

THE BUZZ!

April 2006

An electronic newsletter from the Kentucky Department of Agriculture's State Apiarist's Office

The Bees are flying!

Well, spring is here! We experienced another cool March, and the spring buildup of our hives here in Kentucky was slowed for a while, but our hives are filling with brood, and I'm getting reports of swarms. In this month's edition of THE BUZZ! I offer some updates of current and future beekeeping events, news, and some tips for beginners. This is the time of year when new beekeepers are installing packages in their new hives, so I've got some tips for installing packages in this issue of THE BUZZ! I've received several questions recently about the availability of grant funds for Kentucky beekeepers. A number of Kentucky beekeepers have received grants in recent years from Kentucky Agricultural Development Board funds, so I've included information about these grants in this newsletter.

Beekeeping Education

Three beekeeping schools were held in Kentucky in February and March, and more than 500 beekeepers attended. Attendance at the March 4 Audubon Beekeeping School in Henderson County was more than 70 people, the Feb. 4 Warren County Beekeeping school in Bowling Green had more than 110 in attendance, and the Feb. 18 Bluegrass Beekeeping School in Lexington had 330 attendees.

Beekeepers in Lexington braved an early morning snow storm to attend. Numerous automobile accidents occurred in central Kentucky due to slick roads that morning, but the beekeepers arrived despite the foul weather. Of the 230 persons pre-registered for the school, only 20 were unable to make it.

More educational opportunities for beekeepers in Kentucky this spring!

On April 22 (Saturday), the second of Dr. Tom Webster's beginning beekeeping classes will be held at the Kentucky State University Farm in Frankfort. The emphasis of this class will be on troubleshooting problems such as diseases and pests, and a hands-on hive session will take place if weather permits. Also, the Allen County Beekeepers Association extends an open invitation for its Spring Field Day in Scottsville on May 13 (Saturday) at the home of Gordon and Bobbie Vernon. Beginner and Intermediate classes will be offered.

For more information on these events, see the Beekeeping Events Calendar at the end of the newsletter. You may also check for updates to this calendar on the state apiarist's Web page at: http://www.kyagr.com/state_vet/bees/index.htm.

In addition, Robin Mountain will conduct beekeeping classes at his new Dadant beekeeping supply branch in Frankfort on Saturday afternoons in April and May. For more information on these sessions, contact Robin at (502) 848-0000.

New information on State Apiarist's Web page

If you have not checked out the Kentucky Department of Agriculture's State Apiarist Web site at http://www.kyagr.com/state_vet/bees/index.htm, you may wish to. New information is constantly added. Upcoming beekeeping classes and meetings are highlighted on the right side of the page. If you scroll down below the contact information for the state apiarist, you'll see a recent addition, a link to Phil Craft's speaking schedule. And if you continue to scroll down the page you'll find links to information about Kentucky beekeeping associations, a calendar of upcoming beekeeping events, back issues of this newsletter, and other information.

For those purchasing package bees to be delivered through the mail

A couple of pointers for those who will have packages of bees and/or queens delivered via mail or express carrier (UPS, Fed Ex, etc.): ALWAYS let your mail carrier or post office know that you have bees arriving at least three or four days prior to the delivery date (sometimes they get shipped early). Instruct your post office or mail carrier to hold your bees at the post office for you to pick up. Your bees are much better off not riding around in the mail truck all day, and you most certainly do not want them left out in the sun, or in the case of queens, in your mailbox. And your mail carrier would probably prefer not to carry packages of bees around all day. The BUZZ of the bees sometimes makes non-beekeepers nervous. Give them your phone number, and they WILL call you when they arrive. In fact, be prepared for a very early morning call. When ordering, you should ask that the package be marked "Hold for Pickup", but don't depend on this notice to get your bees held. Always give the post office a call as well. I sometimes have queens delivered via overnight UPS, so I send my UPS driver a warning via a business down the road from my house. I now have him pretty well trained, and he will call me if I should forget. It doesn't hurt that I always remember the driver with a jar of honey at Christmas time!

Installing packages of bees

Installing a package of bees is one of the easiest chores a new beekeeper will ever perform. But, as an old swimming coach once told me (I was taking life guard training from him), "Any new skill is hard". I can understand that, to a new beekeeper, this may seem like a daunting task! So, I'll pass along some tips for installing packages of bees based on my experience installing packages over the years, from fielding questions from new beekeepers over the seven years that I've served as Kentucky State Apiarist (time flies when you're having fun!), and from seeing the mistakes that beekeepers sometimes make while doing this chore. These tips are not meant to replace the directions sent with your bees, but to supplement those directions.

