DEC 1999

Bee Culture

HAPPY HOLIDAYS

Bee Culture

THE MAGAZINE OF AMERICAN BEEKEEPING

DECEMBER 1999 VOLUME 127 NUMBER 12

FEATURES

HELP! 21

Finding, hiring and keeping good help is a job in itself.

Kim Flottum

FRAME SPACERS 23

This commercial beekeeper successfully uses eight and nine slot spacers. Here's why.

Kirk Stoller

OUR STATE FAIR . . . 27

Competition shows at state fairs are changing.

Dewey Caron

MAKING CRYSTALS 36

Natural crystals can be a management problem when they form in the comb.

Roger Morse

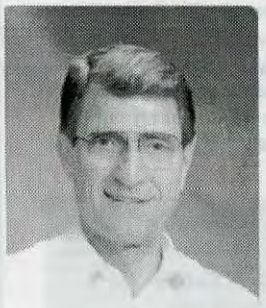
***BEE CULTURE'S* BEEYARD** 32

Stupid inner covers and accursed mites.

James E. Tew

YEAR END INDEX 48

The year at a glance by author, subject and title.



JOHN ROOT
Publisher

KIM FLOTTUM
Editor

For a moment we hope you can put the everyday aside and enjoy and partake of the happiness of the season. And who can resist a smile when our friend on the cover comes to visit.

drawing by Lela Dowling

Bee Culture

THE MAGAZINE OF AMERICAN BEEKEEPING

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DEPARTMENTS & COLUMNS

THE INNER COVER 6
A Salute; A Warning; Walter T. Kelley's 75th.
Kim Flottum

MAILBOX 7
Skunks; Glass Houses; Wise Guy.

DECEMBER HONEY PRICES 12

WISE GUY 13
Don't join just to belong.

BEEKEEPING IN THE DIGITAL AGE 14
Mid-Atlantic Apiculture Research and Extension Consortium.
Malcolm T. Sanford

LUSH 17
Exploring the feminine side of the bath with handmade soaps from Canada.
Mark Winston

RESEARCH REVIEW 19
Foraging honey bees and house bees must work together for the good of the hive.
Roger Morse

HOME HARMONY 41
Getting ready for Christmas.
Ann Harman

GLEANINGS 43
Adulterated Honey; Exotic Honey, Queen Breeders Contribute.

CLASSIFIED ADS 46

BOTTOM BOARD 56
Not a creature was stirrring . . .
Ed Hughes

Reader Assistance

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INNER COVER

For the past several years I've been associated with three beekeeping organizations. The smallest, the Medina County Beekeepers, has about 75 members. It meets once a month, has several outside speakers a year, supports a club-owned beeyard, runs a booth at the county fair every August where they have observation hives for demonstration, enter a honey show, sell club-member honey, make and sell rolled candles and demonstrate how honey is extracted. Depending on the month, between 30 and 50 people attend the meeting. There's a basic one-page newsletter that goes out before the meeting and in December we gather together for a fairly quiet year-end party and meal. A pretty typical group.

The Ohio State Beekeepers reach a bigger audience. Ohio has just under 3,000 registered beekeepers and roughly 15% belong to the group. There is a Fall and Summer meeting, and strong support for the southern and northern regional Spring meetings that draw about 350 and 600 people, respectively. The elected Board meets three times a year and holds a general membership meeting at the Fall gathering. This group supports state-wide programs for promotion, the state Extension Specialist for some research and facility needs, acts as a liaison between members and the Department of Ag's inspection team if needed and is developing a local group:state group relationship with the 40 or so county associations in the state. There's also an advanced training program, the usual in-house awards and a few other programs that keep people busy. Again, a pretty typical group for its type.

The Eastern Apicultural Society extends its reach even further. It encompasses 20 some states and several provinces of Canada. There is an elected board member from each state and province that meets twice during the year and again at the annual Summer Conference, where a general membership meeting is also held.

Although membership geography fluctuates, being strongest in the area nearest the annual meeting, which moves from state to state or province annually, it's roughly in the 500-600 range each year.

Each annual meeting hosts between 350-500 people, where there's a Master Beekeeper exam, an intensive short course, the regular group of speakers and several workshops. A quarterly newsletter keeps everybody up to speed on what's going on. It's difficult to compare this group to any other because of its size, the region covered and the fact that it has absolutely no political goals. The Western Apicultural Society is much smaller (though it covers a much larger area), and the Federation and Honey producers have strong political agendas that keep them together. EAS, though, is typical of regional groups in other disciplines.

And, though goals, scope and area served vary greatly among these groups there is one thing these three groups have in common, besides, of course, their common bond of beekeeping (which, as we all know, is less of a bond than one might suspect – hence the many political agendas that exist).

All things considered, that one thing is also what all successful groups, beekeeping groups included, have in common. And that one thing is the continuity person. That one person who is the keeper of the minutes, the distributor of the information, the person in the background who has the corporate memory that allows the group to progress, without losing its bearings, and without losing touch with its past. Leaders come, and leaders go. Committee chairs rise to occasion, then recede back into the audience. Project leaders plan, execute and disappear. But, in my humble opinion, the pillars of these successful groups are the *secretaries*. Those people who actually keep track of things. Who remind the leaders what it is they are supposed to do. Who record the successes of the committee chairs and project leaders. Who remember what worked last time, and what didn't, and why.

The three groups I've mentioned have really, really good people who hold that position. Not glorious, not famous, and mostly taken for granted. A not uncommon situation. But after a dozen or so years of watching groups, those I've seen that are long-term successful all have that person.

So. From where I sit, I salute all those people who do this job. Who keep it all together. And keep us all going in the right direction. We couldn't do it without you. From an industry that needs that prodding, that organization, that effort. Thanks.

Next month are the two major, and one almost major national meetings. And, although strongly political, they are also strongly educational. I still don't know a fraction of what I should, and as much as I'd like to think you can get it all here, you can't.

Try and get Fort Worth, San Diego or Albuquerque in your plans in January. You'll be a better beekeeper, and you might just find a better way to keep your hive tool sharp, and your smoker lit. And give your Secretary an 'atta boy' the next time you meet. They deserve it.

Continued on Page 38

A Salute; A Warning; Walter T. Kelley's 75th

KEEP IN TOUCH

Write: Editor, 623 W. Liberty St., Medina, OH 44256
FAX: 330-725-5624
EMAIL: KIM@AIROOT.COM

MAILBOX

Winking In The Dark

I was recently looking for a service formerly advertised in your classified ads, but could not find it. For years I have depended on those ads to see what might be available, and even though I might not have an immediate need, the "classifieds" always get read.

I would like to encourage anyone having a service or product to offer beekeepers, and a small budget, to advertise in your classified section; sooner or later, many readers will turn into customers.

A number of years ago when I was just starting in business, I received a solicitation from the local school of nursing to place an ad in their yearbook. The letter said "Trying to do business without advertising is like winking at someone in the dark – no one knows what you are doing except you!" I gave them an ad, never again winked at someone in the dark, and have been thankful to them ever since.

Thomas B. Ross
Massillon, OH

Way To Go, Doc!

In recent issues there has been some bashing of Mark Winston's column of June '99 about becoming and being a professor.

I think these critics are missing an important point.

When I attended college, in my first class of my first day of the first year, a wise scholar stood before us and the first thing he said was, "While en route to obtaining your degree, don't forget to get an education." The meaning was clear and I have never forgotten the advise.

It means the more we know about the world around us, the better we will be at whatever we specialize in. I've found that learning things outside my own field helps me feel good about myself, I become bored less easily, I can better understand other peoples' problems and my own problems tend to be less earthshaking. Also learning anything is good brain exercise. That alone helps our brains stay healthy which allows us to become even better at whatever we do.

Professor Winston sometimes deviates from bees and bee stuff, but the education we gain from him can and should be at least as important as his bee knowledge.

I hope Dr. Winston never stops his monthly column and doesn't ever change his format.

Dan Wieland
Davenport IA

Editorial Policy!

Glenn (Gibson) tells me that you will not be able to attend our meeting in Albuquerque. I am sorry to hear that. It is difficult for me to understand how you would publish an article like "Wise Guy." There are important issues that our industry needs to address but not through an anonymous forum. Anyone with an opinion worth printing is worth signing and that is all there is to it! Members of USB have taken a strong stand and don't mind standing up for what they believe. We sign our work and you should do the same.

In Albuquerque we will make plans and discuss issues that will affect our industry. As editor of a National publication it is difficult for me to understand how you could miss this meeting if you intend on staying informed.

Jerry Stroope
U.S. Beekeepers
Alvin, TX

Pollen Controversy

I am an avid reader of information provided by bee researchers but I am really put off when that information violates common sense or is contrary to what I see in my own hive. My beef of the moment is some of the remarks regarding pollen collection from the Apimondia conference.

Where do nurse bees get the pollen they require when feeding brood in late December and January as the queen begins egg laying again? They get it from stored pollen, of course. Pollen which was collected in excess of current use needs the previous Summer and Fall. The major characteristic which distinguishes honey bees from bumble bees is that the former collects surplus quantities. A gargantuan surplus of nectar, when it is available. The urge to collect is the basis of our whole industry. I have the notion that bees forage their territory and collect all the nectar they can find, at least from those species of flowers they favor.

Ditto with pollen. As I write this the third week of October in this suburb of Seattle, my bees are bringing in pollen like mad. Much more than they did a month ago. They already have more pollen stored than they will consume before fresh pollen is available in February and March. The queen has substantially reduced her rate of egg laying from that of last Summer so the current need for pollen is decreasing substantially.

Now I find believable researchers' reports that bees forage more eagerly for pollen if the hive's supplies are inadequate, or perhaps even marginal, for their then current needs. But I have a challenge for them: Determine experimentally how many frames of pollen you have to insert into a hive in order to cause the foragers to discontinue bringing in pollen altogether, or very nearly so. Now *that* really would be convincing!

Dan Hendricks
Mercer Island, WA

Skunks

Our friend, the skunk made

Continued on Next Page

MAILBOX

the cover of the October '99 *American Bee Journal*. They certainly can be a pesky predator of bees, especially when the hives are flat on the ground as in the cover photo. However, they don't deserve to be killed because of the beekeeper's negligence or laziness. A recent letter writer boasted of live trapping skunks then drowning them! I'm a Christmas tree grower as well as a beekeeper and consider the skunks to be desirable animals to have around a farm. They are largely insectivores and I'm always grateful when I discover a nest of yellow jackets that has been excavated and dined on by a skunk. I'm sure they eat lots of other inspect pests as well. I've tried all the conventional ways of discouraging the skunks as well as live trapping and relocating them which is only a temporary cure. What works well for me is to elevate the hives about 18 inches off the ground either on cement blocks or on wooden racks where multiple colonies are kept. Using 2 x 8 treated lumber with three colonies to a rack one point straight out and the other two at opposing angles (discourages drifting). I'm only 5'6" tall and except for honey removal the colonies are just the right height for the numerous 'bendless' inspections made during the nine months of the year when no honey supers are on.

Bob Cory
Dunkirk, MD

No More Skunks

I've heard enough about killing skunks. If I have a yard bothered by skunks, I use my handy-dandy fencer. Drive in 1 x 2 stakes, drive insulators on top, install small gauge wire and in about 20 minutes my skunk problems are over. I also use my fencer to keep deer, rabbits and ground hogs out of the garden.

Charles Leitner
Troy, IL

Idea From Necessity

I make my own bottomboards, so when I am reversing the hive bodies in early Spring I start with a clean extra bottomboard, put it on the first hive, clean the one I took off and go to the next hive. This is where the problem comes in, my reducing cleats are not the same length. They're either 1/8" short or 1/8" too long. So I came up with this idea. Cut the side rail off the bottomboard, the thickness of your cleat and you can slide your cleat in from the side. Make it a little longer so you have something to grip. Advantages when cleaning out dead bees, slide it out, no need to break the seal on the hive body. In case of robbing close it down to a one bee entrance. To shut the hive up completely for moving or repair push it all the way in. And best of all, one size fits all.

Jack Sullivan
Chesterfield, IL

Apitherapy On Web

Thanks to Tom Sanford for his fine article on Apitherapy in the October '99 *Bee Culture* including progress made by the American Apitherapy Society. Especially meaningful is the timing of this increased interest in Apitherapy as a proper tribute to Charles Mraz who devoted his life to healing others with bee venom.

Updating the information on the AAS please note that the new address is AAS, 5390 Grande Road, Hillsboro, OH 45133, phone 937.364.1108, FAX 937.364.9109. The AAS continues to serve as an effective vehicle for advancing the investigation of Apitherapy and publishes timely articles in its quarterly newsletter "Bee Informed."

Dr. Ross Hauser of Oak Park, IL is conducting bee venom research on MS patients and expects to report his findings soon. As of December 1997 he announced that no more MS patients were needed for this program.

I am pleased to see mention of the detailed "Do's and Don'ts guide for apitherapy therapists which I wrote and which was first published in a 1994 issue of "Bee Well" (the predecessor of the AAS "Bee Informed"). This ethics guide was used as a course outline by Louise Estupinian during the 1997 AAS Knowledge Review Course and it stresses the importance of sharing our knowledge and helping people. This is done without cost as our teacher Charles Mraz has always suggested.

In Tom's article it is stated that honey, propolis, pollen, and royal jelly 'may provide significant income to beekeepers', however bee venom cannot be given for money as it is "practicing medicine without a license."

I am the Catskill, NY beekeeper who raised and continues to raise the controversial issue of increased sensitivity to bee venom while the person is taking some anti-inflammatory drugs. There are additional reports of severe allergic reactions when NSAIDS and bee venom are used together. These persons have no adverse reaction from either agent alone and the reaction is shown to be reversible as soon as one agent is discontinued.

This and many other fascinating topics are regularly reported by the American Apitherapy Society. Join us in supporting this effort in the continuing search for truth.

Dick Johnson, Beekeeper
Member AAS

Praising Mann Lake

A while back I ordered Honey Robber from Mann Lake. What a happy surprise when it arrived. It was packed so well. I just want to tell everyone about it. Thanks Mann Lake, for handling my order.

Monte Abbott, Sr.
Newburn, TN

Keeper Of The Bees

When I received our copy of *Bee Culture* today, a chill went all over me – to see the beehive shrouded in black. That's how we feel – the bees and I. You see we've lost our keeper of the bees for 55 years.

Beecher Russell Ingram passed away April 17, 1999 of a heart attack. He was 78 years old. He always told us when his time came to go, let it be in his beeyard with his boots on! He didn't quite make it – he was at home, 9:00 at night.

MAILBOX

He dearly loved his bees. You see they made him walk again! When he came home crippled from the war – one day a swarm of bees landed on our fence. He put them in a cardboard box, then made a super and home for the bees.

He received several stings – began to feel better. Started to walk with crutches and then a cane. Every sting helped. He encouraged the bees to sting him everyday. First thing I knew there were more hives – then beeyards – then honey plants. Something he could do that has lasted 55 years and enjoyed it.

He has been a state bee inspector for both Fayette and Ross Counties. Has helped many children and adults get started in beekeeping.

Bees are an interesting subject! When you think you know it all – you find you've a lot to learn.

Beecher devoted his life to his bees. So in respect we had two large straw skeps engraved on his monument – so that he can forever keep his bees.

Beecher and I have always enjoyed *Bee Culture*. Autumn mornings was a nice picture – just lonely memories for me now.

Beecher is survived by his wife of 57 years, a son and daughter, five grandchildren and two great-grandchildren all who love the bees and honey.

Helen B. Ingram
Washington CH, OH

Almonds vs. Honey

I read with great interest the thought provoking letter of Lyle Johnston in which he expounded upon the alleged advantages of supporting the California Almond Board rather than the National Honey Board. I consider Lyle a friend and I certainly respect his right to express his views, however I strongly disagree with the premise that we beekeepers should support the Almond Board instead of the National Honey Board.

As a commercial beekeeper and honey producer, I too am extremely concerned about low honey prices, mites and hive beetles, as well as bee losses from pesticides and other serious problems facing our industry, but unlike Lyle, I do not blame the National Honey Board for these problems.

The Almond Board is not capable of solving all the problems confronting the almond industry, nor is the Honey Board capable of solving all the problems facing the honey industry. Both boards, however, are valuable tools and have provided positive benefits to their respective industries.

The Honey Board has increased consumer awareness of honey and honey products while keeping the positive perception of our product well over 90%! This year, for the first time ever, the NHB received over two million dollars in assessments by the end of July (this represents over 200 million pounds of honey) indicating a very strong demand for honey. Total assessments received as of the end of September were up 15% over 1998. Granted, this strong demand provides only half of the price equation. Unfortunately, a more than adequate supply of honey is the other half of the equation, and the result is that the current producer price is extremely low. The Honey Board can only work on the demand side of the price equation and cannot do anything about the supply side, at this time.

While driving the demand for honey is the main objective, the National Honey Board does much more for the industry. For example, the NHB funded research in the area of honey and health shows great promise for the future of the honey market. Preliminary research has shown that certain varieties are higher in anti-oxidants, and it is quite possible that certain USA honeys have higher anti-microbial activity or some other attribute that can set them apart from others. Many honey packers are now including a warning not to feed honey to infants on their product labels. Who can answer the consumer questions regarding infant botulism, or other technical questions about honey, in a professional manner better than the National Honey Board? Will the Almond Board do any of this for us?

There is no question that the Almond Board has accomplished many great things for the almond industry. Their advertising and promotional efforts have helped to drive the demand for the increasingly large California almond crop. When an over supply of almonds threatens the market price, they can withhold a portion of the crop from the market in an attempt to bolster prices, as they have done again this year. (The Honey Board cannot do this with honey.)

The Almond Board has also been very generous with pollination research dollars, some of which have helped the likes of Drs. Rob Page, Marla Spivak, Diana Sammataro, and other bee scientists of note. Often, the Almond Board has provided contributions matching those of the California State Beekeepers Association in funding particular research projects, for which we are very grateful. However, it must be noted that the Almond Board has annually spent a portion of their pollination research budget searching for alternative pollinators to supplement or replace our honey bees.

In spite of the great progress made by the Almond Board in growing the market for almonds, the almond industry, like the bee industry, is facing tough economic times due to low prices. On a percentage basis the almond producer has experienced a greater reduction in prices than has the honey producer over the past three years. The average price of almonds has plummeted from approximately $2.50 per pound in 1996 to $.80 in 1999. This is a reduction of 68%!

I believe it is important to note that in the midst of this depressed almond market, the almond industry voted overwhelmingly (90% by number – 88% by volume), in a referendum held this past Summer, to allow the Almond Board to continue to serve the almond industry for five more years. Obviously the almond industry has a vision of the future in which they see the need to

Continued on Next Page

MAILBOX

continue helping themselves, through the efforts of the Almond Board, despite the current low market price of almonds.

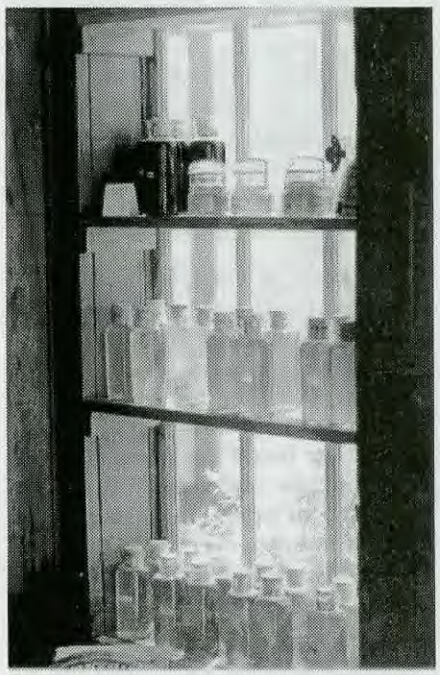
I hope that we in the beekeeping industry have the foresight to see that we too need to continue to help ourselves to a more prosperous future.

Gene Brandi
Los Banos, CA

Sun Lit Honey

This is a photo of our shop with our honey on display in the window with the sun back-lighting the honey. We thought you may like to see how beautiful nature can color our world. Honey should always be back lighted for selling at its best.

Kathy Nofsinger
Jackson, WI



Between Pests

I first became acquainted with Tracheal mites Spring of 1989 when I lost three colonies packed with honey. The two previous years my colonies averaged 80 and 92 pounds of honey production per colony and I was closing in on my goal of 100 pounds/colony which significantly higher than the 25 pound average here in southern Maryland. Since the onslaught of mites my beekeeping practices have not only drastically changed but in all respects I am a much better beekeeper than during the pre-mite era. For example I now keep five or six five-frame nuclear colonies, a ready source of queens or frames of young bees and/or brood. My Winter losses have been cut to less than 1% with strong colonies coming through the Winter. I now use a modified Demaree method of swarm control whereby an early split goes over top of a double screen divider board over the mother colony. The split is either requeened with a commercial queen or allowed to develop its own queen, run as a two-queen colony for several weeks, then reunited with the mother colony at the beginning of our main nectar flow, about the 10th of May. All honey supers are extracted by late June. Queen excluders are used on every colony and the extracted combs, all of which have never had brood in them, are stored wet in an outdoor shed until the following Spring. No wax moth treatment needed for this method. No mid-Summer or late honey is removed letting the colonies go into Winter with adequate stores. Dry sugar is fed to the occasional super strong colony that puts all its stores into brood production.

