GUILFORD COUNTY BEE KEEPERS ASSOCIATION

BEEKEEPING NEWS

APRIL • MAY • JUNE • 2011

a local chapter of NORTH CAROLINA STATE BEEKEEPERS ASSOCIATION, INC.

Meetings & Programs

•**SATURDAY, APRIL 16th, 10 a.m.-2 p.m.** ***FIELD DAY at Hagan- Stone Park, Shelter #6.*** 5920 Hagan-Stone Park Road, Pleasant Garden, NC. *search* <www.greensboro-nc.gov/departments/Parks/Facilities/reservations/hagan.htm>(select facilities map to find shelter)

The club will provide hotdogs, hamburgers and the fixings. Members are requested to bring drinks, side dishes, and desserts to share. Club members will provide a demonstration of hive manipulations and we will have mini presentations on a variety of subjects.

Field day is a great time of social interaction and fun. This is the perfect opportunity for 2011 beginning beekeepers to compare notes and ask questions about your new beekeeping experiences.

Shelter # 6 is the one we had last year and seats 60, so be sure to remember to bring chairs!

•**TUESDAY, MAY 10TH, 6:30 p.m.**(Covered Dish Dinner)

Wally Swaim will give his presentation on trap outs, the non-destructive method of removing honey bees from structures and trees. He will

give information about "how to" and when trap outs are a good method for removing bees. This is the concluding presentation about removing honey bees from structures, following up on Wally's presentation last season about cut outs--removing bees by removing parts of a structure.

•**TUESDAY, JUNE 14TH, 7:00 p.m.** (No meal)

Jack Tapp will speak about pollination services and other aspects of beekeeping from the professional beekeeper's perspective. He is the owner of Busy Bee Apiaries in Chapel Hill, NC

Articles of interest

ApiNews

BEE DISEASES DIAGNOSIS IN MARYLAND FOR ALL NATION

USDA

Tuesday, 01 February 2011 19:53

Written by **Horacio Mezziga**

The diagnosis of bee diseases has been a focus of this Beltsville laboratory since its inception in 1891 and we operate a "Bee Disease Diagnosis Service" for beekeepers across the U.S. There is no charge for this service.

Samples received of adult bees and beeswax comb (with and without bee brood) are examined for bacterial, fungal and microsporidian diseases as well as for two species of parasitic mites and other pests associated with honey bees (i.e., small hive beetle, Aethina tumida).

When requested, American foulbrood samples are cultured and isolates are screened for their sensitivity to Terramycin (oxytetracycline) and Tylan (tylosin).

We do not analyze samples (bees, wax comb, pollen, etc.) for the presence of viruses or pesticide residue.

We do not make determinations about which species of Nosema (N. apis or N. ceranae) are present, when nosema disease is detected.

Diagnostic reports are transmitted to both the beekeeper, submitter of the samples and to the appropriate apiary inspectors.

We are only able to accept samples originating from the U.S. and Canada. We do not accept samples from other countries.

How to Submit SamplesSubmission of Samples for Diagnosis:

General Instructions

- Beekeepers, bee businesses, and regulatory officials may submit samples.
- Samples are accepted from U.S. states and territories, and from Canada; samples are NOT accepted from other countries.
- Include a short description of the problem along with your name, address, phone number or e-mail address.
- There is no charge for this service.
- For additional information, contact Bart Smith by phone at (301) 504-8821 or e-mail: bart.smith@ars.usda.gov

How to Send Adult Honey Bees

- Send at least 100 bees and if possible, select bees that are dying or that died recently. Decayed bees are not satisfactory for examination.
- Bees should be placed in and soaked with 70% ethyl, methyl, or isopropyl alcohol as soon as possible after collection and packed in leak-proof containers.
- USPS, UPS, and FedEx do no accept shipments containing alcohol. Just prior to mailing samples, pour off all excess alcohol to meet shipping requirements.

How to send brood samples

- A comb sample should be at least 2 x 2 inches and contain as much of the dead or discolored brood as possible. NO HONEY SHOULD BE PRESENT IN THE SAMPLE.
- The comb can be sent in a paper bag or loosely wrapped in a paper towel, newspaper, etc. and sent in a heavy cardboard box. AVOID wrappings such as plastic, aluminum foil, waxed paper, tin, glass, etc. because they promote decomposition and the growth of mold.
- If a comb cannot be sent, the probe used to examine a diseased larva in the cell may contain enough material for tests. The probe can be wrapped in paper and sent to the laboratory in an envelope.

