

The Bee Line

Newsletter of the Oregon State Beekeepers Association

Volume 18
Number 2

April - May
1993

Tillamook hosts bee field day

The Tillamook beekeepers will host a field day on Saturday, May 22, at the State Forestry Building in Tillamook. Lunch will be potluck - but if available, the hosts will provide Tillamook oysters and salmon. Beverages will be furnished.

Dr. Michael Burgett, entomologist and apiculturist at Oregon State University, will be the main speaker. Burgett is just back from Thailand and may talk a little about his research projects there.

However, the general program will include discussions on queen introduction, making splits, and questions and answers on other topics of interest.

Bob Allen, one of the hosts, suggests this would be a good time for an outing to the coast. And since registration starts at 8 a.m. Saturday, it might be a good idea to drive over on Friday.

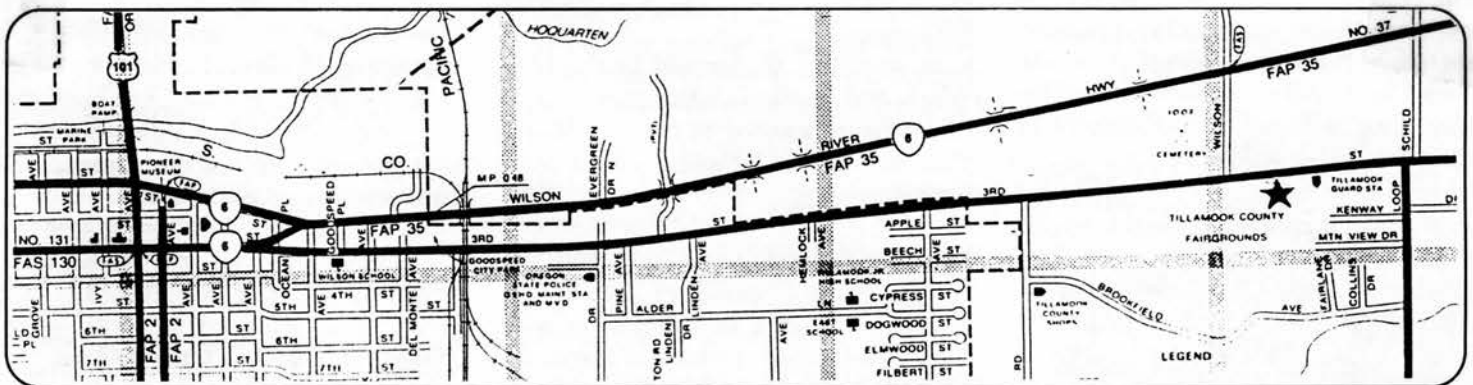
There are plenty of things to do and see: The newly-remodeled Tillamook Cheese Factory offers visitors a chance to see how the world-famous cheese is made, and tempts them with double-scoop ice cream cones.

For information about where to stay and what to see and do, write: Tillamook Chamber of Commerce, 3705 Highway

101-N., Tillamook, Oregon 97141, or phone 1-842-7525.

Hook-ups for recreational vehicles are available at the Tillamook County Fairgrounds just west of the forestry building. Reservations should be made before May 20. Phone 1-842-2272 and say you will be attending the Tillamook Beekeepers Association field day.

For more information about the field day, call Bob Allen, 1-322-3819; Fritz Hoffman, 1-842-6856, or Gregg Cline, 1-842-3080.



Beekeeping field day: who, when and where

Hosted by the Tillamook Beekeepers
Saturday, May 22, 1993
State Forestry Building
Third Street/Wilson River Loop
Tillamook, OR

REGISTRATION: 8 to 9 a.m.
Session No. 1: 9 to 10:30 a.m.
Break: 10:30 to 10:45 a.m.
Session No. 2: 10:45 a.m. to noon
Lunch: Noon to 1 p.m.
Afternoon: Open for whatever is of interest to the group.

The State Forestry Building is located on Third Street about two miles from the center of Tillamook and just east of the Tillamook County Fairgrounds. If you're coming from the south or north on Highway 101, turn east onto Third. There's a turnoff for traffic to get onto the Wilson River Highway: Keep right; make sure you continue on Third. The fairgrounds and forestry building are both on the right side of the road.