Mite control begins early August when tri-weekly checks for *Varroa* show up on an ether roll test. Tracheal mites are controlled September 15 when a 3" by 5" piece of corrugated cardboard smeared with 1/4" of Crisco grease (no sugar added) and imbedded with two tablespoons of menthol crystals is placed on the top of the frames of the top brood box. The Mentholated cardboard is then moved three times at about 10-day intervals to opposite corners. The cardboard remains in the colony the rest of the year. No other medications are used.

This year all 20 colonies survived in great shape. Fourteen splits were made, seven new queens were introduced and seven produced their own queens. The 20 colonies produced 60 full Illinois supers of extracted honey and four shallow supers of comb honey for over 2,100 pounds! The cool dry weather of May and June was a big factor in this success story. I'm now ready for the next challenge, THE SMALL HIVE BEETLE.

Bob Cory
Dunkirk, MD

Water Lettuce

In *Mailbox* of your October issue, a letter from Steven P. Keller recommended 'water lettuce' for watering bees. Does it have a scientific name and where can I get it? I called several nurseries to no avail.

A. Norman Bantz
Tuckahoe, NY

•

The scientific name for the plant that Steven P. Keller talks about in the October issue is called (I believe) *Salvinia molesta.* This plant is also known as Giant Salvinia, Kariba weed, and Aquarium watermoss. It is incredibly invasive, and has been banned in the U.S. If this is the same plant, it should, dispite its bee-watering advantages, be destroyed. You can find out more about Giant Salvinia at www.sdafs.org/reservor/news/release/salvania.htm

Joe Gatesman
Columbus, OH

Glass Houses

The last few articles by the Wise Guy have brought to mind the old proverb advising people living in glass houses to be careful when throwing stones. Honey producers in the U.S. face very real and grave problems. Pests and diseases on one hand and low prices and the lack of government support on the other reduce the incentive for staying in the business pretty much to the pure joy of it. Unfortunately joy does not pay the mortgage. Complex global economic and trade issues combined with a strong dollar put U.S. producers of many agricultural products including honey at a distinct disadvantage. Overcoming these disadvantages will not be easy and will require the best efforts of all of us. Imagination, direction, and support from indus-

MAILBOX

try and government leaders is absolutely essential. Contamination by illegal or inappropriate chemical application, adulteration by any form or production in any but strictly hygienic conditions are the enemy of all producers no matter their size or location. These enemies are not confined by national borders but by conscience. We all must energetically protect and promote the public image of honey as a pure, wholesome, and healthy product. The best way to do this is to produce honey of impeccable quality and to educate the public of this quality. Quality standards and inspection will benefit all dedicated producers and help identify and weed out honey that does not meet these standards, no matter its origin.

Paul Hosticka
Kingston, WA

Enjoys Wise Guy

Just wanted to tell you how much we enjoy "The Wise Guy" article in your magazine. He or she really tells it like it is.

Out here in the west we are now having the same problems with (some) packers putting out phony honey. One packer told me that they find all kinds of garbage in some barrels of imported honey . . . automotive brake shoes, engine parts, cigarette butts. And, of course, the usual dead mice, earwigs, spiders and other insects not identifiable.

You can filter out the solids and make it look clean but the juices from these things still remain, and leave an odor and a taste that is turning people off. Customers have brought me over some of it and it smelled terrible. I would not even taste the stuff. I put it out for the bees to rob out and they would not touch it either. So its easy to see why honey consumption is down. And it will keep on going down unless we find a way to get that phony honey off the market. Hobbyist and sideliners are having a ball with this as more people are driving out to these small apiaries and paying twice the price of what they can buy it out of the store for, just to be able to get the good honey that they have been used to getting. Once you have smelled and tasted some of this phony honey you will understand why.

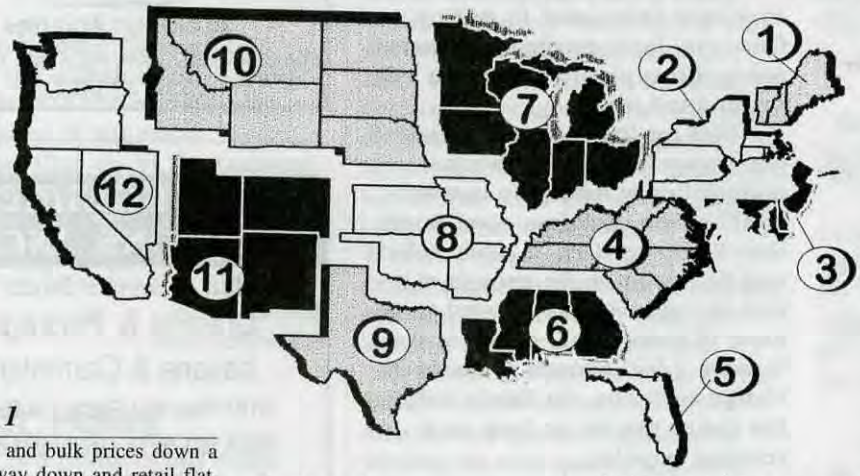
Now for the good news. One of our honey bottlers has started making honey mead. He has two 1,000-gallon stainless steel tanks that he brews it in. It really sells and he cannot make enough of it fast enough. He has ordered three more of these 1,000-gallon tanks. It takes 1,000 pounds of honey to charge each one. So this is helping the honey market so long as it remains popular.

As a hobbyist beekeeper we do not produce all the honey we can sell to people that want real pure honey, with that pure honey flavor so we refer them to other hobbyists until they are sold out, too. We have a little sticker that we put on each jar that reads, "We own the bees, we harvest and bottle the honey, and we sell it direct to the consumer, so you know you are getting pure, clean, natural honey, produced by honey bees. Harvested and bottled in a state inspected plant. So clean we are one of our best customers."

Many of our customers tell us that it is the best honey they ever tasted. We tell them it is the natural flavor of the local flowers, nothing added, nothing taken away. If we are going to regain our markets all the honey on the grocers' shelves should be so honored.

Ancel Goolsbey
Spokane, WA

DECEMBER – REGIONAL HONEY PRICE REPORT



Region 1

Wholesale and bulk prices down a bit. Pails way down and retail flat. Producers plan on increasing prices a bit, and keeping costs in check to compensate for only average year.

Region 2

Prices down across the board, especially bulk and wholesale since last month. Most producers will keep tighter reins on costs next year, but some expansions planned as income at or near nominal for many. Biggest problems were inefficient operations leading to too-late management.

Region 3

Bulk and wholesale prices down, pails up, retail steady. Producers are looking at increasing prices next year and expanding to increase income. Need to become more efficient to do so, and those are the goals.

Region 4

Prices down for bulk, wholesale and retail, but steady for pails. Producers plan overwhelmingly to increase prices next year to compensate for this year's low prices, but plan to stay about the same size. Spring swarms, not moving to better locations and late harvests were problems.

Region 5

Although some individual products have moved up or down drastically (wholesale 1# for instance) overall prices are steady. Producers plan on increasing prices next year but only a little as income has remained steady.

Region 6

Retail pail prices up a bit, but everything else fairly steady since last month. Increasing prices and reducing costs important next year to keep incomes steady. Not moving to better pasture, and not expanding were cited as problems.

Region 7

Retail prices including pails a bit lower overall since last month, but the rest remain fairly steady. Most producers looking to reduce costs next year to compensate for average or reduced incomes. Increasing efficiencies by planning better, harvesting on time and reducing swarms with help.

Region 8

Retail prices increasing just a little since last month, but bulk, wholesale and pails steady. Increasing prices and reducing costs important for next season to make up for lower than average incomes this year. Swarms, and not increasing to increase income balanced expanding and no crop and harvesting late as problems.

Region 9

All products steady to down just a bit since last month. Like others, reducing costs and increasing prices necessary to make up for reduced crops, and income this year. Not feeding when necessary, and not moving to better pasture, cited by many as problem, but not expanding in good areas also a drawback.

Region 10

Pail prices down a bit but everything else about steady. Reducing costs, or selling out are on lots of balance sheets this Fall, but incomes were a bit higher, though costs higher still. Slow start and selling too low cited as problems.

Region 11

Retail shelf and pail prices have dropped, but bulk and wholesale prices steady. Few changes planned, but dropping in size on the minds of some, and ignoring AHB swarms top the list.

Region 12

Pail prices a bit lower, bulk higher, wholesale steady and retail all over the map. Reducing costs important for next year, with only average incomes reported. Pests the biggest problem mentioned.

	Reporting Regions												Summary		History	
	1	2	3	4	5	6	7	8	9	10	11	12			Last	Last
Extracted honey sold bulk to Packers or Processors													**Range**	**Avg.**	**Month**	**Yr.**
Wholesale Bulk																
60# Light (retail)	69.95	65.83	85.83	76.57	75.00	69.50	58.86	66.00	77.10	62.00	91.67	63.50	42.00-145.00	70.48	73.89	57.72
60# Amber (retail)	66.00	61.13	76.02	70.67	56.50	63.00	60.00	69.00	79.15	62.00	80.83	58.00	36.00-125.00	67.05	70.28	56.21
55 gal. Light	0.62	0.63	0.55	0.61	0.61	0.65	0.60	0.61	0.67	0.60	0.68	0.57	0.51-0.68	0.63	0.67	0.68
55 gal. Amber	0.57	0.58	0.48	0.58	0.58	0.55	0.59	0.58	0.56	0.58	0.58	0.57	0.46-0.60	0.57	0.60	0.63
Wholesale - Case Lots																
1/2# 24's	27.71	27.99	26.55	30.93	26.55	27.83	27.43	26.55	30.00	26.55	26.48	25.00	24.50-38.40	29.01	29.17	28.94
1# 24's	42.77	43.07	43.38	41.12	43.38	42.50	43.35	39.00	44.97	43.80	46.20	46.35	24.00-62.40	43.75	42.57	42.33
2# 12's	37.46	35.35	40.16	42.29	40.16	38.30	37.96	40.11	37.67	33.00	35.80	38.67	29.40-52.80	38.29	39.06	39.02
12 oz. Plas. 24's	35.42	35.70	34.25	35.27	34.25	28.20	35.65	35.44	36.88	38.40	39.63	36.70	26.40-50.00	36.35	36.87	36.71
5# 6's	39.75	37.73	41.51	45.38	41.51	44.00	40.72	39.00	41.73	37.50	40.70	37.75	31.50-52.00	41.02	43.01	41.10
Retail Honey Prices																
1/2#	1.78	1.52	2.83	2.17	2.83	1.78	1.63	1.81	2.60	1.59	2.45	1.75	1.19-3.00	1.81	1.91	1.85
12 oz. Plastic	2.18	2.05	2.27	2.19	2.27	2.11	1.98	2.25	2.48	2.36	2.63	2.22	1.39-3.20	2.22	2.23	2.21
1 lb. Glass	2.65	2.44	2.76	2.83	2.17	2.60	2.41	2.61	3.10	2.55	3.36	2.76	1.58-4.00	2.70	2.81	2.72
2 lb. Glass	4.31	3.90	4.47	4.75	4.00	3.89	4.28	5.05	4.30	4.02	4.51	4.44	3.00-6.00	4.40	4.65	4.53
3 lb. Glass	6.21	7.21	6.94	6.43	5.00	6.40	5.85	6.60	6.25	5.77	6.57	5.67	4.00-10.50	6.32	6.55	6.27
4 lb. Glass	7.48	7.29	8.10	8.01	8.10	6.53	7.96	8.19	7.00	8.10	8.10	8.20	6.00-10.50	7.79	7.73	7.89
5 lb. Glass	8.99	9.10	9.57	9.48	7.13	8.08	8.93	11.94	9.00	7.90	9.43	8.62	7.00-12.50	9.21	9.38	9.21
1# Cream	3.37	3.28	4.20	3.69	4.20	2.82	2.65	3.25	6.23	4.78	3.86	2.91	2.25-6.95	3.39	3.32	3.32
1# Comb	4.07	3.96	4.05	4.00	4.05	4.50	3.84	3.96	4.88	4.05	5.38	4.53	1.95-6.00	4.21	4.04	4.21
Round Plastic	3.68	3.09	3.94	3.75	3.94	4.00	2.91	4.75	6.00	3.94	4.63	4.37	2.00-6.00	3.82	3.89	3.65
Wax (Light)	1.59	1.65	1.60	1.63	1.25	2.33	1.63	1.88	2.50	1.72	1.35	2.19	1.10-3.50	1.57	1.75	2.36
Wax (Dark)	1.27	1.71	1.40	1.11	1.08	2.00	1.37	1.28	2.00	1.06	1.12	1.95	0.90-3.00	1.27	1.51	2.09
Poll. Fee/Col.	37.60	41.38	28.00	35.17	30.00	35.00	39.60	39.00	20.00	37.88	50.00	39.60	20.00-55.00	38.65	39.14	37.96

THE WISE GUY

Why do we have so many organizations that represent the honey industry? Are all of them working to better our industry? Let's look at the players. First, you have the beekeepers – whose sole function is to produce . . . honey. They sell their product to a honey packer or to other wholesalers who in turn distribute to other outlets. Seems like a pretty small business with very few players.

There are four major groups that represent beekeepers – The American Beekeeping Federation (ABF), The American Honey Producers Association (AHPA), The U.S. Beekeepers (USB) and Sioux Honey. The Honey Packers and Dealers Association and Sioux Honey represent the packing industry. Somewhere in this is the National Honey Board (NHB).

The AHPA and the USB want to promote the use of domestic honey. Sioux Honey supports its United States based producers and shares profits with those producers while it only imports a fraction of the honey they sell. They produce a product that is excellent on the shelf and improves our image.

The ABF seems to be a mix of all of these. They represent beekeepers, but also have packers on their board. They supported the anti-dumping action against the Chinese, but some feel the $500,000 spent may not have been a good idea. When the honey loan program was being worked on in Washington recently with a loan rate of 59.3¢ per pound one insider suggested that the ABF was talking to legislators about a 40¢ per pound price because if the program was announced at 56¢ per pound, it would set world-price. This begs the question: What would 40¢ do?

The National Honey Board's Executive Committee has four of its five positions filled by packers. Recently, the USDA was asked by some beekeepers to purchase 10 million pounds of honey for the school lunch program. The only industry objection came from the Honey Dealers and Packers Association. Sioux Honey supports the purchase idea, while the ABF remained quiet. The National Honey Board said it was a political issue so they took no stand. Does that mean the packers on the Honey Board opposed it?

The Almond Board went to the USDA to purchase 40 to 50 million pounds of almonds due to low prices and a surplus of almonds. This is the same Almond Board that has given more money to Bee Research than the honey industry. Similarly, the USDA purchased surplus buffalo meat recently from members of the buffalo program.

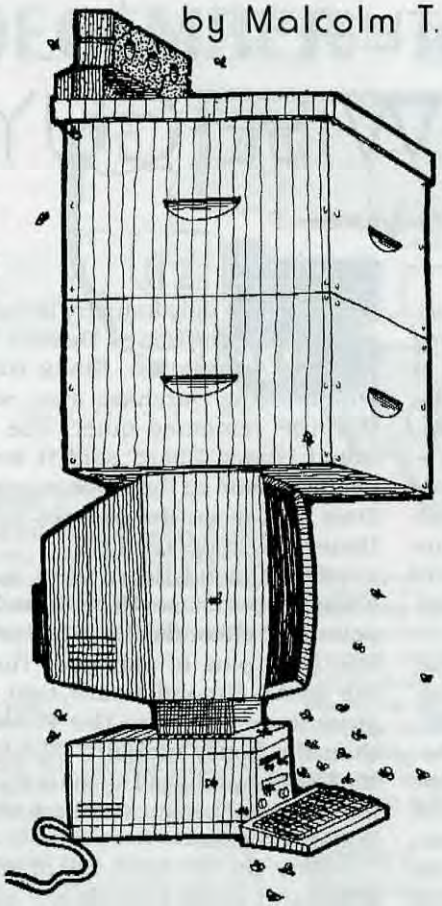
Why do we have all of these groups? I believe there are some people in this country that want to splinter beekeepers. The more apart they keep them the more money there is to be made. In fact, I believe there are selfish reasons for having us all in separate corners. If you read the *American Bee Journal's* two-part article written in the Argentinia you will see what I am talking about.

Join an organization and join one that supports you and your ideas. Don't join just to belong.

Wise Guy

Beekeeping In The Digital Age

by Malcolm T. Sanford



http://bee.airoot.com/beeculture/digital

Mid-Atlantic Apiculture Research and Extension Consortium

The digital age allows cooperation by promoting communication in many ways. This is well exhibited in the Mid-Atlantic Apiculture Research and Extension Consortium (MAAREC). Information generated from beekeeping activity by several states (Delaware, Maryland, New Jersey, Pennsylvania, and West Virginia) is all presented through a central source, the MAAREC home page: **http://MAAREC.cas.psu.edu/index.html**.

This allows agencies to pool their resources and could very well be a model for dissemination of information in the future. The MAARC home page is attractive and simple. A single graphic of a veiled beekeeper adorns the right hand side and on the left in various colored text are links to items recently placed on the site. Prominently displayed is a link to the **July 1999 BeeAware Newsletter**. This can be looked at either using **Adobe's Acrobat**® reader or a browser. The issue contains an article on beekeeping in what is called the **Delmarva Peninsula**, between Delaware and Chesapeake bays. The region has limited commercial beekeeping but an estimated 400 hobbyists/sideliners maintain some 7000 colonies. Many are used annually for pollination, primarily for cucurbits (cucumber, cantaloupes, pumpkins, squash and watermelon). In the same issue is an article on **trailer pollination**. According to the authors, trailers make it easier to move quantities of bees into grower's orchards or fields and they prefer this to the traditional method of labor-intensive setting off individual colonies. We have found that grouping colonies approximately 16 to a trailer is a convenient way to move them quickly into and out of areas where needed. The newsletter also describes efforts by Diana Sammataro and Scott Camazine to obtain support for the MAAREC research program through the **Food Quality Protection Act**. Finally, the newsletter discusses poster presentations by **students**, and lists upcoming **beekeeping events** throughout the region.

A link to a **new fact sheet** on small hive beetle is also prominently displayed on the MAAREC **home page**. This includes basic information on the beetle found in **other publications** and regulations concerning bees coming out of beetle-infested areas. Across the top of the home page is an interactive banner with a number of options. When accessing the topic, **Apiculturists**, one sees a list of bee inspectors, researchers, extension specialists and presidents of beekeeping associations. **News** contains articles on use of both **coumaphos** and **fluvalinate**. A **calendar** of beekeeping events includes information from short courses and major beekeeping congresses. There is also a link to information about the Penn State University's **beekeeping correspondence course**, which is one of the very few in the nation. It consists of 10 lesson assignments, and there are no examinations. The cost of $74 includes materials and tuition. To register, contact: The Penn State University Department of Distance Education, Independent Learning Program, 207 Mitchell Bldg, University Park, PA 16802, ph. 800.252.3592. A complete list of beekeeping **groups** is also available, including the associations of all cooperating states, as well as **national groups**, including the American Honey Producers, **American Beekeeping Federation** and **National Honey Board**. There is also a good description of one of the largest beekeeping groups, the **Eastern Apicultural Society**, and its programs and awards, including the **Master Beekeeper Certification Program**.

The MAAREC page also links to a comprehensive **beekeeping information index**. This contains a huge amount of data about **bee biology**, **equipment**, **colony management**, **hive products**, **pollination**, and **chemicals** used in beekeeping. Much of this is taken from Beekeeping in the United States, originally published by the USDA - Agricultural HandBook Number 335 in 1980, and **Fundamentals of Beekeeping**, a sixty-eight page beginner book published by Pennsylvania State University, still costing only five dollars. To order, send checks payable to Pennsylvania State University, or send purchase order: Ag Mail Room, Ag Administration Building, University Park, PA 16802. The index also has a good list of **references** and a **glossary** of beekeeping terms. Several detailed construction plans are also available from the web site, including a Langstroth hive and solar wax extractor in Adobe Acrobat® format. As with most World Wide Web sites, there is a list of **links** to other pages.

A list of **educational aids** is also linked off the MAAREC page. These include books, videotape, pamphlets, fact sheets and software. The **fact sheet** link

includes pollination aids and the videotape is Pennsylvania State University's ***Why Honey Bees***? This 29-minute video is a survey of honey bee pollination value, published in 1993. It's price is $35.00, which includes postage and handling. Send checks or money orders to Ag Information Services, The Pennsylvania State University, 119 Ag Administration Building, University Park, PA 16802, ph. (814) 865-6309.

The software is the **Bee Aware Expert System**, now available on CD ROM. It contains modules on disease information, diagnosis and references. The information module provides specific information on individual diseases, pests, parasites and predators. The diagnostic module is designed to assist the beekeeper in identifying an unknown problem. Through a series of questions, answered by the user, the computer narrows down the possibilities until it comes up with a suitable diagnosis. The reference module is divided into four sections: references used to make the system, apiary inspectors in the U.S. and Canadian provinces, glossary of the technical terms used in the system, labels of chemicals registered for use on honey bees, commonly used pesticides and their relative toxicity to honey bees.

According to the description of the program, "An expert system has certain advantages over a conventional reference or text book. It can assist you in diagnosing a particular problem and unlike a human expert, Bee Aware is always available. The knowledge of many human experts is incorporated into the system and it can be updated easier and more quickly than textbooks. Bee Aware should be used as a management tool. Recommendations from the computer program should be combined with other sources of information, the beekeeper's knowledge of his operation, and good common sense. Bee Aware was developed mainly for Pennsylvania conditions. However, most of the information and recommendations apply to conditions outside of Pennsylvania as well. It is important to keep in mind however, that laws and regulations concerning beekeeping differ from state to state. If there are questions concerning the use of any drug or chemical, you should contact your local apiary inspection service or state apiculturist." Besides the CD ROM, which contains many high resolution images, program updates are also available on a recurring basis. The program is available in both MacIntosh and Windows formats.