Send samples to:
Bee Disease Diagnosis
Bee Research Laboratory
Bldg. 476 Room 204
Beltsville Agricultural Research Center - East
Beltsville, MD 20705

Fears Asian bee is Australia's next cane toad

Science & Technology News: March 2, 2011

The aggressive and invasive Asian (Apis Ceranae) honey bee could become as bad a pest in Australia as the cane toad, a senator warned Wednesday, adding that the insect could threaten the country's food supply.

The cane toad, a prolific breeder which secretes a toxin that can kill pets and wildlife, has spread widely in tropical Australia since being introduced to kill beetkes in the 1930s, devouring insects, bird's eggs and native species such as the quoll, a cat-like marsupial.

Greens Senator Christine Milne said the bee industry was at risk from an incursion of Apis cerana in the northeastern city of Cairns which was first detected in 2007.

"It is the 21st century equivalent of the cane toad and the bee keepers have been saying that for some time," Milne told reporters, describing the pest as "a cane toad with wings".

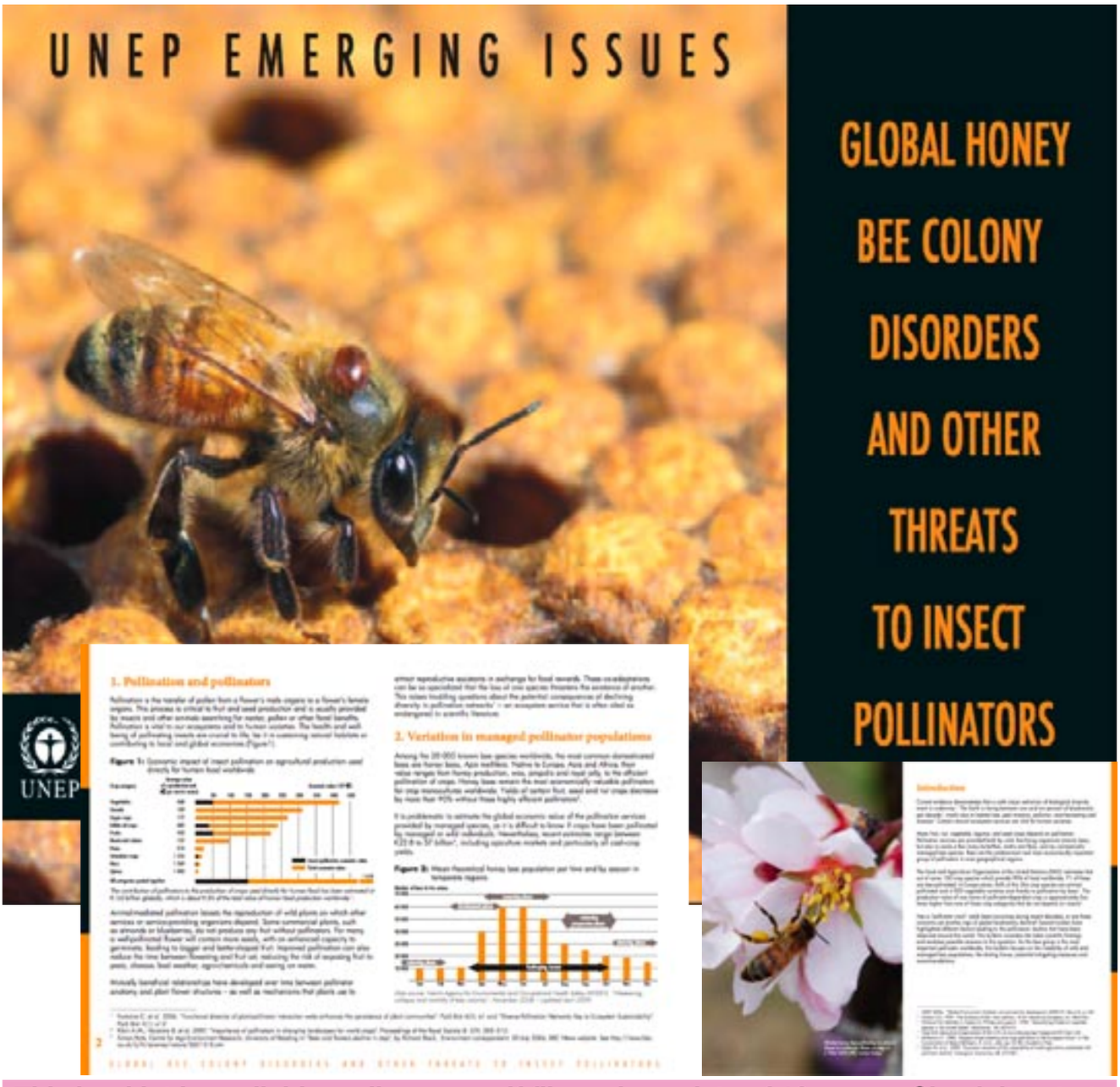
The Australian bee industry has urged the eradication of the Asian species, which undermines European honey bee populations by competing for food, robbing hives and transmitting disease and parasites.

