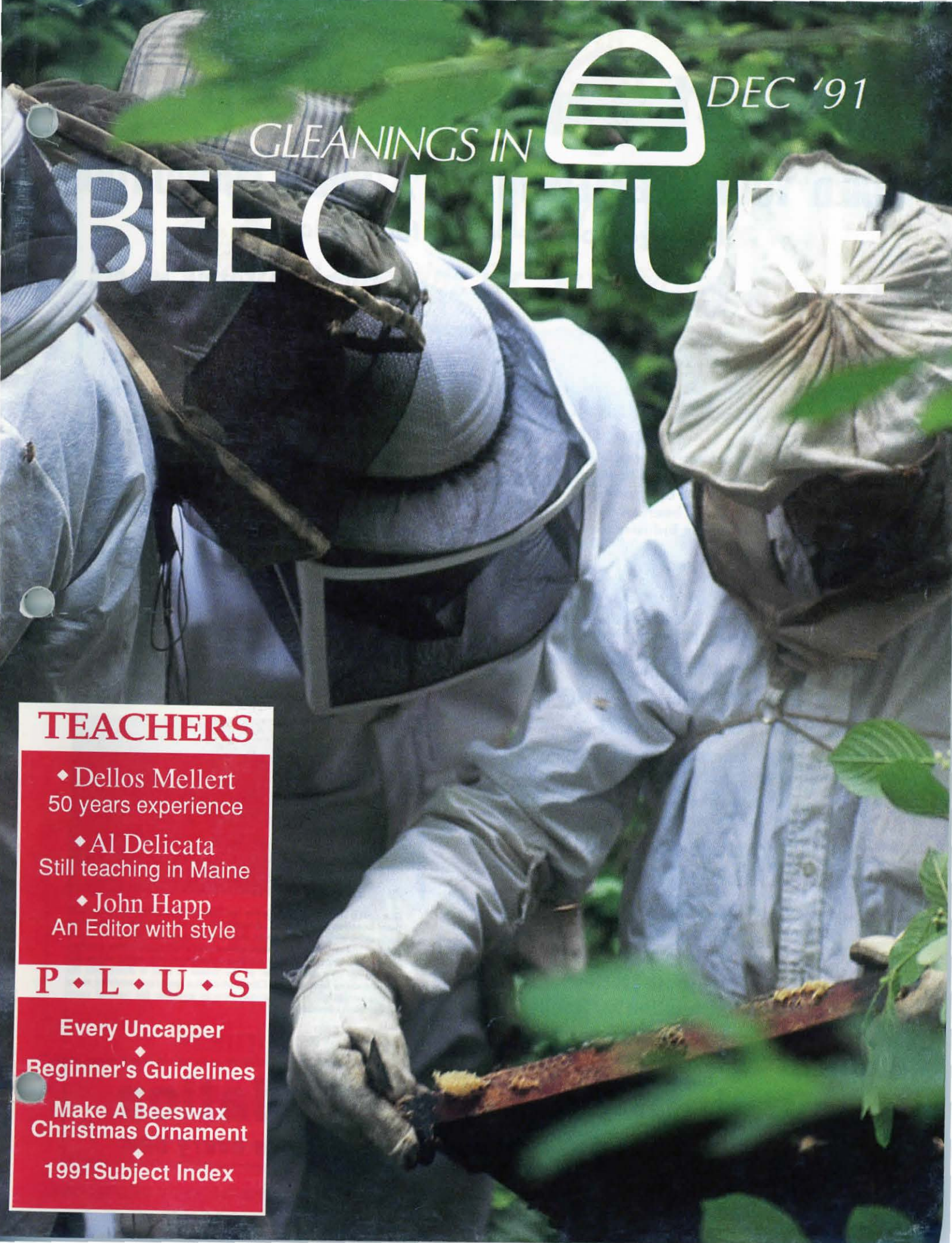


DEC '91

GLEANINGS IN BEE CULTURE

TEACHERS

- Dellos Mellert
  50 years experience
- Al Delicata
  Still teaching in Maine
- John Happ
  An Editor with style

P • L • U • S

Every Uncapper

◆

Beginner's Guidelines

◆

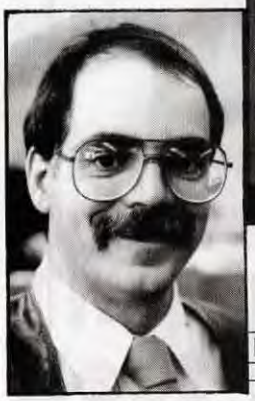
Make A Beeswax Christmas Ornament

◆

1991 Subject Index

ROOT PUBLISHING

JOHN ROOT



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KIM FLOTTUM

THE A. I. ROOT CO., Publishers
623 W. LIBERTY STREET
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SUBSCRIPTION RATES: United States, one year, $14.40; two years, $27.00. **Newsstand Price: $1.95.** All other countries (U.S. Currency only), $7.50 per year additional for postage. Send remittance by money order, bank draft, express money order or check. Published monthly. Change of Address: Return completed form contained inside issue. Articles are solicited. *Opinions expressed by the authors are not necessarily those of the publishers.*

Advertising: For information on placing display advertisements, contact our Advertising Dept. 216-725-6677 Ext. 220.

POSTMASTER: Please send form 3579 to: The A. I. Root Co., 623 W. Liberty St., Medina, OH 44256. Tele. 216-725-6677.

Columns

Departments

COVER . . . Attending a field meeting, where you get some real hands-on experience with a better-than-you guide is always rewarding. But the key is to be with a 'teacher' – someone who knows what to do and why you're supposed to do it – and freely shares their knowledge. Share some time with our teachers this month, they've plenty to offer.

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(ISSN 0017-114X) Vol. 119, No. 12

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INNER · COVER

Before you go further please read the statement on the facing page by John Root, President of the A.I. Root Company. If you don't, the rest of this won't make much sense – so go ahead, I'll wait.

Now, while you've got the situation right in front of you, think about the next few things that appear here, because they all fit together, and, in one way or another, they touch each of us. What I'm referring to is specialization, because there are so very few generalists anymore, no matter the trade or service you consider.

For instance, automobile manufacturers do only a few things for themselves now – except design and put together the parts others made for them. Professional football teams pay one person to only kick the ball through two upright poles, and nothing else. You do what you do best, and hire the rest done. And what you end up with is a product that is the best it can be – because all sorts of people did their best on each individual piece. At least that's the theory.

The beekeeping industry is no different. There are specialists in woodworking, in metal fabrication, in plastic, in wax, in nearly every aspect of the things beekeepers use and need to keep on keepin' on. And, like Sears or K-Mart, some have located these specialists and gathered their products together under one roof. That is an efficient and productive way to run a business. If you need convincing, go to the nearest Wal-Mart.

What's even more interesting is the evolution of specialists in areas other than conventional beekeeping. There are professionals that only export honey, and importing, packing and handling honey all have their specialists, too. There are beekeepers who make their living just moving bees and pollinating crops all over the map.

There's even a specialist in honey marketing – The National Honey Board – which came to life because the industry found it was smarter to 'hire it done' than dilute its energy trying to do it individually.

But most of Agriculture is moving in the same direction, which should come as no surprise. The framework of Extension, for example, has changed radically in the last five years, and will continue to decline as budgets dwindle and entitlements continue to increase.

But farming has taken up much of the slack by moving those services traditionally performed by a government agency to some level of user-support. Independent or co-op Ag. consultants abound in every facet of crop production, harvesting, business organization, and marketing.

But what those who succeed, whether in beekeeping or farming, have in common is that they focused on the skills they have, and went outside their organizations to find those of others to get the rest of the job done.

The bigger picture is that no business can remain static, and remain in business. Honey producers may evolve into producer/packers, and maybe into packers and maybe into exporters. But even when a producer remains a producer he must adapt, improve and refine his skills or fade into the past. Migratory beekeepers develop skills as truck drivers (and fixers) and pollinators. All because individuals (and businesses) must evolve and find their exact and perfect niche – or fail. Darwin gets a lot of support here.

But if part of our past activity is not the evolutionary road-of-choice for the A.I. Root Company, producing this magazine and the many books we are responsible for *has not changed focus.* In fact, with our apicultural expertise and resources no longer divided, our publishing enterprise will become even more focused, energetic and independent. We look forward to this growth in our business, and to our future as a new and evolved part the American Beekeeping Industry.

More on Page 688

Growth

ROOT

Dear A.I. Root Co. Bee Supply Customers,

As we approach our 124th year of manufacturing beekeeping supplies, we have an announcement to make to our many customers.

As you probably know, The A.I. Root Company started manufacturing beeswax altar candles in 1931. Since then we have grown to become one of the largest church candle suppliers in the world. In 1966 we expanded our candle line into the consumer home market, making decorative candles in a variety of colors and fragrances.

Today, the very rapid growth of our decorative candle sales is forcing us to substantially expand our production space and modernize our warehousing and shipping facilities to accommodate this growth. This has brought us to the reluctant decision to close our woodmill, which will become our new warehouse and distribution center. Starting January 1, 1992, we will cease to manufacture wooden products, but we will continue to supply a full line of beekeeping publications, foundation and other beeswax products to independent bee supply dealers and retail customers across the country.

After January 1, 1992, callers will receive a price list detailing our wax products and beekeeping publications. However, we will fill any orders for A.I. Root Company wood products placed before that time. This change will, of course enable us to place increased emphasis on our Publication Department's activities.

We will continue to sell a complete line of bee supplies and beekeeping publications for our many local customers from our Medina outlet on a pick-up basis.

We thank you for your past patronage, and look forward to serving you in the future.

Sincerely,

John Root
President
A.I. Root Co.

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1291

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- Circulation figures are reviewed by Deloitte & Touche Accounting/Auditing.
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NEXT MONTH

We have an eclectic collection of articles and topics to start off 1992, and there is, we think, something for absolutely everyone.

The lead story is a detailed look at why it's getting harder to find places to keep bees. Unless you live in the wilds of Idaho or Montana, bee yards are disappearing at an alarming rate in nearly every state. Land use, Bee Yards and Development – an up close and very personal look at this controversial topic next month.

Marketing honey is a rather generic term for selling what the bees made and we bottled. But what that bottle looks like, and where we sell it are the two most visible factors in the success or failure of a retail beekeeping business. We have three exceptional articles that cover these subjects, and the first – Gotta Have A Gimmick – starts next month. If you've ever asked "Which label, which store, what price?", you'll like this series.

Another first next month will be the lead in a series by Lynn Royce and B.A. Stringer. A *very* close look at honey bees – from the sting to the antenna – takes place each time, with a detailed look at a particular part using a scanning election micrograph, a drawing of how theit works as part of a whole bee, and a concise description of the way it gets used by the bee. Imagine, if you will, a honey bee's knee, as big as your hand!

But of course there's more. There's an inside look at the Honey Board Staff – the folks who make it all happen. If you've never met them here's a perfect chance! January is the kick-off for another great year – so make your resolution now – don't miss another month – start Next Year with *Gleanings In Bee Culture.* ☐

MAILBOX

■ Chunk Honey How-To?

I'd be very interested in reading an article about preparing cut-comb honey for show. Chunk honey, I mean, with extracted honey poured around it.

1. Is there a certain size of jar to fit the comb cutters I have seen in beekeeping supply catalogs?

2. How do you determine the size to cut to fit the jar?

3. Doesn't the jar have to contain a certain amount of cut-comb vs. extracted honey?

4. How do you keep the comb from floating? etc. etc.

Elaine White
Starkville, MS

■ Jars

I was intrigued by Richard Taylor's suggestion in the Oct. issue about buying used canning jars at yard sales. Hobby beekeepers in urban areas can run an ad in a local shopper's newspaper. I pay 10¢ per jar and frequently get a call from someone with 150 or 200 jars they no longer need. Run your ad in January or February because you'll get calls for months after that. At honey-extracting time you won't find any jars as they'll have been bought up by other beekeepers (and canners).

Richard Taylor should have warned about getting some jars that are filthy and must be scrubbed clean or have cracks or chips. Selling one of your honey customers a chipped jar could really cause you a serious problem. As to lids, I have found canning lids just as cheap as the white honey-jar lids and much more convenient to buy at the local supermarket. Personally I like the rustic appearance the canning lids give to the product.

Another way to save pennies is to forego the expensive labels with bright colors, flowers and honey bees on them. The only place you need them is to sell in a store and Richard Taylor is correct in saying selling honey in stores is usually no good anyhow. All a hobby beekeeper needs is a label with his name, address and phone number on it. You can get some really effective 2 x 3-1/4 self-adhesive labels from several mail-order catalogs, printing supply houses and business office supply outlets for just pennies each.

There's not much profit for a hobby beekeeper anyhow, so every penny saved helps pay for a hobby that can be expensive.

Boice Burns
Houston, TX

■ Diseased Bee-Trees

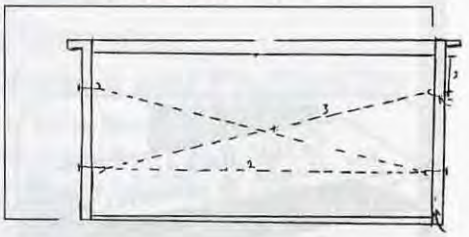
Richard Taylor (July 1991, p. 400) repeats the old "bogy" of a bee-tree as the source of disease, and James Bach (p. 523) doesn't think it can be proven. E.D. Ball attempted to do so in Wisconsin. In an area with 20 infected apiaries, 15 had acquired American foulbrood (AFB) by the purchase of colonies or equipment from beekeepers with diseased apiaries. The owners of the other five were related and "would give little information in regards to possible sources, trying to magnify the importance of the bee-trees and minimize other possible sources" (*J. Econ. Ent.* 1918, p. 200-205)

L. Bailey published a report of a world wide investigation of disease in wild honey bees (*Bee World* 1958, p. 92-95). The large numbers of wild colonies condemned in Michigan and destroyed in 1928 and 1929 were disease free, although over 13% of beekeepers' colonies in the region were infected with AFB. The occasional diseased wild colony found near an apiary may be infected by robbing, or is actually a swarm from an infected colony? Bailey concludes: "There seems to be many reasons why beekeepers' colonies should have more disease than wild colonies. It is difficult to formulate such plausible reasons for the opposite point of view, and the evidence so far received indicates that wild colonies are the more healthy."

Bob Sullivan (p. 524) supports Bailey's conclusion: "I do not believe that it is practical to attempt to maintain colonies free of foulbrood spores. I'll accept its presence and deal with it until fully resistant bees are developed" He keeps vegetable oil-sugar-terramycin patties on the broodnest from September through May. P.F Thurber said he knew of *"no way* to avoid disease except by keeping such antibiotic extender patties on 12 months a year" (personal communication).

Toge Johansson
East Berne, NY

CORRECTION



We published an incomplete drawing in the 'Foundation' article last month. There should be a horizontal wire attaching the top two bent nails.

Continued on Next Page

MAILBOX

■ More in '94!

I have to write you this letter as a fellow who sympathizes with you in your valient effort to try to heal the schism in beekeeping between American Honey Prod. & ABF.

I recently received the ABF journal and read Gene Brandi's reply to your attempts at holding joint meetings and have beekeeping be a unified group. As I read this I saw the similarity in what I am attempting to do in modernizing beekeeping and bring it out of the 130 year old hold that is prevalent throughout the industry. In my case I feel it is also being done by the woodworking industries that are fearful of losing out economically. I found that this is true in Europe now that we have our distributor there.

I only wish that I had the advantage and ability you posess in that advertising for you is no problem. For me to fight the dirty pool would be extremely costly.

I hope you keep up the struggle to heal the two organizations and can get them to see what is really happening to the industry. Unless you and I are successful then we will only continue to se a decline in the numbers of beekeepers in the states. If my people are successful in the EES's I will give them preference in production over the U.S.

Good Luck!! Keep up the Fight!!

Herb Drapkin
Perma-Comb Systems
Woodland Hills, CA

■ The ABF Responds

Your October essay, "All Together In 1994" is the latest in a long list of "wonderings" written since the American Honey Producers Association split from the American Beekeeping Federation in 1968. The first editorial I wrote for the premiere issue of *The Speedy Bee* in 1972 was on the same subject. My headline was "Let's Get Together."

Perhaps enough time has passed for the division to pass also. As a keen observer of the situation for 20 years, my feeling is that the differences are more of personalities than of policies. While it is true the AHPA bills itself as a Beekeepers-only organization, the ABF has always settled any inter-faction controversy in favor of its beekeeper members.

Your essay prompted the ABF Executive Committee to invite the other national organizations to a 1994 convention organized by the ABF with provisions for independent business meetings. The program would be designed to accommodate all since simultaneous programs sessions would result in much confusion and little savings.

Cost is always a prime consideration, and ABF tries to book the least expensive hotel which will accommodate its needs. The very size of the ABF convention excludes many hotels which would otherwise be very satisfactory. Not many facilities have adequate accommodations for the 40 trade show exhibits and 350-seat meeting hall we require, along with space for workshops.

Likewise, finding a hotel which will accommodate a whole-industry meeting will not be easy. But, since most exhibitors show at the ABF, only about 50 extra sleeping rooms and more space for individual business meetings will be needed.

ABF President Bob Brandi has written to all industry organizations inviting them to meet at the 1994 ABF convention. I encourage interested groups (and individuals) to respond without delay. We need make our preliminary selection of meeting sites at the January 1992 ABF convention in San Diego.

Troy Fore
Secretary
American Beekeeping Federation

MAIL-ORDER ADVICE

1. ***Never send cash.*** Always use a check, money order or credit card.

2. ***Keep a copy of all transactions,*** especially cancelled checks, money order receipts and correspondence. For phone orders make a note of the order including merchandise ordered, price, seller's name, address and telephone number, salesperson's name, order date and expected delivery date.

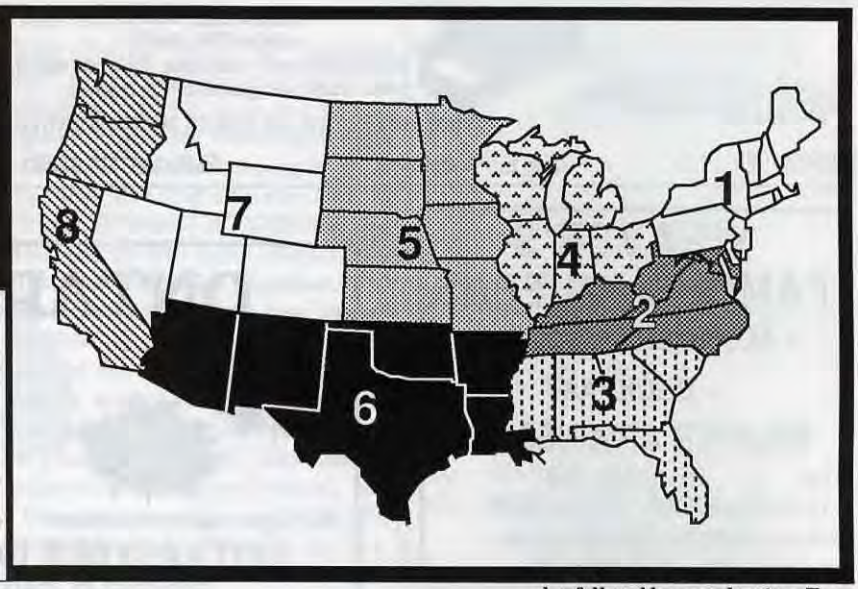
3. ***Understand the seller's return and refund policy,*** including the allowable return period and who pays the postage for returned merchandise.