Coming from Portland on Highway 6 - the Wilson River Highway - at the yellow blinking light at the intersection of the Wilson River Loop road, turn left and go to Third Street. This will put you at the fairgrounds. Turn left again. The forestry building is on the right after the fairgrounds.

Entomologist Lynn Royce continues research with honeybees: 'fascinating little beasts'

CORVALLIS - Dr. Lynn Royce, who makes her living probing into their private lives, thinks honeybees are fascinating little beasts.

Royce's most recent research project is trying to get queen bees to mate with selected drones in flight within a confined environment. Until now, artificial insemination has been the only way to control the breeding of honeybees.

Controlled indoor mating could prevent open mating between European honeybees and Africanized honeybees. The defensive Africanized bees have migrated through Central America and Mexico into some of the southern states of the U.S.

"It would give us control over the drone lines as well as the queen lines. Therefore, we would not be getting queens who produce Africanized hybrid workers," said Royce, an associate professor at Oregon State University.

According to Royce, if breeding in an indoor chamber occurs at high enough frequency to become successful on a large scale, it would be possible to control breeding.



Controlled breeding indoors also may make it easier to develop breeds that are resistant to disease. Another benefit might be the extension of the queen breeding season in colder climates such as Oregon's.

The indoor mating project is an exciting development and represents another stage in entomology research Royce has been conducting throughout her professional career.

Royce, who grew up in northern California, earned her bachelor's degree in biology from Chico State University, and her master's on mites and bumblebees, from the University of Kansas. In 1989, she completed her doctorate at OSU. Her research program involved the development of a model to describe population changes for honeybees and tracheal mites.

Dr. Royce did her original research with honeybees in 1985 when the tracheal mite was first discovered in the U.S. When she continued the research at OSU, Royce wanted to find out if tracheal mites were infesting wild or feral honeybees.

Newspaper articles and help from the Oregon State Beekeepers Association helped her locate 60 colonies of wild bees. Jeff Onstad, a friend of North Albany beekeeper Dirk Olsen, helped Royce locate about half of the wild colonies.

Fewer mites were found in the wild bees. Royce believes this is because the unmanaged feral colonies are more apt to swarm which tends to interrupt the tracheal mite's reproduction.

There is some evidence that mite reproduction is lowered when hives are split or divided. However, since mites reproduce in the spring when the queen is laying, it's a toss-up how beneficial it is to split colonies in order to reduce mites.

Royce is still keeping track of feral colonies. However, the queen mating project may be curtailed because of a lack of funds. The first summer of the project, Royce and colleagues worked on the project on their own. Last summer, the project was funded by a grant from Amity beekeeper David Kerr which was matched through the Oregon Department of Agriculture.

Her research projects are related to problems now facing the Oregon beekeeping industry: the infestation of the tracheal mite as well as the long-dreaded Varroa mite, and the possibility that Africanized honeybees may eventually migrate to the Northwest.

Royce's colleagues are both interested in research. Bertie Stringer of Blodgett is the chairman of the OSBA's Nectar and Pollen Flora division. The former Bee Line editor contributes articles on honeybees and flowers to *Gleanings in Bee Culture*. Stringer and Royce have teamed up on several articles for *Gleanings*. Dr. Phil Rossignol has been with OSU since 1988. The medical entomologist has done most of his research with mosquitoes and malaria.

Dr. Royce now holds a "fixed term" teaching position, which means OSU determines whether to continue the classes she teaches term-by-term.

By the way, Lynn Royce has never been bothered by bee stings. However, her 13-year-old son, Aaron, who keeps three colonies, swells and breaks out with hives when he gets stung. An allergist suggested getting rid of bees but Aaron opted for allergy shots.

Royce's other son, Keith, 15, would rather play the violin than keep bees. Aaron and Keith both play soccer.

Story by Marilyn Weatherly

Turn of the century bee publications tell us why women should and shouldn't keep bees

By Connie Petty
Editor, The Bee Line

How many times have you told someone you're a beekeeper? And the person says, "Why, my grandfather used to keep bees."

Well, according to the January 1883 issue of *The American Bee Journal* and an August 1906 *Gleanings in Bee Culture*, a few grandmothers may have kept bees, too.

The *Journal* reported: "Bee culture and its benefits have never been properly or fully presented to ladies as a light and profitable employment."

