

Northern Piedmont Beekeepers Association

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June 2008

Beekeeping Events in the Area

The Bee Research Laboratory will host an open house for the public at the nation's capital to highlight honey bee research activities conducted by the USDA Agriculture Research Service. The public can visit the lab on Friday, June 27, 2008, between 10:00 a.m. and 3:30 p.m. and hear about their research, colony collapse disorder, and molecular studies. They may also observe colony inspections, queen rearing, and instrumental insemination of queens, a variety of beekeeping equipment, and how to identify bee diseases. The open house will take place rain or shine. In the event of rain, outdoor work will

be replaced with inside activities. Please bring and use protective equipment when visiting and observing activities in the bee yard. Schedule of Events will be repeated 4 times during the morning and afternoon.

Station 1. Inspecting healthy and sick honey bee colonies – Bart Smith (Observe healthy colonies with good brood patterns, and colonies with chalkbrood, deformed wing virus, high varroa mite populations, etc.)

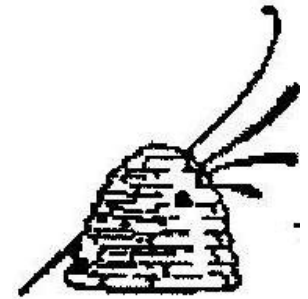
Station 2. Queen rearing in the bee yard – Jeff Pettis (See techniques used in the apiary to rear queens on a small and large scale.)

Station 3. Instrumental insemination of queens – Andy Ulsamer (See a demonstration of instrumentally inseminated queens.)

Station 4. Bee equipment/facility open house – Nathan Rice (Visit the shop, storage facility, and see methods used for feeding colonies and many of the tools and equipment used in beekeeping.)

Station 5. Overview of BRL activities and CCD update – Jeff Pettis (Research leader Jeff Pettis will present an overview of current research projects.)

(Please see page 5 for continuation)



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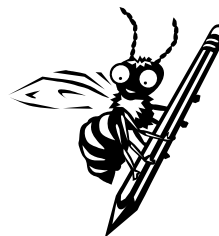
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Educating the Youngsters & Orange County Fair

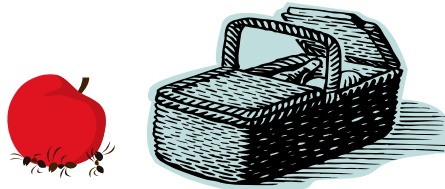
Katherine Adams, a 4-H Program Assistant, and **Bob Duxbury** will be setting up a beekeeping unit for the 4-H in Culpeper and surrounding counties. Katherine has posted the schedule on the Virginia Cooperative Extension Culpeper County website www.ext.vt.edu/offices/culpeper, then scroll down to the "2008 Summer Workshop Registration." Bob will be meeting with the 4-H youngsters sometime in the third week of June. He will keep the club updated with developments

NPBA Picnic

The **Northern Piedmont Beekeepers Association's** June meeting is traditionally a picnic. This year's picnic will be held on June 8th from 2:00 p.m. to 6:00 p.m. at **Verdun Adventure Bound** located on Rt. 229, two miles north of the Hazel River Bridge. Activities include open hive work in the **Ann Harman Teaching Apiary**, weather permitting, so bring a veil and your bee suit. A Chinese auction will be held to raise money for the club, so don't forget to

and possible needs or help the club members can provide. For further information, please contact the Culpeper Cooperative Extension Agent/Unit Coordinator, **Cristy Nibbins**, at nibblins@vt.edu or **Katherine Adams** at kradams@vt.edu.

The **Northern Piedmont Beekeepers Association** will have a booth at the **Orange County fair** on **July 24 & 25** from 3:00 p.m. until 10:00 p.m.; **July 26** from 8:30 a.m. until 11:00 p.m.; and on **July 27** from 9:00 a.m. until 4:00



bring your \$\$\$.

Food will be potluck, and beekeepers are renowned as great cooks, so bring your favorite dish and your appetite. Family members are welcome. Directions are below.

From North: Take Route 211 and turn south to Route 229 towards Culpeper. Travel about 4.5 miles. Watch for the Rescue Squad on your left, then turn LEFT shortly

p.m. We will be selling honey and other bee products and also will be promoting honey bee education. Material and information will be provided by our club. The club would like to have two (2) volunteers for four to six hour shifts each day – no experience is needed. We will also need honey, (forty to sixty jars per day) and other bee products from club members. The club will supply tables and equipment for the booth. Please contact Bob Duxbury at 540-937-6026 if you would like to volunteer to assist, or have honey or other items to sell.

after passing. Continue around, passing the red barn, down a hill to parking on the right.

From South: From Culpeper, travel north on Route 229, approximately 10 miles, passing over the Hazel River Bridge. Look for the Verdun sign on the RIGHT. If you reach the Rescue Squad, you have gone too far. Turn around and go the short distance to the entrance of Verdun.

What's Blooming this Month?