The industry fears that if the Asian bee becomes established it will destroy European honey bee populations, which are kept in hives and transported around the country to pollinate crops.

Because the Asian bee cannot be kept in boxes, it is not suitable for such pollination techniques.

But government officials are likely to abandon an attempt to wipe out the Asian species at the end of April after saying it was "no longer technically feasible to achieve eradication".

Sustainability Minister Tony Burke said the decision by the Asian honey bee management group was based on scientific research. end



This booklet is available on line as a pdf file and consists of 12 pages. Check it out at:
www.unep.org/dewa/Portals/67/pdf/Global_Bee_Colony_Disorder_and_Threats_insect_pollinators.pdf

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24 March 2011

Woodpeckers ‘adding to decline of honey bees’

Great spotted woodpecker numbers are increasing in England

Woodpeckers have been adding to the honey bee’s decline in Nottinghamshire, say the county’s beekeepers.

The beekeepers say the hard winter has forced woodpeckers to find food in apiaries, where beehives are kept.

Nottinghamshire beekeepers discovered the birds were boring through hives to feed on lava grubs and even the bees themselves.

The UN recently warned that the threat to the honey bee was now a global phenomenon.

The reasons range from declines in flowering plants to the use of damaging insecticides and the worldwide spread of pests and air pollution.

Without the honey bee scientists have said there would be a worldwide food shortage.

In the UK, many beekeepers have reported the loss of hives due to low temperatures during the winter.

The cold meant woodpeckers could not find food as freely as in previous milder winters.

“Woodpeckers, bless them, were driven to resort to what they could get. Last year was a particularly savage winter,” said Alison Knox, from the Nottinghamshire Beekeepers’ Association. “So the woodpeckers, bless them, were driven to resort to what they could get.”

Mrs Knox added it was beekeepers using “out-apiaries”, where bees are kept at a location away from their homes, who were reporting the problem.

“They wouldn’t see [the bees] from one week to the next and by the time they had got back to the hives the woodpeckers had done the damage,” said Mrs Knox.

She said the woodpeckers could easily be dissauded by hanging CDs from the apiaries.

“Birds don’t tend to like shiny silvery things that move,” said Mrs Knox.

Jack Daniel’s Launches Tennessee Honey: First New Whiskey in a Generation

by David Kiley. Mar 18th 2011 at 4:01PM

Jack Daniel’s is about to roll out its first new expression in a generation: Jack Daniel’s Tennessee Honey.

The new libation starts with Jack Daniel’s Old No. 7 and mingles it with a special honey liqueur. The result is a smoother, sweeter version of Jack that is just 70-proof. It is a clear and understandable attempt to pull more women into drinking Jack. There is even a cute honeybee on the label. Older drinkers might take a shine to it, as well. I can see my late Aunt Letitia or even my North Carolina Gram sipping Jack’s Honey.

The addition of liqueur does give the finish a vaguely medicinal, cough-syrup taste in the background of other flavors like butterscotch, pear and honey.

Bartenders are just getting samples to play with, but I can see Old Fashions being made with Jack Honey, as well as Mint Juleps that are made with Old No. 7 instead of Kentucky Bourbon. The Derby is right around the corner, too.

Price: About $22.00 for a 750 ml bottle.

