was commissioned a Kentucky Colonel by the Governor of Kentucky for his contributions to the Kentucky beekeeping industry.

Gene will continue keeping a few hives of bees and stay busy with his hobby of micro-photography, writing, lecturing, and consulting in apiculture.

## Jan. 17-21, 1995

### FEDERATION MEETS IN AUSTIN

The Austin Marriott at the Capitol, located on a picturesque block on the edge of downtown Austin, Texas, will be the site of the 1995 American Beekeeping Federation convention. The 16-story hotel features 365 guest rooms with all the amenities associated with a first-class hotel, including an indoor-outdoor pool and a fully-equipped health club.

Convention-goers will have an opportunity to experience a meeting of the National Honey Board as part of the ABF convention. The program is being structured to allow attendees to take part in either the Winter Honey Board meetings or the ABF workshops and special interest sections.

The pre-convention activities begin on Tuesday, Jan. 17, with the

ABF Executive Committee in the morning, various committees in the afternoon, and the ABF Directors in the evening.

The general session will convene on Wednesday morning and continue through Friday noon. The business meeting is set for Friday afternoon and the banquet, Friday evening. Saturday, Jan. 21, will be devoted to workshops and special interest sections – and Honey Board meetings. The Directors and Executive Committee will close out the convention on Sunday, Jan. 22.

More information will be published as the convention approaches. For information on exhibit and advertising opportunities, contact ABF Office, P.O. Box 1038, Jesup, GA 31545, ph. and fax 912-427-8447.

## But National Brands Doing Well

### PRIVATE LABELS IMPROVE

Two new reports give mixed signals on whether private-label products will become more menacing to the big national brands. A survey conducted by The Schechter Group, a New York-based firm specializing in corporate and brand identity, finds consumers expressing strong preference for national brands over premium private-label rivals. In the cookie category, for instance, 60% of consumers said the Chips Ahoy name signaled "a high-quality product" versus 10% according that status to the President's Choice private-label brand. And the gap was wider when people were shown packaging for each product. While consumers may think more highly of the national brands, though, that doesn't necessarily mean they'll keep buying them. A report from Bates USA assembles

copious data to document the continuing growth of share for private-label goods, putting the figure at 18.3% last year for supermarket sales and more than 22% when drugstores, mass merchandisers and club stores are included. "Many individual brands will be unable to survive the onslaught of the price-based competition," the study concludes. It notes a forecast by the president of Loblaw International that national brands will find themselves squeezed between bargain-priced private label brands and premium private labels whose quality is superior. While marketers of national brands can draw some comfort from Schechter's findings, that measure of consumer preference offers no guarantee the price-value equation won't continue to swing in favor of the private-label goods.

## Is Pollination & Floor Mgt. Considered? NEW APPLE GROWERS PROGRAM

Pest Management Supply, Incorporated, a 14-year-old small business located in rural Massachusetts has been selected exclusive marketer of the Penn State Apple Orchard Consultant Version 5.0 (for 1994) computer program. The 'orchard expert' program is available for MS-DOS® or Apple Macintosh® computers, and combines the knowledge of multiple apple specialists in an easy-to-use format. The Penn State Apple Orchard Consultant Program is available now for \$435.00 from Pest Management Supply, toll free phone 800-272-7672. (Note: Pennsylvania growers are eligible for a substantial discount.)

In the March, 1994 issue of *Pennsylvania Farmer*, author Kim Bower-Spence writes "Using this computerized expert system is like having several specialists at your desk 24 hours a day." Bill Kleiner, regional extension fruit specialist in Adams County, Pennsylvania adds "It will give you a recommendation whether to spray, and if you have to spray - what to spray. It teaches you how to trap. It even teaches you how to set

up your own weather station." Paul McPherson, a York County, Pennsylvania apple grower is also quoted, stating "It raises the comfort level that you're going in the right direction. What kind of value do you put on having six experts sitting at your desk?"

Penn State Apple Orchard Consultant Version 5.0 is the latest software from a team of fruit specialists and software developers at Penn State University, who have maintained a close working relationship with over two dozen working orchard "evaluators" whose input has greatly enhanced the development of the program over time. Penn State University remains committed to promoting and refining the program. Pest Management Supply provides toll-free technological support for the program and will notify current users of product updates as they become available. Company President and Founder Thomas A. Green, PhD describes 1994 Penn State Apple Orchard Consultant sales so far as "very brisk" and is "delighted" with customer response to the program.

