




OHIO INFO BEE



Ohio State University Extension Service
Ohio Department of Agriculture

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Communication

 We are asking for information from you, the reader. While we are able to talk with various people around the state and attend meetings we would still like to hear from you. What is your local association doing? What are the colonies in your area doing? Is there a beekeeping problem in your area? E-mail Sherry at ferrell.6@osu.edu

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BEES AND PESTICIDES

Tim Miklasiewicz

Members of the general public, pesticide applicators, and even some county apiary inspectors have reported to the ODA Apiary Section their belief that it is illegal to kill honey bees. Many people recognize the tremendous economic and ecological value contributed by this small animal. However, it is **not illegal** for a landowner or renter to kill unmanaged bees residing on land under his/her control, such as within the wall of a building or within a cavity in a tree. Although an unpleasant alternative, it may be justified when there is a legitimate human health threat or risk of property damage from bees. It is certainly not illegal for a beekeeper to kill his or her own bees, although we usually strive to avoid doing so.

The Federal Insecticide Fungicide and Rodenticide Act requires that all pesticide users read and follow the label requirements of the product they choose to use. EPA pesticide-labeling regulations require that pesticides toxic to pollinating insects bear appropriate label cautions. Pesticides are rated according to their acute toxicity to honey bees, determined mostly by measuring bee impairment following exposure to chemicals under laboratory conditions. Those rated as highly toxic or moderately toxic have portions of their labels devoted to use restrictions, in order to protect bees. Restrictions may include the timing of applications in relation to when bees are expected to be present in crop fields.

In addition, the Ohio Administrative Code (Sec. 901:5-11-02, 15 & 16) prohibits the application of pesticides harmful to bees when pollinators are actively working the target treatment area. Any person intending to apply such pesticides to an area of at least 1/2 acre of a flowering crop must inform all beekeepers with **properly registered and identified** apiaries (see ORC sec. 909.02) located within 1/2 mile of the treatment site. Notification must take place no less than 24 hours in advance of the intended treatment.

In areas where pesticide application is likely, ODA strongly advises beekeepers to become familiar with cropping patterns, pesticide use, and landowners/leasers in the vicinity of their apiaries. If people in the vicinity are informed about the presence of apiaries, they can assist beekeepers in taking precautions against pesticide poisoning.

Next time: protections owed to bees as trespassing livestock

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AT THE OSUE WOOSTER BEE LAB

Dr. James E. Tew

The Lab's needs for specific numbers of hives waxes and wanes. The smallest number of hives we ever had was seven while the largest number of hives we ever had was about 400. Historically, we maintained about 100 – 120. After losing the technician position a couple of years ago, that number dropped to hardly twenty colonies.

This past spring, I have allocated a significant amount of work to reviving our colony count and now have approximately 65-70 colonies. These colonies will be used for research, education, income-generation, and commodity credibility.

Labor availability continues to be a primary hurdle. I have employed two summer students full time and we continue to use volunteer workers when they are available. The labor shortage is stressful, while on the other hand, it is the same problem that many of you encounter. I have made the following broad policies in regards to conserving labor and bee program needs.

1. *Equipment repair.* Though all my small staff knows that it pains me, we don't make extensive repairs on old, well-used equipment. It goes to the burn pile. Equipment to be put on bees is cleared of most propolis and wax and is painted basic white. The price of good quality latex paint can not be ignored, but neither can the cost of labor required to put on cheap paint.
2. *Grant funding.* I was awarded a small grant to monitor honey bee activity on one of the OSU farms. I used some of those funds to pay for a small amount of new equipment and to cover some of the costs of the summer labor.
3. *Comb honey production.* Due to the labor requirements (and mess) to set up

for extracting honey, we refurbished about 20 section supers to produce comb honey. The demand for comb honey is good and partially filled sections will be used to produce chunk honey. So far, due to rain and coolness, the nectar flow in the Wooster area has been poor.

4. *Ancillary equipment.* I now only maintain four yards. In years past, we had closer to fifteen locations. I have historically borrowed grass cutting equipment to maintain these yards from other university departments. The loans were always made on the promise that I would return the equipment in working order – equipment that was old and somewhat tired when I borrowed it. Scheduling the equipment loan was always a challenge. To address this seasonal need, I purchased a well-used, but heavy-duty mower that will be used to keep our yards neat and maintained.

Overall, the OSU Wooster colonies look pretty good, but are still small. The resulting work required to amass this increased number has given me current insight into: (1) the costs of queens, (2) nurturing splits and packages, (3) nurturing young and inexperienced employees and (4) has reintroduced me to stings and fatigue.

For the remainder of the summer, I plan to redirect my efforts to grant writing and fact sheet updates. Additionally, I need to continue to grow in my efforts to use current electronic aids such as a web-page maintenance and digital recording and photographic equipment.