Bloomberg Businessweek **APICULTURE** March 24, 2011, 5:00PM EST

U.S. Queen Bees Work Overtime to Save Hives

Beekeepers figure out how to fight Colony Collapse Disorder

By Alan Bjerga, March 28, 2011

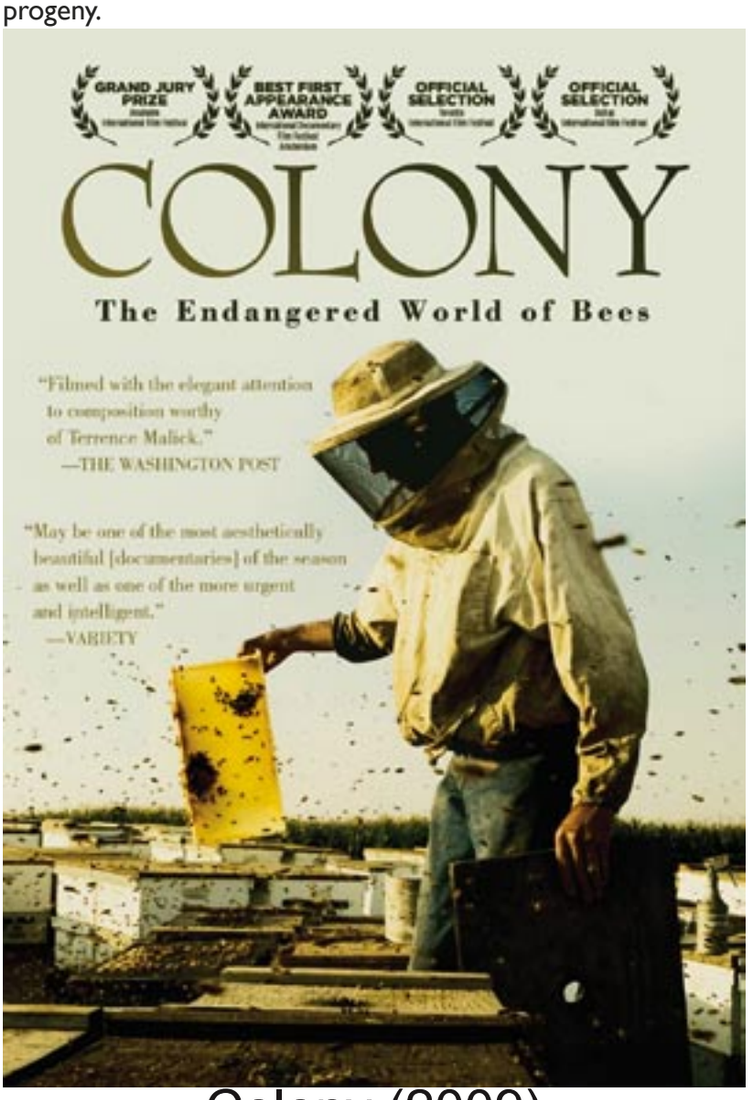
The farm economy just got a tiny boost: The number of honey-producing bee colonies in the U.S. has reached a 12-year high, according to the Agriculture Dept. That means the colony count is finally higher than at any time since Colony Collapse Disorder started to ravage the nation's hives.

Honey bees pollinate crops ranging from almonds to blueberries, and bee-pollinated fruit is found in products from Häagen-Dazs ice cream to General Mills cereal. The government's Agricultural Research Service (ARS) estimates that pollinating by bees is worth $15 billion annually to the farming industry.

Colony Collapse Disorder, a syndrome that since 2006 has increased bee deaths during the winter months, threatens this agricultural niche. Although scientists suspect that some combination of viruses, parasites, pesticides, nutrition, and contaminated water are working together to weaken the colonies, no one has found a solution.

The number of bee colonies in the U.S. is down to about 2.6 million today, from 5 million in the 1940s, according to the ARS. Since it was first identified, the disorder has raised the late-year mortality rate from 15 percent to 20 percent of all hives to about a third.

There is a way to offset the scourge: Produce more bees than the disorder kills. This strategy depends on the queen bee, chosen for her reproductive role by the female workers, which are sterile. The workers feed the queen copious amounts of royal jelly secreted from their glands. The jelly transforms the queen-elect from a sterile female into a super-fertile creature that mates with the males of the hive and produces numerous progeny.



Colony (2009)

David Mendes (Actor), Lance Seppi (Actor), Carter Gunn (Director), Ross McDonnell (Director) | Rated: NR | Format: DVD

check ***Amazon.com***

Until the onset of colony collapse, beekeepers had let the hives follow their natural habit of producing new bees in the spring and summer and going dormant in the fall and winter. Now beekeepers are breeding more bees in the summer and fall by dividing their hives. When the hives split, the worker bees nurture new queens and the population rises. That way, more bees survive colony collapse in the winter.

