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Lauren Jarobe Receives
Honorable Mention Award

Lauren Jarobe, from Oroville, California, was one of four essayist who won an Honorable Mention in the 2003 4-H Essay Contest. The essayists wrote on the topic of "Beekeeping in Colonial Times." There were 20 entries from around the country. Besides the usual three top essay winners, the sponsoring Foundation for the Preservation of Honey Bees determined that other essays were so good that they deserved honorable mention. This is the first time in the history of the 4-H contest that such extra awards were given.

Polystyrene Hives

The relatively new, high density foam (polystyrene) hives have been on the market for a while. The following are some observations made by beekeeper Rudy Gelderblom on his hive in Calgary, Alberta, Canada, as reported in the August 2002 edition of Hivelights, published by the Canadian Honey Council.

He purchased a "complete Unit" comprised of a bottom board, two deep boxes and a lid. The bottom board was about 50% open (a rectangular hole in the floor) with a piece of screen stapled below it. Rudy painted the hive to eliminate UV damage to the plastic. Worried about ventilation, Rudy cut an old deep super into a three inch high rim which he placed under the cover.

The bees did fine during their first year on plastic foundation and produced a 40 pound honey crop. They wintered well with no additional insulation.

However, the hive did have its deficiencies. The staples meant to hold the screen below the bottom board did not hold. Mice could have gained entry very readily. Also, the bottom board is wider than the hive boxes, making the colony very difficult to handle with a hand cart.

One might guess that the boxes would slide apart from each other. At least the company stated that they were easy to separate. Rudy found that in an area with plenty of propolis, there was no separating the boxes without damaging them. Rudy had to "lay the hive on its side and apply considerable force to the hive tool." This is too much of a beating for the hives to last very long. A piece of canvas between the upper box and lid prevented this problem.

The foam hive is fairly delicate in some respects. An inadvertently dropped piece of 2X6 broke two dovetails off the side of one of the assembled boxes.

Rudy also is wondering about cleaning up after a bout with AFB. As he said,

"Putting a torch to a polystyrene hive might present a problem." His final word of advice, "I would recommend just buying the boxes and building the lid and bottom board yourself."

Thymol-based Acaricides

Canadian researchers, A.P. Melathopoulos and J. Gates, conducted experiments with two commercial formulations of thymol for *Varroa* control. API LIFE VAR[®] is sold as a "tablet" (about the size of a playing card and much thicker) impregnated with 7.4 g thymol, 1.6 g *Eucalyptus* oil, 0.4 g menthol and 0.4 g camphor. Apiguard[®] is a gel formulation containing 25% thymol by weight. Despite statements to the contrary, Apiguard released about 23 g of thymol the first day and about 7 the next couple days before settling down to liberating about 0.5 g per day. API LIFE VAR liberated about 1 g the first day, 0.5 g the next two days and settled in to releasing about 0.3 g per day.

Apiguard was associated with reduced brood and bees at one site treated in September, but not at a second site. API LIFE VAR was similar to the control, in respect to its effects on bees.

Neither thymol treatment knocked down mites as quickly as Apistan[®] strips. Mite

levels went way down with all three treatments and the mites had not recovered to any extent by the next April.

We know that the mites are chemically fragile. All we have to do is develop good systems of delivery and many of the "soft, organic or essential" chemicals should provide good *Varroa* control.

When will these treatments become available to us? If the products are sold as pesticides, with claims of value in mite control, then they will have to be Registered with the US EPA and with CalEPA (CA DPR) before we can buy and use them, legally. The least restrictive registration is Section 3. Materials with that registration, like Apistan[®], can be used by whoever finds a place to purchase them. In California, that place would have to have a pesticide resale license.

A Section 18 registration is the type that we have for CheckMite+[®], requiring obtaining a permit to use the product and filing periodic use reports. There is one more type of registration that a product may have - a 24-C or special local needs (SLN) registration. Usually, a county agricultural commissioner requests that type of registration for a limited time use of a specific material to take care of an

immediate problem for which there is no currently registered, functional chemical solution.

National Honey Report

I may have mentioned this, before, but the monthly reports of honey buying and selling, as reported to the federal government (at least a month in arrears), are now yours for free on the Web.

However, you have to know the URL, because trying to get through all the links and windows used to get in can be frustrating. So, here it is:

www.ams.usda.gov/fv/mnocs/fvmonthly.htm. They are planning to change the site around to make it more user-friendly. I requested an earlier, more direct link to the honey report. We'll see!