The author, Isaac F. Plummer, had expressed these same views before the Maine (beekeepers) Convention.

* "The subject of bees and flowers is so inexhaustible, so full of interest, indispensable to each other, and each so well adapted to the care and cultivation by ladies, that a few hints on this interesting subject may lead to others still greater."

* Bee research is something women can do: "There is a certain mystery about the habits of bees that forever keeps the imagination waiting for some new discovery or development."

However, bee stings can be a "drawback," but "modern improvements, such as bee-veils, gloves and bee-smokers properly used should be sufficient to forever dispel every fear even of the timid."

"Ladies are certainly adapted to bee-keeping, because ... they love and and cultivate flowers, the very perfection of virtue and inspiration; and bees and flowers seem inseparable," the author wrote.

Plummer didn't advise *all* women to keep bees ... but those who have time, inclination, and who wish all the benefits including the profits of bee-keeping, should "try a few colonies."

"Some of the smartest bee-keepers we have in this country are ladies, and I see no reason why the ladies of Maine cannot be as successful in this branch of business as ladies in other States," the writer concluded.

The *Gleanings* article was written by Anna Botsford Comstock. Her residence wasn't given. In a note about the article, the editor

wrote: "We have received a great many articles on bee-keeping (the word bee-keeping was always hyphenated) for women, but never one that was more racy and readable than this."

The title - "Women and Bees" - was followed by a sub-head, "Why they Should and Should Not Keep them."

According to Comstock, two questions invariably "pop up" when "feminine bee-keeping" is discussed: "Why shouldn't a woman keep bees?" and "Why should a woman keep bees?"

"Nowadays, there is no effective reason why a woman should not do almost anything that she takes into her enterprising little head to do," Comstock wrote.

Hard work might deter some of the "faint-hearted fair," she wrote, but this is not a problem as "most women of whatever class are at it anyway."

To solve this problem, a woman could use a "Boardman hive-cart" or ask a man to help. Her husband would be quite willing since "he loves the bees so enthusiastically" she must beg for a chance to work with them, although he tells people they are "Mrs. Comstock's Bees."

The writer expounded upon *why* women should keep bees: It's a study of nature; it cultivates calmness in spirit, self-control and patience; it's a heap of fun; it can put honey on the table and provide the woman with a little extra spending money.

But she emphasized bee-keeping as an interesting avocation that can be carried on with other employment, and something to "take a woman's mind and attention completely off her household cares."

She explained: "There is something about the daily routine of housekeeping that wears the mind and body full of ruts, even in the case of those who love to do housework."

Embroidery, lacemaking, weaving and painting serve a purpose but these are indoor occupations. A woman needs fresh air and sunshine, the writer added. Bee-keeping is one of the best of these life-saving, nerve-

healing avocations ... it takes the mind away from household cares as completely as a trip to Europe.

If a woman likes housekeeping, the bee is a model; if she's interested in business, the bee is a shining light; if she is interested in the care of the young, the nurse bee is an example of perfection.

And, she added, if a woman "believes in the political rights of woman, she will find the highest feminine political wisdom in the constitution of the bee commune."

Mrs. Comstock said she personally enjoyed such tasks as "folding comb-honey sections and putting in starters," of holding a pound of well-capped amber honey and putting it in a "dainty carton for market." She suggested women should design their own cartons.

As for making money, "woman is by birth and training a natural gambler, and the uncertainties of the nectar supply and of the honey market add to - rather than detract from - her interest in her apiary."

However, Mrs. Comstock and her husband each had vocations so they kept bees for honey and for "fun."

"We shall have plenty of honey for our own table and just enough to bestow on the neighbors so they will not get tired of it; and fun enough to season life with an out-of-doors interest and the feeling that no summer day is likely to pass without a surprise."

Bee Line editor's note: Well, not much has changed in the past 100 or so years: In what women do, and why men - and women - keep bees.

Marilyn Weatherly, *The Bee Line* feature writer, found these articles at Oregon State University. Marilyn is working on two articles there, an interview with OSU entomologist Lynn Royce, and research on the history of beekeeping in Oregon.

The article about Lynn appears in this issue: She's among today's women bee researchers. I believe the *Journal* and *Gleanings* writers (above) would agree she's well-suited for the occupation.