## Working With AHPA FEDERATION LOOKS TO ANTIDUMPING AGAINST CHINA

Thwarted by President Clinton's refusal to impose an additional tariff on honey from China, U.S. beekeepers are considering filing an antidumping petition against honey from China.

The American Beekeeping Federation Executive Committee has approved a plan to take steps toward perfecting its petition to request the U.S. Department of Commerce (DOC) to initiate an antidumping investigation. The anticipation is that the formal petition could be filed with DOC in September.

The decision was made after reviewing the President's decision on the International Trade Commission's recommendation and the continuing increase in imports from China and the resultant continued deterioration in the domestic honey market.

An antidumping investigation involves both the DOC and the International Trade Commission (ITC). For an antidumping tariff to be imposed, both the ITC and the DOC must find in favor of the domestic petitioner(s).

• The ITC would have to determine if, due to imports of honey from China, the domestic producers are experiencing injury (or threat of injury, which is just as good - and which the ITC just found on honey from

China). On antidumping investigations involving China, the ITC has found for the domestic petitioners in all but two cases, out of 10-15 per year filed. Overall, the ITC finds dumping in about 50% of its cases.

The ITC makes a preliminary determination 45 days after the petition is filed. Another questionnaire, similar to the one done for the Section 406 case, will be sent out immediately after the filing. A follow-up questionnaire will go out about five months later, just prior to the ITC's final determination.

• DOC would determine whether the Chinese are selling their honey at less than fair value - generally, below costs - and to what degree.

In the case of China, where there is not a free market economy, a surrogate country, such as India or Malaysia is used to construct costs to which are added 10% general administrative expense and 8% profit - statutory minimums. Usually, the resulting "constructed" costs are higher than the commodity is selling for in the United States.

DOC is finding dumping in 97% of all cases and virtually 100% of China cases.

• Thus, "dumping" involves sales below fair value and injury. The penalty is the amount of dumping, i.e., enough tariff is added to bring their

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The PRIDE program focuses on all of the steps involved in producing a quality product. Quality assurance principles are used to identify vulnerable points in the production chain where quality problems can occur. PRIDE emphasizes preventing problems from occurring rather than trying



ing to fix them after they have occurred.

To order a PRIDE packet and/or educational videotape at no charge, please call Tracy Baker at the National Honey Board, (800) 553-7162.

## PRODUCERS MEET IN RENO

The American Honey Producers have set the following schedule for their 1995 convention for January 9-13 in Reno, NV. The program will be held at the Eldorado Hotel Casino, P.O. Box 3399, Reno, NV 80505. The toll free reservation number is 800-648-5966. Participation at the convention

is open to all beekeepers, supply dealers and other parties interested in beekeeping, pollination and honey production. For further information, write or phone for registration kit at AHPA 1995 Convention, P.O. Box 584, Cheshire, CT 06410-0584. Phone/Fax 203-250-7271.

price up to what they should be selling for. In antidumping cases against China, the penalty is frequently as much as 100%, i.e., the import price is doubled.

The producer organizations had considered initiating an antidumping action earlier, but the projected cost of the action had stymied them. Then, President Clinton ordered the Section 406 investigation by the ITC and the producers supported it, spending in excess of \$50,000 on legal assistance.

"We have not already filed an antidumping petition because we have had several estimates that we would need extensive legal help costing

from \$200,000 to \$300,000" says ABF secretary Troy Fore. Now, using offices of the DOC and ITC set up to help small businesses pursue trade remedies, and building on the record from the 406 case, Mr. Fore says the producers hope to be able to handle most of the antidumping case without an attorney.

"However, there will be points at which we will need professional assistance, from an attorney and/or a trade consultant" he says. "We will have to have a commitment from our members that they will support this action if we are to go forward with it."

## PACKERS & DEALERS LAUNCH QA PROGRAM

The National Honey Packers and Dealers Association has formed the Honey Quality Assurance Task Force to insure that every container of honey sold in the U.S. is 100% pure honey, whether the honey is domestic, imported or blended. The task force will oversee the development of a honey quality assurance program and establish procedures for obtaining funds for its support.