Researchers such as Dennis vanEngelsdorp, an entomologist at Pennsylvania State University in University Park, see the current approach as a stopgap measure. "It's a sign the situation is still strange," he says. Entomologists would rather find a remedy to the scourge than run a perpetual race with it.

The bottom line: *Although beekeepers are pumping up the number of honey bees, Colony Collapse Disorder still threatens $15 billion in agriculture.*

Bjerga is a reporter for Bloomberg News.

Honey bee comb: Brief History, Size and Ramifications - Part 1

{This is a lengty article followed by part 2 if you wish to read all. This copy is edited to fit limited space. ndf}

The Way Back to Biological Beekeeping, Part 4

From very early times, the comb built by honeybees has been studied and admired as a solution, to the problem of combining light weight and great strength, to be duplicated in the building of structures. The first known research on the structure on honeycomb dealt with the hexagonal form of the cells by Zenodorus, of Sicily. This was done in the 2nd century B.C., right after the time of Archimedes. Zenodorus proved back then that, of the three regular figures that will completely fill a plane surface (namely, the equilateral triangle, the square, and the regular hexagon), the hexagon has the greatest content for a given circumference.

Pappus later, around A.D. 500 copying from Zenodorus, also found that bees wisely choose the hexagon form for the cell-mouth which they suspect will contain and hold the most honey for the same expenditure of wax in its construction. He was the first one to put forth the suggestion that honeybees economize wax, a notion believed for many years, though in today's world now known to be far removed from the realities of the matter. After Pappus there was no known study of honeycomb construction until a person by the name of Kepler, an astronomer in 1611, published a very good cell description. He was credited with being the first to notice the rhombs at the base of individual cell construction.

....The first artificial comb foundation was made in Germany in 1842 by Gottlieb Kretchmer. It was made by a pair of engraved rollers, and starch was used to prevent the wax from adhering to the rollers. The device consisted of a strip of tracing linen, coated with a composition of white wax and starch, and upon which the comb-foundation or base of the cells were impressed, by passing it through a pair of engraved rollers.

From there others followed, namely Jean Mehring (Dutch). In 1857 he used pure wax cast between metal molds, and A.I.Root (USA) in 1876 first used a metal roller press. Otto Schenk in 1872 produced and showed foundation with projecting starters for the side walls and John Long (USA) in 1874 produced a similar product. D.S. Given (USA) about 1879-1881, produced wired foundation made in a press, but it was not until 1892 that E.B. Weed (USA) produced sheet wax in long lengths for use between rollers. All this advancement in the making of artificial comb foundation set the stage for our present century's achievements in technology relative to modern beekeeping, as well as, all of today's pressing problems of parasitic mites and their associated secondary diseases.

I would say our present era of problems began around 1891 in Belgium with the introduction of artificial comb foundation with 920 cells to the square decimeter which would equate to about midway between 4.6 cm and 4.7cm for 10 worker cells. The beekeepers there all adopted this size of cell. The experts of that time believed that it was advantageous to produce as many bees as possible on the least possible surface of comb. Thus there was said to be a premature narrowing of the cells throughout Belgium, and at the end of a few years the bees were miserable specimens. (We could say that this was then the opposite of today's problem of bigger is better.)

It was then that to combat so harmful a tendency that an idea was born with a proposed magnificent final (which we are still playing out today). A Prof U. Baudoux of Belgium published an article in Progress Apicole in June, 1893, advocating the use of larger comb cells, as a result of experiments duly described. It seems Prof Baudoux wanted to rear bees of extraordinary vigor, able to forage over a more extended flight-radius and to visit a multitude of flowers the nectar of which was, then (and probably still is), out-of-reach of their tongues.

.... Prof Baudoux experimented with various sizes of foundation per the square decimeter, namely: 750, 740, 730, 710 and down to 675. ...Prof Baudoux was so successful with his writing and his experiments, and so convincing , that manufacturing houses all started selling foundation with enlarged cells and claiming good results for the use of the same. Most of this work was done around the late 1920s through the 1930s and 1940s. (The result has been that this process of bigger is better with its resultant selling has never stopped, and continues up to modern day to the detriment now, that only enlarged oversized foundations (well beyond the bounds of possibility for bigger honeybees as envisioned by Prof Baudoux) are now only sold and standardized large at that, i.e. 5.7cm for 10 worker cells being about the largest).