Oregon State Beekeepers Association

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The Bee Line, official publication of the Oregon State Beekeepers Association, is published ten times a year. Subscriptions are included with OSBA membership.

Send news items, announcements, letters and advertising to:

Connie Petty, Editor
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Apiculture society will meet in British Columbia in August

The Western Apicultural Society will meet August 16-20 at Simon Fraser University in Burnaby (near Vancouver), British Columbia.

Conferees will be housed at the university. The accommodation deadline is Friday, July 16.

Write: Simon Fraser University, Conference Services, Halpern Centre, Burnaby, B.C., Canada, V5A 1S6 (FAX: 291-3420)

WAS is the group that gets conferees involved in such antics as bee beards and lots of talking. However, chairman Dr. Mark Winston promises the get together will be a blend of bee science, practical beekeeping along with the fun.

Topics and speakers include:

- * Wintering Bees in the Peace River by Denis McKenna.
- * Bumblebees under Glass by Margret Wyborn.
- * Keeping Varroa under control, Eric Mussen.
- * Traditional beekeeping, John Corner.
- * Silkworms and honeybees in India, Don Dixon.
- * Honey labels, what they say to the consumer, Bob Smith.
- * Pollination, Dan Mayer.
- * Double your honey; splits and two-queen colonies.

Meals include a get-acquainted buffet supper, salmon barbecue and a banquet at the Pink Pearl, considered to serve the best Chinese-Cantonese food in Vancouver, and by extension, the best in the country.

The Bee Olympics/Dances with Bees (bee beards) is also on the agenda.

There's an incentive to register early - a discount is offered to those who send their money in on or before June 30. Registrations mailed after 5 p.m. Aug. 6 will not be processed, but delegates can register at the university.

Because of the exchange value of the U.S. and Canadian dollar, U.S. beekeepers pay lower fees.

Advance registration:

\$60 U.S. and \$75 Canadian.;
after June 30, \$90 and \$75.

Meals range from \$13 to \$28 U.S.

Room rates for U.S. are \$29.50 single, \$44 per couple and \$53 for a family.

For full information and an application to attend, write:

Conference Services Centre,
Simon Fraser University,
Burnaby, B.C. V5A 1S6.
Telephone: 604-291-4910 Fax 604-291-3420.

33rd Apimondia conference and cultural tour set for China ...

This could be your year to travel - and learn about beekeeping.

Apimondia, the international apicultural organization, will hold its 33rd conference September 21-23 in Beijing in the People's Republic of China.

Paul Heins of Albany Travel has arranged a tour in conjunction with the conference. The group will leave the West Coast Sept. 19 and return Oct. 3.

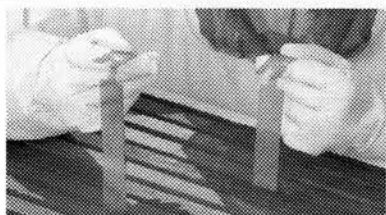
Tour sites include the Great Wall, Ming Tomb, a cruise along the Li River, and stops in Shanghai and Xi'an. Tourists will dine on Peking duck and enjoy an evening of Chinese opera. The tour concludes with a tour of Hong Kong.

The cost per person from the West Coast is \$2,998. A single supplement is \$505. Air fares from other cities range from \$108 from Phoenix, \$291 from New York City to \$350 from Fargo, N.D. More information is available from Albany Travel, 1-800-327-2699.

Apimondia was last scheduled in Split, Yugoslavia in 1991, before the country split. The conference was postponed when civil unrest broke out.

Meetings have been held in Communist countries (all are now democracies) but this is the first time a meeting will take place in China. Information about the conference will be available in the next Bee Line.