4. ***If you should have a problem with your order or merchandise, write a letter to the seller.*** Include all of the pertinent information. Telephone complaints should be followed up with a letter of confirmation. Keep copies of all correspondence.

5. ***If you have thoroughly followed up in writing*** with the seller on your problem and still are not satisfied, contact the consumer protection agency in the seller's state or your local U.S. Postal Service.

DECEMBER Honey Report

December 1, 1991



REPORT FEATURES

Prices shown are averages from many reporters living in a region. They reflect a region's general direction. The range lists highest and lowest prices received across all regions.

	Reporting Regions								Summary		History	
	1	2	3	4	5	6	7	8			Last Month	Last Yr.
Extracted honey sold bulk to Packers or Processors									Range	Avg.		
Wholesale Extracted												
60 #Wh.	45.57	46.90	42.95	33.20	35.60	42.50	42.05	39.18	31.80-54.00	41.87	37.77	40.98
60 # Am.	43.30	44.22	38.50	31.75	34.50	40.50	41.59	34.75	29.10-52.00	39.48	36.82	38.86
55 gal. Wh.	.60	.66	.51	.56	.51	.52	.56	.56	.44-.75	.568	.525	.50
55 gal. Am.	.56	.58	.49	.54	.50	.49	.53	.49	.42-.65	.526	.512	.47
Case lots — Wholesale												
1/2 # 24's	19.84	21.48	30.15	17.68	30.25	21.55	16.78	22.30	16.50-30.00	21.50	24.97	-
1 # 24's	30.36	30.25	24.00	27.84	24.60	28.77	31.38	28.32	22.80-38.40	28.96	27.71	28.32
2 # 12's	28.04	28.66	23.75	26.06	21.18	27.59	28.75	31.40	21.00-37.20	27.44	26.03	26.85
12 oz. Bears 24's	28.23	27.95	23.75	29.94	21.71	25.25	29.95	24.77	19.20-36.00	26.68	25.33	-
5 # 6's	31.16	30.85	25.50	29.34	24.00	34.76	27.50	26.95	24.00-38.70	29.77	26.94	25.99
Retail Honey Prices												
1/2 #	1.14	1.22	1.25	1.25	1.21	.99	1.10	1.12	.89-1.79	1.16	1.07	1.10
12 oz. Plas.	1.64	1.45	1.51	1.41	1.22	1.45	1.55	1.56	1.09-1.99	1.52	1.43	1.39
1 #	1.69	1.60	2.10	1.71	1.39	1.77	1.89	1.85	1.29-2.25	1.76	1.57	1.66
2 #	2.94	2.98	3.00	3.23	2.39	2.82	3.25	2.75	2.27-3.98	2.96	2.73	2.97
3 #	3.80	3.91	4.15	4.25	4.25	3.95	4.25	3.99	2.70-4.90	4.00	4.43	4.11
4 #	5.08	5.31	5.65	5.15	4.75	4.50	4.95	6.00	4.40-6.25	5.19	4.82	4.81
5 #	6.88	6.50	6.10	6.69	5.39	6.53	6.15	6.41	5.09-8.75	6.51	5.66	5.95
1 # Cr.	2.23	2.49	2.10	1.76	2.33	2.15	1.95	2.55	1.45-4.00	2.25	2.39	1.83
1 # Cb.	3.06	2.56	2.75	3.27	1.87	2.33	2.66	3.80	1.95-5.00	2.85	2.59	2.24
Round Plas.	2.57	2.07	2.19	2.38	2.66	2.25	4.14	1.96	1.00-4.50	2.38	2.40	2.04
Wax (Light)	1.20	1.23	1.35	1.35	1.10	1.17	1.15	1.17	.95-1.45	1.18	1.23	1.14
Wax (Dark)	1.20	1.08	1.25	1.06	1.05	1.08	1.10	1.15	1.00-1.20	1.10	1.06	1.00
Poll./Col.	30.50	25.00	30.00	30.00		28.50		29.50	20.00-30.00	28.79	27.35	-

MARKET SHARE

Two factors will play a key role in the price of honey in the next few months. First, not only the U.S. crop, but the world honey crop is down this year. Because U.S. production is less, imports will increase, but they'll cost more, keeping the general price higher. Second, the Honey Board has set a goal of $.75/lb. *wholesale*, and will be working to achieve that. This, too will affect world prices because if "we" can get it, so can "they". And watch your wax. Strange things are happening to that market, too. Stay tuned.

Region 1

Both sales and prices improving as colder weather and the holidays approach - colonies in generally good shape as most had a decent fall flow. Regionally, the crop was less than average, and darker than average. Wax market tightening up, too.

Region 2

Prices up over last month and seem to be steadily (if slowly) increasing. Sales steady, too, unaffected by price. Colony conditions almost universally excellent because of good fall flow. Exceptions exist, of course. Tracheal mites not as bad this year, but varroa finds increasing.

Region 3

Sales and prices steady in the retail market but wholesalers give mixed reviews on both prices and sales. Production generally less than average, especially for the 'bread & butter' crops. Both varroa and tracheal causing problems, but both are less troublesome than last year.

Region 4

Sales only steady, but increase seen in near future. Prices seem to be dropping in some areas, but generally steady, especially in the wholesale area. Crop generally short in the region, and some looking to buy to fill contracts. Others worried about overwintering store because of dry fall and low production. Tracheal mites a problem, as are varroa in a few locations.

Region 5

Prices and sales increasing across the region because of the generally good year here, and the demand from other locations. Crop was good in most areas, and beekeepers looking for good winter and healthy spring. Movement restriction north/south due to AHB coming into view. Early snow causing problems.

Region 6

Sales and prices steady to strong across most of the region, which is a double edged sword because the wet season reduced the crop significantly. Colony conditions good and fall flow adequate for wintering. TX has many counties quarantined and more expected.

Region 7

Prices and sales steady to increasing and looking better each month. Excellent production year, finally, as needed moisture arrived in time for spring, summer and fall flows. Prices remain high, and outlook good.

Region 8

Sales, demand and prices strong across the region, with holiday and cool weather sales promising more of the same. Northern regions way below normal production, while southern areas finally report a good crop. Colony conditions in north only fair with concern increasing regarding mites and feed. Southern areas seem strong, but will it rain?

RESEARCH REVIEW

DR. ROGER A. MORSE

Cornell University • Ithaca, NY 14853

"Flexibility in Colony Growth"

There have been several papers in recent years that suggest we should think a little differently about colony growth and spring management. These papers also suggest that colonies have more flexibility than they are generally credited for having. Some people have called this resilience or plasticity. It might also be called "bounce back" However, the simple fact is that colonies have a great ability to regain population numbers after they have been adversely affected.

Dr. Mark Winston lectured at Cornell recently and we talked at length about a paper he and his colleagues published in 1985. In two experiments, between four and eight pounds of bees were shaken from colonies in April and early May in the southernmost, warmest part of British Columbia, Canada. The interesting fact is that in one experiment the parent colonies produced as much honey as did colonies that had not been shaken. In the second experiment, the colonies from which bees were shaken produced more honey. This shows a remarkable ability to recover from a severe loss of bees.

Several years ago, Dr. John Free of the Rothamsted Experiment Station in England, showed that small colonies of bees gathered more pollen proportionally than did large colonies. Further, when foraging conditions worsen, the smaller colonies, again proportionally, gather more food than do large ones. Smaller colonies have more brood, relative to their population size, than do large ones. Brood rearing stimulates foraging. The underlying theme here is that when colonies are forced to gather more food they have the ability to do so. In other words, bees in large colonies don't work as hard as do those from small colonies because they aren't forced to do so!

In 1959 I participated in an experiment where 1-1/4 pounds of the insecticide Sevin was sprayed in the spring over an area where we placed 21 colonies. These hives lost between 12,000 and 31,000 bees per colony over a period of several weeks because of pollen contamination by Sevin. However, on average, the colonies that were exposed to the insecticide finished the season producing more honey per colony than did the check colonies that suffered no pesticide losses.

To these ancient papers it is now necessary to add the knowledge accumulated from some of the research published in the past few years on colony growth and development and division of labor. One especially interesting paper is that by Breed, Robinson and Page. They showed in the case of colony defense that in addition to guard bees there are "a large number of bees primed for soldiering" should they be needed. These bees showed "inactivity in the absence of a colony disturbance." However, they are ready. They are flexible bees and represent a reservoir ready to go when needed. Another paper I reviewed in this column recently is that by Kolmes, which states much the same idea. A society may be organized so that every individual has a specific task and it does that task alone. A better organization scheme is seen in a society in which a number of individuals are ready "to meet any changes presented by the environment." And, what we see in a honey bee colony is a number of bees ready to work when needed but otherwise inactive.

All of these studies lead me to believe that in the spring it is possible to "push" colonies far more than we are doing at present. Too often we have emphasized protecting small colonies and have overlooked the potential that large colonies have to produce more honey if we force them to do so. We could probably be making more colony divisions and new colonies in the spring. Or, we might rethink wintering such large colonies with so much honey. Many years ago it was popular to winter single story colonies, even those in 8-frame supers. If these small colonies are given proper care in the winter, good food and some additional protection, they will still produce good crops even though there are fewer bees in the overwintering cluster in the spring. □

References:

Breed, M.D., G. E. Robinson and R.E. Page Jr. *Division of labor during honey bee colony defense.* Behavioral Ecology and Sociobiology 27: 395-401. 1990.

Free, J.B., *The effect of the size of a honey bee colony on its foraging activity.* Insectes Sociaux 16:73-77. 1969.

Kolmes, S.A., *Recent progress in the study of adaptive behavioral flexibility in honey bees.* Bee World 71: 122-129. 1990

Morse, R.A. *The effect of Sevin® on honey bees.* Journal of Economic Entomology 54: 566-568. 1961.

Winston, M.L., S.R. Mitchell and E.N. Plunnett, *Feasibility of package honey bee production in southwestern British Columbia, Canada.* Journal of Economic Entomology 78: 1037-1041. 1985.

E·V·E·R·Y UNCAPPER

There are 19 uncappers available on the American market today, made by seven different companies. The information in this article was obtained through manufacturer's catalogs, product descriptions and follow-up conversations. The manufacturers were helpful, friendly and prompt in providing the information needed. I thank them for their help and assistance.

While I have attempted to provide you with as much of the information on these uncappers as possible, use this as a beginning point only, and not the definitive selection guide. I encourage you to question yourself and look at your operation – as well as the manufacturer – before you buy an uncapper. Other than the hand knife uncappers, you will spend a considerable amount of money.

Prices listed in the table are for comparison purposes only. Since it is December, expect them to rise somewhat in 1992. However, the Cowen Model prices are for 1992.

What is an uncapper and what kinds are there? Whether you own one or 1000 hives, and if you produce extracted honey, you'll need to have an uncapper.

Most beginning beekeepers buy or borrow a heated knife. These are the most common for hobbyist beekeepers because they are inexpensive. Most catalogs sell these knives, mainly manufactured by the Pierce Manufacturing Company. However the Walter T. Kelly Company manufactures both electric and steam heated knives.

Heated knives are all basically the same in concept, the only difference is the method used to heat the knife. Electricity is generally the method of choice, because it's easy to use and versatile. Some models have a thermostat so you can regulate the temperature of the blade. This is important, (whether you are using a hand-held knife or an automatic uncapper that uses heat) because you must be careful not to scorch or burn the honey as you remove the wax cappings. This can ruin an entire batch of honey very quickly. Be careful not to leave the knife in contact with the wax or honey any longer than necessary, even if the knife does have a thermostat.

Steam heated knives are used the same way as the electric knife, however you must provide a source of steam which is piped to the knife through rubber tubing and heats the blade.

Though most hobbyist beekeepers use a commercially available heated knife, some use cold knives to uncap. These range from plain knives available in bee supply catalogs to serrated kitchen knives. Anything goes when it comes to uncapping. Just make sure that it is clean and can be kept clean.

Somewhere along the line, someone decided there must be a better way than to stand and uncap hundreds of frames by hand, day after day. The person uncapping became the bottle neck, both in production, through-put and increased labor expense.

•Four Ideas To Chose From•

A quick glance at the chart shows there are four different types of uncapping machines, not including the hand knives previously discussed. They are, in alphabetical order the Chain Flail, Oscillating or Vibrating Knife, the Power Pick, and the Rotary Knife.

• Chain Flail

A chain flail uncapper is relatively uncomplicated. Several links of chain are fastened to a cylinder or drum that spins. This causes the chains on the drum to strike the cappings and remove the top layer of wax as the frame of honey is pushed past the drum. The frame then moves past the flailing drum, or either on either an automatic belt or manually.

This is where the different manufacturers make their mark. Just how they get the frame of honey into and out of the uncapper dictates how much money you will spend. Least expensive are the manual or semi-automatic models where the operator takes the frame and places it into the machine. Then a lever is engaged and the frame disappears between the flailing chains. When the lever is released the frame is released and either drops out (Tom

JEFF OTT

THE WEEKENDER

A Cappings Scratcher, used to get at areas missed by conventional knives. Always good to have around.

Industries) or comes back up (Maxant). Frames move vertically between drums.

More expensive are the automatic models where a frame moves on a conveyer belt horizontally between two flailing drums (Dakota Gunness). The method of uncapping is the same though – metal chains strike and remove the wax cappings.

Chain flail uncappers are safe to use. Every manufacturer pointed out that it was possible to put your hand between the drums and not get hurt by the chains. Frame breakage is seldom a problem with these, too. Generally, most breakage occurs when a frame gets wedged or jammed in the auto or semi-automatic frame feeding mechanism. The Dakota Gunness uncapper nearly eliminates frame-breaking jams. Finally, since there is no heat involved in the uncapping process, there is no problem with over-heating or scorching the honey.

• Moving Knives

The oscillating or vibrating knife uncappers operate just as their name implies; two serrated knives move quickly back and forth and are separated by the width of a frame. The frame moves between the knives and the cappings are sliced off. The frame then either automatically drops on through to a rack (as in three of the Cowen uncappers or the Kelley Mini Electric) or is pulled back up and manu-

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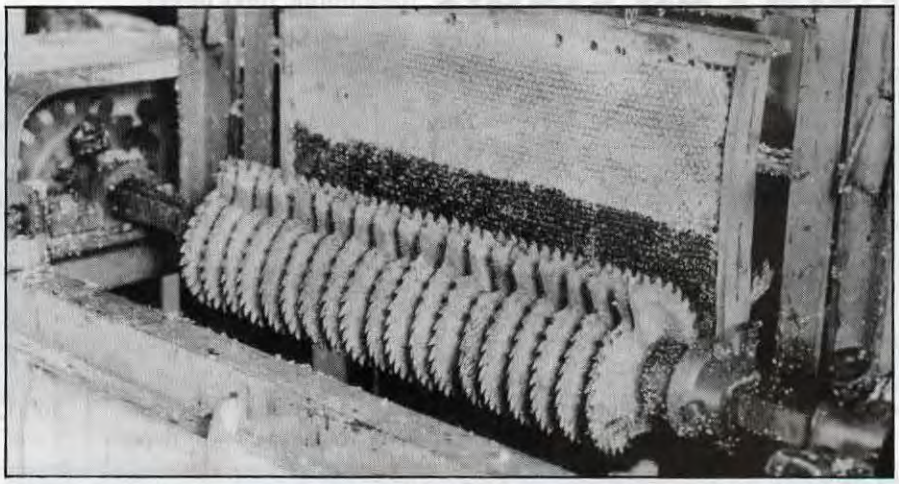
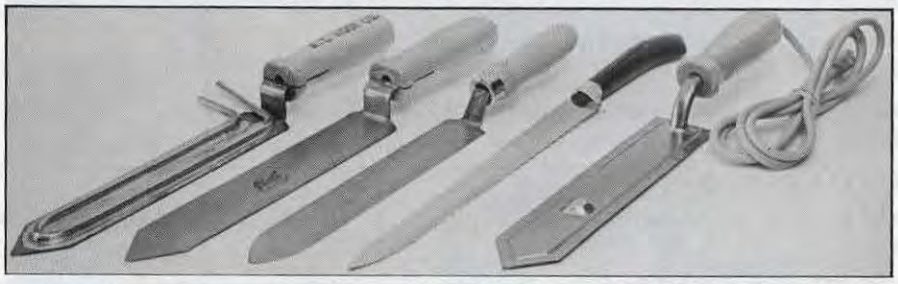
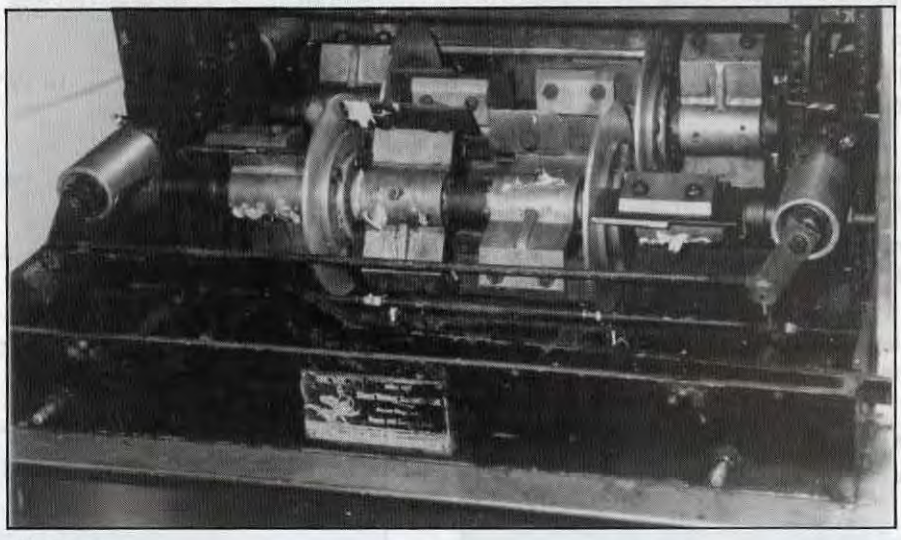


No longer available, this is a Wobble Blade uncapper. The blades are off center causing them to travel across the comb's surface. (Morse Photo)



Steam heated, plain, unheated serrated and electric heated hand knives for uncapping.