Could this continuing trend towards bigger is better be an underlying causative effect creating todays problems of parasitic mites and their accompanying secondary diseases? Probably. But on what evidence would one place such a thought?

Signed: Dee A. Lusby, Amado, Arizona, USA (search **Bee Source.com** for complete text AND there is a Part 2. ndf)

February 1, 2011

Miller-McCune
SMART JOURNALISM. REAL SOLUTIONS.

Pollinating Local Is the New Buzz (edited for length nf)

An annual Woodstock for honeybees highlights one of the factors leading to the pollinators' decline in North America. Perhaps keeping bees at home is the solution.

Scientists say if bees were better homebodies it might be better for them and for us.

During a few weeks in February, some 1.5 million honeybee hives will be drawn from all over North America for a pilgrimage to California, in which they will descend on the state's almond groves at a critical moment in the trees' flowering cycle. More than three quarters of North America's honeybees will arrive in the Central Valley just in time to pollinate the $2.3 billion almond crop. And when their work there is done the beekeepers will fan out with their bees to provide the same service for nearly every farm field in North America.

....Scientists and beekeepers alike wonder if, in this vast melting pot of insects, dangerous pathogens could be exchanged as bees from different hives visit the same flowers.

....While many hypotheses have been advanced for the decline in pollinators, researchers have not yet arrived at a definitive cause of CCD. There is evidence to suggest one or more biological pathogens may be involved, and recent findings from Pennsylvania State University suggest that pollen itself may serve as a vector in spreading some of the viruses associated with CCD....bumblebees have also been experiencing steep declines, and it may be that pathogens are jumping from domesticated honeybees to pollinators in the wild.... researchers, found evidence that viruses attacking honeybees had spread beyond that species to their wild cousins, likely through pollen. Meanwhile, since pollen is sometimes purchased to feed stocks of domesticated bees, concerns about contaminated pollen adds yet another vector to the mix.... losing the very productive bumblebees would be especially troubling. Thanks in part to their larger size, fuzzy pollen-grabbing coats and greater range, "bee for bee, bumblebees are better pollinators than honeybees."

Although the cause of the bumblebee's disappearance has not been established, William's says, "We've seen a trend where some species seem to drop out as we lose natural habitat."

Eric Mader, assistant pollinator program director ... places the accidental importation of exotic pests and diseases high on the list of suspects responsible for killing off pollinators. ... which coincidentally began after bees from outside North America were first imported in 2005 (after an 83-year hiatus). "We're seeing the unintended consequences of globalization. "We're likely seeing several bee species go extinct," he adds.... now might be a good time to work toward assuring the health of North America's remaining native bees.... Bees need a varied diet, with ample food sources and nesting sites nearby, and a fluid gene pool, Williams says. For farmers who need wild bees for pollination, that could mean flowers and weeds smack in the middle of their fields. And that presents a dilemma. "The challenge is the fear of losing cropland, that affects the economic bottom line," Williams says.

Mark L. Winston, co-author with Lora Morandin of that study, said the detailed research demonstrated that growers who left roughly 30 percent of their fields wild, allowing weeds and native plants to grow untended near or interspersed among their crops attracted more native pollinators, achieved considerably higher yields in canola seed, and as a result generated higher incomes than those who planted 100 percent of their fields with canola.... "almost anything we can do to promote habitat will be beneficial."... "One of the challenges is working around arable farmland and finding places we can reserve that would provide food and nesting sites for different kinds of bees. "And that is very likely to be a benefit to managed honeybees as well."

Mader ... conceded it will take a while to work out the best techniques for the propagation, release and recovery of this wild species. He added hopefully that they seem to get along well with the honeybees, and that with their divergent lifestyles and behaviors he might even like to see the two species work the groves together. "We may even get better pollination."

Our web site, www.guilfordbeekeepers.org is your source for local beekeeping information, questions, and answers. Sign up for our forum board and join the conversation!

- Don Hopkins, State Inspector: (336) 376-8250
- Guilford County Beekeepers Association web site www.guilfordbeekeepers.org
- North Carolina State Beekeepers Association *www.ncbeekeepers.org*

Guilford County Beekeepers Association

A LOCAL CHAPTER OF THE NORTH CAROLINA STATE BEEKEEPERS ASSOCIATION

Norman Faircloth, editor (nfaircloth@northstate.net)