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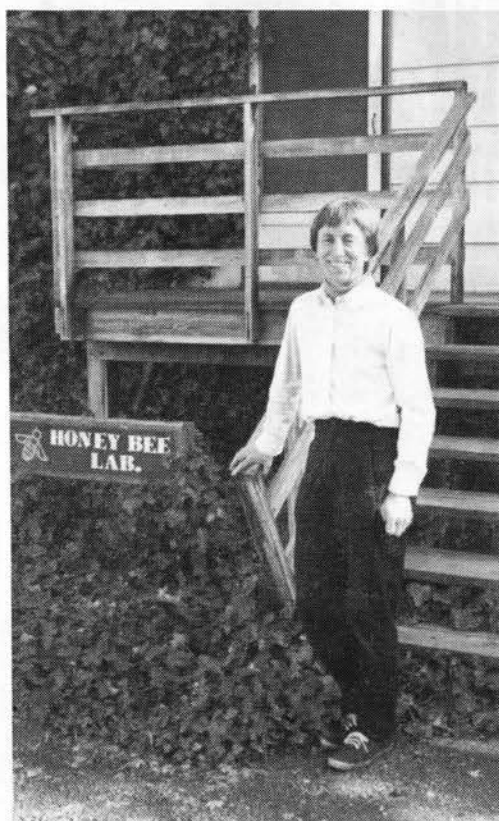
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Lynn Royce at OSU bee lab
(story, page 2)

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Dash cayenne or bottled hot pepper
(optional)

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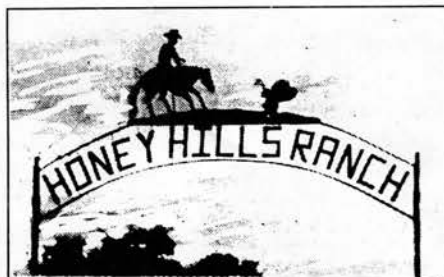
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ITINERARY

Sept. 19	Depart U.S. for Beijing by United Airlines. Cross International Dateline.
Sept. 20	Arrive Beijing. Meet and transfer to Holiday Inn Crowne Plaza.
Sept. 21	Meeting
Sept. 22	Meeting
Sept. 23	Meeting
Sept. 24	Full day tour of Beijing w/lunch. Peking Duck dinner.
Sept. 25	Full day Great Wall & Ming Tomb Tour with Lunch
Sept. 26	Evening Chinese Opera
Sept. 27	Fly to Shanghai. Transfer to Holiday Inn Yin Xing.
Sept. 28	Full day tour of Shanghai with lunch.
Sept. 29	Fly to Xi'an. Transfer to Holiday Inn Xi'an.
Sept. 30	Full day tour of Xi'an with lunch. Late afternoon flight to Guilin. Transfer to Holiday Inn Guilin.
Oct. 1	Full day Li River Cruise with lunch. Evening flight to Hong Kong. Transfer to Park Hotel.
Oct. 2	Morning Hong Kong Island Tour.
Oct. 3	Transfer to airport for United Airlines flight to U.S. Arrive home city on the same day.



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Membership in the Oregon State Beekeepers Association is open to anyone who has an interest in bees and beekeeping. You do not need to own bees or reside in Oregon to join.

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Editor proposes a beekeeping directory

Who's in the beekeeping business in Oregon?

Would you like to list your business in The Bee Line? This would tell other beekeepers who you are, what sort of business you operate (pollination, bee supplies, etc.), where you live, and list your telephone number.

Such a listing might help you remember the name of that person you met at the last beekeepers meeting.

It would also serve as a directory of beekeeping services available to farmers and others in Oregon.

The directory would not replace display or classified advertisements in The Bee Line. There will be a small charge, 50 cents per issue for members and \$1 for non-members.

This is what I have in mind:

Behrend's Bees: 4972 OldStage Road,
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Owners, Oliver Petty and John Mespelt. Bee
supplies, package bees in season, queens.

Ruhl Bee Supply, 12713-B N.E. Whitaker Way,
Portland, Or. 97230. Phone: 1-256-4231.
Owners Sheryl and Ed Johnson. Bees and
beekeeping supplies

If enough people are interested, we'll include
the directory in the next issue.

Please send your business card and the
form below (or use a separate piece of paper
with the information:

Name of business: _____

Owner/owners: _____

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Colony Reproduction By Africanized Honey Bees

Brood Development Biology

Africanized honeybees (AHB) have a shorter development time than European honeybees (EHB). The eggs of Africanized honeybees hatch in 70 to 71 hours, whereas the eggs of European honeybees hatch in 72 or 76 hours. In Venezuela the Africanized worker honeybee had a development time of about 19 days from egg laying to emergence. The European honeybee in Venezuela had a development time of about 20 days, the same as in the U.S. Africanized honeybee queens also develop about half a day sooner (14.5-day development period) than a European honeybee queen (15-day development period).