Summer is almost here! Honeybees are busy gathering pollen and nectar. We continue with **Ann Harman's** list of what is blooming this month which honeybees enjoy.

What is blooming in June?

Dandelions, garden plants, some basswoods, white Dutch clover, yellow and white sweet clover,

Holly trees, poison ivy, milkweed, chicory, sumac, herbs and wildflowers, daisy-like flowers, Virginia creeper, and vipers bugloss.

NPBA 2008 Meeting Schedule

Culpeper County Extension
101 South West St.
Culpeper, VA

June 8	Picnic at Verdun 2:00-6:00p.m.
July	No meeting
August	No meeting
September	7:30-9:00 p.m.
October 16	7:30-9:00 p.m.
November 20	7:30-9:00 p.m.
December	No meeting

Miller's Review of Dr. George Imirie

I don't know why anyone would want to raise flying, stinging, venomous insects. I know I never envisioned myself in this role. It must be for the honey! That thick golden harvest is what we are after. So this month I would like to share with you some of Dr. George Imirie's thoughts on "Harvesting Honey".

Many beekeepers ruin perfectly good honey by extracting **UNCAPPED** nectar. Bees **DO NOT CAP** their honey until they have removed most of its water content. This time period allows the enzyme, invertase, which they have added to the nectar, to convert the nectar's sugar into simpler, less complex sugars of glucose and fructose. This process is called ripening. Only when the nectar is totally cured or ripened do the bees **CAP** the cell preserving it for its intended purpose – winter stores. The bees never did plan it for our use!

Towards the end of June all honey super frames should be 90-95% capped and time for harvest is drawing near. All you have to do is get the honey off the hive and to the extractor while it is still warm because uncapping and extracting is

so much easier with **WARM** honey. Dr. Imirie's favorite means of getting the bees off the frames is with the use of a bee-blower. He frowns on the use of a bee escapes and brushing bees off the frames. Since most of us do not have a bee blower and do not want to injure the bees with a brush, I will concentrate on his second choice of bee removal: chemicals.

He points out the chemicals on a fume board are far and away the **BEST SYSTEM** for everyone that does not have a bee blower. It works automatically; freeing the super of bees while you just stand and rest. You use no smoke that causes the bees to break the cap-pings. Just drip one to two teaspoons of chemical on the fume board, remove the top cover using no smoke, and place the fume board over the super, go get the mail, smoke a cigarette, eat a piece of pie, or just wait 5-10 minutes. Remove the fume board and put the super in a bee proof place.

The smells, the cost, the shipping restrictions of chemicals have been left until last. The worst smelling products are made

of **butyric anhydride**. These include BEE GO and HONEY ROBBER. The US Postal System will not let them be shipped through the mail. The UPS charges an extra surcharge of \$12 or more and only allows one quart in any shipment. Why? If you get it in your vehicle or on your clothing you will forever be plagued with a smell akin to rotten eggs and vomit. You may as well get rid of your car and throw away your clothes. A beautiful odor – the oil of almond – it is a lovely smell – it is **benzaldehyde**. Benzaldehyde is as successful at removing bees as the smelly butyric anhydride. By far the most pleasant chemical to use is a product known as BEE QUICK.

It is most interesting that as much as these chemicals **STINK** or smell pretty, used correctly, they leave absolutely no odor in your honey, beeswax, or frames – **BUT IF YOU GET IT ON YOU, IT WILL CERTAINLY STAY ON YOU!!**

HAPPY HARVESTING!

*Plagiarized and Paraphrased by
Joe Miller

* No original thought went into writing this article.



Spicy Honey Applesauce Cake

1 cup honey
1/2 cup butter
3 eggs, beaten
1 tsp vanilla
1 cup applesauce
1 tsp cinnamon

Honey Recipe for the Month

2 cups flour, sifted
1/2 tsp salt
1 tsp baking soda
1/2 tsp nutmeg
1/4 tsp powdered cloves
1 cup nuts, chopped
1/4 tsp powdered ginger

Directions: Cream honey and butter. Blend in eggs, vanilla, and

applesauce. In a separate bowl, combine dry ingredients, then stir gradually into creamed mixture. Add to a greased 9X13 inch pan. Bake in 325 degrees for 25-40 minutes.

Source: <http://www.honeyflowfarm.com/honeyrecipes.htm>

Basic Hive Evaluation—Colony Strength to Queen Quality

The Central Virginia Beekeepers Association West held a one day short course on April 19th featuring **Dewey Caron** and **Rick Fell**. One lecture by **Rick Fell** contained information that is basic to our skills as beekeepers. Highlights from this lecture are below: Proper hive management probably requires 6-9 inspections per year and varies with the time of the year. Fewer inspections are better, due to the disruption that it causes the colony. (Note, this statement does not apply to first year beekeepers that may inspect their hives as often as once a week in order to learn). The primary functions of a colony inspection are to evaluate colony strength and to determine colony health.