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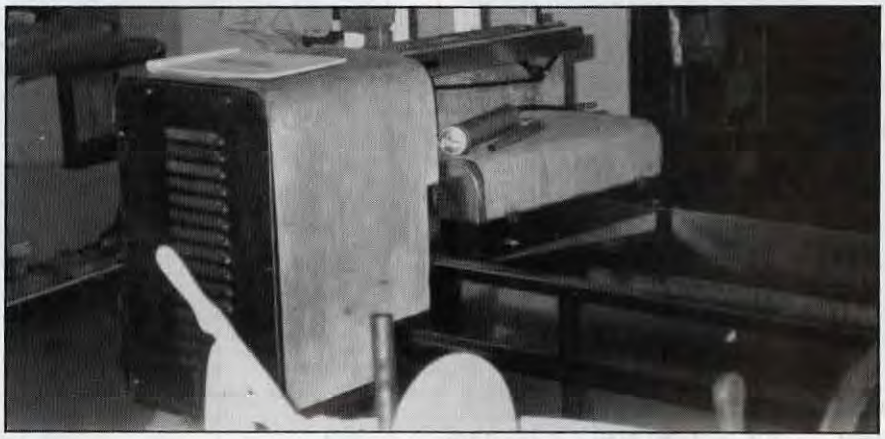
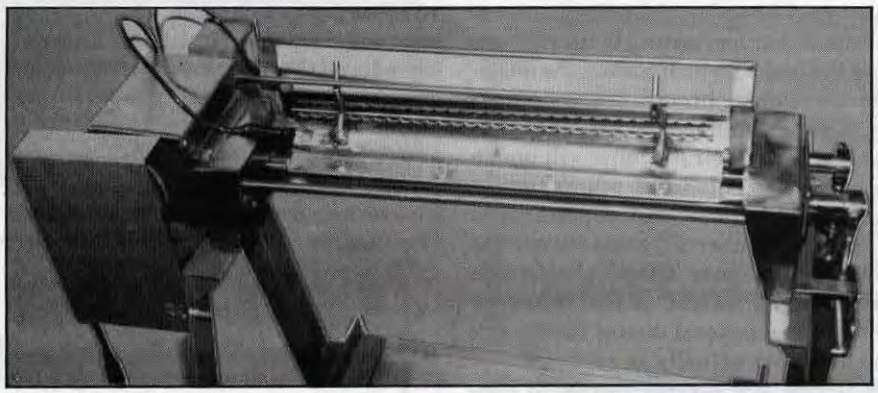


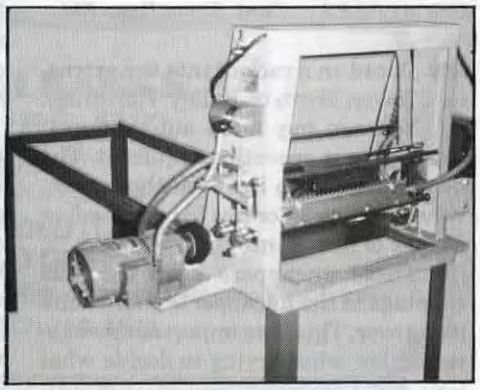
... and back of a Bogenshutz uncapper. (Gibson Photos)

UNCAPPER CHART (See notes, next page)

Mufacturer and Model	Type	Power Requir.	Heating Method	Frames/ Minute	Size HxWxL	Weight	Price	Notes
COOK & BEALS, INC.								
Rotary Knife	Rotary Knife	220v	N/A	14	39" x 42"x98"	800	$6,300.00	2
COWEN								
The Cowen Uncapper	Automatic osc. knife	110v	Hot water or steam	11	24"x38"x32"	175	$3,185.00	7,8,11,12
Silver Queen	Automatic osc. knife	110	Hot water or steam	9	24"x35"x16"	135	$2,195.00	7,8,11,12
Mini	Automatic osc. knife	110v	Hot water or steam	6	24"x42"x16"	135	$1,695.00	8,11,12
Micro	Man. mount. osc. knife	110v	Hot water or steam	Oper. depen.	30"x12"	50	$495.00	7,8,11,12
DADANT								
Regular M00348	**See The Cowen Uncapper**							
Silver Queen M00349	**See Cowen Silver Queen**							
Mini M00366	**See Cowen Mini**							
DAKOTA GUNNESS								
Model 50 (Man)	Chain flail	110v	N/A	Oper. depen.	25"x24"x48"	200	$1,450.00	9,10
Model 200 (auto)	Chain flail	110v	N/A	24 deep 36 shall.	25"x39"x72"	360	$2,850.00	9,10
KELLEY								
Kelley's Electric 186	Hand knife	110v	Variable control elec. elem.	Oper. depen.	10.25"x2"	5	$43.50	
Steam Knife 193	Hand knife	N/A	Steam Heat needed	Oper. depen.	10.5"x2"	2.5	$18.50	
Mini Electric 323	Vibrating knife	110v	Variable controlled elec. elem.	7	22.5"x42.5" x26"	135	$1,475.00	12
Kelley's Vibrating Knife - 329	Manually mounted vibr. knife	110v	Varible control elec. elem.	Oper. depen.	12"x26"	50	$235.00	3,4
MAXANT								
Uncapping Plane	Hand	110v	Replac. elec. elem.	Oper. depen.	5"x12"	7	$59.00	
Series 1000	Automatic power Pick	110v	N/A	18-20	49"x24"x100"	800	$3,895.00	1,7
Series 1700(man)	Chain flail	110v	N/A	6	30"x24"x30"	125	$899.00	5,7
Series 5000(auto)	Chain flail	110v	N/A	6	36"x18"x20"	200	$1,495.00	7
PIERCE MANUFACTURING								
Plain	Hand knife	N/A	Pan of warm water	Oper. depen.	10"	2	$21.80	
Speed-King	Hand - knife	110v	Electric element	Oper. depen.	10"x2"	3	$68.80	
Master Electric	Hand - knife	110v	Electric element	Oper. depen.	10"x2"	3	$73.20	
TOM INDUSTRIES								
Uncapper	Semi Auto Chain flail	110v	N/A	6	22"x22"	90	$570.00	5,6



Cowen Micro Uncapper

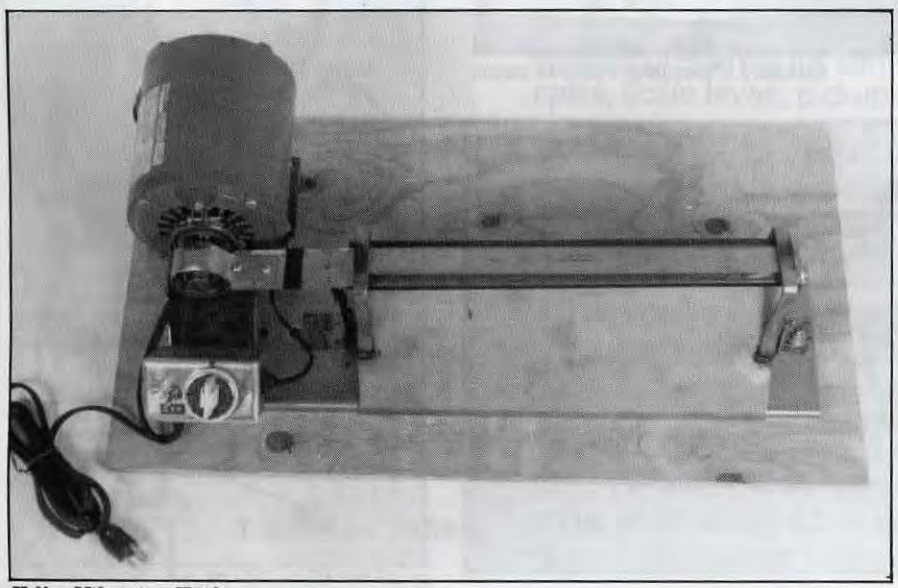


Cowen Mini Uncapper

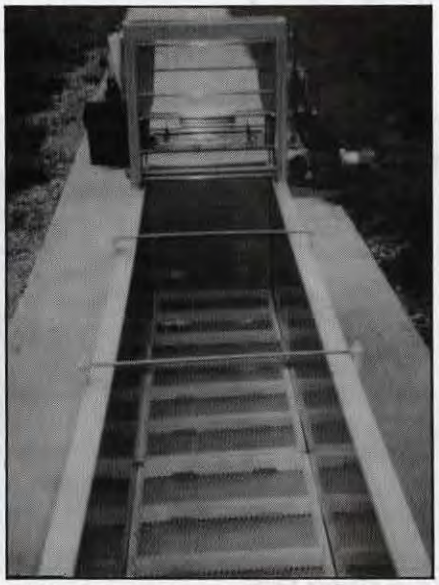
Uncapper Table Notes

1. 564 wire picks, each individually removeable & replaceable, do the uncapping.
2. Rotary knives significantly reduce honey & wax emulsification.
3. Replaceable electric element.
4. May be special ordered with steam or hot water heated knives.
5. Manually operated handle used to feed frames into flail.
6. Ordered without motor. Use any 1/2 HP electric motor, or order from manufacturer.
7. Uncapper available for 220v operation upon request from manufacturer.
8. Available with electrically heated blades.
9. 5 or 8 foot conveyer available. 6 foot conveyer standard.
10. Uncaps 3 shallows and 2 deeps at one time.
11. Stand holds 35-40 uncapped frames.
12. Any length conveyer available from manufacturer.

Dakota Gunness 200



Kelley Vibrating Knife



Kelley Mini with extended arm

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UNCAPPERS ... Cont. From Page 655

ally placed on a rack or into the extractor (Cowen Micro or Kelley Vibrating).

You can buy more automation if you and your operation require it. The more automation involved the less involved the operator has to be in feeding frames of honey into the uncapper.

These uncappers keep the wax cappings at the uncapper or in the tank it sits over. This is an important point to remember when trying to decide what type of machine to purchase. However, flail uncappers pulverize the wax capping, leaving most of the wax with the frame. This wax will be removed in the extractor and may clog a filter or baffling system unless precautions are taken to prevent it. Consideration must be given to the removal of the fine particles of wax from the honey before the honey is processed through the system.

• Power Pick

Maxant Industries has developed a new variation on an old theme with their power pick uncapper. This design, based on the Bogenshutz uncapper that uses knives or blades, was designed in part by Charles Mraz. The power pick uncapper uses 564 wire picks rotating on a drum at 150 rpm to remove the cappings from the frame.

• Rotary Knife

The rotary knife uncapper manufactured by Cook & Beals, Inc. is the original Bogenshutz patent. This uncapper uses a series of knives spinning on a shaft to cut the cappings off of the frame. No heat is required and the cappings fall away from the frame.

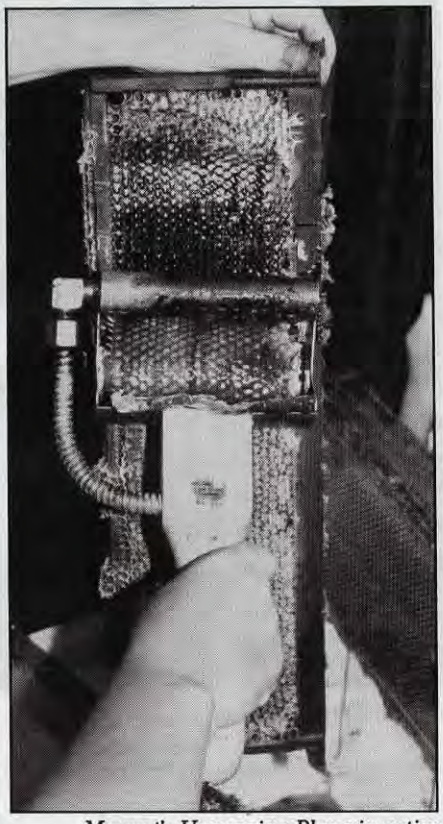
Think This Through

All of the uncappers use standard 110v or 220v electricity as a power source, either for heating blades or running the motors which control the movement of frames through the system.

Every manufacturer lists the number of frames their machine will uncap in a minute. This is, of course, under optimal conditions and represents a maximum number of frames per minute to expect to process. The weight listed is the shipping weight of the uncapper giving you a general idea of how heavy the uncapper actually is.

There are several things to consider when deciding the type of uncapper you wish to purchase. For instance, how are you going to handle the increased amount of wax in your honey? This can be reduced through the use of hot rooms to warm the honey while it is still in the frame and by heating the honey after it is extracted and put through a series of baffles and filters. Fine wax particles rise to the surface in a holding tank and can be skimmed off. Don't be surprised by this problem – be ready for it.

Uncappers and extractors are basic pieces of beekeeping equipment. I would be interested in hearing your comments and any positive or negative experiences you may have had with any equipment I've described. □



Maxant's Uncapping Plane in action

Maxant's Semi-Automatic Flail

Kelley Electric Knife

Maxant's Automatic Flail

COMMERCIAL POLLINATION IN OREGON – 1991

B.A. STRINGER and D.M. BURGETT
Department of Entomology
Oregon State University

For the past five years, Oregon State University and *The Bee Line* have conducted surveys to clarify the value and extent of honey bee pollination activity in the state. Results have been published annually in the Oregon State Beekeepers Association newsletter, *The Bee Line* and have served as a data base for other articles. This is a summary of the latest pollination survey and an overview of trends through the last five years.

In the most recent agricultural summary produced by the Oregon Department of Agriculture, sales of agricultural commodities contributed $2.6 billion dollars to the state's economy in 1989. Honey bee pollination is essential to, or greatly beneficial to, the production of many of these fruit, vegetable and seed crops. While honey and beeswax are major products from the hive itself, they may be better considered as colony by-products valued at $1,475,000 when compared with honey bee pollination valued at $385,460,000 (1990 Oregon County and State Agricultural Estimates, OSU Extension Service). In 1988, the market value of honey and beeswax was estimated at $1,631,000, and the value of honey bee pollination at $327,807,000. While hive products have actually decreased in sales by almost 10%, the value of honey bee pollination has realized a 17.6% increase.

In 1990 there were 46 registered beekeepers in Oregon who owned more than 300 colonies, 45 with 100-299 colonies, and 51 with 50-99 hives (122 total). The semi-commercial and commercial beekeepers, those owning over 100 colonies, are providing the primary pollination service to Oregon's agricultural base. It should be noted that some of the largest beekeeping operations registered in the state pollinate few crops in Oregon–their major pollination contracts are mostly in Californian almonds and Washington tree fruit crops.

The information presented in the summary sheet was furnished by the 48 professional beekeepers who responded to this year's survey. These beekeepers collectively own 22,303 colonies, or 31.4% of all colonies registered in Oregon in 1990. The pollination income generated by the beekeepers responding to the survey totalled $489,370.

We must emphasize that these results are only a sampling of pollination activities in Oregon. Some crops may be under-represented if beekeepers providing colonies did not reply to the survey, or if the beekeepers were registered out of state. A small minority of growers have their own family apiaries for pollination services, supplying the bees at no charge, in which case they are not included in the commercial sampling.

The beekeeping business has undergone dramatic changes during the five years of these surveys. Beekeepers have had to replace numerous colonies lost over winter, either by buying packages or renting extra bees, in order to fulfill their pollination contracts. Bee feed and labor costs have risen also.

Pollination fees for individual crops have changed little over the last five years. Some increase has been made in fees for vegetable seed, including radish seed, and also in blueberries and cranberries, while annual variations have occurred in other crops. These variations in our records depend partly on who responds to the survey and individually may not reflect actual pollination fee increases for the crops.

CROP ACREAGE – OREGON – 1990

CROP	ACREAGE	YIELD/ACRE
Pears	16,900	13.5 tons
Apples	10,500	528 boxes
Sweet Cherries	11,290	3.4 tons
Vegetable Seed	8,560	n.a.
Red Clover Seed	21,000	400 pounds
Crim. Clover Seed	11,000	710 pounds
Tame Blackberries	3,875	7,185 pounds
Red Raspberries	3,990	4,990 pounds
Black Raspberries	1,455	1,740 pounds
Blueberries	1,450	7,910 pounds
Cranberries	1,380	155 bbl.
Cucumbers	2,320	11.9 tons
	103,555	Acres requiring a minimum of one colony per acre.
	$1,905,500	of potential pollination rental income

Of more practical significance is the average pollination fee for all crops surveyed over the five year period. Between 1986 and 1990, the average of all pollination fees recorded showed a 24.7% overall increase.

The Trends

There has been a steady decline in the number of colonies set on hairy vetch, reflecting the diminishing acreage of this legume seed crop in the state. Many farmers who formerly

COMMODITY VALUE[1] OF OREGON CROPS DEPENDENT ON OR BENEFITING FROM HONEY BEE POLLINATION

COMMODITY	1990 Production Value ($) (x1000)
First Order Pollination[2]	
Pears	74,464
Sweet cherries	22,372
Tart cherries	1,065
Apples	27,679
Peaches	4,663
Strawberries	30,902
Red raspberries	5,983
Black raspberries	3,034
Cultivated blackberries	10,073
Boysenberries	2,164
Blueberries	6,967
Cranberries	9,518
Vegetable & Flower seed	12,580
Red clover seed	5,617
Crimson clover seed	3,866
Hairy vetch seed	1,465
Alfalfa seed	8,548
Cucumbers	6,252
Watermelons	2,483
Squash & Pumpkins	3,365
Subtotal	*$243,060,000*
Second Order Pollination[3]	
Alfalfa hay	72,117
Dry onions	40,907
Garlic	3,732
Cauliflower	7,678
Asparagus	1,831
Lettuce	4,613
Carrots	3,249
Cabbage	1,248
Broccoli	5,795
Radishes	1,230
Subtotal	*$142,400,000*
GRAND TOTAL	**$385,460,000**
Honey & Beeswax	$1,475,000

[1]1990 data from *1990 Oregon County and State Agricultural Estimates. Special Report 790.* OSU Extension Service.
[2]Honey bee pollinators directly impact yield.
[3]Pollinatin required the previous year to produce the seed.

Prepared by M. Burgett.

rotated vetch with wheat or barley have planted ryegrass for seed, a crop which generally remains for five years to be profitable.

The number of honey bee colonies set in white clover is decreasing, too. Many beekeepers have found that their bees frequently "go downhill" on white clover due to poor nectar flow and little pollen, and have sought alternative locations. Additionally, white clover seed acreage has been decreasing, while that for red clover seed has increased.

Vegetable seed pollination sets have shown a steady increase over the past five years, and the price paid per colony has risen slightly. Colonies previously set in vetch may be now taken to vegetable seed sets instead. These seed crops, which bloom in Central and Eastern Oregon after the major Willamette Valley pollinations finish, are valuable sources of income to the commercial beekeeper. Despite the arduous trip across the mountains, and pesticide and spray problems, vegetable seed pollinations are increasingly important to beekeepers who hold these contracts for their bees. The average fee is also higher than fees for Willamette Valley tree and bramble fruits. The only alternative crop in the Willamette Valley at this time is red clover which is limited in acreage. Otherwise bees are taken to the mountains for the fireweed flow.

Average Pollination Fees For 12 crops in Oregon, 1986-1990

Avg Rental Fee per Colony ($)	1986	1987	1988	1989	1990
	14.75	16.15	17.50	16.05	18.40

1990 POLLINATION SURVEY - SUMMARY SHEET

CROP	# Col.	Hi-Low fee	Avg. fee	n
Pears	8,252	22/12	$18.09	(19)
Sweet cherry	5,187	26/12	19.50	(26)
Apple	3,028	27/12	22.91	(15)
Vegetable seed	3,161	29/13	25.76	(12)
Red clover	1,715	20/0	6.59	(6)
White clover	36	(25)	(25.00)	(1)
Crimson clover	3,162	-0-	-0-	(6)
Vetch	881	-0-	-0-	(2)
Red raspberry	1,462	20/8	10.73	(12)
Blackberry	895	13/8	10.30	(8)
Cucumber	741	25/14	17.96	(5)
Blueberry	930	32.50/13	18.94	(12)
Cranberry	149	30/29	29.33	(2)
Radish seed	661	26/15	19.62	(6)
Minor crops[1]	369	22/12.50	17.75	(6)
Totals	**30,629** rentals		$18.41[2] average fee	

[1]Includes melons, holly, peaches and gooseberry
[2]Excludes crimson clover and vetch which are really honey crops, not pollination rentals

Total income generated by responding beekeepers = **$489,370**

Continued on Next Page

OREGON ... Cont. From Page 659

A slight increase in the number of colonies set in pear pollination is accompanied by an insignificant increase in the pollination fee. While the acreage of pears has diminished, the value of the crop has increased over the five year period, and more colonies are being placed in the orchards. In 1986, there were 18,605 acres of pears in Oregon which produced a harvest value of 49.2 million dollars. In 1990, 16,900 acres of pears were in production representing a value of almost 74.5 million dollars. Without pollination these crops are not possible, and it appears that beekeepers have good reason to ask for increased pollination fees in this set.