The newest addition to the MAAREC site is an online **slide show** of parasites, pests, predators and diseases. This includes over one hundred good quality pictures showing everything from **feeding Terramycin®** to the wingless fly, *Braula coeca*. In reality, these are a combination of two slide series published by The Pennsylvania State University "Honey Bee Diseases," and "Honey Bee Parasites, Pests and Predators."

No prices are given on the web site for either Bee Aware on CD ROM or the slide shows at the present time. For details, contact Maryann T. Frazier, Apiculturist at 814.8654621, or Department of Entomology, The Pennsylvania State University, 501 ASI Building, University Park, PA 16802, ph. 814.865.1896. BC

Dr. Sanford is Extension Specialist is Apiculture, University of Florida. He publishes the APIS Newsletter: http://www.ifas.ufl.edu/~mts/apishtm/apis.htm

Mark Winston

Lush

"Perhaps my experiences as a beekeeper cleaning up sticky honey in the honey house had blinded me to its true cleansing, antiseptic, soothing, and James Bond-inducing nature."

The latest rage to hit the streets of major Canadian cities is a handmade line of cosmetics sold in stores called Lush. There are seven of them in the Vancouver area alone, and you can't miss them. The odor of sweet fragrances wafts many blocks down the street, and orienting to the stores is about as easy as following the odor plume of Mom's fresh-baked apple pie. Except, the stores don't smell like apple pie. They smell like "relaxing with *lushous* soaks in the tub and long massages by the fire," in the words of the *International Lush Times*, the newspaper put out by the Lushers. And in case you doubt their word, Madonna loves the banana moon soap and the *after 8:30* massage bar, Leonardo Dicaprio swears by their *rabbit* bath oil, and the Crash Test Dummies say "mmm mmm mmm mmm."

You haven't seen these stores in the United States yet, but I'm sure they're on the way. Locations around the world include many internationally famous shopping meccas: Sydney, Australia; Toronto and Vancouver, Canada; London, England; and Zagreb, Croatia. OK, I'm not clear how Zagreb got in there before New York, but America must be on the drawing board. The Lush stores stock all kinds of personal care products, including bath oils and fizzy bath bombs, shampoo and hair care stuff, soaps, hand and body creams and the ever-popular massage oils. Their products are full of, as they put it, "a skillful combination of the best tried and tested hand-me-down remedies from centuries past, with a dash of technological expertise and inspired formulation." Some of the hand-me-down ingredients include fresh banana, cocoa butter, linseed gel, glycerin, chamomile oil, coltsfoot herb, fresh alfalfa infusion, wheatgrass extract, yang oil, sea salt, seven rosebuds, and . . . honey.

It's the word "honey" that caught my attention, on a large sign on their wall, and finally drew me into one of their stores. The sign proclaimed that one of their products, *soap-a-rama*, had "as much humectant as honey," and since I had no idea what a "humectant" was, I thought it was time to get educated. My dictionary told me later that humectant means "promoting the retention of moisture," and an e-mail inquiry to Lush yielded a reply from Shawna saying "Hi there! Honey is very moisturizing as it is a humectant. It also cleanses."

Being a skeptical type, I can't be satisfied with any information that begins with "Hi there," so I called up my chemist friend Keith Slessor. He pointed out that there is some truth to the concept of honey as humectant. Honey, especially honey with a high fructose content, does absorb some moisture, although the amount of honey in Lush products wouldn't exactly open up the floodgates. The ancient Egyptians did use honey as a body coating to desiccate their mummies by drawing moisture from the corpses, although I doubt the Lush marketing moguls had that in mind when they began creating their honey-based products.

Whatever the science, Lush has gone into honey in a big way. They have *honey waffle soap* ("pure honey in a sweet-smelling body soap; luxurious, soothes sensitive skin and perfumes the bath with scents of honey and flowers"), *honey lump* ("comforting, calming, a chunky white bath bomb with real honey lumps"), *ambrosia* ("our soothing honey and oatmeal shaving lotion of the gods; you'll be so smooth you could audition for the next Bond movie") and of course the ever-popular *soap-a-rama*.

I made the mistake of jokingly asking one of the salesgirls (and believe me, this is not a guy kind of store) whether using these products made you sticky. I've been coated with honey for many reasons, and "clean" is not the first thing that comes to mind when I think of bathing, shaving, or floating in honey. Big mistake; I soon was surrounded by customers who regularly use honey products, and I got quite an earful. One woman was particularly passionate; she lives in a communal house, and looked like she had been transported in time and place from Haight-Ashbury in the '60s directly to yuppieland in Vancouver today. She claimed that everyone in her house bathes in honey soaps, they don't feel sticky, it's antiseptic, and it keeps their communal bodies free of bacteria and bad vibes. And no, I

Continued on Next Page

"I decided to take notes and document my journey to the feminine side of the bath. I waited until no one was home and entered the test chamber."

didn't go there; whether they bathe together or alone was none of my business.

Now I was intrigued; perhaps my experiences as a beekeeper cleaning up sticky honey in the honey house had blinded me to its true cleansing, antiseptic, soothing, and James Bond-inducing nature. I left the store laden with honey products, determined to keep an open mind. Never mind my daughter's comment ("But aren't these for girls?"). Real men, confident in their masculinity, can use smelly girly products, can't they? It was time for a transforming cleansing experience.

I decided to take notes and document my journey to the feminine side of the bath, and started with their *honey waffle soap*, figuring that was the least threatening of their products. I waited until no one was home, entered the test chamber, and turned on the shower. My notes tell the story: "good lather, my skin is smooth, clean and soft, and I didn't break out in an infection; must be antiseptic!" I was a bit concerned post-bath, however, when I noticed that my bar of soap had an expiry date of a few days before I had bought it. I'd never heard of an expiry date for soap before, and I thought honey had a pretty long shelf life, but at any rate I didn't end up in the hospital with a case of post-expiry-date poisoning. I also had a sudden revelation that by using this soap I was protecting the environment from the evil runoff flowing from the non-viby ingredients in commercial soaps. My rating so far: not bad, environmentally politically correct, and hey, this feeling like a girl all over isn't so bad after all.

I should have stopped there. My next experience was with *ambrosia*, the shaving lotion of the gods that was going to turn me into James Bond. I made sure my wife was home, my daughter away, and went into the bathroom to lather up. Except . . . no lather. I admit to being inflexible on the lather issue; if it's shaving you want, it's lather you need. But I carried on, and scraped away as best I could. Admittedly, no lather has one advantage: You can see where you're scraping. I tried to use imagery to improve the shave; you know, imagining a sharp razor sliding through honey, but it didn't work. I ended up with a razor burn rash and smelling like linseed oil, another ingredient in addition to the honey. This one was too weird for a lather kind of guy, but in fairness to *ambrosia*, one of the girls in my house tried it on her legs, and thought it was great. Her comment: "I don't think it was meant for faces." And as to turning me into James Bond . . . let's just say I'll try extra-dry martinis next time.

I thought I should give Lush products at least one more try, and one evening after a particularly grueling day pushing papers in my office I decided to dim the lights, lock the bathroom door, and try a nice, long, soothing bath in *honey lumps*, the fizzy bath bomb with lumps of real honey ("a soothing bath for the busy bee"). I drew the water, got in, and dropped the bomb. Well, it did fizz, and for a while I felt like I was bathing in a vat of club soda, but when the fizz stopped, the surface of the bath looked like the scum left at the end of the day in my cappings tray. At last, I could relate. Bathing in cappings had never occurred to me, but if I lost a few pounds I could just about fit in our uncapping tray, and who needs the bathtub? The mood was broken when I slipped trying to get out of the bath on the slick slime left from the honey scum. But again, I could relate; this was just like the floor of our honey house after a long day of extracting. Soothing it wasn't, but it was just like beekeeping.

I haven't gotten around to trying all of their products yet. I've missed the *flying saucers* ("excellent for PMS sufferers") and *lipservice* (with beeswax, "tastes so good people want to lick it off . . . you can put it on other troublesome dry spots, too"). We beekeepers are missing a big market, and as a strong promoter of value-added marketing I suggest U.S. beekeepers may want to get on this one right away and produce some cosmetic products, perhaps named after American presidents. How about the *jimmy carter*, a bath oil made from a mixture of southern honeys and extracts of Georgia peaches that puts you in that slow Southern frame of mind, or the *ronald reagan*, a delicate blend of California honey and almond oil that evokes a California dreaming sunshine kind of day, or the *bill clinton* . . . no, I definitely don't want to go there.

In case you want to try some for yourself, do visit the Lush Web site here in Canada, www.lushcanada.com, or contact the head office in England, sales@lush.co.uk. They take orders, and will be happy to print your testimonials in the next issue of the *Lush Times*. Keep clean, be smooth, and remember, "Bath bombs DO things to you."BC

Mark Winston is a professor and researcher at Simon Fraser University, Burnaby, B.C. Canada.

Roger Morse

Research Review

"Nectar production varies from day to day."

Gathering and processing nectar is a two-step process. Foraging honey bees gather nectar and take it back to the nest. However, they do not place the nectar they have collected into cells; rather, they give it to house bees. The reason for this is that foraging bees do not have time to process the nectar and perhaps, more important, their head glands may be old and not capable of producing the enzymes needed to make the nectar into honey. House bees are younger and process the nectar with ease.

But nectar production varies from day to day. The paper I cite below questions how these two groups of bees, the foragers and the receiver house bees, coordinate their activities. The answer is that there is a complex system using waggle dances, tremble dances, stop signals, shaking signals and abandonment that, taken collectively make the system work. A point that is clear is bees do not switch back and forth between these two jobs, which could be another mechanism for balancing the workload.

It is proposed that the waggle and tremble dances are the primary regulating mechanisms, and while the other signals are important, they are secondary. It is important to remember at this stage that in a beehive there is no boss or foreman but a group of entrepreneurs working independently but for the common good. The system must be fine-tuned to take advantage of a good nectar flow when it occurs. As these authors point out, nectar flows "can fluctuate rapidly and unpredictably," which makes it necessary to balance the workload.

The waggle dance

The waggle (wag-tail) dance is the best-known honey bee signal, having been deciphered by Karl von Frisch over 50 years ago. It is a signal aimed at unemployed bees (recruits), which are always looking for work to be done. These dances are performed by successful returning foragers. The waggle dance states the foraging bee has found food (or a new nest site when that is needed). It also tells the recruits the direction of the food in relationship to the sun and how far they must fly to find it.

The tremble dance

The tremble dance is also done by returning successful foragers, but only when they cannot find a receiver bee in about a minute or so. This dance may have two meanings. It may tell unemployed house bees they should become receivers and help the situation by processing food. It may also be a signal to other foragers to stop work because there are few or no receiver bees for a variety of reasons, such as there being no more storage space in the hive. Thus, its effect may be positive by recruiting more receivers, or negative by shutting the food gathering system down.

The stop signal

Stop signals are given chiefly by tremble dancers with a small percentage being done by dance followers. The stop signal involves butting heads with a dancer while emitting a piping sound. The result is that the dancer stops and leaves the dance floor, which is that area near the entrance where the dancing is done. The stop signal prevents further recruitment of forager bees.

The shaking signal

This signal was first described by the late Professor Milum of the University of Illinois in 1955. It is also known as the dorso-ventral abdominal vibration (DVAV dance). This signal is sent to workers that are undertaking a variety of tasks in order to recruit them as foragers. This is a one-on-one signal and usually results in the recipient crawling onto the dance floor where she may be recruited by bees doing wagtail dances. The message that is conveyed is apparently that the bees should prepare for greater activity.

Flower patch abandonment

Working hand in hand with the above dances and signals is the fact that individual foraging bees make their own decisions. This may include abandoning a patch of flowers they think is no longer profitable. This does mean that all flower patches in the vicinity are not worth working. When a foraging bee decides that a patch of flowers is no longer worth her attention she returns to the hive and goes to the dance floor to determine if the scouts have found something worthwhile. Foragers that abandon a patch of flowers do not search for a new patch themselves but depend upon the scouts.

Discussion

An interesting feature of this communication system is that it is the foraging bees that recruit others both to forage and to act as receiver bees. The reason is apparently that the foragers have more information about what food is available.

Whereas the waggle dance has been known for over 50 years and the DVAV dance for over 40, it has been only within the past 10 years that a large group of people have pulled the pieces of this recruitment system apart and have come to understand how the system works. It appears that the waggle and tremble dances are the most important parts of the system. The other signals and patch abandonment fine-tune it.

The authors of this paper point out that "honey bees still hold tantalizing secrets concerning their colony organization." There is clearly more to be discovered. BC

References:

Anderson, C. & F. L. W. Ratnieks. *Worker allocation in insect societies: coordination of nectar foragers & nectar receivers in honey bee colonies.* Behavioral Ecology & Sociobiology 46: 73-81. 1999.

HELP!

Kim Flottum

Finding, hiring and keeping good help is a job in itself.

Most beekeepers don't have college degrees in Human Resource Management. So, although they are probably experts in colony management, balancing the books and repairing trucks, hiring (and keeping) good workers isn't a strength in their operation. Most small scale commercial outfits need seasonal or part-time people, and large operations cannot function without full time help – so finding, hiring and keeping employees is critical. Managers either develop these skills or spend time, money and energy hiring, firing, rehiring and training help.

These activities – hiring, firing, and training are expensive. Let's take a look at some of the techniques those human resource people use to find and hire good people. Then, we'll examine the ways good managers keep those people.

Before the hiring process begins, you need to decide what the employee will do. At first it seems simple – paint boxes, or work in the extraction room, or . . . But is that *all* they will do? Have you lost an employee, who after painting a thousand boxes was asked to take a load of honey somewhere that required an overnight stay? Whoops. Family commitments, church, whatever, got in the way. So you had to scramble to make it work. Or, the high school kid who, you found out later, was allergic to every known plant in the universe, so outside work didn't work.

And even though you need somebody to paint boxes this month, and fix boxes next month – what about the month after that? And in May? And August?

The answer, of course, is to start with a good job description. A really good one. Outline a year for year-long part time or full timers, or the season for short timers. When you're done, have some of the people who already work for you read it ~ especially the person who had the position, or the supervisor or foreman in charge of that position. It's amazing how much you can overlook because you're not there everyday.

Once completed to everyone's satisfaction the hiring process can begin. This, too, takes some planning and preparation and should be done as specifically as possible. Shotgunning ads gets lots of responses but most aren't worth the money you spend. Where to look for people to work bees? Start with local papers, consider local companies that have employees with similar (outdoors, physical work, independent) backgrounds, the state job service office, local colleges with students that have similar interests and certainly the trade journals and even newsletters. The internet is reaching thousands of beekeepers daily, some are in your area, so don't overlook these resources either.

Your ad should be as specific as possible. Hours, seasonal variations in overtime if any, strength required, allergies(!), travel, benefits available, possibly a short list of tasks if room permits, skills required (driving trucks, forklifts, mechanical aptitude, wood working experience, etc.). Again, be as specific as possible to weed out those who won't qualify.

Request a visit to fill out an application or for managers or supervisors a résumé. Then be careful. You can spend time interviewing people who don't qualify because the application, or the résumé was, well, less than honest.

Start with a quick tour, given by a key employee if possible. This tends to loosen people up as they are generally more frank with a peer than the boss. This will weed out marginal people, either from direct exposure to the shop, the bees and the weather, or from off-hand comments made during the tour. You'd be surprised how much you can find out.

Going over applications (résumés next), note the obvious problems with stability, many lateral job changes, missing time and the like. And always, always check references. Too many employers don't, making the assumption that, since it's too easy to check, most won't . . . and don't. Check them.

For résumé evaluation, again, look at work experience. Is this a job they would be familiar with? Has employment been upward rather than lateral. Are there the 'assisted with' and 'has knowledge of' slush phrases, rather than 'actually did' descriptions? Ask those 'what if . . .' questions, and some technical ques-

What are we doing?
What should we be doing?
What should we not be doing?
What should we be doing next?

Continued on Next Page

HELP! ... Cont. From Pg. 21

tions to make sure you have a person who can, and will take up the responsibilities required.

Even after all this, guarantees are difficult to make and some sort of evaluation period is needed. But during this period there needs to be some pretty strict guidelines for the new employee to follow so some sort of measurement can be taken. Orientation and training are needed, and needed again sometimes. Don't assume this person knows anything at all, at least to start. At the end of that time have a session and go over the evaluation. Use input from other employees, your own observations and the guidelines to measure. If your search and hiring tactics were specific enough both of you will make it through this. But usually there are concerns, on both sides, and this is the best time to address them. Make sure the employee knows what is expected, who to answer to, where to go for information, what to do if things go wrong. Go over again any problem areas and reinforce those traits that were strong. A well motivated, well trained, well informed employee is what you want.

But now much of the responsibility of keeping that employee falls to your supervisor, and ultimately to you. Once you've invested the time and energy, and money, in finding, hiring and training a new employee, having them leave for preventable reasons is, at best inconvenient, and at worst disastrous. And although our Human Resource people have developed reams of material on how to be a better boss, the ultimate test, and the only guideline needed is simple . . . follow the Golden Rule.

That said, it's all in the details,

1998 National Average
No. of Seasonal Hired Workers & Pay

Jan	661,000	@	$7.61
April	803,000	@	$7.49
July	1,071,000	@	$7.24
Oct	983,000	@	$7.60
Average	**880,000**	**@**	**$7.47**
1999			
Jan	689,000	@	$7.90

Source: U.S. Census

and here are some worth noting. A recent farm worker survey in California listed prominent reasons those people quit: lack of respect from the supervisor; criticisms were not constructive; unreasonable work pace; incomplete job instructions; unknown chain of command; an unapproachable boss; poor (or no) interpersonal communications . . . all were reasons listed. But, as you would expect, compensation was at, or near the top of the list. But being paid on time, paid for overtime, and being paid enough were all important.

Other supervisor skills are also important . . . the primary skill is instilling, and keeping employees motivated. In fact, one supervisor told me recently that when the temperature is approaching 100°, the supers are full, the bees are hot, the truck breaks down . . . motivation is a very rare commodity. Nevertheless, there are things anyone can do to help, some are one time actions, others should be part of the everyday routine.

Employees should have a personal stake in the company, if they do well, the company does well and things improve. They have to see that the two are connected. Enthusiasm should always be on the top of things-to-do . . . for the job, for the day, for any reason. Reduce the distance between top and bottom. Give compliments (they are free and worth gold). Tell everybody what's going on and *why* they're doing what you ask. Start, and aggressively maintain a safety program. Don't let your diligence lapse. For one thing you'll have fewer injuries, but the greater good is that what does it say about you if you *don't* have a program!

Learn how to delegate by giving clear, understandable directions (can *you* follow your directions?).

Most Often Cited Worker Skill Deficiencies

63% – Basic skills, work on time
60% – Basic math
55% – Basic writing
48% – Translate basic drawings & charts

Give, and keep deadlines and give credit where due. Praise in public and frequently, criticize in private and only when necessary.

Respect people. Encourage pride in a job well done. Give feedback on a task – what are they doing well and how could they improve.

Good leaders, whether owners or supervisors, make others feel important, promote a vision, admit mistakes and stay close to the action, no matter what the job.

There's more to being a good boss. Finding and hiring good people isn't nearly as simple as this makes it sound, and pay is always a problem. But, if I were to sum all this up – hire with promise, challenge with opportunity, encourage with recognition, nurture with care, help to grow and treasure forever. That is, I guess, the long version of where we started – The Golden Rule. BC

I Can't Work Today Because . . .

- The mud sucked the shoe off my foot and I couldn't find it.
- I was in jail because the judge and lawyer worked a deal to drop the driving under the influence charges. The deal was I spent the night in jail.
- My wife and I stayed up all night arguing and I need to sleep today.
- I have to put my paycheck in the bank.
- I have to pick up concert tickets I won by using your business cell phone on your time.
- No one told me to come to work.
- I have to find my dogs.
- A bear got between me and my car and I had an accident in my pants.
- I might be going to church.
- I got a ticket for driving 95 m.p.h. in a 55 m.p.h. zone on the interstate in the company truck because I went to see my girl friend last night. I stayed up real late and left late this morning to come to work.

Reprinted from Farmer's Digest

FRAME SPACERS

This commercial beekeeper successfully uses eight and nine slot spacers. Here's why.

Kirk Stoller

Business today is very competitive, and beekeeping is no different. We have to be constantly looking for an edge to make our businesses more competitive and efficient, and therefore more profitable. One edge for beekeepers that I believe makes a lot of sense is the use of frame spacers.

Using frame spacers can be a very helpful part of your beekeeping operation. Spacers save time as well as money spent on capital equipment purchases because you use fewer frames per super. They keep frames in place while hauling, help to reduce swarming and increase honey production both because there is increased ventilation in the hive.

You could, of course, space your frames in the super without the use of spacers; however, some of the benefits you were hoping to gain will be lost. Supering will take more time, and hand-spaced frames are never as neatly separated as with spacers. Frames will become crisscrossed while moving, and burr comb will form on both the top and bottom bars of frames. I have seen from experience that the quality of your combs will actually deteriorate, especially in the brood nest because of improper spacing.