The colony inspection check list may answer the following questions: How strong is this colony? (How many bees does it have?) Is it queenright? Is free of disease? Are there adequate food stores? Colonies may be classified as strong, moderate, or weak. The estimate includes the numbers of frames of bees, the numbers of full or partial frames of brood, and/or the cluster size (if applicable). Generally, a colony with six frames of brood represents a colony with approximately 25,000 bees, and is considered adequately strong to be used for pollination in Virginia.

The strength of a colony depends on the time of year it is evaluated. In April a healthy colony should probably contain 7-8 frames of bees, and 3-4 frames of brood. By May, this should have expanded to 10-12 frames of bees

and 6+ frames of brood. By June and July, the hive should have 10-12+ frames of bees with 2 hive bodies well filled with bees. By early fall the strong hive should have 15 frames of bees as well as at least 6-7 frames of brood.

An evaluation of the hive should also include the amount of food stores. A colony should ALWAYS have 15-20 lbs of honey available. Honey fills the bees' needs for carbohydrates. By late fall, to sustain a normal colony in Virginia, each colony should have 50-60 lbs honey stored for winter use. Remember, one full depth frame = 7 lbs honey, so each full strength colony needs at least 3 full depth frames. (A nuc needs at least one frame of honey). A general rule to follow: no matter what size boxes you use (med or deep), the TOP box should be full of nothing but honey. Over the course of one year, a normal colony requires 150 lbs of honey for their own use.

Honey bees also require pollen in order to satisfy their need for protein. An average colony needs 10 loads of pollen for each bee raised, which translates to 1 lb of pollen for every 4000 bees, and 44 lbs of pollen for an entire season's worth of bees (roughly 200,000 bees). There is no one pollen that supplies every nutrient needed by honey bees. Highly nutritious pollens include fruit tree pollens, corn, clover, and willows. Less nutritious pollens include elm, cottonwood, and dandelion. Pine is considered to be a fair pollen source. As you have probably heard **Ann Harman** say many

times, "Virginia is a pollen rich area and in 2 to 3 weeks, you should be able to collect enough pollen to sell, or to reserve for colony use for later in times of no pollen." CORN pollen is a good one for collection because it is abundant, highly nutritious, and if selling it to the public, there is a decreased risk of allergic problems as most people have been exposed to corn pollen.

A pollen top trap is preferable to a bottom trap because a bottom trap also catches all the colony detritus. Whatever type you use, you MUST clean it of bee parts (legs, wings, etc.) before selling it to the PUBLIC!! Put the trap on for 2 to 3 days, and then take it off for 1 to 2 days. Pollen traps need to be emptied each day, the pollen cleaned, and put into the freezer immediately to prevent spoilage.

There are several supplemental bee foods on the market including Bee Pro, Mega Bee, and Feed Bee. Mega bee claims to boost colony strength, populations, and brood production resulting in more effective pollination and higher honey yields, but the lecturer also pointed out that Mega Bee's research was done by its manufacturer.

A colony inspection is not complete without an evaluation of the colony's queen. The size and color of the queen is of very little importance. However, her performance is of prime interest. The brood pattern should be solid, with few missed cells and brood of similar age grouped together. There should be a lack of disease, and generally, drone brood cells

Beekeeping Events in the Area—Continuation

An update on colony collapse disorder (CCD) will be included.)

Station 6. Virus analysis – Judy Chen (Visit the virology lab and observe molecular techniques used to detect viruses in honey bees.) Station 7. Molecular studies on natural resistance of AFB – Jay Evans (Learn about work being conducted regarding the natural resistance of honey bees to American foulbrood.) Station 8. Bee disease diagnostic lab – Bart Smith (See an exhibit of common honey bee diseases and observe techniques used for field and laboratory identifications.)

Additional information and directions can be found at <http://www.ars.usda.gov/News/News.htm?modecode=12-75-05-00> or by contacting Bart.Smith@ars.usda.gov.

Bee Research Laboratory Building 476, Beltsville, MD 20705-2350 301-504-8205

The Bee Research Lab has been selected to lead an Agricultural Research Service (ARS) area wide program to improve colony survival in bees. Program funding is \$4.8 million over 5 years with funds going to all four of the ARS honey bee laboratories.

The Beltsville Bee Research Lab provides overall coordination with the goal of improving honey bee colony survival in the United States. The program responds directly to the recent nationwide “Colony Collapse Disorder” affecting honeybee survival.

Basic Hive Evaluation—Colony Strength to Queen Quality—Continuation

should not be intermixed in the brood area. Important queen traits vary a little with what the individual beekeeper considers important. Some things to consider are swarming tendency, over wintering ability, and mite levels in the colony, which can indicate the presence of varroa sensitive hygiene or mite resistance. Other things to consider are the level of honey production, whether or not

the brood rearing is adjusted for the nectar flow or lack of it, the gentleness of the bees, and whether or not the bees sit quietly on the comb during colony inspections. The younger the queen, the less likely the colony is to swarm. In addition, young queens are more productive and have greater quantities of queen pheromones.