How well do growers utilize honey bee pollination? Or, conversely, how well are beekeepers selling their services? According to Oregon Department of Agriculture statistics, this state has at least 103,555 acres in commercial crops requiring pollination. Considering hive placement at a conservative one colony/acre, these crops represent a potential $1,905,000 of pollination rental income, using $18.40 as the average fee. (See Crop Acreage table)

The actual rental income available to the beekeeper falls short of this projection for a number of reasons. Some growers have their own bees and do not contract for additional pollination services. In areas such as Hood River, growers often receive two pollination sets for the price of one where apple bloom begins before cherry bloom ends. The overlap in bloom time, coupled with the supersaturation of bees in the area, ensures good pollination of collateral crops as well as the paid set. Beekeepers frequently exchange apiary site rental for pollination rental; the beekeeper obtains wintering sites and the grower receives pollination services without any money changing hands. This type of barter arrangement is difficult to quantify and has the net effect of lowering the average fee in the survey.

A further factor contributing to a lower overall pollination fee is the potential honey crop from the set. In crops such as crimson clover or hairy vetch where beekeepers expect to harvest surplus honey from the set, the location is viewed as a privilege rather than a service. Fees are therefore hard to obtain in a situation where the grower has many beekeepers willing to set colonies in the field at no charge. Despite the fact that in many years a honey crop is not gathered, these seed crops continue to receive saturation pollination at little or no cost to the grower.

The importance of rental income to commercial and side-line beekeepers appears to be increasing. In 1990 pollination represented 66% of the annual income for the 16 commercial beekeepers who responded. For the side-liner (owning more than 25 but less than 300 colonies), pollination rentals represented an average of 46% of total income.

More small scale beekeepers are now renting their bees for pollination income. This situation, frequently a source of controversy between commercial and hobbyist beekeepers, can create friction when bees are rented for a lower fee than the commercial operators would ask.

There are fewer beekeepers registered in Oregon today than there were four years ago. In 1987, there were 2,008 beekeepers who registered a total of 64,702 colonies. By 1990, there were only 1,764 beekeepers registered representing 70,931 colonies. This indicates that some commercial operations are larger than they were five years ago.

There is a slight, but not significant, decrease in the number of beekeepers owning more than 100 colonies. Eighteen of the 46 commercial beekeepers registered in Oregon provided data for this year's survey. Their combined colony numbers were 21,526 hives, with an average size of an individual operation being 1,195 colonies. In 1986 the average size of a commercial operation in our sampling was 660 colonies. While these figures are a reflection of the number of larger beekeepers answering the survey, it still stands that the average commercial outfit now is larger than in 1986. □

FIVE YEAR POLLINATION FEE SUMMARY - OREGON

	Average Rental Fee/Colony					
CROP	1986	1987	1988	1989	1990	% Change
Pears	$18.75	17.50	17.80	15.60	18.10	-4.5
Apple	19.70	17.95	19.70	14.70	22.90	+16.2
Sw. Cherry	18.40	19.20	18.60	17.60	19.50	+6.0
Veg. Seed	23.10	21.70	25.90	17.20	25.75	+11.5
Red Clover	16.05	13.30	9.45	14.10	6.60	-60.0
Wh. Clover	18.50	19.15	24.55	17.35	25.00	+35.1
Crim. Clover	-0-	-0-	-0-	3.30	-0-	n/a
Vetch	-0-	-0-	-0-	-0-	-0-	n/a
Berries[1]	9.50	9.80	10.25	12.50	10.50	+1.5
Blueberry	13.60	12.55	15.30	16.20	18.95	+39.3
Cranberry	n.a.	26.25	26.40	27.90	29.35	+11.8
Sq. & Pump.	18.40	18.60	18.40	17.00	n.a.	-7.6
Radish Seed	13.90	12.85	20.30	10.35	19.60	+41.0
Misc.[2]	12.50	10.05	20.70	18.50	17.75	+42.0
AVE.	**$14.75**	**$16.15**	**$17.50**	**$16.05**	**$18.40**	**+24.7%**

[1]Includes red & black raspberries and blackberries
[2]Includes melons, holly, peaches, gooseberry, arrowleaf clover, buckwheat, rape seed, strawberries and meadowfoam.

TEACHER

KIM FLOTTUM

"A teacher affects eternity; no one can tell where his influence stops."

Henry Adams

It's a cool, cloudy Saturday afternoon, about an hour after lunch. A half dozen or so people meet on the far edge of a three cornered wheat field, down where the woods start. A trail leads into the trees about 10 yards, where six or eight colonies stand at the ready.

The group all look remarkably like beekeepers, each with a white (or nearly so) suit, but in varying designs and styles and sizes. There are tall ones and thin ones and some not so thin. There's a short one, too, with a way-to-large veil and gloves up to his armpits. And of course a couple exactly right – like they just stepped out of a catalog – all clean and pressed and perfect.

"It's time to start" shouts the teacher from over by the trail, and leads the way into the trees, to the colonies that quietly wait.

The teacher is Delos Mellert. He's not a formerly trained, professionally degreed teacher, but someone who knows what works in a beehive and why, and takes the time to show those of us who don't.

He's qualified, though. He has kept bees since before he graduated from high school, nearly 50 years now, and he started for a very good, but somewhat uncommon reason. As a youngster he suffered terribly from rheumatism – where his arms wouldn't bend and his hands barely worked. He'd heard about bees and rheumatism, so he bought his first package of bees from Stevens Apiaries in Louisiana, and after one summer his malady was gone – and hasn't returned.

Before heading into the woods, Delos looks at how one of his students 'always' gets his smoker lit. "No muss, no fuss, no matches and a great little gadget to have around the home", says the owner. A self contained spark means no additional tools are needed, and it always lights (as long as the fuel tank is full!).

But Delos has a family history in the beekeeping trade. His father, Henry, worked for the A.I. Root Company for 30 years (1921 1951) making beekeeping equipment in the Company's wood shop. Delos, too, worked for the Root Company for nearly 40 years (1941 1978), almost exclusively in the wood shop.

In fact, for a time both father and son worked together – Delos on the end bar machine, right next to his Dad on the top bar maker.

Over the years Delos has run about 20 colonies, and made lots and lots of comb honey. In fact, back when sweet clover was more prevalent, if he didn't make at least 150 lbs. per colony he was disappointed. He has 29 colonies now, almost all eight framers, and all made at home. He has a Johnston Dovetailing machine, a 10" tablesaw, a band saw and a radial arm saw – and does it all himself.

"I consistently make more honey per colony with eight frame equipment, the supers are lighter, and I'm used to them," he said, after one of the Saturday students counted the frames in the first-opened colony, and asked why only eight?

Delos started the field demonstration at the far end of the line, looking at each colony slowly, deliberately and with infinite patience. He looked at honey in the honey supers, burr comb on the frames, and explained each different piece of equipment he encountered as he disassembled, then reassembled each.

Sometimes he'd stop and ask "What causes that?", or, "why do the bees do this?," giving his class a chance to tell what they knew, then he would explain, if needed, the answer, and more importantly, what the reason was.

With a half dozen helpers, Delos doesn't spend time and energy moving supers, replacing frames or even popping

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Shane Sprankle, in a borrowed suit & veil, is ready for the adventure.

"There seems to be a law" says Delos, that beehives and poison ivy go together."

covers during 'class' There's always somebody with a hive-tool at the ready, or a smoker puffing to quiet and calm the subjects of study.

When he reaches the last-in-the-line colony the group has been at it for nearly two hours. For some everything has been new – a first-time, close-up look at billions of honey bees and the equipment they use. For others it's been a look past the basics they already know, and for a few a review of already acquired skills, and easy habits.

But everybody leaves with something new. Some trick or idea to try, or a bee behavior for the first-time-ever observed, or, more probably, pointed out and explained.

Field trips like this are worth every minute invested because you can learn more in an hour or two of listening and watching than a whole season of doing it by yourself.

But Delos' teaching isn't limited to excursions into the field. He and a couple of local teachers started the Medina County Beekeepers Association back in 1951, and in the 40 years since he has held every position that can be held, and some more than once. His leadership sometimes extends to 'what needs to be done', more than teaching to help others.

In that light he has taught a couple Extension type classes in beekeeping, both in a classroom setting – usually following the formula of one meeting per week for a month or five weeks.

If all this weren't enough, in the

Four of Mellert's eight frame hives. He runs brood in deeps, honey above, with an excluder between. The cover is slanted, for rain run-off and additional ventilation. Delos makes all of his equipment.

The eight-frame brood nest.

Delos finds the queen, and the curious take a closer look.

early 50's, the wife of one of the Medina County Fair Board members convinced Delos the fair needed a beekeeping display and booth, and now the beekeeping exhibition is a major attraction at the fair, and a primary fundraising event for the group.

But Delos refuses to take credit for most of this activity. "There's lots of folks who do the work of the group, who work to set up the fair and then run the booth. It's always a team effort" he says. "Even when you're out looking at colonies everybody helps out, contributes to the experience and everybody learns, even me"

Delos Mellert is a good teacher – because he hasn't stopped learning in the 50 or so year he's had bees – and between classes and extracting and the rest, he'll tell you all about it. All you have to do is ask ... □

There's always somebody ready to help move a super, smoke the bees, or "hold this", so the teacher can concentrate on how and what's going on.

Delos uses Snelgrove Boards to direct traffic into brood or honey supers at will, or to separate a divide on top of a parent colony.

Sometimes even the teacher can't find what he wants. One sign of a good teacher is admitting that even he doesn't know it all, all the time.

When Ohio was a beekeeping giant, and the State Beekeeping Association was more populous (and affluent), they routinely supported a State Honey Queen. One duty of the Queen was to visit the A.I. Root Co. in Medina, and get a quick lesson in beekeeping (and a photo for the local press). Delos was one of the lucky few who was able to share in the glory of Honey Queens, and queen honey bees.

MEET AL DELICATA

Al Delicata in his home apiary, near the Penobscot Bay area of central Maine

DEWEY CARON

Al Delicata "retired" to the Penobscot Bay area of Maine in 1985. Since "retirement", he started and was Vice President of a new Tri-County bee association, he was two year President of the Maine State Beekeepers Association and he has established a successful eight week bee school for beginners. Does that sound like your average "retirement"?

Beekeeping and teaching people about bees had been Al's avocation in Massachusetts before retirement. Since the move to Maine he has continued helping others learn about beekeeping. He has also developed a successful honey and beeswax candle sales outlet, learned to grow blueberries (and pollinate them with his bees) and has survived bouts with tracheal and varroa mites all while learning to keep bees in a new area.

Al has been a beekeeper over 30 years. He started in his Newton, Massachusetts backyard after watching a cousin collect a swarm and he remembers his grandfather as a beekeeper in his native Italy. However, Al lost his first hive to American Foulbrood, so he restarted two more colonies and attended the Middlesex (Mass) bee association meetings, which helped insure success the second time.

Al's vocation is as a machinist. He learned the machine tool trade by experience, working for several companies in he Boston suburbs. He eventually bought his own equipment and did machine-tool custom work for several Boston R & D firms in his basement. Although highly skilled in the development of one-of-a-kind machine tools, he never got into making wooden bee equipment. He says the "exacting standards needed to be successful as a machinist would never permit him to produce beehives because the precision is several orders of magnitude different.

Al was named recipient of the first Beekeeper of the Year award for Massachusetts, in 1980. He served as president of the state's Beekeepers Federation and twice was president of the Middlesex County Association. But he is also well known outside beekeeping organizations because he frequently addresses civic groups and numerous schools on bees and beekeeping. He maintained an observation hive for the Museum of Science in Boston for a number of years, and guesses he has presented his illustrated bee talk over 100 times *annually*.

Al was highly successful as a honey show competitor and later became a honey show judge. One of his greatest accomplishments was to garner the

Frank Shaw best-in-show trophy at the Topsfield (Mass.) fair. This has traditionally been one of the most competitive honey shows in the Eastern U.S. He has been a frequent exhibitor at the Eastern Apicultural Society meetings, and won his first EAS bowl in 1969 for his chunk honey entry.

But among the many awards and certificates he has received over the years Al is most proud of his designation as the Charles and Evelyn Divelbiss EAS Educator of the Year in 1988. Fittingly, Al was the first winner of this award. For Al, this award was doubly an honor as he uses slides developed by Charles Divelbiss for some of his talks. And, yes, Al continues to give his highly personal and popular talks on bees and beekeeping to schools and civic groups in his "retirement" in Maine.

In Massachusetts Al ran as many as 30 colonies. He kept bees in his own backyard and at other locations in the Boston suburbs. He recalls one apiary of four colonies at a property that was sold during the winter. When he went to visit the bees in the spring the new owner wanted proof they belonged to Al and wasn't about to give them back. A "friendly" letter from a lawyer friend helped Al get the bees back. When Al offered the new property owner some of the honey he wouldn't take it. "I guess he felt he couldn't get my bees so he didn't want any part of their honey," Al says.

Besides chunk honey, Al is well known for his rolled beeswax foundation candles. He has dipped candles too, but finds less beeswax available in Maine to keep this activity going. He learned the candle crafting business from Henry Neunzer, a well known beeswax craftsman from the Boston area.

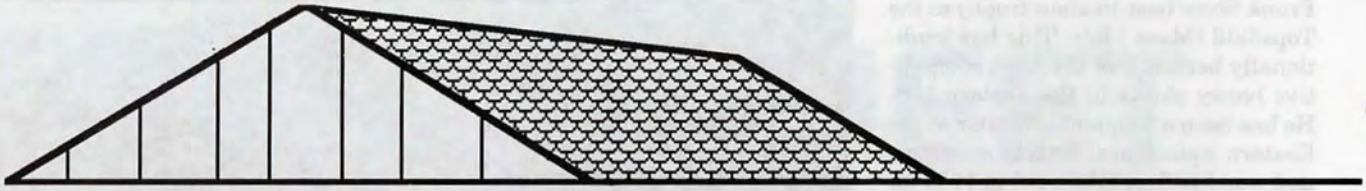
Al Delicata's apiary. Those are lowbush blueberry plants in the background.

Al Delicata has found eastern Maine beekeeping to be different from eastern Massachusetts, but has enjoyed the challenge of adjustment. "Three weeks of winter-like weather on either end of the winter season" has necessitated changes in fall and early spring management. "Bees need more honey stores in Maine compared to Massachusetts", according to Al, and winter survival is tougher.

Two bouts with mites have really tested his beekeeping skills. The first winter in Maine Al lost 10 of the 16 colonies moved from Massachusetts. Tracheal mites were the probable culprit. The next season five of 10 overwintered colonies also died, but losses are now reduced. Currently he has seven colonies and helps his brother-in-law with his large operation.

A "free swarm" introduced Al to Varroa mites in Maine. After a commercial pollinator moved out of the abundant low-bush blueberry fields around Al's log-house homestead, he discovered a big cluster of bees on a fence post. He placed the bees in a hive and moved them to the home apiary. A routine varroa survey that fall by the Maine apiary inspection service found that colony and one other with a small number of varroa mites. They were treated by apiary inspection officials, but both colonies died out overwinter. Varroa mites haven't shown up in any other colonies to date. Al is keeping his fingers crossed that varroa and tracheal mite problems have disappeared with the dead-outs.

If none of this sounds like a typical "retirement", you are correct. Al continues to find beekeeping both a challenge and a pleasure, and he still likes to help others discover the fascination of his hobby and avocation. □



HOME HARMONY

ANN HARMAN
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COOKIES

"What are the traditions of Christmas? What foods are characteristic of the holiday season?" I began asking friends, both young and old, and even their children these questions when the first glimmer of Christmas decorations appeared in the stores. Answers included, of course, the Christmas tree and stockings. No surprises there. However, the answer to the food question was universal – and it wasn't turkey, or fruit cake. It was COOKIES. Christmastime is cookietime. Even in homes where baking was an unusual occupation, cookies were made for the holidays.

Flip through the pages of cookbooks, whether general all purpose, specialty or ethnic ones and you will find recipes for cookies and small cakes that specifically say "Christmas" Some of these use honey, particularly recipes from northern Europe and Scandinavia. Honey is a treasured sweetener there and thus not commonly used for "everyday" baking. But since holiday time is special, honey becomes the special sweetener.

I have always maintained that every child should begin his or her cooking career by baking cookies. Cookies are very difficult to ruin and are delicious to eat. The child's immediate success can only lead to a love for cooking.

Although the bees are taking a winter break (unless they are in the citrus orchards) get out your jars of honey and a lump of beeswax and begin your Christmas baking. Wait a minute – what are we going to do with the beeswax? Make the cookie sheets non-stick, or course. Warm your cookie sheets slightly – not too hot to handle – and rub the surface lightly with beeswax. Do NOT put a thick coating on them. Use the beeswax treatment a few times and you will have a nice non-stick surface that does not wash off.

In selecting your Christmas cookie recipes you need to keep in mind some characteristics of honey baking. Honey cookies are generally soft and may be somewhat chewy. If you desire a really crisp cookie that snaps when you break it, then sugar will have to remain the sweetener. Cookies containing honey will brown a bit faster than sugar cookies so keep an eye on the ones in the oven. Honey cookies should be kept in tins with a tight lid so they do not absorb moisture from the air and weld themselves into a sticky pile. If you do have an unsalvageable disaster, remember the birds will appreciate a bit of holiday fare on their feeder.

Can you substitute honey for sugar in cookie recipes? In general, yes, unless the recipe is an unusual one. You will probably need to add a bit more flour to keep the cookie dough from being too soft and sticky. But since the ingredient balance in cookies is not critical, the cookie should turn out just fine. Do not use fermented honey or honey with a harsh or otherwise unpalatable flavor. Cookies require a large amount of sweetener and an objectionable flavor will be noticed.

Glazed Christmas Cookies

2 cups sifted flour
1 tsp baking soda
1 tsp salt
1/2 cup soft butter or margarine
1 tsp vanilla extract
1/2 tsp almond extract
2/3 cup honey
1 egg, well beaten
1/4 cup vinegar
1/2 cup finely cut mixed candied peel
1/2 cup finely-cut red and/or green glaze cherries
1/2 cup finely-cut shredded coconut
1 egg white, slightly beaten
colored sugar for decoration
split, blanched almonds

Sift together dry ingredients. Cream together butter or margarine, vanilla and almond extracts and honey. Beat until fluffy and creamy. Beat in egg and vinegar. Stir in sifted dry ingredients gradually; blend well. Mix in candied peel, cherries and coconut. Chill dough several hours or overnight. Shape one-quarter of dough at a time, leaving remaining dough in refrigerator. Shape into balls 3/4" in diameter. Place 2" apart on greased cookie sheet. Grease the bottom of a 2" diameter glass tumbler, then dip in flour. Press cookies with bottom of tumbler, dipping tumbler in flour as needed. Brush surface of cookie with the slightly beaten egg white, sprinkle with colored sugar. Arrange split almonds in flower-petal pattern on each. Bake in 375° oven about 12 minutes. Remove from sheet immediately. Makes about six dozen.