Program costs continue to increase. Increasingly, program costs and employee salaries are being passed along to specific programs. Some programs are financially comfortable (none are luxurious) while others of us have to scramble. Thankfully, our small

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bee program has a marketable commodity – honey, but we should not just become a commercial honey producer. Our primary function continues to be assisting beekeepers in their needs and education. However, the continued increased costs for fuel, labor, and facility use cannot be ignored. An issue which we have just begun to address is a substantial increase in the facility rental cost for the OSUE/ Tri-County Spring Workshop. While none of these issues are unique to beekeeping, the beekeeping program is definitely not being missed. Please be patient with us as we adapt to new demands and expectations.

SWARMS

John Grafton



Each Spring the time arrives that beekeepers refer to as the **swarm season**. To some this is a time of excitement with every swarm call being a new challenge and a thought that this will be the catch of the year. To others it is a time to dread, colonies weaken, production potential lost, bees in walls, poor information from the caller, frantic non-beekeeper being under siege by billions of bees, and the list goes on.

Regardless of which side of the aisle you may be on the fact is that as a beekeeper chances are you will have the opportunity to retrieve a swarm. This year is no different with the nice weather, which changed into the rainy season the swarm calls really increased.

This type of season brings on some unique situations, lots of queen cells, multiple queen emergence, several virgin queens in a colony, old queen (and maybe several virgins) leave with a swarm, rains prevent mating flights, queenless colony results. In some cases it may not be queenless but just a poorly mated queen. The swarm itself may be a problem due to

Swarms continued

multiple queens causing confusion among the workers it may be tough to hive or it may swarm again from the new hive.

If you have one of the colonies that swarmed, you need to check it for a good productive queen. Remember there may be several days of no eggs being laid in the colony but then the new queen should start to lay eggs. If after a couple of weeks you do not see eggs and young larva you may want to install a queen or bring a frame of eggs from another colony so they might produce a new queen if needed.

If you retrieve one of those swarms it is best if you can give them at least one drawn comb to get started on. You will probably have to feed the swarm until it gets established. Most people will feed sugar water, which is great, but what about pollen? If it is a colony just getting started it does not do any damage to also give them some sort of pollen patty. Remember the quicker you get them to draw comb and build up, the quicker it will become a productive colony.

ODA BEE REMOVAL LIST

Tim Miklasiewicz

The Ohio Department of Agriculture has been receiving a large number of phone calls during May from persons wishing to have swarms removed from their properties. We try to facilitate swarm collection as a service to the public and to beekeepers, mostly by providing contact information to callers. In most cases, the phone numbers and e-mail addresses for the county's apiary inspector(s) and the contact person for the local beekeepers' association are given. A few other beekeepers have told ODA that they would like to have their contact information provided when requests are made to collect swarms, or to remove bees from buildings. If you or someone that you know would like to be included on this list, please contact the ODA Apiary office.

WATERING YOUR COLONIES

Dr. James E. Tew

We all know our colonies need water; indeed, require water, and they will find it somewhere. Not only do colonies require water to cool the hive, but bees need water to dilute stored honey before using it in the colony. Due to an elementary maintenance problem, there was a small water leak near a bee lab faucet resulting in standing pool of water. Throughout this past spring there have been a couple hundred bees collecting water throughout the daylight hours. As early as 6:30 a.m., bees are already at the watering hole. For those of you keeping bees near fearful neighbors, I am comfortable suggesting that you, too, provide a leaking water facet before troublesome bees train themselves to go to neighboring swimming pools or bird watering devices.

Just as with nectar and pollen foraging bees, all water collectors will not necessarily go to your water source. Some of the foragers are probably searching for sources of trace elements and minerals that clean water would not provide. But providing a convenient, clean water supply is a simple thing that beekeepers can do to help their colonies be successful.



Figure 1. Water collectors in mud slurry

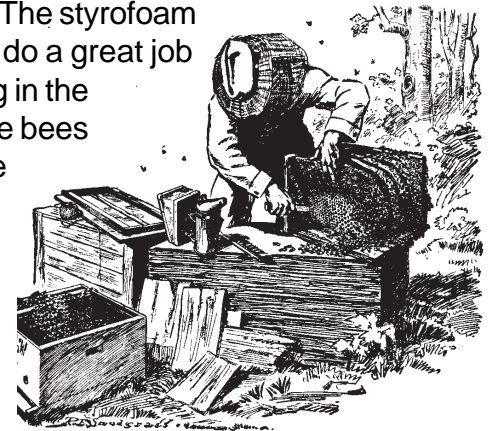
EQUIPMENT

John Grafton

In the inspection business we are often asked about the various types of equipment that are on the market and which is the best. There have been a number of studies completed concerning this topic: plastic vs. wood, wax vs. plastic, black vs. white, wax-coated vs. non-coated, and the list goes on.