There are a variety of frame spacers available, from the handheld type that you manually insert between the frames to space them to the type which nail to the wood rabbets of the super. There are several types of nail-on spacers, with most being made from a flat piece of steel and some plastic models are available. Stoller's makes a spacer that is folded over or double-walled and rests on the wood rabbet. This design is durable, and under normal use lasts as long as your super. Any of these spacers can be purchased at the major bee supply dealers.

Some of the benefits to using frame spacers are:

1) You'll get more honey and wax

Because one to two frames per super are removed the bees fill the extra space with extra honey and wax. You can count on two to three pounds more honey per super with eight-comb spacing than with nine-comb spacing. Likewise, nine-comb spacing produces more honey than the conventional 10-frame super does. You'll also get more cappings wax.

2) Uniform capping

Uncapping honeycombs can be a tedious job. There are a multitude of uncappers available on the market, and they all have various advantages and disadvantages. Chain flail uncappers open nearly all of the cells. Knife uncappers trim the honeycomb better and keep the frames uniform and the wax cleaned off the sides of the top bars. Whatever uncapper you are using in your operation, your job is made easier and your equipment is kept in better condition when your capped honey combs are all uniform. Spacers keep your frames uniform by keeping them in a neat arrangement in the honey supers.

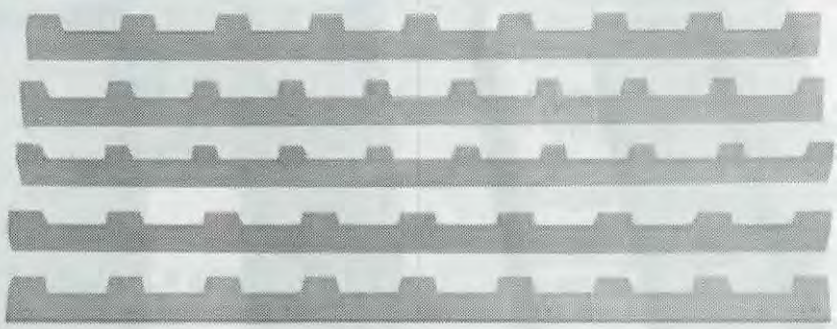
It is difficult to find enough time to do things we need to do and do them well. Personally, because of time and help issues, my father and I needed an uncapper/extractor setup that required a minimal amount of hired help. This influenced us to purchase an uncapper/extractor setup that included a conveyor. We are saving time, and our system requires fewer helpers. This outfit has a knife uncapper, and we have found that it works much better with eight-comb spacers in our honey supers. The bees draw the combs out fatter, which nearly eliminates the need to do any scratching to uncap cells.

We have also had the experience of using a flail uncapper. It was very helpful for our combs to be uniform, without valleys and rises, and not to have another comb, or burr comb slabbed on next to the comb in the frame.

Whatever your needs are, eight-comb spacers in the honey supers make sense. Nail-on spacers keep the frames from becoming crisscrossed due to tilting or burrs. You also produce more honey with fewer frames, and we are all smart enough to want more for less.

3) Keep frames in place during hauling and servicing

Various types of nail-in frame spacers.



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SPACERS ... Cont. From Pg. 21

Nail-on spacers keep your frames in place while hauling your bees, and this is important since pollination has become big business. One concern while hauling bees for pollination is the mashing of bees or the queen due to shifting frames. Thus, the nail-on spacer becomes a low-cost insurance policy. Imagine protecting your bees, reducing your equipment cost, stretching your equipment farther with fewer frames per super, and possibly increasing your honey production with the implementation of one small device. This is what happens when you use nail-on spacers.

Spacers also make it more convenient to service your hives. While working in the brood nest with nine-comb spacing, the queen and workers are not as easily rolled or killed, and the frames are much easier to remove for making nucs or inspection.

Once again you can run your brood nests with nine-comb spacing without using spacers. I thought I preferred operating this way for a time in my beekeeping experience. We were running hives with and without spacers, and after a time I noticed different situations that changed my mind. I had many experiences with moving hives without spacers and having the frames all shifted when I went to work the hives in the new location. This took extra time to respace the frames as well as heart palpitations, as I hoped the queen was alive and well and there were not too many bees killed. I also noticed that the hives with spacers had better combs in general than the ones without spacers, because the frames were all *equally* spaced. At some point during most years, the bees will make a substantial amount of honey, which, at least for a time gets packed into the brood nest. If the combs are not equally spaced during this time, burr comb will result along with high and low spots across the surface of the brood comb.

You can use the handheld type of spacer to get similar results but it will not help you while moving your bees, and it will not help if there are any burr combs on the top or bottom bars of frames.

4) More ventilation - less swarming

Two management strategies for the beekeeper that contradict each other are how to manage strong colonies without causing swarming. Because spacers provide for better ventilation and allow more cluster space, bees do less swarming. Wax moths also cause much less trouble when frames are spaced because there are fewer places to hide.

Studies have been done on ventilators for the beehive. The claims made by these manufacturers are that more ventilation results in less swarming, reduced fanning, and more honey. These attributes have been known for years and are the same claims made about spacers. I do not suggest that spacers are a *ventilator*, yet by providing more space between frames they allow increased ventilation. It stands to reason then, that the bees will not need to work as hard to cool their hive or dry their honey. If the bees expend less energy, that means more honey, as bees are *"honey powered."*

5) Lower equipment cost and less handling time

Because spacers utilize fewer frames per super, your equipment costs are lower. When supering bees, frames are quickly spaced, taking up less time to do a job. This is noticed the most with the nail-on type spacer, as a quick sweep across the frames drops them into their slots, and they stay there.

Some of the pros and cons for both types of spacers follow. First, the nail-on spacer. Pros:

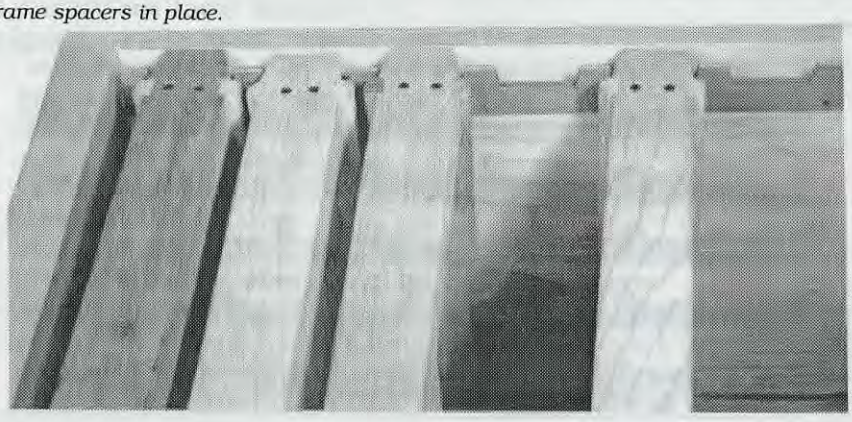
1) The nail-on spacers are in the hive or honey super at all times. You receive the benefit while moving hives, which you wouldn't receive with the manual spacer. The spacer is nailed onto the wood rabbet instead of carried (and forgotten) so the spacer does not get lost.
2) The nail-on type offers eight-comb spacing (for the honey super) and nine-comb spacing (for the brood nest) for the standard hive, as well as a seven-frame spacer for the eight-frame hive.
3) The nail-on types are faster to use in the beeyard as a quick sweep across the frames drops them into their slots.
4) With the nail-on spacer, frames cannot become tilted due to burr comb on the top bars of the frames below, or the bottom of the top super.

Some complaints when using the nail-on spacers are these;

1) It is hard to clean the propolis and wax from behind them. This is somewhat of a nuisance, but cleaning can be fairly easily accomplished by using the straight end of the hive tool and running it back and forth behind the spacer. A beekeeper from Canada said that he paints the back of the wood rabbet behind the spacer with a high-gloss paint and the wax will scrape off much easier.
2) While working in the brood nest with spacers, the frames cannot be slid back and forth. This also can be overcome by lifting the first frame slightly and moving it over against the adjacent frame. The opposite frame can then be removed, allowing for more free movement of the remaining frames.

The advantages of the manual spacer are exactly opposite of the nail-on type.

Frame spacers in place.



1) There is no restriction in the brood nest.
2) There is also not as much trouble cleaning the wood rabbets behind them, as they are not left in the hive.

The disadvantages to the manual spacer are:

1) The spacer must be carried with you.
2) The eight-frame size is not available for the honey supers.
3) The frames will not stay in place while hauling.
4) The frames may lean against one another while supering the bees because of burr on the combs or frames that are too tall.

The cost for nail-on spacers ranges from:

.37-.425 cents each in a pack of 10
.31-.355 cents each in a pack of 100
.27-.285 cents each in a pack of 500

The cost for a typical nine-frame manual spacer is about $14.00. All of these prices are FOB retailer's warehouse. When you consider the advantages and savings you can realize by using spacers, you will see that it actually pays to use spacers. You save the cost of two frames with the eight-frame spacer, and one frame per super with the nine-frame spacer. The cost per frame is approximately $1.50 for a standard frame and foundation. When you consider it takes eight pounds of honey to produce one pound of wax, add this figure to the cost of your frame, which is probably at least a 30 cent value per frame. Total cost now is $1.80 for one frame and the cost for the nail-on spacers would be no more than $1 per super for the nail-on spacer.

You have already saved money at this point, but now the real saving is realized with the time and the extra four to six pounds of honey and wax you will receive when using the eight-frame spacer in the honey supers. Even with honey prices at 50 cents per pound, this represents a $2 to $3 value per super. Add to this the occurrence of less swarming by using nine-frame spacers in the brood nest, and you have better hive management and again more honey, because of less swarming and a larger work force.

I encourage you to try using spacers in your equipment. Spacers are available at all major bee supply dealers. Stoller's manufacturers two types of nail-on spacers. The Shallow spacer is designed for all new supers with a 5/8-inch rabbet, and the Slip-on spacer is designed to fit over a metal rabbet. The Slip-on spacer can be literally slipped on over the metal rabbet and does not need to be nailed as the name implies. It can also be nailed on over the metal rabbet as well. BC

Kirk Stoller is a commercial beekeeper, and producer of Stoller's Frame Spacers. He uses them successfully in his operation.

Our State Fair . . .

Competition Shows at State Fairs are changing

Dewey Caron

State and County fairs began as a way for agricultural producers to advertise what is best! Fairs, county, state and even multi-state fairs historically were agricultural events where farmers, growers, beekeepers, cooks and others, and their suppliers could demonstrate that they had the best horse, hay, honey, service, products, pies, cakes, quilts, and what not. Winners at local county fairs got to take their winning products to the state fair and compete with others who were the best. Such shows helped educate producers (and consumers too?) about what constitutes quality in all these products – including honey.

State and County fairs have changed drastically in the last 50 years. They are less agricultural and offer more in entertainment. But they still offer growers, beekeepers, and others the opportunity to educate themselves and others about the products they produce, and for us – bee products and the value of honey bees. Like most agricultural pursuits, beekeepers are in the minority and the educational benefit of a state or county honey show is mostly for our non-agricultural neighbors. Does your local county or state fair still offer you, as a producer, the opportunity to produce and exhibit the best?

As fairs changed, bee association meeting events became a way to evaluate the best and educate each other. At national (ABF) and regional bee meetings (EAS), honey shows are primarily designed for beekeepers and usually only beekeepers (and maybe site cleaning staff) see the honey show. This works well when lots of individual beekeepers enter the show and there is opportunity for feedback from the judges after entries are evaluated. When judging standards have been used that truly assess quality, and if judges are properly trained and correctly use the standards, this could occur. But too many entrants do not know the standards or the shows lack feedback to entrants on why their entry didn't receive a first place.

If we are to use a honey show to educate others how often does the public appreciate the difference between first and fifth place? Honey shows are a powerful educational tool that we too often waste. Examples are shows that have entries that lack producer labels; ribbons or trophies that are not used to advertise and sell the product at producer outlets; lack of publicity for winners; and finally honey shows that are hidden in some room or out-of-the-way place so the public does not have the opportunity to view the show.

This same lack of feedback applies to our educational displays about bees and beekeeping at state and county fairs. What audience does the display best reach, what is the message to non-beekeepers and how does the state or local association that puts up the display get feedback from the audience about their display's effectiveness? Are we missing a great opportunity to educate others about our beekeeping, bee products, and the value of honey bees?

Here is a look at what a dozen State Fair or State Beekeeping Associations *do* offer beekeepers, and in turn the public, in the eastern U.S.

Delaware

The Delaware State Fair, 80 years old, runs eight days in late July each year. There is a competitive honey show but usually with fewer than 10 participants. In the 30s it was described as the best exposition on the East Coast. Beekeeping wares are tucked in a corner with vegetable and hay entries in a fair building. USDA agency displays and a wildlife display in the same building command the attention of fairgoers who quickly pass the competitive entries to look at animals (geese, raccoons, trout) or pick up free pencils, refrigerator magnets and wildlife calendars. Honey show entries consist of a single jar, or one pair of candles, or other single examples, without identifying labels. Prize money is a modest $5.00, $4.00 and $3.00 for first, second and third and not all prizes are claimed; there is no entry fee.

Beekeepers expend their energies during fair week educating the public at the State Beekeeper's association booth in the commodities building hosted by the State Department of Agriculture. Beekeepers compete with watermelon growers, the poultry industry, the pork producers, etc. with their educational booth. They feature an observation hive, a bee colony in a cage, free honey sticks, literature about bees, honey recipes and an attractive display – their booth won first place, (and $300 for the association) in 1999. On the commodities booth 'stage,' they demonstrate extracting (with samples), honey cookery (free samples again), and how to manage the bee colony in the cage (with free honey straw samples).

Maine

There is no state-wide honey show in Maine but a few country fairs include honey judging. The largest is the Freiberg Fair. There has been an effort to develop a honey show during farm week (March) but without success. The Fall State Association meeting has a small competitive honey show.

Maryland

The Maryland State Fair (in its 118th year) now runs 11 days ending with the Labor Day Holiday. There has been a competitive honey show

Continued on Next Page

STATE FAIR ... Cont. From Pg. 27

dating back as far as anyone can remember at the State Fair – 12 county fairs also feature competitive honey shows before and after the state fair. The number of show entries has increased in recent years – 1998 saw a record number of entrants (75) and entries (213). Winners receive prizes – up to $100 for best association display, $60 for best individual educational displays and $10 for flat entries (six jars). There is no entry fee. There also is a State Beekeepers honey/honey cookery show each year at the Fall meeting of the State Association in which ribbons and premiums ($12 for first place) are awarded. Participation has been increasing (about 50 entered last year), as there is competition for the honor (and name on a plaque) for best bee club showing.

The Maryland Department of Agriculture arranges a beekeeping exhibit around a four-frame observation hive for the State fair (and for other fairs and shows as well). The Central Maryland Beekeepers Association (assisted by two other local groups) sells honey at the state fair and they man the observation hive and exhibit. Anyone can offer their honey for consignment but anyone who sells honey *must* enter the competitive show. Guidelines on honey sales emphasize quality. Maryland has a Fall Honey Festival that the Carroll County Beekeepers organize in early September. The one-day festival includes a competitive Honey Show.

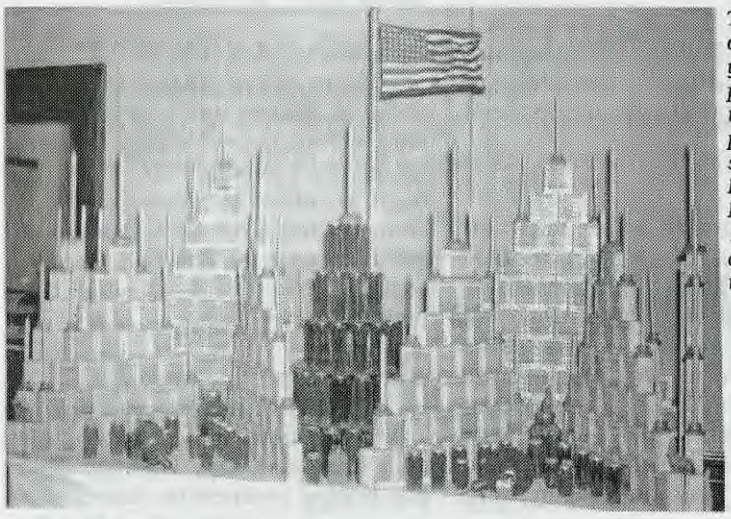
Massachusetts

The Topsfield fair, one of the oldest, is also one of the largest, most successful fair shows in the Eastern U.S. At this early October fair, the Essex County beekeepers sell over 4,000 pounds – $30,000+ in honey sales – at the 10-day event to realize a profit of around $6,000. It takes a lot of volunteers (the club has 260 members with about 60 active at the fair), a dedicated supervisor – Bill Wiley now in his 45th year as show supervisor, and a show committee of 25 individuals. This fair has its own entire building just for honey show/sales/display and it is in the center of the entire fair site. Observation hives (four of them on turn tables) are part of the display which each year is organized around a new theme.

The annual Massachusetts State Honey Show is often held at the Topsfield Fair location. There are 20 classes (including mead and honey beer) plus one cooking class in which all entries are the same recipe published in the MASS Bee Newsletter in advance. Flat entries are two samples without labels. Prizes are modest with no entry fee. Hampden County beekeepers organize an annual honey show and exhibit at the Eastern States Exposition in Springfield.

New Hampshire

The Rochester Fair has been the site of a statewide competitive honey show in New Hampshire but with a change of supervisor and administration at the mid-September fair, the show has been discontinued. The New Hampshire Beekeepers Association started a competitive honey show with cash and ribbon prizes (from Association Treasury) last year and plan to continue the show this year at the annual meeting (October) as there was good representation from the beekeepers.



The honey displays of yesteryear are pretty much a thing of the past. This one set up by John Linduer of Maryland in 1946 is typical of what used to be.

New Jersey

The New Jersey beekeepers have a competitive honey show at a site that ensures maximum exposure and publicity – their show is in the rotunda of the State Capital during mid-February when the legislature is in session. Entries include producer labels. After judging, the entire show is displayed in four large, attractive backlighted display cases with Plexiglas fronts for security. The best-of-show gets his/her trophy from the governor (or State Secretary of Agriculture) and a permanent plaque entry. In 2000 the show is likely to go to Atlantic City for farmers week instead of the rotunda to stimulate more interest.

The New Jersey State Fair is privately owned. There was a honey show at this event but prize money was low and the exhibitors not paid so it has been discontinued. Several county fairs have competitive honey shows with entries being collected and subsequently taken from one fair to the next. There is no honey show at state beekeeper meetings.

New York

The Great New York State Fair is held the end of August/early September (Labor Day weekend) in Syracuse. Over one million visitors attend the 12-day event, now over 150 years old. The honey show at the State Fair has recently increased their premiums ($20 for first place) and the state association buys large rosette blue ribbons for category winners. There are no honey sales but a large educational booth includes an observation hive and bees in a cage. Volunteers give out information and manipulate the cage colony which is in a prominent location at the fair. The chief drawback, and one that the beekeepers are trying to change, is that honey show entries need to be submitted *one month* before the fair.

There is a honey show at the November Empire State beekeepers meeting. There are ribbons and prizes from sponsors. Show entry numbers have been consistent at both the Association and the state fair in New York. There are at least

six other fairs with honey shows including the Saratoga County Fair, a month earlier than the State Fair. The local association booth has won the best in fair award category two consecutive years. Local honey is featured and sold. The competitive honey show has 24 categories to enter.

Ohio

The Ohio State Fair in Columbus (mid-August) has a honey show that is decreasing in size and impact. At one time the display was a major feature in the Horticultural Building but has now shrunk to a small section of the area. The show offers over $2600 in premiums. There are larger producer displays, an observation hive category, and honey (six jars), wax and even bee pollen categories. There is an educational display (not always manned) put together by Dave Heilman of OARDC in Wooster. There are no honey sales – that would require rental of booth space which is expensive (but being planned for 2000). The state association has not been active in the state fair for a number of years but with recent reorganization it is considering reestablishing a more active role. The State Association does not have a honey show at any meetings. There are a large number of honey shows at county fairs several of which (such as Medina and Lorain Counties) are larger than the State Fair.

Pennsylvania

Pennsylvania has an annual Farm Show (84th edition in 1999) in early January at Harrisburg, the state capital in the center of the state. The honey show is a large one and it is situated right at one of the main fair entrances so it receives lots of attention. Prize money exceeds $3,200 in 44 classes – some open to youngsters only. There is a competition of County associations at this fair that occupy 12 x 8 foot alcoves and include case lots of honey, lots of honey products and a strong message about bees and bee products. The show has been holding its own with number of entrants (50 to 60) and entries (180 to 250) according to Maryann Frazier. Interesting new beekeepers to enter is increasingly important as long-timer entries become reduced and mites take their toll on beekeeper and bee colony numbers. Speaking as a recent show judge, the Penn Farm Show requires a full, long day of judging.

The Pennsylvania State Beekeepers Association operates a commercial booth in a food court dedicated to Pennsylvania products. They sell honey but the biggest attraction is their honey ice cream – fairgoers, including U.S. Senators and even the governor on down, make a special trip just to sample honey ice cream at this booth. They sell more than 300 gallons of it. The popular honey ice cream and sales are also repeated at a large Fall livestock show/sale and at Penn State Ag Progress Days in August. PSBA also runs twice-daily honey extracting demonstrations for public audiences and the local Capital Beekeepers Association conducts a bee school during the fair using the honey show as their draw.