Honey Recipe Book
Iowa Dept. of Agriculture

One of the traditional German Christmas cookies is...

Pfeffernüsse

1 cup soft butter or margarine
1-1/2 cups honey, slightly warmed
3 eggs, beaten
grated rind of 1 lemon
1 tsp finely ground pepper
1-1/2 cups milk
5 cups flour
1 tsp salt
1 tsp baking soda
4 tsp baking powder
2 tsp ground cardamon
confectioner's (powdered) sugar

Cream butter, eggs and honey until almost white. Add lemon rind. Sift dry ingredients together and add them alternately with milk to creamed mixture. Drop from teaspoon about 3/4" diameter balls onto greased cookie sheet. Bake at 350° for 15 minutes. Roll immediately in confectioner's (powdered) sugar. Makes about 50 cookies that will keep indefinitely.

The Honey Cookbook
by Juliette Elkon

Christmas cookies would not be complete without the traditional stars, trees and Santas. The following cookie is actually one that is crisp and will remain crisp in a closed tin.

Honey Crisps

1/2 cup butter or margarine
1/2 cup honey
1-3/4 cups flour
1 tsp soda
1/2 tsp cinnamon
1/4 tsp ground cloves
1/3 cup wheat germ

Cream butter. Continue creaming while adding honey in a fine stream. Sift together dry ingredients. Mix in wheat germ. Combine dry ingredients with creamed mixture. Chill for about one hour. Roll out on lightly floured board to about 1/8" thickness. Cut with floured cookie cutter. Place on greased cookie sheet and decorate as desired. Bake at 350° for 8-10 minutes. Number of cookies depends on sizes of cutter used.

Do remember to have honey cookie recipes ready to give to those who are enjoying your holiday fare. Of course, if they do not have honey to use, a jar of yours is the best present.

Don't forget to leave a plate of honey cookies for Santa. He won't get those at every home! □

Perfect Present

Many inexpensive and very attractive cookie tins are available during the holiday season. One of these tins, filled with your honey Christmas cookies and the recipe for them makes a perfect gift, even for "the person who has everything" A tin of cookies can be mailed easily and you do not have to guess someone's size or favorite color. Try using real unsalted, unbuttered popcorn for packing material but be sure to enclose a note saying that the wild birds will appreciate the packing material more than they will the plastic stuff. □

JOHN HAPP

Politics, Business and Writing A Book . .

This retired **Bee Culture** *Editor Never Quits*

PAMELA MOORE

When John Happ's two dogs run into his office at a full gallop and he says "Please hold on a minute", into the telephone, you would expect him to admonish the two Maltese and put them out. But that's not John's way. When he has a business call or even a visitor in the office, and his two little dogs pay a noisy visit he simply tells them to be good, because he's busy, and he scoops one up and finishes the call.

Not easily excited when things aren't running smoothly John Happ, former editor of *Gleanings in Bee Culture*, has had his share of events not following a predictable pattern in a busy and varied life.

As he settled back into his large leather chair, under a well-done portrait of himself as Medina County Commissioner, he talked about his life, his work, and most of all his family. Brief interruptions peppered his story though, like a particularly attractive bird at a window feeder, or when he recalled an event on a sustenance farm in Illinois that helped make a point about how life is today.

Happ's office is in an unusually large Victorian home in the city of Medina, Ohio. It has his wife's art gallery, his son's law practice, and his own entomology business, and he also handles calls about the business of running Medina County, where he is one of three county commissioners. But none of this hustle and bustle seems to affect the tall, graying man, whose movements are measured and purposeful, reminding one of a tall Texan thinking out his next move. And when he stands up and dons his white hat he reminds you of all the "good guys" in all the westerns you've ever seen, all rolled into one.

But when sitting in his own office, in his own home, with plants, portraits, fine art and books, Happ appears the perfect renaissance man – interested in all of the cultured things in life, but able to handle all of life's little projects, too. He talked of rebuilding a garage at the rear of this house, and mentioned he had replaced a back porch also. It wasn't so much jumping from one topic to another, and one project to another, but rather a flow of ideas, each in their proper place time.

Perhaps one of the reasons he has not been ruffled by his many experiences is that he professes a belief in fate – not actually a fatalist, but he pays attention to where life points him.

One of his first encounters with fate was when he was a junior high student in Winnekta, Illinois. He was caught reading *Gleanings* instead of the news periodical he was supposed to be reading in Ms. Spangler's English class. When she caught him and the rest of the class began to make fun of the event, she said, "Now don't laugh, class. Who knows? John may become Editor of this magazine someday". The comment only brought more laughter from the class, but it seems Ms. Spangler turned out to be a seer.

John Happ, (and friend) today

Years later, John's wife read a classified ad in the Houston, Texas paper, 'Wanted, Editor for a bee magazine.'

"She bet me it was for *Gleanings* and insisted I answer the ad, just to find out," he said. The letter was followed by a phone call asking him to come in for an interview. He said that once the job was verified, he remembered his teacher's prophecy so many years ago. "I knew it was fate and I would get the job," he said, even though it meant taking a cut in pay. He was, at the time, assistant director of health in Galveston,

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HAPP ... Cont. From Page 671

Texas. But he took the job, moved his family to Medina, and has been there ever since.

When he talks, John always includes comments about his family at the particular time in his life. He insists that his wife, Ann, "ramrods" the businesses and is a major support in his life. He also refers to his children, John, Jr. who is an Air Force Colonel at Scott Air Force Base in Illinois, and Gregory who followed his father into politics and was Medina County Prosecutor for four years. He is now a well known attorney with law offices in both Cleveland and Medina.

John began his love of beekeeping in the seventh grade, when his biology teacher, Mr. Babcock, told the class if they really wanted a challenge – a real adventure in life – beekeeping was the most fascinating hobby he had ever known. He told the students they could get more information and literature from the A.I. Root Company in Medina, if they would only write. John Happ wrote.

"The man who answered my request was Jack Deyell ... the same man I superseded as Editor some 30 years later," said John.

Not content with just information, Happ said he wanted to go to the Root Company himself, so when his brother, Bill, went on a trip to Chicago, John agreed to go along only if he could go to the A.I. Root Company – a branch store on West Huron St.

"I wanted to buy a smoker, which cost $1.50, but when we got there, Bill bought me the whole beginner's outfit, hive and all for $15, telling me that I could owe him ... Mother thought it was one of those young kid's passing fancies ... but when we set the hive up in the back yard, it was a whole different story," he said.

John's interest in bees was so keen he gave lectures on beekeeping when he was in junior high school, even getting the Principal started in the hobby. It is easy to understand how John could infect others with his ideas because his eyes simply sparkle when he recalls his early days with bees.

John Happ in the Editor's Office of Gleanings In Bee Culture

But beekeeping took a back seat for a while when John served with the 10th Mounted Division Ski Patrol during World War II. He trained for two years at Camp Hale, Colorado and then moved to Texas for more training. That was where he met Ann, and he told her he wanted to attend Texas A&M University when he was out of the service. But first, his tour of duty took him to a year of combat in Italy.

After the service, John did go to Texas A&M. He wanted to major in veterinary medicine – his love of animals is evident when he talks about spending more time with horses than girls in high school, and of the various dogs and their antics that his family has had over the years. But due to the great numbers of returning Texas veterans, who had first choice of majors, John settled on entomology as a direction to pursue. Because of his enthusiasm with honey bees, a few apiary classes were reinstated at A&M. He even helped take care of the college's bees and was paid in – what else – honey! "My family ate lots of honey in those days," he said.

While John was still in college, two children came along, they raised pure-bred collies and squab, and had a large garden, besides. Ann helped out by selling a few short stories and typing papers for students. John recalls those struggling years as some of the happiest in his life.

At graduation John was hired by the Texas State Department of Health, where be became intimately familiar with many aspects of public health – from land fills to milk sanitation. He put his entomology degree to work when they moved to Brownsville, Texas and studied fleas on prairie dogs and pack rats, working on a study of bubonic plague.

John didn't get much of a chance to get into a rut, or even get bored with his work. From Brownsville, the Happs went to Austin, Texas, where John went into business with his wife's brother, who had a bowling alley and 1200 seat restaurant. "That taught me business skills which later came in handy," said John.

While in Austin, he continued to keep bees and sold his honey under the "Happy Bee Honey" label. At one point he had 100 colonies near Lyndon Johnson's ranch. Johnson's mother became a good friend of Ann's and the Happs kept her supplied with honey.

His restaurant business also brought him in touch with an old high school friend – Charleton Heston. "He was the same old Chuck from high school, as we talked about our hometown, old girl friends and high school years," said John. Recently, John went back to his high school reunion hoping to see Chuck, but the movie star must have had other plans. "I'll have to drop him a line," quipped John.

Because of the importance of family, John decided the restaurant business was too hard on the Happs, so they moved to Galveston, where John became Assistant Director of Health. "It was nice to fish and swim every day on the Gulf. I kept my bees on the veranda because backyard space was a premium on the island," he said with a smile.

The family's next move was to Medina after Ann spotted the ad in a Texas paper, and the Happs have lived there for 30 years.

John has good memories of his stay at A.I. Root. When he was hired Jack Deyell was the Editor, who then moved up to the title of Senior Editor at John's suggestion. Deyell also acted in an advisory capacity to the magazine, because "he knew bee behavior better than I did, because he had kept bees longer"

John said there were so many letters to the Editor it was

nearly a full time job answering them. So he began pulling selected letters from the mail and started the feature Mail Box, which not only continues today, but is still one of the most popular sections.

"Jack Deyell and I became great friends, and every Friday night we played dominoes and other games. We attended meetings together and even gave demonstrations for Medina's Sweet Week celebration," said John.

He also recalled that print was still set on Linotype then, and offset presses were just starting to be used. Pictures were just starting to be inserted into the copy.

The magazine looked a little different in John's day. It was a smaller publication, commonly called a 'Digest' size. But it was packed full of news, articles and information – just as it is now, but during his tenure as editor, John changed the size of the magazine back to full size.

A student of the printing industry John recalls when the Linotype left the company and computer printing came in. When that happened, John picked up another job – pasting up the entire magazine.

It was about this same time that he began to run out of time to write editorials, although he enjoyed doing them. "We also used the experiences of amateur beekeepers and ideas from sideliners that proved useful," he said. He liked the experiences of old time beekeepers and remembers one handicapped beekeeper asking, "Would you rather care for me in a handicapped facility, or buy my honey at $1.25 a pound?"

When John was Editor he paid $3.00 per page for manuscripts. He edited most of them himself and discovered a classic Editor's dilemma. He edited and rewrote them so well some writers began to think of themselves as really good writers.

"Once they saw it in print, they thought they were wonderful, and they'd keep sending me their manuscripts. So I had to keep rewriting them. I had created a monster" cried John with a laugh.

He also credits Ann with lots of assistance in the editing part of his job. She had worked for the *Leader Post, Gazette, Savings Deposit Bank Notes* and was with the Cleveland *Plain Dealer* for five years.

One of the areas John enjoyed covering was the use of honey recipes, and he strongly encouraged any and everyone that cooking with honey was a good idea. He also carried feature stories on growing and identifying honey plants.

On beeswax John said, "There wasn't much on beeswax products because there was only so much you could do with it" Nor did he run much in the way of technical articles, because "other publications covered that field pretty well."

He routinely received questions (especially from local beekeepers, and homeowners) about insects and especially their interference with beekeeping. "I guess I got all those questions because they knew the Editor had a degree in entomology," said John.

Eventually the calls became more numerous and John established his Professional Insect Control company. It was about then that Ann began her fine arts gallery, *Gallery Blue,* and gave up her career in writing to "ramrod our businesses", said John.

"I told Alan Root at the time that I could do a better job of keeping up with what insects affect honey bees and new chemicals in my business than I could as Editor of *Gleanings,*" said John.

So he started his business full time. In 1981 he decided to add yet another dimension in his already busy life – when he ran for, and won, the position of Medina County Commissioner. He has held the position since, and has the longest term of any Democratic Commissioner in the county.

John is able to see the humor and practicality in his popularity in County politics. "It was a good campaign, because I had already been in most homes in the county because of my pest business – so everyone already knew me," he said.

John draws from his experiences from a variety of positions in life in his Commissioner's role, but stays true to one basic philosophy. "I believe the government belongs to the people. We are elected by the people to execute what the majority of them want us to do. We are not voted into office just to cater to the whims of the wealthy and powerful or to line our own pockets, so to speak," he said.

Retirement isn't in the picture for John, who by the way keeps no bees now. His interest in beekeeping isn't retiring though, because he plans to complete his book on beekeeping. If that isn't goal enough, he also would like to write a book on Environmental Entomology, and just maybe some comments on the politics of Medina County.

When asked "What have you done lately?" John gets that, 'wait till you hear this' smile and says he has started lessons on the cello. His instrument sits in the middle room of the art gallery, next to a piano, where it is always in sight. "I played the violin in high school. And after years of being away from performing, my children gave me a gift of lessons for the cello, and I'm doing fine with it," he said.

With all this – Health Department, restaurants, beekeeping, writing, pest control and politics, you wouldn't think John would worry about 'later' "I wouldn't change a thing about my life, I guess," said John, "except I wonder how I will be known when I go to the Happy Hunting Ground? I won't probably be remembered as John Happ Editor, or even as County Commissioner, but rather as John Happ – bug man," he smiled.

And maybe that's not so bad. □

(Violet Thomas generously contributed to this article.)

•GUIDELINES• FOR BEGINNERS

ROGER MORSE

What Every Beekeeper Needs For Success

Many hobby beekeepers obtain a healthy return on their investment in bees and beekeeping equipment almost every year. However, to do so they are careful about what they buy and how their colonies are managed. Guidelines for financial success are easy to write about but sometimes not so easy to follow. Many beekeepers keep bees just for the fun of having them. But those who obtain maximum yields year after year obviously have the best grasp of honey bee biology.

Go With The Flow

If you plan to make money producing honey and beeswax the most important point to remember is that bees must be kept where honey plants abound. One of the first things to determine is how many colonies may be kept in an apiary and still produce surplus honey. Because honey crops vary from year to year this activity will probably take three to five years and requires some careful record keeping. Where I live, for example, the soil is wet, heavy, and acid. I have one apiary three miles from home with about ten colonies, but in my home yard I keep only three or four which usually produce a greater surplus per colony. If there are too many colonies in an apiary for the food that is available, the bees will be forced to fly further to find pollen and nectar, wasting both time and energy producing less honey.

Place your bees where there are enough forage plants to produce a surplus crop. No plants means no honey. Bees will forage up to two miles from home, but the further they have to travel the more energy they expend, and honey they consume.

Commercial beekeepers move to areas where there is enough forage to support 40 to 50 colonies in an apiary. With fewer colonies in a location they spend too much time on the road driving from one apiary to another. Of course, you can learn how to keep bees almost anywhere but once you decide to expand your operation, and to make honey in quantity, it is necessary to select the right location in the country.

About half of the honey produced in the U.S. comes from weeds and trees. Examples are goldenrod, aster, some of the clovers, and trees such as tulip poplar and basswood. Cultivated plants such as cotton, soybeans, citrus, and alfalfa are also important in some parts of the country.

Get Regular

Bee supply companies sell only 10-frame Langstroth size supers. Between 85 and 90 percent of the bees in the U.S. are kept in hives of this size. Twenty years ago, eight-frame and Dadant depth (extra depth) hives were available and fifty years ago beekeepers were using many more sizes of hives. Laws pertaining to honey bees state clearly that bees must be kept in movable frame hives so they can be inspected for disease.

To be successful in beekeeping, whatever the number of colonies you have, standardization of equipment is necessary, for two reasons. First, any additional hives or equipment purchased will fit that already on hand. Second, standard size equipment has a good resale value if you want to sell your bees.

Most commercial beekeepers use only five or seven pieces of hive furniture – a bottom board (a pallet holding two or four colonies may substitute for a bottom board in a migratory operation), one or two deep hive bodies for brood nest supers with deep frames, shallow depth supers with frames to fit, a cover, and a queen excluder. Some beekeepers use only deep supers and eliminate shallow supers. Costs are reduced by using fewer pieces of equipment.

If you want to use shallow depth supers, select only one size. There are still several types of shallow, 10-frame supers, though increasingly beekeepers seem to prefer those that are 6-5/8" deep. The frames for these supers are 6-1/4" deep. If you have shallow supers of varying depths you'll waste time moving and sorting frames, especially when extracting. I once asked a successful commercial beekeeper what he did when he bought odd sized equipment. He said he sold or burned it – he wanted everything interchangeable. I believe that is a good but not widely practiced rule. As a result beekeepers often waste time sorting through different sizes of equipment.

Know These

American foulbrood (AFB) has always been a scourge for American beekeepers. Many states have apiary inspectors to help them control American foulbrood and to maintain a healthy beekeeping industry. The logic behind legislation supporting inspection is that it is in the public's best interest to have an adequate supply of healthy bees for pollination.

As much as possible, standardize your equipment. The fewer sizes of supers and frames you have the easier sorting is at harvest. Also, the less you have to invest in equipment, and it makes selling easier, too.

In the past several years we have seen three new diseases enter the U.S. – chalkbrood, tracheal mites, and varroa mites – all are threats to beekeeping. Thousands of colonies and millions of pounds of honey have been lost because of these diseases.

However it is increasingly apparent there are just not enough inspectors, money or sufficient public support to keep these three problems under control through federal and state inspection services.

To their credit, many inspectors have attempted to cope with these new diseases as well as American foulbrood. But as a result they have been less concerned with foulbrood control, and infection rates have increased in some areas.

Beekeepers are not the only people in agriculture experiencing new disease problems. With the increase in international travel, and the exchange of agricultural goods, we are also moving the pests, predators, and diseases of plants and animals around earth at a rapid rate. Moreover, as agriculture becomes concentrated in the hands of fewer growers, non-farming voters are less inclined to allow their tax money to support agriculture. All this means that you *must* learn to recognize the important bee diseases and how to treat them. Being able to do so is increasingly an important part of successful beekeeping.