"Hitch-hiving" Pests

This catchy title (and large stylized honey bee and beehives on the cover) occurs on the April 2003 issue of Nut Grower Magazine. Actually, the full title is "Hitch-hiving Pests Sneak into Orchards." The article, written by Alan Kandel, is devoted mostly to Red Imported Fire Ant (RIFA) and trying to keep it out of the state. However, it is mentioned that beekeepers probably inadvertently brought RIFA into Fresno,

Kern, Madera and especially Stanislaus Counties, where eradication attempts are still ongoing. Ant baits, Clinch[®] and Esteem[®], are being used in almond orchards and Extinguish[®] also is used in other locations.

The article reports that at least some bee inspectors from the county agricultural commissioners' offices will examine colonies for tracheal and *Varroa* mite levels, if paid for by the grower. Colony strength inspections more normally are conducted by the inspectors.

The article also describes the treatments available for mite control, including formic acid. However, since this fumigant isn't available on the open market for mite control, you must take this information with a grain of salt.

The author's assessment of the situation is: "At present, the quantity of almonds being produced indicate that the orchard and hive defenders have the upper hand; will it stay that way?"

Washboard Dance

Years ago Dr. Norman Gary and Dr. Stanley Snyder tried to define and determine a purpose for the Washboard dance of honey bees. That dance is described as bees with their heads pointing

down, rocking back and forth on their second and third pairs of legs. They move their mandibles as if scraping the surface.

K. Boherer (Montgomery College, MD) and J. Pettis (Beltsville, MD) took a close look at the behavior and found the following. Workers don't do that dance until they are 13 days old. Peak behavior exists between 15 and 25 days old. Dancing can start in the morning, but more dancers are seen in late afternoon and into the evening. They danced a bit less on glass than on slate or wood, but not significantly differently.

Exactly what they are doing still remains a mystery.

Controversial Bee Book

While most apiculturists still describe the honey bee "dance" as the way that honey bees communicate distance and direction to naïve foragers, there are those scientists who do not believe that the dance is used for that purpose. Probably the best coverage of the "other" explanation can be found in a book titled, **Anatomy of a Controversy: The Question of a "Language" Among Bees**. The text was written by Adrian Wenner and Patrick Wells, leaders on that side of the discussion. Sold at one time

for \$70 a copy, the limited stock of remaining books has been shipped to Adrian Wenner for distribution at a deep discount. Adrian will ship a copy of the book and include a copy of his 2002 article on the topic from the **Journal of Insect Behavior**, if you will mail a \$20 check payable to Adrian to 967 Garcia Road, Santa Barbara, CA 93103 (be sure to provide him with a complete return mailing address).

If you would like to check on availability, Adrian can be reached at wenner@lifesci.ucsb.edu or by phone at (805) 963-8508. There also is a web site: www.beesource.com/pov/wenner/index.htm.

Federal Organic Rules

While much was said about developing specific federal criteria governing production of "organic honey," they never were developed. So, organic honey is covered by the rules adopted for other organic products.

UC Davis campus personnel have developed a Power Point presentation on the subject. If you would like an electronic copy emailed to you, send a request for the new federal organic rules to aleicher@ucdavis.edu.

Bullish on Almonds

While the stock market may not be doing so well, the almond industry appears to be quite healthy. In the May/June 2002 issue of *Almond Facts*, there are some interesting graphs showing historical trends. Almond production outside of California has increased by about 50% over the last 50 years. California production has increased about 2000% during those years, with a big jump in the 1980's, and increased to its first billion pound crop last season.

The lion's share of the acreage was planted during or before 1981. There was a bit of a spurt in planting in the mid 1990's, but not so much since 2000. It appears that the bearing acreage peaked in 2001 at 530,000 acres and is slipping back to around 510,000 acres this year.

In total almond production, the top counties in descending order were Kern, Stanislaus, Fresno, Merced, Madera, Butte, San Joaquin, Colusa, Glenn, and Tulare.

Have you seen the new almond products? Two-ounce "Tube Packs" have come onto the market, for one-hand eating. Smokehouse Nut♦Thins are a new cracker in natural foods stores. And, Almond Breeze (almond based non-dairy beverage) has been fortified with soy protein. It was a consumer demand, but

they wanted no part of the traditional "... chalky, soy aftertaste."