The state association also has an Apiary products show of honey, wax and cookery competition at the annual meeting in the Fall (mid-November in Lewisburg in the center of the state) but this is a relatively new (three year) tradition. A honey cookery contest at the Summer picnic is likely to be combined with the honey competition in the Fall in future years. Ribbons, no cash award, are given. Usually a workshop on preparing show entries is conducted in conjunction with the show itself.

Vermont

Vermont beekeepers hold their annual meeting in conjunction with the State Farm Show which takes place the fourth week of January in Barre, a city adjacent to the state capital at Montpelier. The annual honey/honey products show has 30 to 35 honey entries and 25 entries in the honey products. One individual beekeeper has sold honey but

Continued on Next Page

Does your competitive honey show . . .

. . . rely on the same few people to "run" the show? Try a committee approach and invite new individuals to participate. This might help avoid burnout of the best workers and help insure new ideas. It is easier to use an individual's talents if the task is broken up into several smaller tasks.

. . . feature low premiums, sometimes barely paying for entry fees? Higher cash awards could be an incentive to attract more entrants. Could your show have commercial sponsors boost award money in return for recognition as sponsors?

. . . have the same people enter year after year? New beekeepers need to be encouraged to enter shows. How can that be more effectively done through your local bee associations?

. . . not permit honey sales at the competitive show? Some shows do have sales (MD State Fair/local county fairs for example) but good quality and diversity is needed. Local associations might help get a honey sale booth to accompany the competitive show.

. . . get put in an out-of-the-way place? It seems that fewer fairgoers are interested in agricultural products at the fair – they go for the midway or horse/car racing features. While it is true the nature of fairs has changed, agricultural products do sell at some fairs. Do you understand the fair going public and can you offer them something they will want to buy?

. . . not sell honey because it is easier to go to a local farm market to buy honey than the fair? Yes it might be – but the fairgoing audience is different from farm stand customers. Each are possible sale sites.

. . . lack volunteers to put up/man a beekeeping exhibit at the fair? Getting volunteers motivated and to participate isn't easy but if you and a few volunteers can produce an exciting display, live bees, honey give-aways, etc. fair goers will attend and get your message. It might be harder to convince fellow beekeepers of the need to have a display than educate fair goers about honey bees.

. . . have an exhibit nobody is interested in? If you do establish a display be sure it tells a story. Inform the media of your display. Give honey samples. You need publicity – don't develop a show just for beekeepers – think of what the general public wants/needs to know about bees and design a visibly attractive, unique display to convey two or three major points.

. . . lack any zip or vitality? See article by Kim Flottum in the February and March issues for good ideas from the Topsfield Fair (one of the best1) or Steve Taber's column in the November 1997, *American Bee Journal* for a host of good ideas or attractive honey shows.

STATE FAIRS ... Cont. From Pg. 29

the association now has an apiary in the Champlain Valley and intends to sell honey for the association Treasury. The Vermont bee association promotes bee products and bee awareness at the Farm Show and elsewhere with an attractive poster with photos and information. They hold their annual meeting during the fair week.

The Champlain Valley Fair in the Burlington area the week before labor day is a large, popular fair. There are eight classes in their competition including one for observation beehives and best display of honey. Premiums are $10 for first to $5 for third (honey display is a $30 award). They all sell honey, with good success. The Tunbridge World's fair also has a honey display.

Virginia

The 11-day Virginia State Fair is in Richmond at the end of September. There are 17 entry categories in the competitive honey show with generous cash ($15 for first, $12 for second, on down – $935 total prize money) and ribbon awards. Entries of honey consist of three jars without labels. For the first time, there was no entry fee in 1999 which hopefully might stimulate entries (65 last year down from 150 a few years ago). One judging category includes observation hives.

Adjacent to the competitive show, the Richmond Beekeepers Association rents a honey sales booth. They accept any honey on consignment and try for variety in both containers and honey variety. Gallon containers sell well – especially for repeat customers – gross honey sales now exceed $10,000. The sale table offers taste samples to encourage purchases.

The competitive honey show at the Virginia State meeting was discontinued several years ago as interest was declining. Several Virginia county shows also feature honey competition.

West Virginia

The West Virginia State Fair is in Lewisburg, WV in August. It is more a regional competition for beekeepers – one of several fairs that have a honey competition. The state beekeepers host their own annual honey show at their Fall meeting. This is a highly competitive event with judging by experienced show judges. The State Association has organized a major educational effort with the Parkersburg Honey festival, held the second weekend of September. There is a state association educational both with sale of WV honey and there also is a competitive honey show which usually features entries from both West Virginia and Ohio beekeepers.

American Beekeeping Federation

The honey show at the ABF convention has 14 categories and the best of each get a trophy. There is also a best-of-show trophy awarded. In this show, the winning (and loosing) entries are auctioned off – sometimes for hundreds of dollars – to support the Honey Queen program. Entries can be shipped to the convention site even if the entrant doesn't attend. In some convention sites, the judged entries are on prominent display but in most they are tucked among the commercial exhibitors and only beekeepers get to see the show. The number of entrants and entries is down despite efforts to promote greater participation.

EAS

The Eastern Apicultural Society has organized a honey show at their annual meeting (July or August at a host State or Province) since their inception 45 years ago. Their judging standards are often used by member state fairs or bee associations to model their own standards. Roger Morse speaks highly of the standards, in his book on judging honey shows published by Wicwas press. The standards and entry rules are revised and slightly changed each year after approval of the EAS board. Competitors vie for first to fifth place ribbons and best of category awards that might be engraved plates or bright metallic/glass, bee shaped honey jars.

Participation has been decreasing of late and EAS Directors are looking to eliminate or more attractively alter their honey show. Photography and arts and crafts competition include more entries than traditional extracted or honey-in-the-comb classes. When extracted classes included 20 or more entries of three jars each and many classes had more entrants, a gang of judges needed to spend an afternoon and evening in the show just to get the task finished. At the most recent show at Maryville College in Tennessee, the seven judges were finished after 1-1/2 hours of leisurely work.

What About A Honey Festival?

A honey festival takes major planning and significant commercial and/or community support. The Carroll County (Maryland) beekeepers, in conjunction with the county supported Hashawha Environment Center, started a modest Fall festival 13 years ago. It has grown and attracts over 1,000 visitors during mid-September (fewer attending when the weather doesn't cooperate).

Three reasonably well-known September honey festivals are those of West Virginia, Ohio and Kentucky. All three take over the community that helps sponsor them for a weekend. The Ohio festival in early September has recently moved from Lebanon to Oxford, a one-time home of L.L. Langstroth. The smaller town setting helps produce a nice atmosphere. In Clarkson, KY, The W.T. Kelley Company support has greatly boosted the Kentucky honey festival. In Parkersburg, West Virginia, the festival has been held for the third straight year to Woods county 4-H Camp in mineral Wells, West Virginia. In the town park, the festival drew 6,000 to 7,000 visitors but fewer journey to the 4-H camp in a more rural setting. Both SE Ohio and WV beekeepers contribute to this highly successful festival (1999 is its 19th year). Profits are used to publicize the Festival. Sales booths are rented and educational booths offered without charge. Steve Conlon dons a bee beard twice daily at the weekend festival.

All these honey festivals include a competitive show of honey and bee products (with cash awards generally), educational displays (by county and state beekeeping organizations) and lots of opportunities for sales – often in a craft-oriented format. Festivals can effectively advertise and educate but they require a great deal of coordination, lots of reliable volunteers and generous cooperators outside the beekeeping industry.BC

James E. Tew

Bee Culture's Beeyard

Stupid Inner Covers And Accursed Mites

No matter when you may be reading this in the future, the present time is late October and early November, 1999. I finally had a opportunity to work bees, and as usual, made some observations. More comments from the field.

Stupid Inner Covers I have had this happen too many times. The bees are a bit plugged up with honey as the flow ends. All the books say to limit storage space on the down side of the flow in order for bees to finish filling and capping supers. What happens? The bees frequently attach the inner cover with abundant brace and burr comb which is the precise reason that the inner cover was designed initially – to prevent the outer cover from being stuck down. The problem that I frequently have is that the inner cover cannot stand the stress of being pried up without breaking apart. The older the inner cover becomes, the worse it becomes. The inner cover that I have pictured for you is an old one, but I have had new ones break or crack all too often.

I expect that many of you will say that the bee spacing is incorrect, but even so the inner cover should be able to withstand the stress needed to remove it. Most inner covers are just a bit less than ¾" thick and are intended to be reversed during winter months. What would happen if a ½" piece of plywood was used, including a handhold, having a ¼" thick wood rim? Yes, it would be considerably heavier, but I am afraid that extra strength will require extra weight. Why am I complaining about this at all? To fully understand my complaint; one needs hundreds of bees flying around; one needs to be tired; one needs to have already dealt with previously stuck inner covers; and one needs to be in a hurry. Under such conditions, inner covers and other ancillary bee equipment very nearly become expendable. All beekeeping equipment, in my opinion, should be designed to withstand the worst case scenario – not the best case scenario.

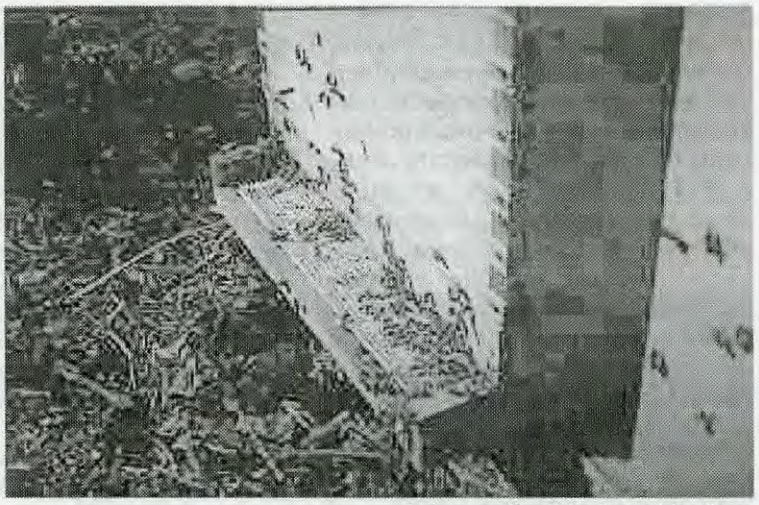
Another broken inner cover.

Accursed Mites Well, back to the design board on this recommendation. I have consistently been comfortable saying that anyone installing package bees had one free year before having to treat for Varroa. Wrong. Overwrite that file. The packages I installed this past spring ended up being loaded with mites in October. In mid-October, I put in strips and installed "sticky-boards" having an overlay of 1/8" hardware cloth. Though probably not the best system in the bee world, we improvised sticky boards by having pieces of card stock cut that would fit inside the bottom board and stick out the front a few inches. Then using common petrolatum (Vaseline™), we smeared a coat of this grease over the board and smoothed it with a spatula. (Note – The sticky boards pictured were cut to fit within 4-frame nucleus colonies. Larger sheets were cut and coated for full-sized hives).

As the boards are needed in the field, they were pulled apart and pushed into the entrance. In case you have never done this before, it is important that the bottom board be reasonably clean. Burr comb will jam up the board as you push it in.

Installing Fluvalinate Strips After the sticky boards were in place, I added (following label recommendations) one strip per five frames of bees. Some discussion is in order at this point. As with the inner cover above, it is important to consider these procedures under field conditions – not under easy-chair conditions. The nectar flow has passed. (Strips should not be in the colony during a flow.) Heavy supers are in place and must be removed before treatment could proceed. Literally thousands of bees were flying helter-skelter. The bees were defensive and those not defensive were robbing their neighbors. Honey was stringing all over the place. Before I knew it, it was quickly mid-afternoon and the "stripping" was taking much longer than I thought. Though I kept the removed supers covered, there were clouds of bees beginning to converge at the truck on which I had stacked supers. I continually rinsed my sticky hands with water which enticed robber bees to forage on my sweet hands. Though I was adequately protected, I do not commonly wear gloves. My hands were taking a beating. There are no photographs of these events because there was no way to accomplish this management task and use a camera. Bees were matted on top of the second deep. Now, under these conditions, you must decide is this a "3-strip colony or a 4-strip colony"? I wanted to do things exactly by label instructions, but quickly realized (again) that label instructions – though precise on the product package – are not precise in the field. That doesn't mean that you just give up, but it certainly means that your estimates of strip needs and placement become a calculated guess. You see, in most cases, the upper deep was very nearly full of honey. The instructions call for, "one strip per five frames of *bees* – not honey." When in doubt, and when in the heat of bee battle, I would recommend that you tend to over-treat rather than under-treat. But always, always have residue concerns on your mind.

The Next Morning The colonies being stripped were in good shape. I have been keeping you abreast of their development through the months. Though I had not seen one adult mite in the colonies, I had no doubt that mites were present in these colonies in some quantity, but I was not prepared for what I found upon removing the sticky boards the next morning....literally 1000s of mites that were dead or dying.



Colony with sticky board in place.

I didn't see this coming. I think about mites and talk about mites nearly every day of my life and yet I did not expect to see this many mites on package bees, splits, and full-sized colonies that were under my management. No type of colony was spared though there were fewer mites in the package bees. Drat, drat, drat.

Resistance to Fluvalinate? Was this fluvalinate resistance. No, this was not a such an incidence but rather a case of us, at the bee lab, trying to learn how treat for mites with discretion. In past articles, I have referred to our industry's need to begin to use Integrated Pest Management (IPM) concepts rather than just depend solely on fluvalinate. I would like to think that this is just the learning curve. However, it was definitely a wake-up call. These mites have not been defeated and we have not won the war. At best, we are at a stand-off with *Varroa*. Stay at your duty post.

For your information For your information only and not for advertisement, a commercial enterprise has sent me a flyer promoting a "Varroa mite monitoring trap". This is actually a manufactured sticky board along with a plastic screen mesh. For those of you not interested in making your own sticky boards, this product may be of interest to you. I have not used the product. They can be reached at: www.ipmtech.com or at 1-888- 476-8727.

In the Yard I recently performed the typical winterizing tasks in the

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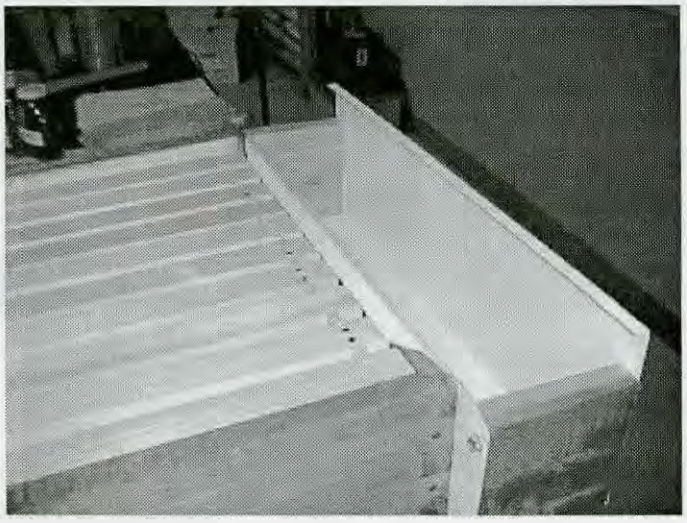

Burr Comb Pan

BEEYARD ... Cont. From Pg. 33

bee yard. I removed supers of honey, checked brood patterns, put in mite strips, reversed inner covers and installed mouse guards. Again, at the risk of sounding like an advertisement, but only wishing to occasionally evaluate bee equipment products, I installed the Miller entrance reducers that I discussed in *Bee Culture*, April, 1999. I still like them. The day I installed them, there was heavy flight so some entrance congestion resulted, but quickly resolved itself. Without the designer's permission, on some of the hives, I pulled the entrance reducer out about ¼" in order to allow the bees easier access, but I am not sure this is necessary. I used a battery-powered drill and used a single screw to hold the reducer in place. If skunks are not a problem in your area, the screw would probably not be needed.

Two Other Items of Bee Yard Interest As stated above, Mr. M.J. Miller is the manufacturer of the Miller Entrance Reducer. Recently he designed two other novel pieces of beekeeping equipment that are not readily available from other supply sources. The entrance closing device, is a spin-off of the entrance reducer. It is simple to use and is expandable to fit either eight frame or 10 frame colonies.

The device, held in place with a small screw if necessary, can also be used for a robbing screen or for containing bees when making splits. Unless bees are held in confinement for only a few minutes, an upper screen should be used to prevent the bees from overheating.

A Burr Comb Pan You may recall from my rants above about how much burr comb was generated during the super-removal process. Mr. Miller has designed a simple, inexpensive pan that hangs on the end of the super and serves to catch all the scrapings that normally end up on the bottoms of your shoes. Inner covers can be flipped over on the colony and attached burr comb can be scraped into the burr comb pan.

While I like the simplicity and quality construction of Mr. Miller's devices, I offer their description to you only as information. You should know that I do not personally profit in any financial way from Mr. Miller's endeavors. Mr. Miller can only be reached by surface mail. I have posted his address at the end of this article.

Your Observations, Please During the Spring, Summer and Fall of 1999, a significant number of bees were foraging on fertilizer residue in one of our University forestry plots. Though I suspect these foraging bees were there for minerals and trace elements, I cannot state that for sure. Through the years, I have both seen examples and heard reports of bees foraging in peculiar places such as feed bins, around salt blocks, and in cattle feed lots. In one instance, I was told of bees scraping paint off of agricultural equipment. What's going in these occasional instances? Have any of you seen bees foraging in such novel places?

More Observations, Please Not that you asked, but I have a small research project on-going in which I am experimenting with 4-frame nucleus colonies. You may recall from earlier articles in this series that I had several such nucs successfully pass the winter last year and are now full-sized colonies. I am interested in making late season splits, installing a new queen in these splits, and then overwintering this small unit. I made 40 nucs in October, 1999, and will monitor their wintering success under different conditions. This research project is supported by the Ohio State Beekeeper's Association. If you have experience wintering such small units in temperate climates, I would like to hear from you.

It's Time for Winter It's time for winter in the bee yard, but I am about as ready as I can be. I plan on tinkering with painting wintering colonies while the bees are quiet. Will that work? More later. BC

Literature Cited:

Tew, James E. 1999. *Bee Culture's Bee Yard. "Getting Ready"*. Bee Culture. 127(4): 46-50

Addresses:

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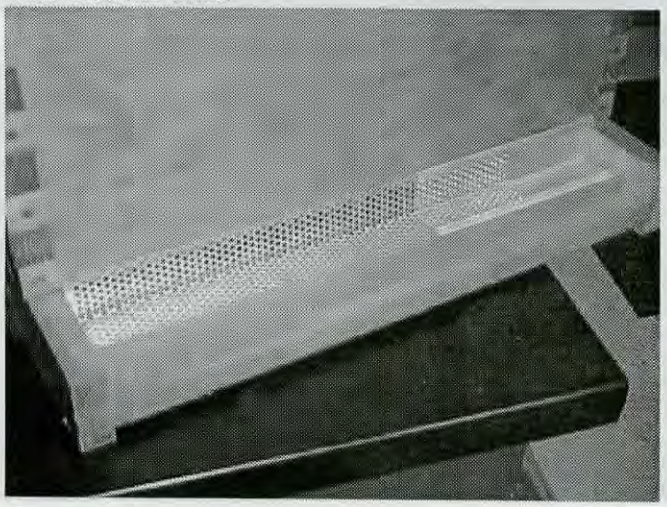
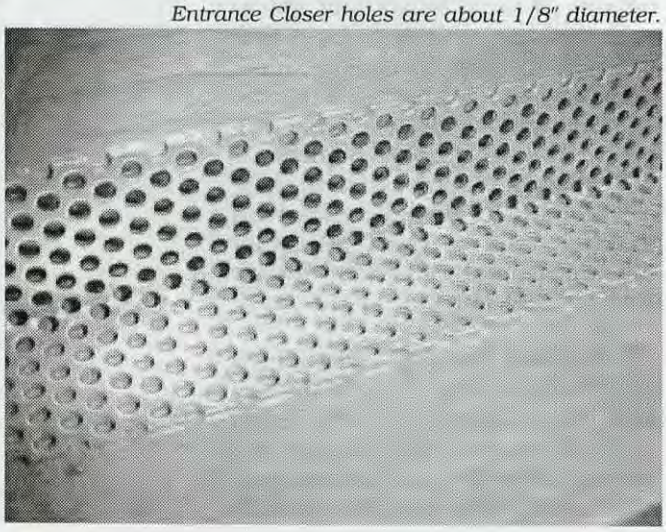
Miller Entrance Closer



Entrance Closer holes are about 1/8" diameter.



NATURAL CRYSTALS

It doesn't take much for honey to crystallize, but it can be difficult to deal with.

Roger Morse

Honey is a supersaturated sugar solution. What that means in physical terms is that honey contains more sugar than would normally dissolve in a given quantity of water. What this means in practical terms is that the sugar in the honey will crystallize if it is given an opportunity to do so. How soon a honey granulates depends upon several factors including there being nuclei present on which the crystals may grow, and time and temperature.

Honey bees collect nectar from flowers that they make into honey. The most common sugar in nectar is sucrose, which is the same sugar produced by sugar cane and sugar beets and that is found in maple syrup. Corn sugar is different and is predominantly glucose. One of the steps the bees take in making honey is to add an enzyme to the nectar they collect that breaks the sucrose into two smaller sugars, glucose and fructose.