Royal Production

The queen is the heart of the colony. She is the egg layer. The traits she passes on to her offspring will control

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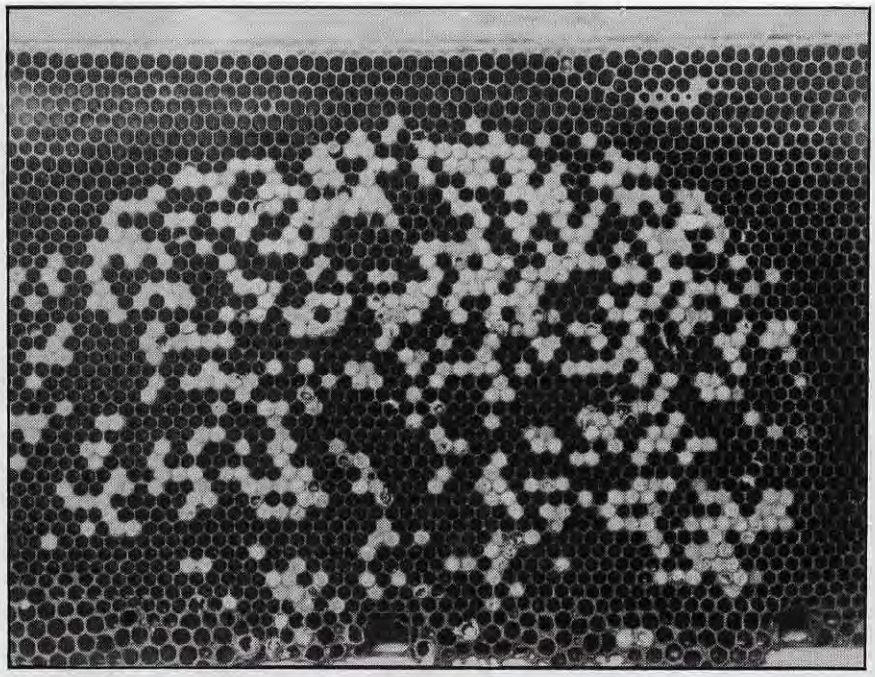

Know the basic diseases and how to treat or control them. This frame has the classic symptons of American Foulbrood – spotty pattern, sunken cappings, many with holes. But other problems result in the same symptoms, so don't be fooled.

GUIDELINES ... Cont. From Page 675

the temperament and honey producing ability of the colony. Beekeepers are very much aware that some strains and races of bees are more resistant to some of the common bee diseases than are others.

Young queens produce more eggs. Colonies with young queens are much less inclined to swarm than are those with older queens, so it should be obvious that requeening colonies each year is a good management practice. But requeening mature colonies is difficult – especially finding queens in large colonies, which are also less inclined to accept a new queen anyway.

Some migratory beekeepers go south in the fall to grow new queens and produce new colonies for honey production next summer in the north. Clearly they have a great advantage over those who remain in the north. However, there are ways of growing new colonies in the north in the spring if you use an intense management scheme.

Manage Well

In the past, some beekeepers have become let-alone operators. They own many colonies, but give them little attention. Their time investment was minimal, on a per colony basis. These let-alone beekeepers often produce as much honey as they would have on half the number of colonies, given intense management. One financial problem with let-alone beekeeping is that you simply have a greater investment in equipment. Further, the new disease problems make let-alone beekeeping much less practical than it was several years ago. The advantage of let-alone beekeeping is that you have your colo-

The best way to make honey is to manage your bees properly. Spend time in the bee yard, do the jobs that need doing when they need to be done, and never take your bees, or what they do for granted.

nies spread over a greater area and are more likely to get a crop of honey, somewhere, no matter the weather.

Research has shown that you can do much to improve the quality of your stock by selecting from better colonies, and rigorously weeding out poor colonies. I firmly believe, for example, that if you find a colony with severe, or even moderate chalkbrood, sacbrood, or European foulbrood, the colony should be requeened as soon as possible. Don't let diseased colonies produce drones that might carry undesirable genetic material. Often, colonies that are diseased in the spring seem to recover during the summer, but they can have trouble the following spring. For this reason they should be eliminated. Colonies are usually under the greatest stress in the spring, and it is at precisely this time that diseases are most evident. Colonies should be requeened so the same problem(s) will not occur next spring.

The Seasons

It is much easier to design a management scheme for the north than for the south. In Florida, for example, orange trees may begin blooming from mid-February to the end of March – timing management practices is difficult when there is so much variation. Where I live in New York we can predict within a few days when the important honey plants will flower. We know that swarming will occur over a period of two months with a peak in the middle of June. This makes colony management in the north much easier. To make your management easier keep records concerning swarming times, honey flows, first and last frosts, or anything that affects your bees or management. This will make it much easier to design a management scheme leading to maximum production.

Summary

It has been my observation that most successful beekeepers concentrate their efforts on their management schemes. You can find other people to help extract, package and sell honey. But *the* key to success is getting bees to put honey in the hive. The best beekeepers spend a maximum amount of time in the beeyard because successful honey production requires time, patience, skill and, of course a little bit of luck. □

One More Ride On THE HONEY BUS

MEREDITH MAY

This ride teaches a youngster about bees, and more.

In the summertime, it gets so hot in Carmel Valley, California, that even the dogs would rather lay in the shade than go for a walk. It was breakfast time in July, it was already 82°, I was ten years old, and I had nothing to do that day.

It was time for my daily question to my Grandfather. He was sitting at the table to my right, eating crispy rice and reading the "funnies"

"Grandpa, what are you going to do for work today?"

"Oh, I don't know," he said, "I thought maybe I'd clean the cobwebs out of the bus."

Finally! The answer I had been waiting a month to hear. It meant only one thing. *Honey season had begun.*

For one week out of the year, Grandpa metamorphosed from a plumber into a backyard beekeeper. His workshop was an olive-green, 29-passenger army bus. It came from the military base in Ford Ord. It was the same kind of bus that took soldiers to and from the Presidio in Monterey and nearby bases in Hunter-Liggett, Camp Roberts or the rifle ranges on the sand dunes of Seaside. But Grandpa looked at the $200 army surplus bus with different eyes. A bus was a good place to extract honey he told me, because all the windows intensify the heat inside, and the honey flows out of the combs like suntan lotion on a hot day at the beach. Another reason he wanted the bus was so he could drive to his hives in Big Sur and extract right on the spot. He was tired of jarring tiny batches from the bed of his Model A Ford.

Unfortunately for him, the bus proved to be a gas guzzler and the temporary permits he needed to drive it were eating too much of his profits. So in 1965 he parked it in the garden by the three rows of boysenberry bushes and resolved to truck his hives in from the coast. Fifteen years later I, his apprentice, ran from the breakfast table to the bus, squirmy with anticipation. Honey season was my favorite time of year. Ideally the hottest four days in summer, making honey was an all-day affair. On average Grandpa and I jarred 600 pounds of honey each day. A good season produced over 2000 pounds.

Finally Grandpa showed up wearing his jeans and just his undershirt, carrying two hive supers. I was waiting for him inside the bus in bat position hanging upside down from the two bars that ran the length of the ceiling.

"It's going to be a scorcher little monkey! I bet we'll get it up to 106° in here today!" he said, lifting me off the bars.

Inside, all the passenger seats were gone and in their place he had installed two 60-gallon honey tanks, an extractor, a trough for excess wax and an electric hotknife. He connected a monstrously-long extension cord from the house to the bus to run the hotknife and the extractor. The remaining wall space was filled with all his necessary equipment–several stacks of crumbling

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Enjoy a ride on the Honey Bus.

Grandfather, with one of his frames.

HONEY BUS ... Cont. From Page 679

wooden beehives, broken kitchen appliances, old tires, corroded 5-gallon Wesson cans (Orange Chiffon Cake, formula will make 9-10 cakes), a large assortment of different sized clay pots for his cacti collection and old Highway One road signs (Pfieffer State Park, 5.1 miles, Lunch This Way).

I searched through the assemblage and pulled out as many jars as I could find. Lucky break! I uncovered a whole box of new Mason quarts. We would worry about the lids later. Grandpa kept a box of loose Kerr lids somewhere, but if we couldn't find it, which was often the case, we'd just cover the jars with plastic wrap and a rubber band, or seal them with beeswax. I took the jars to the back of the bus and sat on the sticky floor to lick labels for them while grandpa made several trips to his truck for the supers. Grandpa didn't have a washrag or sink in the bus, so over time most things acquired a surface stickiness. It was annoying at first to constantly step or sit in honey, but after an hour or so you, too, acquired a sticky film and so it didn't matter anymore. It was also fun to make a mess and not have to clean it up.

Once all six hive bodies were in the bus, Grandpa started to work. He held a frame over a steel trough with his left hand and ran the double-edged hotknife down the honeycomb with his right. The wax curled downward into the trough and landed on last year's hardened pile of wax. We meant to make candles, but never got around to it.

"We'll just make a bigger batch of candles this year. You can give more presents at Christmastime," he said.

I reached in the trough and took a piece of hot honeycomb to chew and climbed on top of the empty beehive boxes in the corner so I could watch him. He finished with the frame he was working on, put it to the side, took a wooden lid off another beehive and started on another frame. There were nine frames in each hive. His movements were almost musical.

"Meredith, come look at this heavy one," he said, holding out a golden colored frame for me to see.

I jumped down from my perch and went over to admire the prize. The neat rows of hexagons were capped with wax and arranged in perfect formation. I ran my finger down the length of one of the rows and tried to count them like braille. I guessed there must have been fifty little holes. I wondered how nature could make something so precise. Grandpa was watching me closely, so I smiled at him. I still had the wax in my mouth and it made my smile lopsided.

After six frames had been "skinned" by the hotknife, we put them in the extractor tank. They were placed upright in six cages that swiveled on a wheel. I turned the handle to "on" and the cages started spinning. The centrifugal force extracted the honey from the combs and then it was pumped up through pipes that opened over the two honey tanks. A piece of cheesecloth draped over the tanks gave access to the hot honey but caught the pieces of stubborn wax and bee parts that made the journey through the machinery.

Once the extractor got going, the air filled with the smell of honey, attracting small swarms of bees outside the door. They would wait there until one of us had to go to outside and then try to kamikaze dive their way inside. Grandpa showed me how to capture the ones that got in without killing them. I would trap them under a honey jar and slide a piece of paper under it and then carry them back out. Once I made the awful mistake of deliberately stepping on one. Grandpa kneeled down next to the bee and picked up the crumpled creature for me to see.

"What did this little bee do to you?"

I couldn't come up with a good one.

"Do you suppose this bee has a little brother, or a Granny or a black cat named Pretzel wondering why she isn't coming home to dinner?"

I was horrified. I'd just killed myself. He took me outside and together we buried the bee.

"Meredith, when you kill another living thing, you kill part of yourself. Think of your heart as a pear. Each time you kill something you knock another bruise into it. If you keep it up, all you will be left with is brown mush where a heart used to be."

We buried it under the pine tree near the bus. I sat out by the grave after Grandpa had gone back inside. I was thinking about the bee's family.

After a while he poked his head out the emergency door, "Don't feel too bad about what you did because tomorrow you will wake up as a girl who doesn't step on bees."

That made sense. My homage paid, I was ready to help Grandpa again. He was sitting on a bench in front of the honey tanks filling jars. I found a place next to him and held an empty jar under the spout at the bottom of the other honey tank. We worked in silence until dark, when it was time to cover the extractor and honey trough with the old door Grandpa used as a countertop in the off season.

That night I dreamt that Grandpa and I were driving the bus on Carmel Valley Road in 1965. For many of the drivers who passed us, the army bus was a symbol of the Vietnam War that took their sons away to places they couldn't pronounce; a symbol of tearful goodbyes at the single gate in the Monterey Airport. But if they weren't driving too fast and had time for a closer look, they would see that there were no young soldiers on the bus; just a man in his jeans and undershirt, a girl hanging upside down from the ceiling, some beehives and perhaps a couple of stray bees, on a mission to make sweetness. □

This Year, Let's Make

A CHRISTMAS TREE ORNAMENT

DIANA SAMMATARO

Decorate your Christmas tree or table centerpiece this year with a homemade beeswax ornament. It can be an unpretentious molded figure, or a gaudy and festive decoration, depending how you want to use it, or the friends or family you make it for.

For the capitalistic entrepreneur, making and selling these ornaments can add a new dimension to your income this season. Of course if you plan on this season sales you'll have to hurry, but it can be done.

But maybe the first year you should just make a few for the family, or for your neighbors, who sometimes have to put up with the antics of a neighborhood beekeeper. This is an ideal way for the whole family to spend some of that 'quality' time the experts are always talking about.

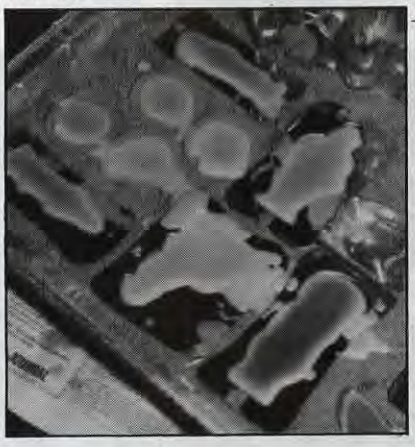
Before you start, make sure you have a clean, attractive wax product to pour. To filter melted wax use sweatshirt material, paper towels or other fine filters to make sure no impurities float to the surface of your finished ornament.

Use the lightest colored wax you can find. Lemon yellow is perfect, but a bit darker is alright. Light colored wax contrasts well with Christmas-tree-green and displays bright colored paints, decals or glitter the best.

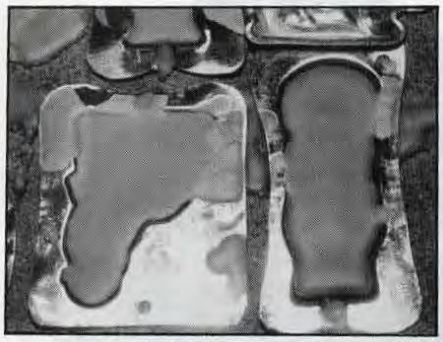
1. *Find a suitable pouring device because some molds are small and special care is required when filling. This discarded coffee pot is ideal because it doesn't overheat the wax, is easy to pour from, and a final filter can be added right to the spout.*

2. *Ornament molds can be made from almost anything your imagination can come up with. You can make your own, or you can purchase all manner of molds used for other projects. These are hard candy, lollipop, maple sugar candy and chocolate molds used for making homemade candy. Most are one piece metal molds so the finished product has a flat and smooth back. Some are two-piece molds that need to be fastened together and poured much like candles.*

3. *Before pouring, make sure the molds are level and stable so wax doesn't run out and they don't tip when filling. A tray full of sand works well for this, but the drawback is any wax that spills is essentially lost. Some float molds in a quarter inch or so of water which does the same thing.*



4. *Once a mold has been filled and the wax begins to cool, notice the smooth back begins to hollow and shrink. These need to be refilled so the finished product is even and attractive. Use hot wax to do this, and don't worry about spilling a little around the edges. You know the mold is full then.*



5. *When the molds have been filled a second (and maybe a third) time, and begin to pull away from the sides you are ready for the next step. When removing from the sand, be careful not to have some stick to the wax edges or the mold itself. Once attached the ornament is essentially ruined.*

6. *A pile of ready-for-the-next-step ornaments. Make sure the wax isn't still so soft it bends easily, or you will warp the ornament during the next step. This is a good time for a cup of coffee, or a quick trip to the hobby store for some acrylic paint, brushes or other decorations. Don't hurry this step.*

7. *When the wax is sufficiently cool, take a medium to dull knife and carefully trim off the excess wax from edges, tops and bottoms and any seams from two-piece molds. Needless to say, take your time with this step until you are comfortable with the process.*

8. *When you've trimmed off all the excess, take a soft cloth and gently buff the ornament, paying special attention to those areas you cut. The finished product will have a soft, almost luminescent glow, with no rough or sharp edges.*

9. *To hang your ornament you can either place a colored ribbon in the mold when it is half full of wax, then add the remaining wax over it. This will hold it in place, and you can hang it from this. Make sure your loop is large enough to go over a typical branch. Or you can attach a bright metal loop after the mold is poured. Get these at hobby stores. Heat and insert using a pliers. Give it a little class and cover the insertion point with a star decal.*

10. *You should smooth any rough edges afterward using a flat metal spatula like this.*

11. *Paint your ornament using acrylic paints. They are easy to apply, come in a rainbow of colors and permanently adhere to the wax.*

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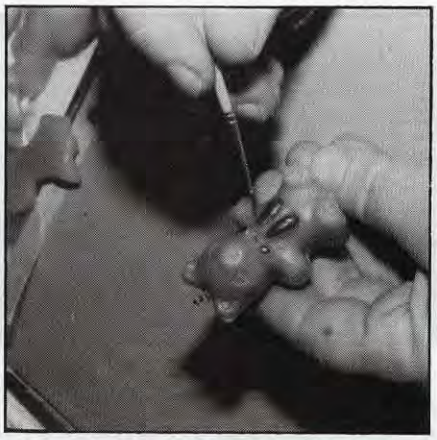
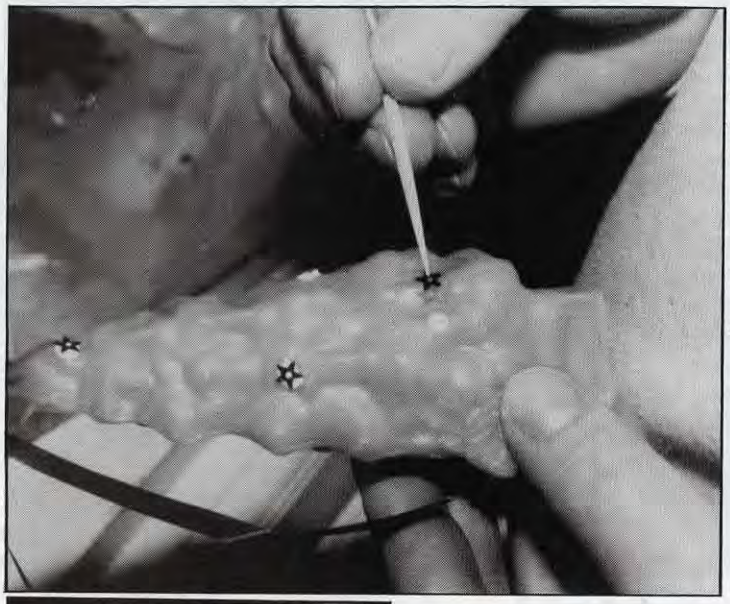
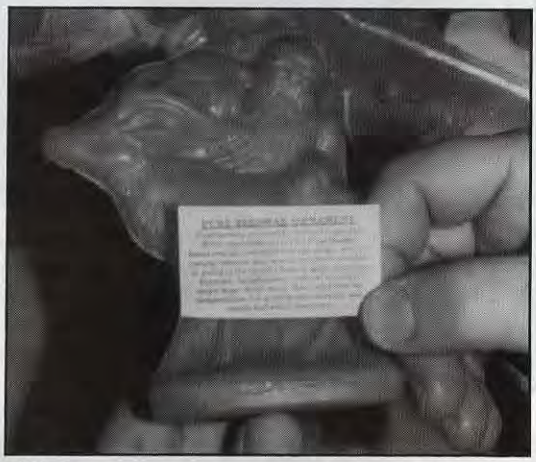


12. *You can paint the details of your finished ornaments, using several seasonal colors. Bright colors show well on a lemon yellow wax. Light colors work better with darker wax.*

13. *Another technique is to put a dab of paint on a tissue and gently rub it over a rough area of the mold you want to paint. This gives a textured effect and looks very professional. Don't apply too much, but you can wipe it off if still wet.*

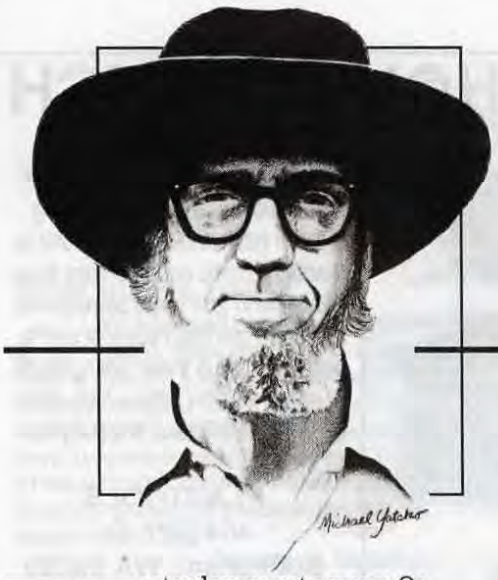


14. *Decals, like these stars make a plain ornament exciting. Fasten them using clear glue or hot wax. Glitter works well, too. Think of all the types of decorations you use when decorating Christmas cookies, and you'll do well.*



15. *If you are giving your finished product away, or you consider selling them, an instructive label will go a long way in making this a special gift. This label reads* **– Pure beeswax ornaments are a traditional old world celebration of the Christmas season. Sometimes painted to enhance the design, the natural beeswax color was an important reflection of purity in the church. Today's molds come from European reproductions, chocolate, lollipop or maple sugar candy molds. Store away from hot temperatures. If a white bloom covers the wax, simply buff with a clean cloth.**

16. *The final touch is the packaging. Place your finished ornament in a plastic bag so it is visible, while protected from little fingers, at least before it goes on someone's tree, and starts its own tradition.*



BEE TALK

RICHARD TAYLOR

Box 352, Interlaken, NY 14847

"A bit about Africanized Honey Bees."