The NHPDA has allocated \$20,000 to launch the quality assurance program. Funds to support the program will be obtained from members of the NHPDA as well as from non-member honey packers on a voluntary basis. Beginning in 1995, the 40 members of the association will be assessed five cents per hundred weight on honey sold during the previous calendar year. The total bud-

get for the initial program is expected to be \$70,000.

Funds will be used to develop standards for honey, specify testing methods for honey, monitor honey sold in the U.S. market and set enforcement procedures. The honey quality assurance program will be fair and equitable.

The Honey Quality Assurance Task Force members include the NHPDA Executive Committee and representatives of the national beekeeping associations, Sioux Honey Association and the National Honey Board. The next meeting of the task force will coincide with the California State Beekeepers Association meeting on Nov. 18 in Tahoe, CA. For information on the honey quality assurance program, contact Dick Sullivan NHPDA, (908) 583-8188.

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**I**t would seem that most beekeepers work very hard over a year keeping bees. I certainly agree. Lifting, shifting, placing and replacing equipment plus a whole lot of other chores are not for fragile people. So let me address those who don't have power lifts, bob-cats, cranes nor a crew of five to help them. You know who I am talking about.

Of the last 70 summers I've seen, 20 of them have been lovingly spent with bees. Probably during these 'bee' years I've done no less or more than you in managing and manipulating an average of 100 colonies in lower New York State and Connecticut. Let's look at what we've done.

Consider a one-pound bottle of honey. It begins in spring. In May and June we need to guard against swarms. Set the supers off to examine the bottom bars of the upper hive body. This is done at least three times. "Lift 'em off, put 'em back on." That's six times I've handled the supers. If more supers are needed, bottom supering requires still another "Lift 'em off, put 'em back." That's eight times I've lifted the honeyed supers.

Let's go on. In late June I "put the queens down." This is not the place to explain why, but rather to say that a loaded colony has to be completely dismantled and *both* hive bodies exposed for inspection. The queen is found, placed in the lower hive body under the queen excluder and the hive reassembled. That makes 10 times.

Harvesting means lifting the supers off, blowing the bees out and carrying the supers to my van. Twice lifted means 12 times so far. If "blocking" is desired it's twice more but let's forget that one.

So far that unremarkable one-pound jar of honey represents 12 pounds of work. I've lifted that honey 12 times.

Meanwhile back at the honey house I've lifted the supers out of the van and onto cleared benches in the extracting area (13 times), once again onto the uncapping table (14 times) and frame by frame, first uncapped and then into an extractor (15 and 16 times).

Now the "60s" are stored (17 times).

Later, perhaps a spell in a degranulator. That's two moves (18 and 19 times).

A pause here to reflect. I, you, we have levered each pound of honey at least 19 times using arms and backs only and we are not done yet. From degranulator to storage tank or bottler. I don't have a settler or a pump system that's 20 times.

My honey house is not heated. In winter, I must bottle the warm honey before I label. Once to label and once to cap. (That's 22 times).

Now to case the honey and then to shelve the cases. That's two to make the count 24.

I am going to make an assumption - that you market your honey.

Put the case goods into your van and deliver it to your retailer. That makes 25 and 26.

My appointment log shows about 30 fairs and shows a year. So, beginning at lift number 24 again, the case goes onto the display table and then, bottle by bottle onto the display rack. (25 and 26 again)

Customers select and I bag it (27).

After the function there is a "tear down time." Put it into cases, then cases into the van, and return it to storage until the next time (28, 29 and 30).

Each pound of honey, therefore, gets lifted between 25 and 30 times, minimum. Who could worry or even bother to calculate lifting a pound of honey 30 times? No one! It amounts to 30 pounds of work and not worth discussing.

However, another assumption is made here. Most of us produce more than one pound of honey. In my case, let's think 6,000 pounds from 100 colonies. That's very conservative for my area. In summary, 6,000 pounds of honey lifted 30 times is 180,000 pounds of work.

Feel proud, beekeepers. Flex those biceps, triceps and foreceps. It isn't often we get arthritis. A tired back is more like it. When I calculated that I had lifted at least 90 tons each summer, I seriously considered stamp collecting. Where is my Ben Gay?

## The 30-Pound Jar of Honey

John peter