It is an interesting fact that when honey crystallizes it is only the sugar glucose that forms crystals. The fructose in honey does not crystallize. Even when crystallized honey is firm and hard it still consists of granules of glucose surrounded by liquid fructose.

The need for crystal nuclei

An experiment you may care to perform to demonstrate the need for nuclei on which the glucose crystals may grow is to take two one-pound jars of honey that you have pasteurized and bottled hot and put them side by side. When the jars have cooled, open one jar and put the cap aside for a minute. After one minute close the jar and put the two on a shelf, out of the sunlight but where you can watch them for the next few months. You will note that the jar you opened, though only for a minute, crystallizes much more rapidly than the jar that remained closed. The reason is that in the one minute the jar was open there was a sufficient number of dust particles that settled out of the air and into the honey to provide a large number of hard nuclei on which the crystals might grow. Without the nuclei there would be no crystals, or at least it would take them much longer to grow.

What to do with combs of granulated honey

This past Winter I had a colony die in mid-Winter. There was an empty super left over with about 50 pounds of honey that had crystallized in the comb. Under normal circumstances I would have put this super of honey on another colony to use for Spring food, but at that time I had no colonies that needed more honey.

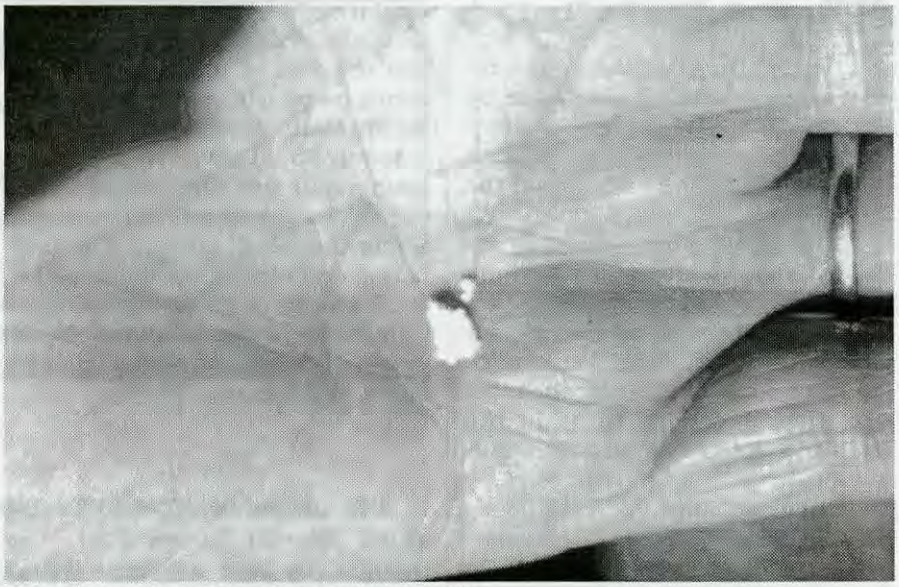
What does one do with a super of honey crystallized in the comb? There is no way in which crystallized honey can be extracted from the comb. In this case I let the bees rob it out in mid-Summer. What I found after the robbing is shown in the pictures. There were many hard crystals of glucose in the cells though the robbers had removed many of them and let them fall onto the ground. The bees had removed all of the fructose from around these crystals. The crystals were large and hard and would not be tasty. You will note that the crystals are pure white in color. The coloring and flavoring components in the honey remained in the liquid fraction of the honey that was removed by the robber bees. Honey bees can dissolve these crystals if they have a good supply of water and time. However, they are not inclined to do so.

In the comb, the only things left are glucose crystals.

The controlled granulation of honey

The late Professor E. J. Dyce of Cornell University developed a

method of forcing honey to granulate, but the granules formed using his process are very small, so much so that they cannot be detected with the tongue and the final product is smooth like butter. He patented the process in 1935. The patent has expired, and anyone may make finely granulated honey. The process involves pasteurization (to prevent fermentation), the introduction of crystal nuclei on which new crystals may grow, and storing the new product at about 57°F, which is the optimum temperature at which crystals will grow in honey. I wrote a paper about how this is done in *Gleanings in Bee Culture* (volume 111, pages 441-442. 1983). I would be glad to send a reprint of that article to anyone interested. BC



Natural crystals are large, hard and pure white.

INNER ... Cont. From Pg. 6

Here's a sobering thought. A recent survey, pointed out to me by several people, asks the question: What's the easiest way to get rich quick? First on the list . . . win the lottery. Second . . . sue somebody.

Lawsuits in the beekeeping industry aren't unheard of. Settling business disputes that seem unresolvable in any but an adversarial court room are becoming more common. But for the most part they've tended to be in the realm of accidents with trucks, stinging incidents or product liability.

But what happens when a honey producer buys queens that, for whatever reason, don't measure up? Do queen producers have a responsibility in a situation like this? And, if so, is there some part of the missed honey crop (because of the alleged faulty queens) they would need to compensate? And how do you prove a case like this, one way or another? Only the lawyers know, for now. Like I said, a sobering thought.

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This year, 1999, celebrates the 75th anniversary of the Walter T. Kelley Company. I never met Mr. Kelley. He passed away the year I started this job. But the influence he, his wife Ida, and the business they started had on the beekeeping industry worldwide is, to say the least, monumental.

Known throughout the world because of his many trips to nearly everywhere visiting beekeepers, Walter will be better remembered, probably as long as beekeepers exist, as the man who put his head on the body of a bee. Nobody before or since has made such a statement. Nobody would dare.

During his career he raised queens and packages, built two factory complexes in two states, traveled the world, invented or improved many of the tools we use everyday, and made a million friends. He and his wife left behind a legacy of quality products at low prices, a wing of a hospital, a strong and growing business and thousands of customers who feel they've known all the fine people at the Kelley Company all their lives.

Mary K. Franklin, a long time employee, has written a small book detailing the history of the company and the lives of the Kelley's. There aren't many left, current president Sarah Manion tells me, and they cost only $5.00. If you want to know more about this fine company and its past, I suggest you send for a copy before they're all gone. It's a fascinating chronicle of our history.

From all of us at the A.I. Root Company, congratulations on 75 years or service, and friendship. And here's to 75 more.

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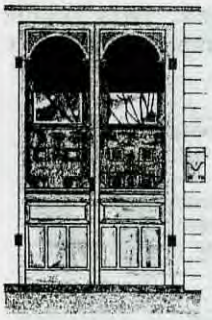
The last issue of 1999. The last of the 1900s. I wonder if A.I. ever thought his little magazine would really last this long – past the 1800s, past the 1900s, and at least into the 2000s. *Bee Culture* is going to bring about some significant changes starting in January. Elsewhere we explained the increase in subscription rates, and there are good reasons for that (three years without a change, increased printing costs, increased costs here and quality improvements). Those quality improvements include two technological changes that I'm excited about. First, our magazine will no longer be 'made' here, that is, printed out, and sent to the printer to copy, shoot, plate and print. Next month we send to our printer an electronic copy, on disk, that they print out on their very high quality equipment – our photos will be much, much better and the copy will be crisper, cleaner and easier to read. No shiny paper though. We're keeping the same, easy-to-read kind we have now.

But what's even more exciting is that many of those high quality photos, most in fact, will be in color. Imagine yellow Cordovan queens, dark amber honey, white sweet clover or the deep blue eyes of the next Federation Honey Queen. All this, and more, right after Y2K.

So until next year keep your hive tool sharp, clean out your smoker, wash your beesuit and get ready for a new, improved *Bee Culture*. And if you happen to be in the Jackson, Mississippi area next November check out that state's annual meeting. They do a great job. In the meantime have a safe, sane and happy Holiday season. Next year will be better.



Ann Harman

Home Harmony

Getting Ready For Christmas

Christmas panic does not begin to set in until about December 20. At that point Christmas is inevitable whether you are "ready" or not. Right now you still have some time to come up with ideas to make gift giving easy. Actually our honey bees made your Christmas preparations much easier when they packed away your honey crop back in the Spring and Summer. Now it is up to you to do something creative with that honey crop.

Christmas is for bears! Teddy bears, of course. Unless you are still upset over a bear visit to your beeyard, you must admit that a teddy bear is a very appealing creature.

Do you usually sell some of your honey in bears? If not, the Christmas season is a good time to try that approach. Although teddy bears are always popular with people of all ages, at this time of year you will see many more bears of all sizes and descriptions available in catalogs and in shops. You can promote your bears by calling them "Santa's honey teddy bears."

Teddy bears – honey-filled bears – are appropriate for all ages. Little children just like bears. Teens also find them very appealing. And even adults readily admit they like teddy bears. Teddy bears are a collectible item. So with a family of bears available as squeeze bears you can have a gift for everyone. Squeeze bears come in all sizes: the daddy bear of 2 pounds, the mama bear of 1 pound, the baby bear of 8 or 12 ounces. Just think – if you have been able to separate your honey by floral source, a family of bears can represent different flavors – one in each bear.

For reasons unknown to me, customers seem to prefer the bears with a red spout cap. I personally like the flip-top cap. But I guess the red, pointed cap shape is colorful and does look cute on the squeeze bear. The spout caps do come in all different colors, but red is great for Christmas. You can also buy a bright red flip-top from Mann Lake. Use both flip-top and spout-top to see what your customers like. And you can always gently ask your gift recipients what they like - best wait until late January for that question. By that time everyone will have used some honey and formed an opinion. Give your customers what they want, even if you personally like the flip-tops!

The bears can be decorated for Christmas. It is essential that your label be on the bear, even if the label is not in traditional Christmas colors. The bear can have Christmas ribbon around its neck or cap. You can decide whether a white cotton Santa beard will look good or not. I have tried dressing up bears for holidays but have never been satisfied with the results. I always end up with a squeeze bear that looks like a squeeze bear attempting to be Santa or an Easter rabbit. Perhaps you will be more successful than I.

Now what are the honey lovers going to do with the honey in the bear? Probably most will put it in a cup of tea or on a piece of toast. That's fine, but it is not enough. You need to encourage people to use up that honey so that you can sell them some more. Suggestions for use or honey recipes are a good way to encourage sales.

Do not put a recipe on a Christmas card – it will get discarded along with the rest of the Christmas cards. Put the recipe on a file card and put that inside a Christmas card. But it may be better to fasten the recipe to the bear itself with decorative Christmas ribbon. Or the recipe can be inside a decorative box alongside the bear. The bag type of "wrapping" is getting so popular. Gift shops, card shops and variety stores all carry the gift-wrap bags. Don't just pop the bear in a bag – make a little nest of some green or red tissue paper so that the bear stands upright.

One idea you might keep in mind is that the bear is going to need a refill. You might wish to put a jar of your honey – with label, of course – in with the bear. If you attach a Christmas tag to the jar, say that it is to refill the bear. In that way you can suggest to your customers that buying honey in jars is a good idea for bear refills. That idea should produce more honey sales, especially in the Winter months to come.

Bears also make great stocking stuffers! Are you giving a Christmas stocking to someone? I find that inexpensive Christmas stockings make great gift wraps – sometimes better than the gift-wrap bags. You can put a beautiful, choice apple in the stocking, then a gift, and top it all off with a squeeze bear. If you wish, the bear can peek out over the top of the stocking. There will still be room for a recipe or two.

Many people entertain relatives, neighbors and others during the Christmas season. Each person can go home with a small squeeze bear of your nice honey. Tie a plaid ribbon around the bear's neck and put all the bears together near the door. In that way your guests won't forget to take one home. A hangtag with recipes and suggestions is suitable for these bears. The hangtag should have your name, address and phone number, just like your label on the squeeze bear. You never know who will meet your bears and want to buy some of your honey.

Now, start thinking about all the people who have helped you all year. Don't they deserve a bear? How about your mailman? the veterinarian? your dentist, doctor, the plumber who saved you from a horrible flood from a leaky pipe? I am sure there are many more of these

Continued on Next Page

HOME ... Cont. From Pg. 41

people in your lives this past year. Think back and make a list. You may find a new customer this way.

I keep mentioning recipes as suggestions for using your gift of honey. You will want to include something simple unless you absolutely know the person loves to cook. Also storage of honey is always a problem. So many people think it will spoil so they store it in the refrigerator. Then it crystallizes. Then they think it really has spoiled and throw it out. Information on storage needs to be continually emphasized. Here are a few ideas for you.

Honey does not spoil, so do not store honey in the refrigerator. It will crystallize. Crystallized honey is not spoiled. Just put the jar in a bowl of hot water until it turns back to a liquid.

Mix honey with softened butter or margarine and a sprinkle of cinnamon to make a spread for toast or waffles.

Breakfast cereals and even those "Pop Tarts" are much improved with a drizzle of honey.

Use honey to sweeten iced drinks because it dissolves faster than sugar.

Mix honey with your favorite mustard for a honey mustard spread.

Drizzle honey over any fresh fruit for an enhanced flavor.

Use honey instead of sugar in salad dressings and ham glazes.

Honey mixed with cream cheese is great on a bagel.

Honey is a perfect addition to a peanut butter sandwich.

Honey drizzled over your favorite ice cream makes a quick sundae.

Add a spoon of honey to unsweetened applesauce.

Add a squeeze of honey to cooked vegetables to enhance flavor.

Here are a few short recipes to accompany the squeeze bears.

WHITE BARBECUE SAUCE

"Especially good on chicken - brush on near end of broiling."

6 tablespoons mayonnaise (not salad dressing)
3 tablespoons mild flavored honey
1 teaspoon salt
1 teaspoon freshly ground pepper
2 tablespoons fresh lemon juice
3 tablespoons white wine vinegar

Combine first four ingredients in small bowl. Gradually whisk in lemon juice and vinegar. Blend until smooth. Makes 1 cup.

Honey Naturally
California Honey Advisory Board

FAT-FREE HONEY BERRY MILKSHAKE

Many people do not think of many uses for honey, especially in a quickly made milkshake. Even people who do not cook very much will like this recipe.

1 pint non-fat vanilla ice cream or non-fat frozen yogurt
1 basket strawberries, hulled; or an assortment of berries, about 2-1/2 cups
1/2 cup non-fat milk
1/4 cup honey
4 small mint sprigs (optional garnish)

In blender, combine all ingredients and blend until smooth and creamy, about 30 seconds. Serve immediately in tall, chilled glasses. Makes 4 servings.

National Honey Board

HONEY WALNUT COOKIES

Since it is the holiday season, baking cookies is an important part of the festivities. You probably plan to make some cookies cut into the Christmas shapes. This recipe makes a nice accompaniment to the traditional cookie.

1/2 cup butter or margarine
1/3 cup honey
2 eggs
1 teaspoon grated lemon peel
1-1/4 cups sifted flour
1/2 teaspoon baking powder
1/2 teaspoon soda
1/4 teaspoon salt
1/2 teaspoon nutmeg
1/2 teaspoon cinnamon
1/2 cup coarsely chopped walnuts
walnut halves for garnish

Cream butter; continue while adding honey in a fine stream. Add eggs; beat until well-blended. Stir in lemon peel. Sift together flour, baking powder, soda, salt and spices. Add to the creamed mixture, blending only until well-mixed. Stir in chopped walnuts. Honey dough is very soft. For cookies that hold their shape, you must chill dough for 1 hour or longer. Drop by teaspoonfuls onto greased cookie sheet, about 2 inches apart. If desired, lightly press a walnut half into top of each cookie. Bake at 325°F for 10-12 minutes or until lightly browned. Do not overbake. Keep remaining dough refrigerated between bakings. Yield about 2-1/2 dozen.

The Honey Kitchen
ed. by Dadant & Sons

Please don't forget to leave a squeeze bear of honey for Santa. But I think the reindeer would prefer a honey cookie each.

Gleanings

DECEMBER, 1999 • ALL THE NEWS THAT FITS

ADULTERATED HONEY CAUGHT

The Hong Kong Consumer Council said tests found 10 of 36 types of honey failed to meet World Health Organization quality standards.

Council spokesman Lo Chi-kit said one sample – Guangzhou Superior Centifloral Honey – contained six times the usual amount of sucrose found in honey and exceeded the legal limit on sucrose by nearly 70%. It exceeded WHO limit on moisture content and contained less than recommended levels of fructose and glucose.

The WHO sucrose limits are law in Hong Kong, but all other limits are guidelines.

Two other brands – Bright Pak Far Honey and Eu Yan Sang Honey – also exceeded the legal sucrose limit and seven other brands had more than the recommended water content or contained a chemical that is a by-product of decaying fructose and indicates poor quality.

The seven with more than the recommended water level or with signs of fructose decay were Lai Wan Winter Honey, Lai Wan Flower Honey, Bright Winter Honey, Bright Leechy Honey, Hoi Suen Yuen, Bo San Yuen and Natural High Organic Raw Honey.

The council said the tests suggested manufacturers could be using sugar and water to dilute the honey. Eating the honey would not be harmful, it said.

"If you mix pure honey with something cheaper, that could mean a higher profit margin for that product if you sell it as pure honey," Lo said.

Alan Harman

Exports Increase

MEXICO'S HARVEST UP

Mexico's 1999 honey production is forecast to increase to 57,500 metric tons, about 2.6% above the previous year's revised production estimate, due to several factors such as improved weather conditions in many areas, better control of African bees, and improved headway combating outbreaks of *Varroa*.

In 1998, 47% of Mexico's honey production was exported, thus generating income of over US$37 million for 26,322 MT. Of that, 48.8% went to Germany, 16.8% to the U.K. and 6.7% to the U.S. For the first quarter of 1999, exports reached 5,277 MT. Domestic consumption in 1998 was 30,000 MT, representing a per capita consumption of only 300 grams (2/3 lb).

The Mexican honey industry, though largely focused on foreign markets, has felt the negative economic conditions from which Mexico is currently emerging. Unfortunately, last year Mexican traders and intermediaries were accused of adulterating a portion of the Yucatan honey with added sugar. Although adulterated honey never got into the international market, the scandal caused international buyers to be wary of Mexican honey. This problem, however, did not get blown out of proportion and exports from Mexico continued rising.

Honey exports are forecast to increase for 1999 due to increased domestic supplies. Exports are more

Continued on Next Page

EXOTIC HONEY MAKES $

North Island apiarists producing honey from some strains of native manuka bush have been earning price premiums after new research in New Zealand and Australia showed it has even more antibacterial properties than previously thought.

Waikato Univ. Prof. Peter Molan, co-director of the Department of Biological Sciences' honey research unit, basing his research on the knowledge that hydrogen peroxide molecules found in most honey inhibit the growth of harmful bacteria, identified "bio-active" forms of manuka honey that had another – even more effective – molecule.

Hydrogen peroxide is generated by the action of an enzyme that the bees add to the nectar.

The non-peroxide activity was found to be exceptionally high in some manuka honeys, apparently because of a naturally occurring compound that exists only in some tree nectars in some seasons.

More than half of the manuka honey on sale does not have any significant amount of this component present.

The university developed tests to measure the potency of these honeys and manuka honey producers registered a trademark, UMF – Unique Manuka Factor – to indicate the product's antibacterial potency rating.

The higher the UMF rating, the more potent the honey's activity against ulcers, wounds and infections.

Molan said people with infections could buy a pot with a rating of 10 or more and smear it on. The highest rating thus far is UMF 18.

The UMF honey destroys heliobacter pylori, the bacteria found in stomach ulcers. It is also effective against some penicillin-resistant strains of bacteria, including staphylococcus aureus, the most common bacteria to infect wounds and burns.

The researchers predict consumers will eventually treat high-potency honey as a therapeutic medicine and lesser potency honeys as health-maintenance food supplements.

The findings were backed up by research published in the Medical Journal of Australia that suggested that bio-active honey could be used to combat low iron levels.

It reported that 28 percent of women and 33 percent of men were infected with the heliobacter bug, but the infected women had significantly lower average iron concentration in the blood.

New Zealand has been a world leader in promoting natural honey remedies through its research and marketing of manuka honey for its antibiotic properties.

Alan Harman

Send Your Meeting Notices 2 Months In Advance & We'll Make Sure They Get Published

QUEEN BREEDERS CONTRIBUTE

A group of American Beekeeping Federation queen breeders has awarded funding totaling $9,000 to four research projects. This money is in addition to $10,000 already awarded over the last 18 months.

The projects are: Penn State Univ. – Integrated pest management for *Varroa* mites; USDA – tracheal mite resistance; Univ. of MN – Affects of Coumaphos Residue on honey bee queens and colonies; Simon Fraser Univ. – Semiochemical-based trapping system for *Varroa* mites.

Contributions to this fund have been made by R Weaver Apiaries, Heitkam's Honey Farm, Glenn Apiaries, Strachan Apiaries, Presley Apiaries, Homer Park, Wooten's Golden Queens, B Weaver Apiaries, Kona Queen Hawaii, and Bear River Honey.

More and new contributions are being asked for and more research will be funded in the future. If you wish to contribute to this fund, or submit a research proposal, please contact Gus Rouse of Kona Queen Hawaii or Troy Fore at the American Beekeeping Federation. Projects and updates will be presented at the ABF meeting Queen Breeder/Package Producer Special Interest Group in January 2000.

A GUIDE TO LIFE

Don't squat with your spurs on.

Timing has a lot to do with the outcome of a rain dance.

The easiest way to eat crow is while it's still warm. The colder it gets, the harder it is to swallow.

If you find yourself in a hole, the first thing to do is stop diggin!

If it don't seem like it's worth the effort, it probably ain't.