Yesterday we got a warm October day, after a long chill, giving me a chance for a trip to one of my bee yards to harvest a few supers I'd left there for the last of the goldenrod flow. The hum of the bees in the air always revives in me the same feelings, instantly banishing any dark or somber thoughts. It is like the Gardenia that a girl wore on her dress when I took her to a dance, so many, many years ago. If I pick up that fragrance again, more than fifty years later, then my thoughts are carried instantly back to that moment. Its the same with bees I have loved all my life. This day they filled the air above their hives, even though the flowers are all dead and there is nothing to fly forth for. A few forsaken drones struggled in the grass here and there, mercilessly banished, and then, as the sun began to withdraw and the chill resumed, silence settled over the bee yard again.

I realized, in that brief hour of warm sunshine, that it will be the season of Christmas when you read these words, and that is indeed the time of peace for me, because like the bees, I withdraw. I see the throngs rush this way and that, in and out of the stores, goaded to ever more spending, all in the name of something or other, and I remain aloof from it. I have my own way of marking the holiday, and that is to stand in the sometimes bitter cold, ringing a little bell by a Salvation Army kettle and thanking the people for the coins they drop in. I don't know why I do that every year. But when the bell ringing is finally over and the kettles have all been collected for another year the lady at the Salvation Army, whom I've never met, always phones and says "God bless you"

But now to the subject, which, this time, is Africanized bees. A most comprehensive and objective report on Africanized bees appeared in, of all places, *The New Yorker* magazine, September 16, 1991, written by Wallace White. Mr. White, who is not a beekeeper, spent weeks learning about these bees and travelled great distances, through Mexico, Central America and Brazil, part of the time with representatives of the American Honey Producers Association. He talked with beekeepers, large and small, and with geneticists and bee scientists, in this country and in Brazil. He has described in detail the manner of the introduction of these bees into Brazil in 1956 and their subsequent spread over much of the hemisphere, what their effect has been, with hints of what can be expected in the future.

The news media have, as we know, stimulated fear and alarm about these bees, calling them "killer bees" and exaggerating their danger. Unfortunately, these fears have been nourished also from such places as the National Academy of Sciences and the U.S. Department of Agriculture, whose official policy has been to suppress, destroy, eradicate and, so far as possible, reduce the penetration of these bees across our border with Mexico.

In truth, Africanized bees offer much hope for the revitalization of beekeeping. They are prodigious honey producers. In Brazil, where beekeepers once thought they did well to get an average of thirty pounds of honey per colony, they now sometimes average five times that, and crops of three hundred pounds from a single colony are not uncommon. Africanized bees do everything with greater vigor and speed than their European counterparts. They multiply faster, swarm more, fly earlier and later and, of course, defend their nests more aggressively. And in addition to their capacity to gather nectar they are more resistant to parasites than the bees we have here. Although Varroa mites occur throughout Brazil, for example, these bees are able to cope so beekeepers there seldom consider them a problem.

The problem with Africanized bees is, of course, their temperament. They are almost (almost always) uniformly as cross as the testiest colony of the bees we already have. But the beekeepers of Brazil who have adapted to them are of one opinion – they would not go back to the days of gentler bees even if they could. There have, to be sure, been many confirmed reports of livestock and people being killed by attacks from Africanized bees, but of course people die each year from stings of ordinary bees, as well as the various wasps. When people have died from Africanized bee attacks it has almost invariably been because they stumbled upon their nests and then could not, for one reason or another, run from them.

Dr. David De Jong, an American who years ago moved to Brazil and now teaches apiculture there, declares emphatically that the official American policy is completely off track. These bees are here to stay, and their spread across our southern states is inevitable and at hand. What we should do, Dr. De Jong is certain, is see what has been learned about them in Brazil, and then adapt to them, as beekeepers in that country have done so successfully.

There are strong reasons to believe

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BEE TALK ... Cont. From Page 685

that, as these bees spread northward, their aggressiveness will be softened by inbreeding with gentler strains. Moreover, it is doubtful whether they will spread north of the Carolinas, at least not without much modification, as the genes of this strain become mingled with those of European races. And all this suggests to my mind that there is a bright future in bee genetics. In the not-too-distant future, I should think, queen breeders should be able to develop a strain that will unite the highly desirable qualities of the Africanized bees with a temperament a bit more like what we are accustomed to. □

(Questions and comments are welcomed. Use Interlaken address, above, and enclose stamped envelope for a response.)

QUESTIONS? ANSWERS!

Richard Taylor

What size is best?

Q. My hives all consist of two full-depth hive bodies, on top of which I add the supers for honey storage. I find that lifting the top story off for routine colony inspection very hard work, besides posing a threat of back injury. Could I instead use two medium supers in place of the top full-depth hive body?

Donald G. Weathers
Toledo, OH

A. Yes. The bees do not care what size supers and combs make up a hive, and do just as well with shallow supers, of whatever depth, as with deeper ones. All that matters is the total size of the year-round hive, and even this is variable.

Keep It Up

Q. I notice that many beekeepers seem to set their hives right on the ground, while others have them up on hive stands. Which is better?

George Robertson
Raleigh, NC

A. Hives should be up off the ground. There is no doubt about this one. Feral colonies never nest on or even near the ground. Quite apart from the problems of rotting bottom boards, the invitation to mice and other invaders, and maintaining dryness in winter is absolutely crucial.

Comb Honey Supers

Q. I would like to produce comb honey, but I do not want to buy a lot of extra supers. Is there any way to use the supers I have for producing round or square comb honey?

Bessie Walden
Shelby, AL

A. Only by cutting them down to the right depth on a table saw, which is difficult because of the nails. Even supers used for producing the traditional square sections cannot be used for circular sections because they are about a quarter inch too deep, and the bees fill this space with burr comb filled with honey, creating a dreadful mess when you try to harvest the circular sections. It should be noted that some bee supply companies, including at least one well-known one, offer standard comb honey supers as circular section supers, but this is really a fraud upon the purchaser. Circular section supers must be no more than 4-1/4" deep.

How many?

Q. I have heard that the more bees you have in a hive the more honey they will consume and the less honey there will be to harvest. Is this true?

Sam Vincent
Horima, LA

A. No. The amount of honey you can harvest from a hive is directly proportional to the population of that hive. A strong colony produces far more honey per bee than several weak ones. In northern latitudes the best harvests are obtained by maintaining strong colonies both summer and winter. The consumption of honey stores, by the bees, occurs mostly in the spring, when brood rearing gets underway. In your warmer climate it is perhaps best not to have your colonies very strong during the winter, in order to discourage brood rearing out of season, but they must be strong when nectar becomes available.

Mid-Winter Storage

Q. I found some winter-killed hives in mid-January. I cleaned out the dead bees as best I could, stacked the hive in my barn on two-by-fours with queen excluders underneath to keep mice out. Is that a suitable method of storage until spring?

Douglas J. Lake
Dedham, MA

A. Yes. Come Spring, give those combs to strong colonies, or hive swarms on them, and the bees will finish the cleanup job for you.

Hard as Stone

Q. My honey crop is mostly granulated in the combs, hard as stone. What can I do with it?

Roscoe M. Barnes
Ickesburg, PA

A. About all you can do with honey granulated in the combs is give it back to the bees. If a super of such honey is set on the bottom board, under the brood nest, they will clear it out fairly fast when the weather gets warm.

Questions are welcomed. Address: Dr. Richard Taylor, Box 352, Interlaken, NY 14847, enclosing stamped envelope for response.

THE ST. LOUIS MEETING

A Gateway To Beekeeping's Future

This past year the USDA, the National Association of State Departments of Agriculture, and the AIA put together, with input from the industry, a 'Draft Model Honey Bee Certification Plan'. The goal of this effort was to draw up, review and ultimately distribute a model plan that all states could use as a guide for their respective regulatory agencies.

They put together a written document and sent it to interested parties, those most affected by the plan. Then they held a meeting in October in St. Louis to discuss and hammer out a plan that all could live with.

Below is the essence of what came out of the meeting. This now goes to the USDA group that put it together to be formalized and then sent back to participants for approval. After that each respective state government agency gets a copy. Unless, of course, a state's beekeepers want something to say about this.

African Honey Bees – Stopping the northward movement seems impossible, so retarding the spread and fostering hybridization is the goal. To do this, intrastate beekeepers only need to be certified if they sell queens, packages or nucs, or unless they move from an area with feral AHB after having been there a specified amount of time (six months or one year were mentioned). If they stay longer, or wish to move out, they need to prove they have certified queens.

Queen and package producers in infested areas must use certified (USDA) approved breeder queens to produce queens to sell (production queens). USDA certification consists of the computer-assisted morphometric ID system. Breeders can be certified any time of the year. In fact, early certification is recommended so spring production can go unimpeded. Breeder queens must be clipped and marked.

There should be 60 European drone source colonies for each 1000 queen cells placed in a mating yard to produce for-sale queens, in an infested area. Drone mothers must be certified breeder queens or their daughters.

Swarms in areas with AHB should be destroyed (using a soap solution – yes, you read it here first in August, 1989), and certainly shouldn't be collected.

American Foulbrood – Interstate beekeepers need only indicate date of last inspection, number of colonies infected and disposition. Receiving states *can* use their own rules – but, no beekeeper will be refused entry into a state because of AFB. A 5% (2% was also mentioned) or less level is recommended. Over that and they will receive a warning. However, after two years of being over-the-recommended limit entry permits *will not* be issued.

To find out how this affects you, (and it will) contact the State Apiary Inspector's office

Tracheal Mites – No examination required to issue a moving permit. The proposal essentially decertifies them.

Varroa Mites – To move bees, you need, according to the proposal, only have proof of purchase of enough material to have treated the colonies present, and have treated no more than 45 days prior to entering.

Other Diseases – No new provisions, other than local state laws are recommended.

Shipping Queens and Packages – AFB and other diseases will remain the same. No provision for tracheal mites is currently being considered. Source colonies must be treated for varroa mites, as must shipping containers for both queens and packages.

The beauty of this proposal is that it is just that, only a proposal. No federal agency is going to become involved in any aspect (except for AHB ID), in terms of personnel, enforcement, or administration. The goal is to have this proposal become resident in each state so regulations are uniform across all boundaries.

The problems, of course, are apparent, but they may be solvable. First, the financial situation of each state isn't the same. Some can afford inspection services, some can't. What happens then?

Second, (and probably more important) is a two-fold problem. A state may want to change its current registration laws to coincide with this new proposal. So the document, or some acceptable variation, goes to the appropriate legislative body, who then acts upon it. This can, as so often happens, open a whole new can of worms.

For instance, if your state's present law has no provision for AHB (a common situation), and you want to conform to the proposal, your legislature may say, "Sure, but the permit will cost you lots of dollars to let those bees in here". The need to generate funds may be more important in a nonagricultural bureaucracy than moving bees (actually, it probably always will be). Then what do you do?

The second part of this is, what if you flat out don't want any bees that have AFB?, or AHB?, or varroa? States with only a minor migratory influence, and with the necessary regulatory power to oversee it, may disagree over this section – with vigor.

The USDA opened the meeting saying, in effect, the proposal was only a guideline, but was designed to enhance the movement of bees. It does that, in spades. And, it keeps federal fingers out of individual state's business – mostly, anyway.

Generally, I support the concept and direction of this plan. It is certainly one whose time has come. However, it will not be a neat and clean issue. And, even if beekeepers don't act on this, State Departments of Agriculture will. And you may, or may not, like what they do.□

Kim Flottum

GLEANINGS GLOBE

DECEMBER, 1991 ALL THE NEWS THAT FITS

Re-registration In Doubt

MENTHOL GONE IN JAN?

On October 4 the EPA listed several pesticide products registered before 1984 that required re-registration to remain in the hands of users. Among them was menthol, the only chemical labeled to control tracheal mites in honey bees.

To re-register menthol, not only as a honey bee treatment, but for the rest of its uses (cat and dog repellants, etc.), the current registration owners must determine what tests and data are required by EPA, perform the research and present their data with all appropriate fanfare, forms and required registration fees.

The original data for menthol registration was obtained from IR-4 research obtained before it was needed in the beekeeping industry. Only two organizations hold registrations for menthol in beehives, The American Honey Producers, (AHPA), and Sentry, Inc. The AHPA obtained their registration only two years ago, at great expense, after it was found by USDA research to be the only chemical available that could be registered with a minimum of effort, time and expense.

Another chemical effective against both tracheal and varroa mites is Amitraz, produced by Nor-Am Chemical Co. Although it has received a Section 18 Label in Michigan (available only for a specified amount of time and by certified users) for treating honey bees, it is not yet used in other states, nor, it seems, will it soon be generally available. Other states may apply for a Section 18 Label, and, like Apistan, it may slowly come into use, with severe restrictions, at least initially.

Another chemical shown to be effective against both tracheal and varroa mites is Formic acid. Although a naturally occurring compound like menthol, it, too appears to have several obstacles to overcome before it is generally available to beekeepers. The timetable for release is unknown so far.

Both Scentry, Inc. and The AHPA have 90 days (from Oct. 4, 1991) to respond to the EPA challenge. If either or both can show extenuating circumstances with their original registration procedure EPA has the option to grant an extension to the time required. Also, the registration may be transferred to another party, but the requirements for re-registration still remain.

> There's No Substitute Available

Another scenario would be for all parties (beekeepers, cat and dog repellent producers, etc.) to join forces as it were, and divide the costs of having menthol re-registered for their general uses. For an individual group to bear the cost would be prohibitive, considereing the probable return for a single user. And, the owners of menthol in general would be foolish to spend thousands of dollars to have their product registered as a pesticide with little or no hope of recovering their investment.

It appears unlikely that any opportune event will interfere with this cancellation. And, it is unfortunate that American beekeepers may soon lose an effective, if not perfect, compound in the battle against tracheal mites. But if no last minute hero appears, after January 2, 1992, menthol will no longer be available as a legal, registered treatment for tracheal mites in honey bees. The AHPA has said they believe a solution is available, and they are exploring every avenue before the January 2 deadline. Sentry, Inc. isn't as optimistic, but their regulatory people have a few ideas to test before the deadline arrives.

A final, and most decidedly scary outcome of this is that tracheal mites must be controlled or beekeepers will go out of business. To avoid that certainty, the question is – what will be used instead of menthol? Legal, but restricted chemicals? Or, will this spur regulators and researchers to make new, acceptable controls available?

KILLS MESQUITE

Two environmentally-friendly herbicides killed nearly 90% of unwanted mesquite trees in a Texas field test, says USDA agronomist Rodney W. Bovey. Bovey says the salt and ester forms of two herbicides, when used together, control the pesky weed in an environmentally safe way. They disrupt mesquite's ability to grow.

CAN'T CONNECT

Nearly all the phone numbers at USDA headquarters changed prefixes Monday, Oct. 28. The old 447- will be replaced by 720-. USDA Radio-TV's number will become (202) 720-4330. USDA Radio's Newsline will not change; it will continue as (202) 488-8358/59. The fax number will remain (202) 245-5164. USDA's AgNewsFAX number will change to (202) 690-3944.

Road Sides & Beekeepers Benefit

MORE WILDFLOWERS FOR ROADS

The wildflower business may bloom as never before in coming years. Federal legislation adopted in 1987 requires that 25 cents of every $100 in federal highway landscaping funds be used to plant wildflowers. With few exceptions, wildflowers are now part of any landscaping project on the federal-aid highway system. The National Wildflower Research Center in Austin, Texas, is the heart of research & information about U.S. wildflowers. USDA's Office of Small-Scale Agriculture, headed by Bud Kerr, has more information on assessing the market for wildflowers. Contact Bud Kerr at (202) 401-4640.

SEND YOUR NEWS TO *THE GLOBE*

NASHVILLE HOSTS HONEY PRODUCERS

American Honey Producers Association

The 23rd annual convention of the American Honey Producers Association will be held in Nashville, TN, January 7-12, 1992, at the Doubletree Hotel in downtown Nashville.

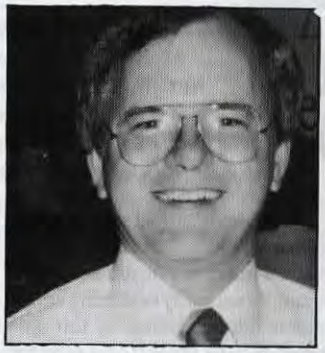
Included in the program this year will be discussions on the Farm Bill and the honey loan program; the National Honey Board referendum results; new research reports featuring speakers from across the country.

David Senter, national director of the American Agriculture Movement based in Washington, D.C. will be the Special Guest Speaker and will tell how the honey program compares with other commodities and the direction needed in Washington.

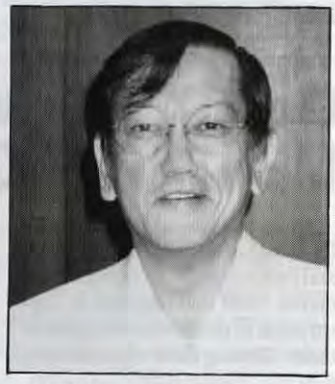
Featured speakers include: Clarence Collison, Gene Killion, H. Shimanuki, Bill Wilson, Al Dietz, Roger Morse, Bob Danka, Jim Tew, Kim Flottum, Marla Spivak, Roger Hoopingarner, Charles Milne, Howard Kerr, Ralph Bram and others.

In addition, there is the planned trip to the Walter T. Kelley plant in Clarkson, KY, on Tuesday, January 7; the annual Banquet & Awards Ceremony; and the Saturday night trip to the Grand Ole Opry!

Room rates at the Doubletree Hotel are $51.00 plus tax, with free parking and/or transportation from the Nashville airport! The rate covers one to four people in one room. Call or write the Doubletree Hotel for reservations before December 15, 1991. 1-800-528-0444, or 615-244-8200.