Development times were unaffected by the cell size, the nurse bee, or any comb/nurse bee interaction. Differences between development times of Africanized and European honeybees were noted primarily during the uncapped state. Africanized bees do not warm their nests differently to stimulate faster development. Rather, the difference lies in egg genotype. The AHB also produces more bees than the EHB per unit of time. A shorter development period, from egg to adult, therefore, may be one factor that contributes to Africanized honeybees swarming more frequently.

Swarm biology of AFB and EHB

One of the most distinctive differences between European honeybees and Africanized honeybees is the rate of reproductive swarming. Observations in French Guiana showed that an AHB colony produced between six and twelve swarms a year. During the 8-month season, swarms were produced three or four times, with intervals as short as 50 days. It has been calculated that from an original swarm about 60 colonies can result. The AHB suffered high colony mortality because of absconding (colony abandonment) and starvation.

In the northeastern part of Mexico, EHB with similar behavior have been observed. Swarms are found almost every month of the year, with peak swarm periods corresponding to two rainy seasons. European honeybees in unmanaged hives in temperate zones produce only one to four swarms a year. Annual population growth rates for EHB growing season average about a zero to threefold annual increase—considerably lower than the estimated annual increase for AHB. Compared to these European honeybee swarms, the AHB swarms are small, averaging 5,000 workers, a queen, and sometimes a small number of drones.

If given a choice, Africanized honeybees prefer a larger nest cavity than do EHB. If nest sites are limited, AHB will accept more marginal nest sites than European honeybees would commonly choose. This gives the Africanized honeybee a wider range of nest choices.

Requeening AHB swarms

Through a more difficult process than with European bees, Africanized honeybee swarms can be requeened. However, requeening large numbers of Africanized honey bee colonies in the U.S., even with current technology, would be a time-consuming process. The nervous nature of AHB queens and their dark body color tend to make finding the queen difficult. U.S. commercial beekeepers, using ripe queen cells to requeen European honeybee hives, are only 40 percent successful at requeening after killing the original queen. The behavior of the AHB could make this percentage drop to levels that make requeening a questionable procedure.

Therefore, requeening Africanized honeybee swarms with EHB queens is not encouraged in the U.S. Managing AHB colonies through requeening is also not recommended. Their defensive behavior alone can be a threat to the public, farm workers, and beekeepers, as well as to domestic and farm animals.

(Africanized and European honeybees are members of the same species, *Apis mellifera*. They represent populations that have evolved under different environmental conditions. The same basic behavior, biochemistry, and structure are present. However, there are differences in size, range, or frequency of expressions of some characteristics. Read about those differences in the next Bee Line)

Absconding behavior of the AHB

Absconding, or the complete abandonment of the colony by all resident bees, frequently occurs in Africanized colonies. European colonies rarely abscond, even in tropical climates. Typically, about 15 to 30 percent of AHB colonies abscond each year, but the rate can approach 100 percent in some areas.

Researchers have reported that absconding swarms depart with twice the honey and bees of a reproductive swarm, and that the absconding swarm may travel as far as 100 miles before constructing a new nest. Absconding is usually caused by colony disturbance or a shortage of food.

Prepared by Dr. James E. Tew, National Program Leader, Apiculture, Extension Service, United States Department of Agriculture (USDA) and the Ohio State University at Wooster, Ohio and Dr. Anita M. Collins, Research Leader, Honey Bee Research Laboratory, Agricultural Research Service, USDA, Weslaco, Texas, in cooperation with the USDA Interagency Technical Working Group on the Africanized Honey Bee.

Next month: Honeybee mating control

Bee notes about beekeeping in and around Oregon

TOPPLED BEE HIVES? Did any bee hives topple at Molalla, the epicenter of the March 25 earthquake? Feature writer Marilyn Weatherly checked with Torey Johnson who keeps 20 hives at Molalla. His were all okay, but he waited three days after the quake to let the bees settle down before checking them. Johnson admitted he had damage from bears last year, however. Silverton beekeeper Philip Clites experienced a 100 percent winterkill: All four hives. Weatherly said longtime beekeepers scoffed at earthquake damage. Flooding could be the greatest threat to bees this spring.