The biggest troublemaker you'll probably ever have to deal with watches you shave his face in the mirror every morning.

Never ask a barber if you need a haircut.

If you get to thinking you're a person of some influence, try ordering somebody else's dog around.

Don't worry about biting off more than you can chew; your mouth is probably a whole lot bigger than you think.

Always drink upstream from the herd.

Generally, you ain't learnin' nothing when you're mouth's a-jawin'.

Telling a man to get lost and making him do it are two entirely different propositions.

If you're riding ahead of the crew, take a look back every now and then to make sure it's still there with ya.

Good judgement comes from experience, and a lotta that comes from bad judgement.

When you give a personal lesson in meanness to a critter or to a person, don't be surprised if they learn their lesson.

When you're throwin' your weight around, be ready to have it thrown around by somebody else.

Always take a good look at what you're about to eat. It's not so important to know what it is, but it's sure crucial to know what it was.

Never miss a good chance to shut up.

Unknown

"WELL, LOOK WHO HAS A NEW CELL PHONE!"

MEXICO ... Cont. From Pg. 43

profitable than domestic sales due to attractive export prices and weak domestic demand. Mexican honey export prices currently average U.S.$1,217.00 per metric ton. Most of Mexico's honey exports continue to be in bulk form in 200 liter drums. Based on attractive export prices, the 1998 export estimate is revised upward. Mexico's imports for 1999 are expected to return to normal relatively-low levels. For 1998, however, there was an unusual increase to 31.5 MT, with the U.S. accounting for 78.5%. This is attributed to a production decline caused by the effects of hurricanes in the state of Yucatan.

Domestic consumption is forecast to decrease in 1999 due to greater export demand. While per capita edible demand will remain unchanged at about 300 grams, the cosmetic industry's diminished requirements will have an impact. At the international level, these figures look modest in comparison with other countries where the per capita consumption is larger. For this reason, the internal market is considered to have greater potential, given expected increases in average income. Honey is becoming a luxury item as prices are currently aligned to international prices. Domestic honey prices are more expensive than other sweeteners available in the market such as sugar, jellies, syrups and other substitutes. Retail honey prices currently fluctuate in the range of 25 - 30 pesos per kilogram (U.S. $1.21 - $1.46/lb). The 1998 consumption estimate is revised downward due to more recent information indicating lower production and increased exports.

Mexico is currently not a sizeable market for imported honey due to consumption patterns and the ample domestic supply of cheaper sugar. However, under NAFTA, U.S. honey is in a good position to gain market niches based on the elimination of the import tariff and price competitiveness, particularly in the table honey segment.

APIMONDIA ROUND-UP

Ever since 1991, CHC and CAPA pursued the challenge of hosting the prestigious international APIMONDIA conference in Canada. This huge effort was intended to offer the North American beekeeping industry an unprecedented educational opportunity and showcase Canada and Canadian beekeeping to the rest of the world.

As part of the agreement between CHC and CAPA, monies left over from the conference will go towards the Canadian Bee Research Fund. These funds will ultimately be spent in support of and to the benefit of Canadian and world beekeeping. We are very proud that the Apimondia '99 Congress offered so many immediate and future opportunities.

Most who attended this "once-in-a-lifetime" conference concluded that Apimondia '99 was an incredible success. The lecture series ran as clockwork, despite the logistical challenge of programming over 200 lectures. With an additional 200 poster board presentations, the Congress offered a very comprehensive program covering every facet of bees and beekeeping.

The ApiExpo trade show also generated a great deal of interest. There were exhibitors from every part of the world; from Lebanon and Bulgaria to Chile, New Zealand, and South Africa. Products ranged from extracting equipment to pharmaceuticals, cosmetics and honey wine! It was evident that we had offered the right product for the right price in the most attractive location; over 96% of the exhibition space was sold! It turned out to be a trade show never seen before in Canada or North America!

It is regrettable that many beekeepers could not attend the Congress, for whatever reason. However, there is still an excellent opportunity to take advantage of the educational value of the event. The entire lecture series was recorded ahead of time in the Congress Proceedings. The 300 page soft cover edition includes every lecture in abstract form, and in concise, understandable language. It is a valuable reference document to Congress participants and those who could not attend. The Proceedings will be available from the Canadian Honey Council office. You may order by contacting Heather Clay at 403-208-7141, or pick one up at the CHC/CAPA Annual Meetings at Saskatoon in February. The cost is $10US per copy plus mailing charges.

1999 YEAR-END INDEX

SUBJECT	MONTH	PAGE
4H award to Kempton Healy of NC	July	58
Adee Honey Farms	April	41
Aethina tumida		
see Small Hive Beetle		
African bees		
at Apimondia '99	November	26
keeping them out	September	55
what to do when they arrive	May	6
Almond		
bloom online	June	57
industry and subsidies		
to beekeepers	November	14
American Beekeeping Federation		
adds candles to show	November	50
meets in Fort Worth	November	49
Apiary size		
is large size bad?	March	17
Apimondia '99		
1999 winners	November	49
African honey bee	November	26
book available	December	43
excerpts from talks and articles	October	37
on the internet	May	26
opportunity to ponder future	September	15
reasons to participate	May	55
Apis cerana		
pheromone mystery	January	59
Apistan,		
registration granted in UK	January	57
when to apply	July	53
Apitherapy, justification for	November	15
Appointments		
van Engelsdorp to Cornell extension	May	55
Shimanuki becomes technical liaison	January	59
Huang becomes Michigan specialist	January	59
Wellmark names vice president	October	49
Argentina		
U.S. eyes export practices	July	57
Artificial insemination		
the Latshaw Instrument	September	20
Australia		
1999 worst season in decades	July	58
inspects with sniffer dogs	May	55
moves to prevent exotic bees	February	51
Awards		
A. I. Root Co. receives medals	October	49
AAPA Excellence to Shiminuki	May	55
AIA honors I. Barton Smith, Jr.	July	57
AIA honors Marla Spivak	July	57
California honors five beekeepers	May	58
Dutch Gold bear to Mary Humann	February	49
EAS recognizes Dewey Caron	October	49
Bayer Bee Strips, focus on	March	32
Bee behavior		
and summer games	June	43
balling	February	15
honey consumption	September	55
multitasking	May	23
reducing drifting	June	17
stings, why and when	August	45
washboard effect	August	47
Bee biology		
can bees hear	July	53
legs in detail	August	17
synthesizing Nasanov		
pheromone	May	53
what's in a name?	April	36
Bee clubs		
a summer meeting activity	June	43
designing your programs	March	48
getting members	July	28
income sources	May	48
lend a hand	September	56
mission statements and bylaws	February	26
public relations	June	50
surveying your club	January	44
Bee Culture magazine		
what to do with old ones	September	55
Bee Culture's beeyard		
after dark	November	37
catching up; winter was too short	May	29
early summer evaluation	August	27
further plans for spring	April	46
getting ready for spring	March	29
IPM for *Varroa*	November	38
late summer can be ho-hum	October	33
realities of keeping bees	July	30
spring activities	June	46
summer problems	September	35
welcome	January	35
what equipment? which bees?	February	33
Bee stings		
is it really?	August	56
why, and when	August	45
Bee truck	August	33
Beekeeper of the Year		
California names several	May	59
Indiana selects Juanita Graham	May	59
Wisconsin selects Leon Metz	January	59
Beekeepers, what's a professional	March	6
Beekeeping		
a southern view	September	32
and income taxes	March	24
has its own mystique	September	53
in cities and towns	October	19
new age, when?	January	53
Beekeeping history		
writings of Charles Butler	September	43
Belize, a beekeeping trip to	September	45
Blueberries		
great potential in Florida	May	21
Boy Scouts		
beekeeping merit badge is back	April	61
Bumblebees		
British species extinct	February	50
impact of imported species	May	21
California		
almond growers keep marketing order	May	58
conference on exotic pests	May	57
Cancer cure		
berries, and bees	August	49
Candle business, growing a	October	27
Captan, is it safe?	April	59
Caribbean		
1998 was tough season	February	49
Chalkbrood	June	34
China, Peoples Republic of		
facts and policies of honey trade	October	50
Comb honey		
easy production	March	41
freezing	August	47
harvesting	July	37
profitable management	April	52
two techniques for producing	April	57
why does it ferment?	June	55
Computer aided beekeeping	July	20
Dance language		
better understood	April	19

Digital age
and paper & ink ... October ... 6
Disease control
Australia inspects with sniffer dogs ... May ... 55
chalkbrood ... June ... 34
detecting Varroa ... September ... 26
nosema ... November ... 34
what to burn ... May ... 53
why treat AFB? ... May ... 53
Drones, natural availability ... July ... 53
Eastern Apicultural Society
Caron recognized ... October ... 49
new chairman ... September ... 57
Equipment
bee truck ... August ... 33
cleaning contaminated ... September ... 55
homemade ... July ... 46
inventing the modern beehive ... February ... 47
plastic foundation ... July ... 40
slatted racks ... June ... 55
using frame spacers ... December ... 23
Extracting honey
earning every penny ... November ... 56
Fairs, and the questions
they bring ... October ... 16
overview of state ... December ... 27
Feeding
fall (and spring) ... August ... 37
Fire ants, almonds and quarantines ... January ... 57
First aid
carry a kit ... June ... 12
Florida
blueberries have potential ... May ... 21
what's new ... April ... 31
Formic acid
Mann Lake gets gel permit ... March ... 57
Getting started
beginners' questions ... February ... 19
Grandpa was a beekeeper ... September ... 48
Great Britain
Yorkshire beekeepers
get building ... February ... 41
Hambleton Award,
nominations sought ... January ... 59
Harvesting the crop ... July ... 43
Harvey's Honey ... March ... 37
Hive management
and big brother ... September ... 7
burning surplus bees ... July ... 55
fall (and spring) feeding ... August ... 37
fall management ... December ... 32
how much is enough? ... October ... 17
summer inspections ... June ... 32
what killed them ... September ... 55
wintering basics ... October ... 25
Honeycomb, why six sides ... November ... 13
Honey
analogs ... February ... 17
causing sickness ... July ... 53
contaminated? ... September ... 55
cosmetics ... December ... 17
how long can it be kept? ... August ... 47
imports ... May ... 17
natural crystallization of ... December ... 36
need for quality assurance ... October ... 13
processing in a small space ... January ... 32
quality ... November ... 12
role in today's market ... August ... 16
straining ... June ... 55
why does it ferment in the comb? ... June ... 55
Honey containers, painting ... June ... 55
Honey extractor, homemade ... August ... 30
Honey harvesting
removal methods ... July ... 43
Honey pricing
and supply and demand ... October ... 11
Honey processing
how much heat? ... June ... 55
don't mistreat it ... October ... 45
Honey queens
MI names Melissa Bisson ... August ... 50
MN selects Angie Olson ... May ... 59
WI names JoAnna O'Rourke ... May ... 59
Honey recipes
apple crisp ... July ... 54
asparagus, honey chilled ... April ... 60
banana fruit leather ... June ... 52
BBQ sauce, white ... December ... 42
beets in honey sauce ... July ... 54
biscuits, angel ... July ... 55
bread, honey and beer ... February ... 42
burrs, chocolate ... October ... 42
butter, honey orange ... October ... 41
butter, honey ... October ... 41
cabbage and carrot slaw, warm ... November ... 45
cheesecake, honey banana ... September ... 50
chicken drummettes, spicy honey ... March ... 53
chili, honey of a ... February ... 42
chocolate honey rings, Christmas ... July ... 54
chow mein, pineapple chicken ... September ... 51
clusters, chocolate ... October ... 41
coffee cake, apple honey ... September ... 51
coffee, honeyed ... August ... 42
cookies, applesauce ... June ... 52
cookies, chewy honey nut ... February ... 43
cookies, honey ... May ... 52
cookies, walnut ... December ... 42
corn bread, honey ... July ... 54
crackers, poppy seed ... January ... 49
crackers, savory granola ... January ... 49
crackers, savory granola ... June ... 54
crackers, whole wheat ... January ... 49
cream doodles ... October ... 42
dandelion "mushrooms" ... May ... 51
dip, cheese with fresh fruit ... January ... 50
dip, herb garden ... January ... 49
dressing, poppy seed ... July ... 55
energy balls ... October ... 42
fat-free honey berry milkshake ... December ... 42
flower honey jelly ... May ... 52
flower honey ... May ... 52
frosty, peanut butter ... August ... 43
früchte-kaltschale ... November ... 45
fruit dessert, cold ... November ... 46
granita, lime and honey ... August ... 42
hardtack, wholewheat ... June ... 52
honey butter, cinnamon ... July ... 55
honey loaf, apricot ... June ... 54
ice tea, refrigerator honey ... August ... 42
lemonade, honey, with frozen fruit ... August ... 42
orange blossom ... August ... 42
peach treat ... August ... 42
peanut butter balls, honey ... April ... 60
peas with mushroom and redbud ... May ... 51
pecans, barbecued ... January ... 50
pie, oatmeal ... March ... 53
popcorn surprise ... January ... 50
pork chops, holiday ... March ... 53
pork chops, San Francisco ... April ... 60
redbud, sauteed ... May ... 51
salad dressing, honey yogurt ... September ... 51
salad, holiday green ... March ... 53

salad, Sarah's garden ..... September 50
salad, tangy lettuce and carrot ..... May 52
sandwich spread, tasty treat ..... June 54
sangria, honey ..... August 43
soup, black bean with cumin ..... February 42
soup, nectarine with ginger ..... November 46
soup, sweet and sour corn ..... February 42
soupe de nectarines au gingembre ..... November 45
spare ribs, barbecued ..... July 55
spread, honey blueberry ..... June 52
spread, honey mustard basil ..... September 50
steaks, with fluffy horseradish sauce ..... September 51
strawberry slush ..... August 43
tomato bread, hot cajun ..... July 54
tomato soup, chilled, with fresh basil ..... August 43
turnovers, pear & apple honey ..... September 51
Honey sales
price fixing? ..... January 11
prices – 1998 summary ..... January 14
ideas for selling ..... March 13
ideas from Australia ..... July 17
know your product ..... August 11
selling: 8 ways that work ..... January 41
selling: 13 ways that work ..... February 37
selling at the Topsfield Fair ..... March 56
Humor
amazing smoker lighting method ..... June 64
good fences ..... September 64
I earn every penny ..... November 56
in over your head? ..... May 64
to bee or not to bee ..... August 56
Trojan Beekeeper ..... July 54
Income taxes
are you running a business? ..... March 24
Industry problems,
the unsung ones ..... February 11
Integrated Pest Management
an introduction ..... April 27
and *Varroa* mites ..... November 20
first, do no harm ..... July 33
International Bee Research Association
50th anniversary ..... September 22
Internet
almond bloom online ..... June 57
Apimondia is on the Web ..... May 26
apitherapy on the Web ..... October 14
Australia on the Web ..... September 18
getting involved ..... February 20
largest beekeeping site ..... January 24
National Honey Board on the Web ..... June 22
New Zealand's page ..... August 18
sites for Federal honey bee research ..... April 24
varroa on the Web ..... March 22
virtual presence ..... November 18
Iowa limits shipment of bees ..... May 57
Labor
finding and keeping ..... October 21
hiring and keeping ..... December 21
Langstroth – a commemoration ..... July 48
Louisiana implements quarantine ..... May 57
Marketing honey
at Christmas ..... December 41
price fixing? ..... January 11
prices – 1998 summary ..... January 14
ideas for selling ..... March 13
ideas from Australia ..... July 17
know your product ..... August 11
sell direct ..... September 11
selling: 8 ways that work ..... January 41
selling: 13 ways that work ..... February 37
selling at the Topsfield Fair ..... March 56
Mexico Exports ..... December 43
Mid-Atlantic Apicultural Research & Extension
Consortium Web Page Contents ..... December 14
Migrant labor ..... November 29
Mites, treat right, by the numbers ..... January 47
Moving bees, try a trailer ..... January 26
Multitasking, in bees and humans ..... May 23
National Honey Board
back to CEO arrangement ..... November 49
changing management
arrangement ..... September 57
motivation of members ..... July 11
news ..... February 51
on the Web ..... June 22
teams up with Barney ..... May 57
updates Honey Guide ..... March 57
upheaval within ..... August 6
National meetings
the latest news ..... February 23
Nectar gathering dances ..... December 19
Nectar plants
basswood ..... June 38
black locust has other benefits ..... January 58
Evodia seedlings, where to get ..... May 54
for the far north ..... September 38
land based honey production ..... February 28
mignonette ..... January 38
plan for more water shortages ..... June 28
purple loosestrife, a different view ..... September 13
salt cedar, a different view ..... September 13
star thistle, should it be banned? ..... September 31
some questions about ..... June 16
sunflower, demand will increase ..... January 58
vitex ..... July 53
Nectar secretion, is not predictable ..... August 23
New Zealand
bee product labels ..... September 57
jail time for illegal imports ..... June 57
Newsletter contest
what association has the best? ..... January 52
what makes a good newsletter ..... May 47
the winners ..... April 38
Newsletters, give the editor a hand ..... July 6
Nosema, the practical side of dealing with ..... November 34
Nucleus hives in the summer ..... June 41
Observation hives, electronic ..... July 20
Other insects. impact of ..... May 21
Ohio Queen Breeders ..... March 26
Organizations, too many ..... December 13
Outyards
use a bee truck ..... August 33
where are they? ..... June 12
Paper & ink, in digital age ..... October 6
Packages, snare your own ..... March 46
Plant pest control, a source book ..... August 16
Pesticides
a look at formulations ..... April 21
is Captan safe around bees? ..... April 59
new device for detecting ..... January 58
small hive beetle drench approved ..... April 61
Pests and predators
a look at the new ones ..... January 23
skunks ..... June 36
small hive beetle update ..... February 56
some basics ..... March 16
status of small hive beetle in U.S. ..... January 28
Plastic
evaluating foundation ..... July 40
Pollen
bees can detect quality ..... March 17
effects on larval size ..... November 13

stored in honey supers ... August ... 47
to be added to Snapple ... July ... 57
Pollination
blueberries have potential in Florida ... May ... 21
canola yield increases ... September ... 58
data needed to support decisions ... March ... 19
improving ... November ... 13
pondering ... November ... 6
pumpkins and squash ... July ... 23
strong colonies are better ... August ... 20
Profile
Adee Honey Farms ... April ... 41
Adee continued ... May ... 32
Dewey Caron ... July ... 51
Harvey's Honey ... March ... 37
Ohio Queen Breeders ... March ... 26
Roger Morse ... June ... 53
Rulison Honey Farms ... June ... 25
Quality assurance, think about it first ... March ... 13
Queen breeders fund research ... December ... 43
Queen rearing, at Adee's Honey Farms ... May ... 32
Queenless colony
raising new queen ... April ... 59
what are signs ... April ... 59
Queens, selecting a race ... January ... 64
Races of bees
ARS-Y-C-1 ... June ... 55
Caucasians ... July ... 52
basic biology of ... March ... 64
Italians ... April ... 80
Russians are here ... September ... 57
Requeening
controlling rejection ... May ... 54
killing the old ... May ... 54
do it anytime ... May ... 43
let them do it themselves ... August ... 47
with the Thurber Long Cage ... May ... 44
Research
electronic monitoring ... July ... 20
scholarship defined ... June ... 19
don't ignore the "why" ... August ... 13
what's left to look at? ... January ... 21
Reversing, yes or no? ... April ... 59
Rulison Honey Farms ... June ... 25
Rumors, what to believe? ... April ... 6
Skunks ... June ... 36
Slatted racks
what are they? ... June ... 55
yes or no? ... April ... 59
Small hive beetle
drench approved ... April ... 61
Louisiana implements quarantine ... May ... 57
some biology ... April ... 32
update ... February ... 56
using Bayer Bee Strips ... March ... 32
Shook swarming, when to recombine ... May ... 53
Simon Fraser University launches endowment
professorship ... August ... 49
Sioux Honey, keep their word ... May ... 15
Southern beekeeping, an overview ... September ... 32
Spotty brood, why? ... July ... 55
Summer
games ... June ... 43
inspections ... June ... 32
using nucs ... June ... 41
Swarms
a means of preventing ... April ... 59
convert them to packages ... March ... 46
how do scouts decide? ... July ... 15
prevention ... May ... 39
selecting a new home ... May ... 21
trapping ... July ... 53
understanding behavior ... January ... 18
Tennessee forms new beekeeping group ... June ... 59
Topsfield Fair
pictures from ... April ... 34
selling honey at ... March ... 56
Transferring bees from homemade equipment ... May ... 53
Transgenic plants
and antibiotics ... January ... 58
and bees ... March ... 17
USDA
allows organic labeling ... May ... 57
small farmers' marketing plan ... March ... 57
emergency relief for farmers ... February ... 50
goals for 1999 ... February ... 49
Varroa
and integrated pest management ... November ... 20
methods of detecting ... September ... 27
using Bayer Bee Strips ... March ... 32
Vitex, attractiveness to bees ... July ... 53
Who's Who in Apiculture – 1999 ... April ... 66
Wintering, basics for northern beekeepers ... October ... 24
Y2K
another beekeeper's bug ... June ... 15
how we all could be affected ... July ... 26
the road may not be smooth ... November ... 41
Yellow star thistle, should it be banned? ... September ... 30
Yellowjackets, new trap ... February ... 50