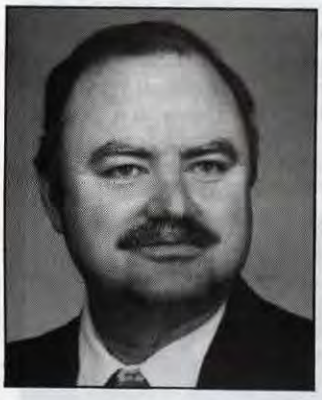
James Tew



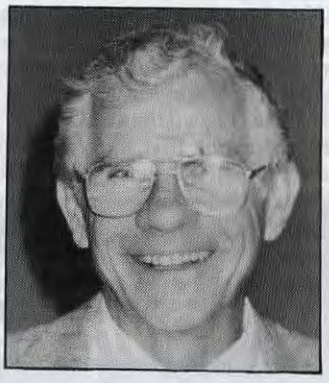
Dr. Shimanuki

Mary Human

Sherry Jennings



David Senter



Roger Hoopingarner

Roger Morse

Al Dietz

FEDERATION SAVORS SAN DIEGO

Time for the American Beekeeping Federation's 49th annual convention is nearing. The convention will be held Jan. 17-22 at the Red Lion Hotel in San Diego's Mission Valley.

The convention will feature recognition of five beekeeper-innovators whose developments have led to the greatest strides in commercial beekeeping during the 20th Century.

Bill Gamber

The innovators and their products are: Art Harrison, Los Banos, CA – the Fox-Harrison automatic uncapper; Charles Mraz, Middlebury, VT – the fume board; and for developing the beehive pallet-forklift system of moving colonies – Damon McKibben of Helena, MT, Woody Woodworth, Dickinson, ND and Dave Emde, Apopka, FL.

The idea of recognizing the three developments came from Jim Powers of Powers Apiaries. To assist in properly honoring the quintet, Mr. Powers is providing airfare for them to attend the convention, and the Federation is providing lodging. A special area is being set aside in the Trade Show hall to provide space for the innovators to meet with beekeepers and discuss their developments.

Bob Smith

Another feature of the Federation's San Diego convention will be "Special Interest Sections" – a one-half day segment of the program for several special interest groups to meet under the auspices of the Federation. Plans have been made for sections for honey packers and dealers, queen breeders, bee supply dealers/manufacturers, honey producers, and scientists and inspectors.

The concurrent workshops which have proved so popular at recent conventions will be repeated in San Diego. There will be three 75-minute sessions of five workshops; some of them will repeat once or twice, depending on their popularity. A hobbyist beekeeper workshop will be conducted concurrently with the Saturday afternoon workshops.

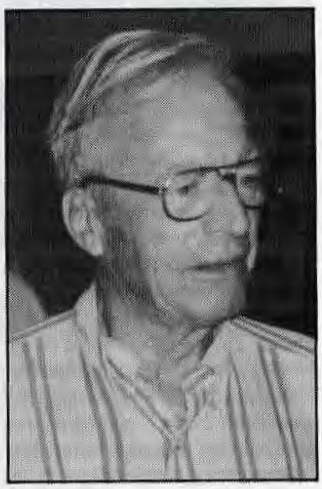
Bill Wilson

There will be no general sessions of the convention on Sunday, allowing time to visit the many attractions in the San Diego area. A tour is being scheduled consisting of a bus trip down Baja California's Pacific coast to Ensenada with a cruise back on the Pacific Star cruise ship. Other tours will visit Sea World, Old Town, and the world-acclaimed San Diego Zoo.

Topics this year include Honey Board assessments to packers, special interest sections, management, and more. Special speakers include Bill Gamber, Dutch Gold Honey; Dr. Ralph Bram, USDA; Joli Winer, Mid-Con; Dr. James Tew, Jack Thomas and Dwight Stoller.

Of course there will be the annual banquet, concurrent workshops, and an all afternoon hobbyist workshop.

The 300-room Red Lion Hotel is only a short drive from San Diego's most popular attractions. Convention rates of $75 per night, for singles and doubles, are available for three days before and after the convention to allow for extra sightseeing. For room reservations, call (619) 297-5466, or write Reservations, Red Lion Hotel, 7450 Hazard Center Drive, San Diego, CA 92108.



Charles Mraz

Paul Heins' Albany (OR) Travel Service is the official travel coordinator, and special convention fares will be available. Call Albany Travel: 1-800-327-2699 or 503-967-1022.

For further information on the convention, contact the American Beekeeping Federation, P.O. Box 1038, Jesup, GA 31545, ph. 912-427-8447.

Varroa mites, tracheal mites & politics

CANADIAN BEEKEEPERS TROUBLED

Ontario's bee industry is in chaos after the newly elected New Democratic party government suspended its apiculture inspection program just as the first confirmed reports of the arrival of varroa mites were received.

That's the view of the Ontario Beekeepers' Association since the government halted the inspection program after producing its first ever budget with a deficit of C$9 billion. It also announced a 10% cut in next year's budget funds available in April.

But provincial apiarist Doug McRory said he is working with an assistant and 35 volunteer inspectors organized by the OBA to complete the tracheal mite sampling program.

Still, four yards have been confirmed as having been infested with varroa mites arriving from the United States. Two yards in Fort Erie, within 200 yards of the U.S. border, were confirmed as having the varroa mites. In each yard one mite was found.

Twenty miles away at Niagara-on-the-Lake – again close to the border – two yards had a heavier concentration of the mites. One yard had 12 of 21 hives infested with as many as seven mites. The second yard had five of nine hives with low levels of varroa.

Agriculture Canada officials moved in and eradicated the hives and McRory said it appeared the two incursions were – hopefully – isolated and had been controlled.

But the suspension of the provincial inspection program has the Ontario Beekeepers' Association worried about the province's $10-million honey and wax industry and the $65 million worth of pollinated crops which it says now is in jeopardy.

The OBA said three serious pests threaten the Ontario beekeeping industry: tracheal mites, varroa mites and Africanized bees.

Despite this, OBA president Paul Montoux said, the Ontario Ministry of Agriculture and Food announced it was suspending the Apiculture Inspection Program which had for seven years protected honey bee pollination from mite infestations from New York and Michigan.

"The importance of this survey cannot be stressed enough," Montoux said.

But as a result of the government decision, the more than 100 inspectors hired on a contract basis to carry out the inspections have been told their services are no longer needed.

Montoux said a number of them were so dedicated they continued working with the OBA on the program on a voluntary basis.

"We felt so strongly that the survey needed to be completed before winter set in, the OBA organized and helped co-ordinate volunteers from the beekeeping community to complete government's job of collecting samples for both honey bee tracheal mite and varroa mite." Montoux said.

"The survey is being conducted by priority in quarantine areas, border areas, queen and nuc producers, and pollinators. With the help of volunteers, the objective is to catch 10,000 samples before winter."

Montoux said with U.S. beekeepers experiencing 50 to 80% losses due to these pests in some areas and pollination shortages becoming evident, the same fate now faces Ontario beekeepers.

He said OBA officials met Agr. Minister Elmer Buchanan to give him the association's proposals for a five-year strategic plan for the industry.

But Montoux said OBA officials were told that not only was the government unwilling to support the OBA's proposals it was also halting the Apiculture Inspection Program.

Montoux said the timing of the postponement was critical – with this year's inspections incomplete. He said work to finish this year's inspection had to be completed in time to properly assess the situation for next year.

But McRory said the provincial government had assigned him and an assistant to work with the 35 volunteers to complete the tracheal mite survey. He was working from dawn to dusk to get the work completed.

He said he expected to be able to finish the collection of bees. "We've got to the point where we've just about got all the bees sampled," McRory said at the end of October. "We hope the government will find the money to do the slicing."

In previous years, the program – which included C$60 payments for each infected hive that was destroyed – had always run over budget, but the government had been able to find ad-hoc funds to complete it. This year, he said, the ministry simply didn't have the extra money after the spending cuts ordered by the government.

Montoux said the promised funds for the inspection program would be cut another 10% each year for the next four years.

Without the inspection program and disease control through depopulation of infected colonies for Ontario beekeepers "all that is left is chemicals – and you know the problems with that. We are committed to food safety.

"Ontario's 5,000 beekeepers, operating over 100,000 colonies, need help to continue to provide wholesome honey and essential pollination services to the citizens of Ontario."

He said the inspection and eradication program was needed until mite resistant bees were ready for commercial use.

"We have never come across a government with such a lack of commitment," he said. "We're at a loss to explain it. We're hurting right now and we need some form of control."

MANITOBA'S MITES FROM N. DAKOTA

Canadian agricultural authorities are optimistic two confirmed finds of varroa mites in Manitoba were isolated incursions from the United States and does not indicate an outbreak in the province's honey bees.

The Manitoba Agriculture Department has conducted a swarm monitoring program along the border with North Dakota for the last three years. This year 13 swarms were caught and two were infested with varroa mites – the first time the mites have been found in the province.

Agriculture Canada has conducted an intense varroa survey of Manitoba colonies in the area where the varroa was found in two captured swarms. Unless this survey uncovers more infestations, Manitoba authorities say they will continue to assume the varroa came into the province with swarms from the U.S.

The two varroa finds were in swarms captured closest to the U.S. border south of Killarney. The closes Manitoba apiary was located about six miles northwest of the nearest swarm.

North Dakota authorities advised the Canadians that a migratory beekeeper known to have varroa infestations had located three yards within a half mile of the Canadian border and immediately south of the two positive swarms found in Manitoba.

"Given the distance of the Manitoba colonies and the proximity of the infested colonies in North Dakota, we have concluded that it is probable the infested swarms originated in North Dakota," a Manitoba Beekeepers Association spokesman said.

"This discovery clearly demonstrates the need for beekeepers to locate their honey bee colonies well away from the U.S. border."

The beekeeper, out for his first round of golf of the season, was having a hard time on the eighth hole. After he missed his fourth putt, he noticed a trespasser watching him. "Hey," he said angrily, "only golfers are allowed on this course."

"I know," said the trespasser, "but I won't mention it if you don't."

CALENDAR

☆ CANADA ☆

The 1992 Bee Masters Course will be offered February 10 - 15 at Simon Fraser University, Burnaby, British Columbia, Canada, just outside the scenic city of Vancouver. The Bee Masters is a week-long, intensive course in advanced beekeeping that has been offered every second year for almost 40 years. The course is offered jointly by the B.C. Ministry of Agriculture and Simon Fraser University, and includes topics such as seasonal management, nutrition, queen rearing, pollination, diseases, mites, Africanized bees, pesticides, marketing, hive products (honey, pollen, propolis, royal jelly, wax, etc.), and much, much more. The course combines illustrated lectures, laboratory periods, social events, lots of discussion, and an optional final examination. Participants are expected to have previously kept bees and to have some knowledge about bees and beekeeping; hobbyists, sideliners, and commercial beekeepers are welcome, and all will benefit from and enjoy this course. Lecturers for the 1992 course include Cynthia Scott-Dupree, Denis Mckenna, Alan Tremblay, mark Winston, Paul van Westendorp, Doug McCutcheon, and many others.

For further program and registration information contact Conference Services, Continuing Studies, Halpern Centre, Simon Fraser University, Burnaby, B.C. V5A 1S6 Canada, Ph. (604) 291-4910 and 291-3649, FAX (604) 291-3420.

☆ MINNESOTA ☆

The Minnesota Honey Producers Association will hold its winter meeting Dec. 6 & 7 at the Sunwood Inn in St. Cloud. All beekeepers and would-be beekeepers are invited to attend.

For more information contact Gary Oberton, Rt. 1, Box 89A, Randall, MN 56475.

☆ NEW MEXICO ☆

All beekeepers are invited to attend the New Mexico Beekeepers Association annual convention, December 6 & 7, at the Ramada Inn East, 25 Hotel Circle, Albuquerque. The Ramada is conveniently located just east of the intersection of I-40 and Eubank.

Registration will begin at 12 noon Dec. 6 with the first speaker slated at 1 p.m.

Topics of discussion include new research on tracheal mites and other honey bee pests, the increasing role of honey bees in formal education, Africanized bees, marketing (particularly in the fast-growing health food industry), beekeeping in China, queen rearing in New Mexico, governmental relations, tips for hobbyists and a whole lot more. This year the NMBKA is especially proud to present New Mexico Department of Agriculture Director Frank Dubois, Dr. William Wilson, Honey Bee Research, Weslaco, TX and The American Honey Producers Association President Richard Adee.

A fine banquet, door prizes, equipment displays and gracious New Mexico hospitality will enrich what promises to be an informative and entertaining convention. For more information contact Rick or Betty Cole at 600 N. Bosque Loop, Fosque Farms, NM 87068 or call (505) 869-2841.

☆ NEW YORK ☆

The Empire State Honey Producers Association and the Ontario Beekeeper's Association will hold a joint meeting December 6 (Thursday, starting at noon) through Saturday, December 8. The site will be the Sheraton Inn in Niagara Falls, on the Canadian side. This is the first joint meeting of the two associations in 25 years. A honey show will be included.

Raymond Borneck, President of the international beekeepers organization, Apimondia, will be a featured speaker. Mr. Borneck, from France, is a commercial beekeeper and has traveled widely in international beekeeping circles.

Other speakers include Dr. Cynthia Scott-Dupree from the University of Guelph, Dr. Dewey Caron of Delaware State University, Doug McRory the Ontario Provincial Apiarist, Dr. Dennis McKenna of Fairview College, Dr. Tibor Szabo of Beaverlodge, Willy Baumgartner of Medivat Pharmaceuticals of Alberta, Professor Roger Morse of Cornell University and Dr. Gard Otis of Guelph University.

☆ TENNESSEE ☆

The American Honey Producers Association, Inc. will hold the Annual Conference Tuesday January 7 through Sunday, January 12, 1992, at the Doubletree Hotel, Two Commerce Place, Nashville, TN

Activities include a Friendship Reception, Board of Directors meeting, General Sessions, Annual Banquet & Awards Ceremony. Also an evening at the Grand Ole Opry is scheduled.

For more information call T. Ray Chancey, Convention Chairman, (409) 258-3034.

☆ UTAH ☆

The Annual Convention of the Utah Beekeepers Association will be December 6th and 7th in the Auditorium of the Utah State Agriculture Building at 350 N. Redwood Road in Salt Lake City. Neil Miller will be the featured speaker. The banquet will be held December 6 at 7:00 p.m.

For further information contact William R. Jones, 286 Andrew Lane, Salt Lake City, UT (801) 262-6079 or (801) 355-2033.

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were really mellow. They ignored me, even after I started thumping and banging, trying to break the outer cover loose. It was quickly apparent that the hive had not been opened for a long time, probably since they last took honey three years ago. Burr comb, bridge comb, propolis, anything you can think of, it was there. The inner and outer covers were a struggle to get off, but they were nothing compared with the two chock full honey supers. With each piece of the hive that came off, I had to find a place to put it. There was no flat spot where I could set the outer cover and stack the supers, so I was soon surrounded by pieces of the hive, each piece kept from sliding away by those rusty nails.

The hive was quite healthy – let-alone beekeeping exemplified? I began reassembly. The hardest part of this was making all of the brood frames fit back where they came from. It's amazing how quickly frames expand when you remove them from the hive. Or is it that the hive bodies shrink? I haven't quite figured that out.

All the while I worked, I kept glancing over my shoulder, awaiting the inevitable. I expected the beekeeper to arrive with a wheelbarrow or a garden cart to carry the supers, announcing that she had found the extractor. No sign of her, though, as I reassembled the hive. With everything back in place, I backed slowly down off the lumber pile. It rocked some more but those nails were doing a job. They held everything in place and my weight had probably locked the pile tighter. I wished that I had realized that sooner. I could have relaxed a bit.

I went back to the truck, stowed my smoker and veil, and got out the clipboard. After filling out an inspection report, I went up to the porch again. I could hear the beekeeper through the open doorway, still talking on the phone. So, I did the obvious. I shoved the inspection slip between the door and the jam, went back to the truck, and drove away.

I did not have occasion to inspect in this particular town again, but I talked with the inspector who did a couple of years later. Expecting to hear an interesting story, I asked him about his visit to the property in question. What a let down. He had been met at the door by a young woman, not the beekeeper, who said they no longer kept bees and she had no idea where the empty hive had gone. □

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The Reluctant Extractor

RICHARD BONNEY

It was late morning and I had already made several stops on my inspection rounds. At one I had chatted with an old timer who no longer had bees. He lived alone, and welcomed a visitor who would listen for a few minutes while he told about the old days. He once had ten hives but the last one died off just this past winter. He wasn't going to start again. He said that there just weren't as many swarms as there used to be, so it was harder for him to replace his winter losses. Besides, he was tired, and the hives seemed heavier these last few years. He missed the bees but there was no shortage of pollinators in his garden.

Probably came from some of those dozens of swarms he had lost over the years, he thought. He still had several gallons of honey stored away from previous years, so that would be no problem. He figured that some of it would still be there after he was gone. I left him hoeing in his garden. The hoe, too, must have been heavier. I could see the outline of a much larger garden from the past.

I went on down the road to my next stop. I had not been here before. These bees were not on our list. They belonged to a beekeeper my wife met by chance a few weeks earlier and the conversation had come around to bees. Just as we hadn't known of the existence of the beekeeper, she had not known of the existence of a state inspection service. She was thrilled at the idea of someone coming to look at her bees.

I went to the door and introduced myself as the bee inspector. Her greeting was effusive, a bit more than I was used to from other beekeepers. It soon became apparent that she had no idea what apiary inspection was all about. She knew what she wanted though.

"Come in, I'll make some tea" she said, "and while you are drinking it I'll go to the attic and find the extractor. I think I know where it is. I'm sure I saw it a few weeks ago. Then you can go get the honey from the hive. This is so wonderful. I'm so glad you've come. I just didn't know how I was going to get the extracting done. It has been at least three years since we took any honey."

This was all thrown at me rapidfire, while I stood there slowly going into shock. I was finally able to break in and tell her that I really didn't have time for tea, and was just about to explain that extracting was not a part of the inspector's duties when the phone rang.

"Just a minute" she said, "I've been expecting a call. This won't take long," and she went for the phone.

I stood there on the porch, waiting for her to come back, meanwhile perfecting my explanations of why the inspector could not extract her honey. After several minutes I decided to go back to my truck and get out the smoker and veil. After several more minutes I started to wander around. It was a large property, very overgrown with shrubbery, and I had no idea where the hive might be.

Just across the road from the house was a big old barn. I like old barns. I enjoy speculating about their pasts, and I especially enjoy seeing them continue a useful existence. This one was obviously old but still in good condition, and it was full of the accoutrements of the busy life of a large family. As I stood there studying all of this I suddenly realized that I was looking right at a beehive. It was inside a small, falling down shed that was attached to the side of the barn. Had I been actively searching I probably would not have found it since it was inside and in semi-darkness, not at all a location where you expect to find a beehive. Put in there for the winter perhaps and never taken out.

I went back and donned my veil, picked up the smoker and then ventured slowly into the shed. The hive was perched precariously on top of a pile of old lumber. The lumber was of that in-between condition, not really good enough to use for most projects but too good for a countryman to throw away, especially when there is an old outbuilding to store it in. It had been tossed in there carelessly, with no attention to the rusty nails sticking out in all directions. As an accessible hive stand, the lumber pile was a failure. The pile sloped in all directions, with the hive balanced on top. There was no proper place for a person to stand. I climbed up there anyhow.

There was an initial lurch as I stepped up onto the pile. The hive bounced, rocked, settled a little, and then was still. I could see that the bees were alive and active. There was a steady stream of them flying in and out through the open end of the building. These bees

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