The bottom line is – which do you prefer? They each have advantages and disadvantages. During a good nectar flow the bees will use each equally well, it is in the slow flows that some seem to outperform the others. The plastic boxes will sweat more under certain weather

conditions. The styrofoam type boxes do a great job of insulating in the winter. If the bees build bridge comb on plastic foundation it can be scraped off and put back in the



colony. A hole chewed through wax foundation is not as easy to repair and the bees will usually fill it with drone comb. The wax foundation the bees seem to take to quicker and attach fewer bridge combs.

What do you prefer to work with? This writer prefers the wood boxes with wood frames and wax foundation. I like putting things together and I like the smell of new wood and wax foundation.

WHAT'S IN BLOOM

Tim Miklasiewicz

Honey bees are vegetarians, requiring pollen and nectar for survival, and extremely large numbers of flower visits to produce surplus honey. Honey bees have been observed to visit the flowers of all of the following plants that bloom in the May-June period. Bloom period and nectar and pollen production vary by latitude, microclimate and soil, plant genotype and health, and year-to-year. Relatively important plant types are listed in **bold** type.

alkanet (*Anchusa* spp.)
alsike clover (*Trifolium hybridum*)
American linden or basswood (*Tilia americana*)
arugala (*Eruca sativa*, *Diplotaxis tenuifolia*, and *Diplotaxis muralis*)
asparagus (*Asparagus officinalis*)
autumn olive (*Elaeagnus umbellata*)
birdsfoot trefoil (*Lotus corniculatus*)
black elderberry (*Sambucus canadensis*)
black gum (*Nyssa sylvatica*)
black locust (*Robinia pseudoacacia*)
blackberry (*Rubus allegheniensis* & others)
blueberries (*Vaccinium* spp.)
broom (*Cytisus scoparius*)
buckeyes & horsechestnuts (*Aesculus* spp.)
buckthorns (*Rhamnus* spp.)
candytuft, perennial (*Iberis sempervirens*)
candytuft, annual (*Lobularia maritima*)
catalpa, northern (*Catalpa speciosa*)
catmints (*Nepeta* spp.)
comfrees (*Symphytum* spp.)
cotoneasters (*Cotoneaster* spp.)
crabapples (*Malus* spp.)
dame's rocket (*Hesperis matronalis*)
dandelion (*Taraxacum officinale*)
deadnettlles (*Lamium* spp.)
dragonhead (*Dracocephalum* spp.)
dyers' greenweed (*Genista tinctoria*)
empress tree (*Pawlonia tomentosa*)
English & Spanish bluebells (*Hyacinthoides* spp.)
false indigo or wild indigo (*Baptisia* spp.)
figwort (*Scrophularia marilandica*)
giant hyssops (*Agastache* spp.)
golden marguerite (*Anthemis tinctoria*)
golden ragwort (*Packera aurea*)
ground ivy (*Glechoma hederacea*)
harebells (*Campanula* spp.)
hawkweeds (*Hieracium* spp.)
hawthorns (*Crataegus* spp.)
hollies (*Ilex* spp.)
honeysuckles (*Lonicera* spp.)
knapweeds, bachelor buttons (*Centaurea* spp.)
lamb's-ear (*Stachys byzantina*)
little-leaf linden (*Tilia cordata*)

loosestrife (*Lythrum* spp.)
mallows (*Malva* spp.)
marsh marigold, cowslip (*Caltha palustris*)
Miami mist (*Phacelia purshii*)
mock orange (*Philadelphus coronaria*)
money plant (*Lunaria annua* or *L. biennis*)
motherworts (*Leonurus cardiaca* & *L. sibirica*)
New Jersey tea (*Ceanothus americanus*)
Onions, garlic, chives (*Allium* spp.)
phacelia (*Phacelia* spp.)
plums, peaches, apricots, cultivated cherries (*Prunus* spp.)
potentilla or cinquefoils (*Potentilla* spp.)
privets (*Ligustrum* spp.)
purple coneflower (*Echinacea purpurea*)
raspberry (*Rubus idaeus*)
redbud (*Cercis canadensis*)
roses (occasionally some wild or near-wild types are attractive, *Rosa* spp.)
Russian olive (*Elaeagnus angustifolia*)
sages or salvia (*Salvia* spp. most types but usually not red-flowered)
sand cherry (*Prunus cistena*)
Siberian peashrub (*Caragana arborescens*)
smartweeds (*Polygonum* spp.)
speedwells (*Veronica* spp.)
spireas, (*Spirea* spp.)
St. John's-worts (*Hypericum* spp.)
strawberries (*Fragaria* spp.)
sumacs (including poison ivy) (*Rhus* spp.)
thistles (*Cirsium* spp.)
thymes (*Thymus* spp.)
tulip poplar (*Liriodendron tulipifera*)
viper's bugloss (*Echium vulgare*)
weigela (*Weigela florida*)
white clover (*Trifolium album*)
wild mustards & cresses
yellow sweetclover (*Melilotus officinalis*)



Figure 1. red-flowered creeping thyme (*thymus praecox* ssp. *arcticus*'Coccineus')

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