NEW PRODUCTS

Brushy Mountain screen insert ... March ... 11
Dakota Gunness uncapper ... June ... 18
Easy Bee Rig ... January ... 19
Entrance Feeder ... March ... 11
Giant Hive Tool ... March ... 11
Hive Tool ... May ... 12
Hive-Top Feeder ... May ... 12
Liquid Smoke ... May ... 12
New Age hive components ... March ... 11
Patty feeder ... February ... 16
Queen Excluder ... May ... 12
Queen Introduction Frame ... January ... 19
Series 7000 Maxant-Mraz Honey Wax Separator ... March ... 11
Smoker fuel ... June ... 18

BOOKS, VIDEOS and SOFTWARE

Apiary Manager 5.2 (software) ... March ... 11
Art of the Sting: Bee Venom Therapy (video) ... January ... 19
Beekeeping in Western Canada ... February ... 16
Instrumental Insemination of Honeybee Queens (video) ... January ... 19
Organic Pages: Annual Directory of Organic Resources ... January ... 19
World Economic Plants: A Standard Reference ... June ... 18

OBITUARY

Banker, Robert Dean ... May ... 58
McGinnis, David K. ... August ... 50
Mraz, Charles ... October ... 56
Thurber, Louise W. ... August ... 50
Woltertorff, Clifford G. ... May ... 58

AUTHOR	MONTH	PAGE
Bach, James	November	34
Batterby, Mark E.	March	24
Baum, Winthrop E.	July	28
Blackiston, Howland	May	49
Bonney, Richard	April	36
	May	39
	June	43
Calderone, Nick	April	27
	July	33
	November	20
Caron, Dewey	December	27
Chamberlin, Frank	January	47
Crane, Eva	September	22
Cobey, Susan, & Joe Latshaw	September	20
Collison, Clarence	January	23
	February	19
	March	16
	April	23
	May	20
	June	16
	July	14
	August	15
	September	12
	October	16
	November	12
Dalby, Richard	June	38
Davenport, Peter	June	50
Dupuis, Lois	November	56
Elzen, P.J., et al	January	28
Fell, Richard D.	July	23
Flottum, Kim	January	31
	January	64
	March	56
	March	64
	April	34
	April	41
	April	80
	May	17
	May	32
	May	47
	June	15
	July	26
	September	32
	November	41
	December	21
Flottum, Kim (The Inner Cover)	January	8
	February	6
	March	6
	April	6
	May	6
	June	6
	July	6
	August	6
	September	6
	October	6
	November	6
	December	6
Goltz, Larry	January	26
	August	23
Green, Rick	July	46
Hackenberg, David	October	11
Harman, Ann	January	49
	February	42
	March	53
	April	60
	May	51
	June	52
	July	54
	August	42
	September	50
	October	41
	November	45
	December	41
Headings, Mark	June	36
Hendricks, Dan	May	44
Hendrickson, Roy	June	41
Hiemstra, Henry	February	28
Higgins, Jim	August	33
Horr, Bob	July	40
Hughes, Ed	July	64
	August	56
	September	64
	December	56
Latshaw, Joe & Susan Cobey	September	20
Morse, Roger	April	31
	May	43
	June	32
	July	43
	September	27
	October	24
	December	36
Morse, Roger (Research Review)	January	18
	February	15
	March	17
	April	19
	May	21
	June	17
	July	15
	August	16
	September	13
	October	19
	November	13
	December	19
Muhlenbach, George	February	26
Nabors, Ray	August	30
Onyon, Michael & Andrea Stahlman	September	48
Puvel, Jim	March	37
Royce, L.A. & B.A. Stringer	August	17
	September	31
Sanford, Malcolm T.	February	56
Sanford, Malcolm T. (The Digital Age)	January	24
	February	20
	March	22
	April	24
	May	26
	June	22
	July	20
	August	18
	September	18
	October	14
	November	18
	December	14
Sherriff, Brian	September	45
Showler, Betty & Carl	September	43
Sieling, Peter	June	64
Spear, Lloyd	March	41
	April	52
	June	25
	July	37
Stahlman, Andrea & Michael Onyon	September	48
Stahlman, Dana	May	64
	March	26
Stoller, Kirk	December	23
Stringer, B.A,	January	38
	June	28
	September	38
Stringer, B.A. & L.A. Royce	August	17
	September	31
Taylor, Richard (Bee Talk)	January	53
	February	47
	April	57

	June	53
	August	45
	September	53
	October	45
Taylor, Richard (Questions & Answers)	April	59
	May	53
	June	55
	July	53
	August	47
	September	55
Tew, James E.	January	35
	February	33
	March	29
	April	46
	May	29
	June	46
	July	30
	August	27
	September	35
	October	33
	November	37
	December	32
Traynor, Joe	August	20
	November	14
Verglas, Francois	January	44
Weaver, Mary & Bill	January	41
	February	37
	March	46
	August	37
	October	21
	October	27
	November	29
Weiss, Ed	March	48
Winston, Mark	January	21
	February	23
	March	19
	April	21
	May	23
	June	19
	July	17
	August	13
	September	15
	October	17
	November	15
	December	17
Wise Guy	January	11
	February	11
	March	13
	April	15
	May	15
	July	11
	August	11
	September	11
	October	13
	November	11
	December	13

TITLE	MONTH	PAGE
1999 Who's Who	April	66
ABF Adds Candles	November	50
African Honey Bees	November	26
AG Library Moves Animals	June	57
Aging Beekeepers and Aging Members	July	30
AIA Honors Two	July	57
Almond Bloom Online	June	57
And The Winners Are	April	38
Andy Nachbaur: Virtually Present	November	18
Another Beekeeper's Bug	July	26
Another Beekeeper's Bug	June	15
ApiExpo '99 – Be There	July	57
Apimondia 1999	May	26
Apimondia Awards	October	49
Apimondia Book Available	December	43
Apimondia Winners	November	49
Apitherapy	November	15
Apitherapy: Alternative Medicine On the Web	October	14
Aussie State Moves to Protect Bees	February	51
Ban Star Thistle?	September	31
Banana War Mashed	May	59
Bayer Bee Strip	March	32
Beautiful Basswoods	June	38
Bee Badge Back	April	61
Bee Culture's Summary of 1998 Honey Prices	January	14
Bee Plants for the Far North	September	38
Bee Product Labels	September	57
Bee Truck	August	33
Beef & Almond Boards OKed	May	58
Beekeeping in the New Millennium - Apimondia '99	September	15
Beekeeping Trip to Belize, A	September	45
Bees, Berries, Cancer Cure?	August	49
Beginner's Questions	February	19
Better Fruit and Trees	February	50
British Bumblebee Extinct	February	50
CA Honors Its Own	May	58
Canola Pollination Pays	September	58
Caron Recognized	October	49
Catching Up	May	29
Caucasians	July	52
Cerena's Mystery	January	60
Chalkbrood	June	34
Charge More for Pollination	August	20
Charles Butler: The Feminine Monarchy	September	43
China, Peoples Republic of	October	50
Comb Honey Harvest	July	37
Cow and Chickens	July	58
Designing Your Programs	March	48
Detecting Varroa	September	27
Direct Pork	March	57
Do the Math ... and Treat for Mites, Right	January	47
Does Beekeeping Skip a Generation	September	48
Dr. L.L. Sieling's Amazing Smoker Lighting Method	June	64
Drought	June	28
Dues, Auctions, Raffles and Other Money Makers	May	48
Early Spring	June	46
Early Summer Evaluation, An	August	27
EAS Changes Chairs	September	57
Easy Comb Honey Production	March	41
Electronic Monitoring and The Virtual Beehive	July	20
Emergency Relief for Farmers	February	50
Endless, Endless Questions	August	13
Enigma of Nectar Secretion, The	August	23
Excerpts from Apimondia '99	October	37
Exotic Pests in CA	May	57
Federal Honey Bee Research	April	25
Federation Meets in Fort Worth	November	49
Feeding	August	37
Finding & Keeping Good Labor	October	21
Fire Ants, Almonds and Quarantines	January	57
First, Do No Harm	July	33
Flowers Bees Visit	June	16
Formulations	April	21
General Knowledge	April	23
Getting Members	July	28
Getting Ready for Spring	March	29
Getting Ready	April	46
Gleanings from Apimondia	October	37
Good Fences . . .	September	64
Good Groups Get Good Promotion	June	50
Great Escape, The	July	43
Growing a Candle Business	October	27
Hambleton & Student Nominations Sought	January	60
Heading South With Harvey's Honey	March	37

Help! ..... December 21
Hive Beetle Drench Approved ..... April 61
Home Made ..... July 46
Homemade Single Frame Extractor, A ..... August 30
Honey Analogs ..... February 17
Honey Board Back to CEO ..... November 49
Honey Board Changes ..... September 58
Honey Board News ..... February 51
Honey Board Service ..... February 51
Honey Down, Down Under ..... July 58
Honey Flows ..... August 15
Honey Guide Gets Updated ..... March 57
Honey Quality ..... November 12
How Much Honey ..... May 17
How Much is Enough? ..... October 17
I Earn Every Penny ..... November 56
IN B.O.Y. ..... May 59
In Over Your Head May ..... May 64
In the Dark, a Beeyard Is Nearly Surreal ..... November 37
Inspection Goes to the Dogs ..... May 55
International Bee Research Assn: 50th Anniversary ... September 22
Internet Down Under ..... September 18
Introduction to Integrated Pest Management, An ..... April 27
Irish Varroa ..... November 50
Italians, The ..... April 80
Jail Time for EFB ..... June 57
Kelley's 75th ..... December 38
Kentucky Hires ..... August 50
LA & IA Quarantined ..... May 57
Land Based Honey Production ..... February 28
Langstroth – Philadelphia Beekeeper ..... July 48
Largest Beekeeping Site, The ..... January 25
Latest News from the National Meetings, The ..... February 23
Latshaw Instrument, The ..... September 20
Leg Up, A ..... August 17
Legitimately Lower Tax Bills ..... March 24
Less Than I Thought ..... March 19
Locusts for Shade and Honey ..... January 58
Lush ..... December 17
MAAREC Web Page ..... December 14
Mann Lake Gets Formic Gel Permit ..... March 57
Marketing Plan for Small Farmers ..... March 57
Mary Wins the Bear ..... February 49
Mexico Exports ..... December 43
Michigan Gets New Specialist ..... January 60
Michigan Queen ..... August 50
Mignonette ..... January 38
Migrant Labor ..... November 29
Mission Statements & Bylaws ..... February 26
Mississippi Split ..... May 32
MN Queen ..... May 59
Multitasking ..... May 23
National Honey Board, The ..... June 22
Natural Crystallization of Honey, The ..... December 36
NC Wins 4H ..... July 58
Nectar Gathering Dances ..... December 19
New Apiculture Extension Specialist ..... May 55
New Pests ..... January 23
New TN Group ..... June 59
New Yellowjacket Trap ..... February 50
New Zealand"s Page ..... August 18
Newsletter Quality ..... May 47
NHB and Barney Team Up ..... May 57
No Orchard Too Large ..... April 41
Nosema ..... November 34
NZ Tour Set ..... August 50
Ohio Queen Breeders ..... March 26
Organic Label Allowed ..... May 57
Ornery Organics ..... March 57
Our State Fair ..... December 27
Participate in Apimondia ..... May 55
Peanut Producers Vote ..... June 57
Pests and Predators ..... March 17
Plastic Foundation, A Test ..... July 40
Profitable Management for Comb Honey ..... April 52
Providing Subsidies for Beekeepers ..... November 14
Pumpkins and Squash ..... July 23
Queen Breeders Fund Research ..... December 43
Quick Chemical Analysis ..... January 59
Race Is On, The ..... January 64
Races . . . Basic Biology ..... March 64
Requeen Anytime ..... May 43
Rulison's Honey Farms ..... June 25
Russians are Here, The ..... September 57
Scholars ..... June 19
Secretary Salute ..... December 6
Selling Honey at the Fair ..... March 56
Selling Honey ..... February 37
Selling Honey ..... January 41
SFU Launches Endowment Professorship ..... August 49
Shim Becomes Technical Liaison ..... January 59
Shiminuki Awarded ..... May 55
Skunks are Winning the Battle (And The War) ..... September 35
Skunks Aren't Good News ..... June 36
Small Hive Beetle Update ..... February 56
Snapple & Pollen ..... July 57
Snare Your Own Packages ..... March 46
So What's Left ..... January 21
So, What's In a Name? ..... April 36
Southern Stroll ..... September 33
Space ... The Final Frontier ..... January 31
Spending, Food Down ..... July 58
Spring Has Sprung ..... May 20
Star Thistle Control ..... April 61
Status of the Small Hive Beetle in the U.S. ..... January 28
Stupid Inner Covers and Accursed Mites ..... December 32
Summer Games ..... June 43
Summer Inspections ..... June 32
Summer Nucs ..... June 41
Sunflower, Canola, Meadowfoam as Lubricants ..... January 58
Supply & Demand ..... October 11
Surveys ..... January 44
Swarm Prevention ..... May 39
This Year, Try a Trailer ..... January 26
To Bee or Not To Bee ..... August 56
To Market, To Market ..... July 17
Topsfield Fair ..... April 34
Tough Season in Caribbean ..... February 49
Transgenic Plants & Antibiotics ..... January 58
Trojan Beekeeper, The ..... July 64
U.S. Eyes Argentina Imports ..... July 57
U.S./Argentina Trade ..... March 57
UK Gets Apistan ..... January 57
Unhealthy Conditions ..... July 14
USDA Goals for '99 ..... February 49
USDA News ..... June 59
USDA News ..... May 56
Using Frame Spacers ..... December 23
Varroa Mites ..... November 20
Varroa World Wide Web Hub, The ..... March 22
Welcome to the First Virtual Beeyard ..... January 35
Wellmark Appoints Vice President ..... October 49
What Equipment? Which Bees? ..... February 33
What You See ..... September 12
What's New in Florida ..... April 31
When Is Good Science Bad Advice? ..... October 33
Where's the Honey? ..... February 51
WI Queen ..... May 59
Winter Basics for Northern Beekeepers ..... October 24
WIS B.O.Y. ..... January 60
Y2K Almost the Millennium ..... November 41
Yorkshire Beekeepers Get Building ..... February 41
You Have Mail ..... February 20

To Our Many Friends And Customers. . .
We take this opportunity to thank you for your patronage and support during the past year and all the years before. It is you, our faithful, loyal customers who have allowed us to remain in business and complete our 75th year serving beekeepers. We are deeply grateful to each and every one of you and want you to know you are appreciated.

We wish, for all of you, the most joyous of holiday seasons and a peaceful and prosperous year as we enter into the new millennium. We look forward to serving you in the year 2000 and far into the future.

Sincerely,

Sarah L. Manion, Earl King, and

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Display Advertisers

Bees & Queens

Glenn Apiaries 22
Hardeman Apiaries 25
Harrell & Sons 35
Hawaiian Queen 37
Heitkam's Honey Bees 31
Koehnen, C.F. & Sons 11
Kona Queen 39
Miksa Honey Farm 42
Norton, Al 11
Pendell Apiaries 11
Plantation Bee Co. 35
Rossman Apiaries 37,42
Shuman's Apiaries 20
Strachan Apiaries 35
Taber's 20
Weaver, B. 20
Weaver R. 39
Wilbanks Apiaries 45
York Bee Co. 16

Education

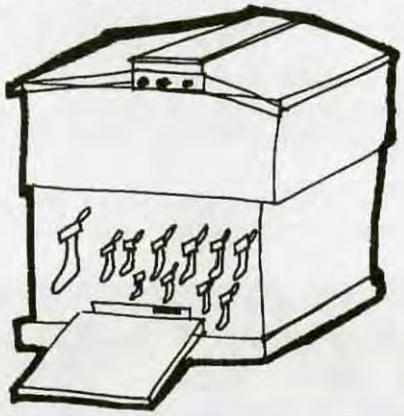
American Beekeeping Fed 1
American Honey Producers ..... Inside Front
Linden Books 35
World of Bees Video 16

Equipment

Apiary Forklift 4
Backsaver 25
CC Pollen 16
Cowen Mfg. 2
Dakota Gunness 20
Generation Enterprises 25
Pierce Uncapping Knife 38
Pierco Frames ..... Ins. Front
Sailor Plastics 1

Related Items

Bee Serv. Candle Supply 31
Broker (Bees & Equipment) 39
Candlewic 45



Custom Labels 35
Endless Mtns. Honeystix 45
Honey Acres 20
Howalt-McDowell Ins. 25
Observation Hive 13
Pourette 39
R. M. Farms 11
St. Simons Trading Co. 42
Tuttle Apiary Labs 38

Suppliers

B&B Honey Farm 13,37
Betterbee 4
Browning Cut Stock 11
Dadant ..... Inside Front Cover
Davco Bee Supply 35
Gamber Container 26
Heaven's Honey ..... Ins. Front
Kelley, Walter 55
Mann Lake Supply 39
Maxant Industries 16
Mid-Con 31,40
Newton Brood Booster 37
Perma-Comb Systems 40
Precision Plastics 39
A.I. Root ..... 15,31,Ins. Back
Ross Rounds 35
Rossman Apiaries 37,42
Ruhl Bee Supply 31
Sherriff, B.J. ..... Inside Front
Stoller Frame Spacers 31

I have been plagued by mice all my life. In Winter they're especially bad, moving into the outhouse, the kindling wood box in the corner of the kitchen, and any hive without mouse guards. Many Winters ago, I volunteered to help a beekeeper friend move some empty hives. I do not know why she brought her German shepherd along. Perhaps the dog had heard of my affinity for mice. In any case, it was a mistake.

The hives had been sitting empty for months at the edge of a windswept pasture. I suppose the field mice thought it was one of many temporary shelters we human beings had set up for their Winter comfort. They used my outhouse the same way.

With the outhouse, I had learned the hard way that a couple of booming kicks on one of the outside walls were absolutely necessary to clear the mice out of the pit. This would send them scurrying to the rafters while I was still standing outside the outhouse – much better than having them scurrying while I was in the outhouse. There they would remain cowering in fear, and I suppose loathing, while I used the facilities. I should have given the hives a couple of good kicks, too.

The first few hive bodies I loaded into the truck didn't have mice in them. There was plenty of mouse damage, which should have been a warning, but I assumed it was from mice that had come and gone long ago. When I started separating the second stack of hive bodies, the dog began sniffing the remaining two boxes with interest. This, too, should have been a warning.

I was on my way back to the pickup with a hive body in my arms when I heard Johnne shout "Oh, my gosh, look at that!" Turning to look, I saw the dog with her nose stuck deep into the top box, jaws snapping, and an explosion of mice radiating out across the snow from the hive entrance.

As I watched them explode toward me, I remembered a tale or two about mice running up pant legs. I did not believe those stories then, and I still didn't. But, as the first, fastest mouse seemed to be heading straight for me, I said to myself, "That mouse is going to run up your pant leg."

The sensation of tiny paws clawing up my leg caused me to deeply regret not wearing long johns this particular day. It was below zero, and I could have worn them, but I hadn't. Then, too, I had never really appreciated the advantages of briefs over boxer shorts. I always thought they were about the same. I now realized I was wrong. Briefs are much better.

These thoughts took but a microsecond. In the next microsecond, I had dropped the box and seized my leg with both hands just above the knee. I was hoping to keep the mouse sealed off in the lower part of my pant leg.

"Did it run up your leg?" asked Johnne.

"Yes, it did," I said, still stooping over and clenching my leg. I asked her if she had seen the mouse run back out.

"Why did you just stand there like that? Didn't you know it would run up your leg? Everybody knows they run up your leg," she explained helpfully.

"All I really want to know it whether you saw it come out or not."

"No," came the gloomy report.

"What should I do?" I asked, as I continued to squeeze sensation and feeling from my leg.

"I don't know," she said, but unable to feel anything in my leg anymore, I knew what I had to do.

With speed that surprised even me, I had loosened my grip on my leg, unbuckled my belt, and pushed my pants down to my shoe tops. Johnne went and hid behind the truck with her back toward me.

"Did you find him?" she shouted back at me.

"No."

"Did you check your boxers?" she asked, shouting up at the sky.

It wasn't until years later when I told my wife this story that I asked myself how Johnne knew I wore boxers when she had her back toward me. Actually, it was my wife, Bobbalee, who asked it for me.

"How'd she know you wore boxers?"

"Ah, let me think," but I couldn't think how she knew.

"Is there something you haven't told me or are you still thinking?"

"I'm still thinking."

"Maybe you should think faster."

Luckily I remembered the story of the drunk that Johnne had rescued one morning in town when she was doing her washing. She volunteered to wash his beer-soaked clothes before he went home to his wife, but while she was washing his clothes, he needed at least a pair of shorts to stand around the Laundromat in. I was on my way to church, and feeling the Christian spirit, lent him my boxers. Later, Johnne washed my boxers and gave them back to me after church.

"That's ridiculous," Bobbalee said.

"I know, but I was young then and a bit partial to the ridiculous."

While I was looking for the mouse in my pants, the question of how Johnne knew did not occur to me. But checking my shorts was a good idea because, by now, the frigid air had sapped all feeling below my waist. So I checked.

"Nope. Not there either."

"Are you going to put your pants back on?" she shouted, still with her back toward me.

"Okay, I'm putting them back on."

Since then, I have switched to briefs because they have those built-in elastic mouse guards on both legs. Why the manufacturers of briefs do not emblazon their packaged goods with the slogan 'With Mouse Guards!' is a mystery. They would sell a lot more shorts to beekeepers if they did.

Not A Creature Was Stirring . . .

Ed Hughes

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