Volunteers for Ukraine?

Kristina Gribovskaja, who works for the Citizens Network for Foreign Affairs (CNFA) in Washington, DC, is looking for volunteer beekeepers to take a three-week overseas assignment to work with a beekeeping company in the Ukraine.

CNFA provides a translator; covers the costs of air fare, lodging, meals, and transportation; and makes all the logistical arrangements (tickets, visas, hotel reservations, etc.).

Specifically, they are looking for one person to teach and help the beekeepers implement bee breeding skills and operation of a two-queen system. Bee disease control also will be important.

Another volunteer will be working with the company to help staff identify target markets for their honey and hive products. They need help with initial marketing research and assistance in setting up a data base of potential buyers.

If you happen to know more about mushroom production, vegetable marketing, animal health, or hydroponics

of flowers, strawberries or grapes, they need you, too.

You can call Kristina, toll-free at 1-888-872-2632 for more information or to volunteer. The organization has a Web site: www.cnfa.org.

Coffee, Tea or Mead?

This article was written by Vicky Hallett and was published in the November 25, 2002 issue of U.S. News and World Report.

A few thousand years ago, a beehive got caught in the rain, and its contents fermented. "Then along came an early human, who took a taste, got a mind-altering effect, and started honey hunting," explains Patrick McGovern, editor of *The Origins and Ancient History of Wine*. Thought to be the oldest form of alcohol, mead was once known as the "nectar of the gods." The beverage fell out of favor around the turn of the first millennium as the price of honey increased, but now it appears to be coming back into vogue.

Despite its image as the drink of rowdy warriors, the golden liquid has a range similar to that of grape wine. "Mead can be dry or sweet, still or sparkling, just honey or with fruits and spices," says Julia Herz, who runs www.honeywine.com. The Viking pedigree appeals to

beer drinkers while the taste suits wine aficionados.

Bottoms up. The mead revival has been building in the past decade as home brewers have moved on from craft beers to experiments with honey wine. And the drinking public, eager for a taste of something new, has responded. Of some 40 U.S. meaderies - wineries dedicated to the production of mead - half have sprung up in the past five years. Earlier this month, 300 members of the mead world convened in Chicago for Planet Buzz!, the first commercial mead festival. "The rallying cry is to ask for mead at restaurants and bars," says organizer Ray Daniels.

Local twists abound. Redstone Meadery in Boulder, Colo., sells black raspberry "nectar," medium-sweet and sparkling, in kegs and bottles. Dogfish Head Craft Brewery in Milton, Del., combines mead with grape wine and barley beer in its Midas Touch line. The beverage, developed in 2001 from the analysis of the contents of a vessel used in an eighth-century B.C. funeral feast in Turkey, has become a trademark of the brewery which moved 8,000 cases last year. "It has the body of a beer but ends with a dry and fruity taste, like a white wine," says owner Sam Calagione.

You'll have to take a trip for a sip. Most meads (\$10 to \$30 a bottle) are distributed locally because of alcohol laws and limited distribution. Nationally available brands are rare except for foreign imports and Chaucer's Mead, bottled by California's Bargetto Winery and often derided as "the Budweiser of mead" for its simplistic flavor.

Commercial offerings are improving, says Ken Schramm, author of the upcoming *The Compleat Meadmaker*, but he thinks nothing beats handcrafted - especially his tasty cherry mead made with tupelo honey. Indeed, many new entries come from amateurs, fed up with liquor store selection.

But is America ready to embrace the drink of the Vikings? "Mead is still associated with people with broadswords cutting off heads," warns Dave Alexander, co-owner of Washington, D.C.'s Brickskeller saloon, which serves four varieties. Then again, maybe that's the perfect image for the new millennium.

Calibration Manual

While this may not be a subject that often comes to mind for beekeepers, anyone who is involved with calculating areas, parts per

million of liquid or solid formulations, or how much chemical to use for a given application, will benefit from a copy of this manual. It is comprised of 36 English/Spanish pages that arrive shrink wrapped with holes punched for a three ring binder.

It is a booklet for applicators, so it is no surprise that it is offered through an applicator organization. One to four booklets may be purchased from PAPA, P.O. Box 80095, Salinas, CA 93912-0095, for \$15 per booklet, including

shipping and handling. Make checks payable to PAPA or call in with a VISA or MasterCard number at (831) 442-3536.

Sincerely,

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