HONEY POT COLLECTORS: Honey Pots International now has members in several countries as well as states interested in exchanging ideas and honey pots. Members include Bob Guilford, Australia; Kalman Chaim, Israel; Rita De Roo, Belgium; Diane and David Webb, England; Sandee Doan, Spanaway, Wash., and Patty and Lance Sundberg, Columbia, Mont. This is not yet an organized club and there are no dues. Betty Ramsey sends a monthly newsletter to members and others in exchange for postage. For more information, contact Betty Ramsey, 4455 Nevada St., Salem, Or. 97305.



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More bee notes

BEEKEEPER RECUPERATES: Albany beekeeper Oliver Petty is recuperating from the mild heart attack he suffered in January in Kansas City, Mo. Petty's answer to illness was always "nothing a little work won't cure." However, he has adhered to a strict diet and exercise regime. But he's also has sold bee supplies and honey, and moved bees with help from 4-H members and their parents.

POLK COUNTY 4-H: Polk County 4-H and FFA members are seeking donations to build a new animal exhibition facility at the fairgrounds at Rickreall. For more information write: Polk County 4-H Leaders Association, P.O. Box 640, Dallas, Or. 97338.



Gibson Hill Honey Farm
OLIVER W. PETTY, Owner
1033 Gibson Hill Rd. Albany, Oregon 97321
928-7924

With deepest sympathy

William Ames, one of the men presumed drowned off Newport this past month, is the son of Elmira beekeeper Don Ames. A memorial service was held last week for young Ames. The officers and members of the Oregon State Beekeepers Association extend sympathy to Don and Florence and their family. Their address is: 25222 Arnold Lane, Elmira, Or. 97437



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Local Group Meetings:

COOS COUNTY
7:30 p.m.,
Third Friday,
except December.
Coquille Annex.
Coquille

KLAMATH COUNTY
Dates and places vary.
Call officers above.

LANE COUNTY
7:30 p.m.,
Second Tuesday;
Public Employees
Credit Union Bldg.,
1155 Chambers St.,
Eugene.

PORTLAND
7:30 p.m.,
Fourth Monday;
Far West Federal Bank,
McLoughlin Blvd.
Oregon City.

SOUTHERN OREGON
7:30 p.m.,
First Monday;
Ag Extension Auditorium,
Maple Park Drive,
Medford.

TILLAMOOK COUNTY
7:00 p.m.,
First Thursday;
Fish & Wildlife Bldg.
4909 Third St.
Tillamook

TUALATIN VALLEY
7:30 p.m.,
Second Monday
PGE Bldg.
Old Scholls Ferry Rd. & Murray
Beaverton

WILLAMETTE VALLEY
7:30 p.m.,
Fourth Monday;
Room 32B,
Chemeketa Community College,
Salem



Morris X. Smith of Toledo, Or., (right, bottom row) was among beekeepers who attended the American Beekeeping Federation's 50th anniversary convention in January 1993 in Kansas City, Mo.

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FOR SALE: Dadant stainless steel 20-frame radial extractor, almost new, \$600; misc. frames, foundation, supers and rendered wax. Jeff Smith, 2747 Newton St., Philomath, Or. 97370, phone 1-929-3621.

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FOR SALE: Vertical vibrating knife for uncapping honey. Comes with stand. \$100. Kenney Williams, 20367 Long Road, Blodgett, Or. 97326, phone 1-456-2631.

INDEX:

Page 4.....WAS sets August meet in B.C.

Page 2..... Honeybees fascinate bee researcher

Page 3Should or shouldn't women keep bees?

Page 8.....More about the Africanized bee

Page 6... ..Bee notes

Page 11.... Who's who in beekeeping in Oregon

Mark your calendar:

- * Saturday, May 22: Field day, Forestry Bldg., Tillamook.
- * Sunday, August 8: OSBA Summer Picnic: Hosted by Susan and George Hansen, at Foothills Honey, 30576 Oswalt Road, Colton, Oregon 97017. Telephone 1-824-2265.
- * August 16-20: Western Apicultural Society 1993 Conference, Burnaby (near Vancouver), B.C.
- * August-September: Oregon State Fair, Salem, OR.
- * September 16-Oct. 3: 33rd International Apicultural Congress (Apimondia) and tour, People's Republic of China.
- * December 3-5: OSBA Fall Conference: Site to be announced.
- * January 1994: American Beekeeping Federation, Orlando, Fla.



Oregon State Beekeepers Association

The Bee Line

Connie Petty, editor
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