FIRST, always thoroughly read the directions your package bee supplier sends along with your bees. In addition, you may wish to read other information about installing bees, such as in your favorite beginning beekeeping book or at beekeeping Web sites such as the Mid-Atlantic Apiculture Research and Extension Consortium's (MAAREC) site (which has photographs): http://maarec.cas.psu.edu/bkCD/Startkeeping/Methods_starting.html#Package. There are also videos available showing this process being done.

Tip #1: Though the new package contains a can of sugar syrup to provide the bees with food while in transit, you'll want to feed the package when you get it home. Use sugar syrup made by mixing one part table sugar with an equal volume of water. You do not need to boil the water or the syrup; hot tap water will work fine. I like to use a spray bottle to spray some sugar syrup on the screen of the shipping package, or you can just sprinkle syrup on the screen. You don't want to get the bees wet; just wet the screen so the bees can eat the syrup off – don't overdo the syrup.

Tip #2: Install the package as soon as possible after receiving it – the same day, if you can – but use common sense with regard to the weather. If it's raining or very cool (below 50°- 55° F), wait for a nicer day. You can hold a package for a day or two before installing it. If you delay the installation more than a day, spray or sprinkle a little more syrup on the package's screen each day.

Tip #3: If you don't install the package right away, store it inside (a garage or basement works well) in a dark room (or at least out of direct sunlight) that is cool (50°- 60° F). I store new packages in my living room, but we keep the entire house cool (I'm cheap), and I have a very tolerant wife!

Tip #4: When you get ready to install your package, be ready! Have your hive set up, your sugar syrup ready, your veil, bee gloves, hive tool, and any other tools you need (I use a pocketknife to take the cork out of the queen cage).

Tip #5: Remove the cork in the CANDY end of the queen cage. I prefer to place the queen cage between two frames with the candy end UP. Some directions will say to place it candy end down, and either way will work, but I like to be able to open the top of the hive and see at a glance whether the queen has been freed without having to take the cage out. If the cage is placed candy end down, you must remove the cage to observe the bees' progress.

Tip #5: I advise not remove any of the candy from the queen cage, nor take a nail and punch a hole through the candy to "help the bees free the queen". While this will speed up the process of freeing the queen, I say, "Why hurry?" The purpose of a queen cage with candy is to provide a prolonged introduction period for the queen, so let it run its course. This is especially true when you are re-queening a hive, or at any time you're introducing a new queen to a colony of bees. And NEVER just let the queen out!

Tip #6: You can start that new hive from a package with a full complement of 10 frames, or minus one frame to fit the queen cage in, or minus two to fit the queen cage in plus a division board feeder (a division board feeder is put in the hive in place of a frame). You can even start with as few as five or six frames, and add the rest the next day – read on. Some beekeepers will place the queen cage between two frames, shake some of the bees over the queen, then set the shipping box with the rest of the bees into the hive body next to the frames, and let the bees walk out of the box inside the hive body. The next day, they gently remove the lid and outer cover, remove the empty shipping case, and place the rest of the frames (possibly still minus one due to the queen cage) into the hive body. The other method is to go ahead with as many of the frames as possible in the hive body (again minus any due to the queen cage and possibly a feeder), and to gently shake as many of the bees as possible into the hive body. You'll initially have a small pile of bees on the frames, but they'll quickly move down between the frames. You can then lean the almost empty shipping package (there will always be some bees left in it – don't worry about them) against the end of the bottom board hive entrance; these bees will make their way into to hive.

Tip #7: Have you heard that many beekeepers just use nine frames in a box? Virtually all new beekeepers will be installing packages of bees on frames with foundation, and it's best to start out with a FULL box of frames (10, or nine if you use a division board feeder). You will hear beekeepers talk about using nine frames (versus 10) in brood boxes and even more often in honey supers, and there are advantages in using one less frame. But, when starting a box of frames with foundation, do yourself a favor – start with a full box of frames (10, or nine if you use a division board feeder), then remove a frame later when the comb is drawn out. The reason is that, if you leave too large a space between frames, the bees may build an extra layer of comb between the frames, thus binding the frames together. Granted, they don't always do this, and I've heard beekeepers say that they have successfully started a box of frames with foundation minus a frame. Never the less, I do not know how many times I've opened a new hive with a brand new beekeeper, and found many frames waxed together or an extra layer of comb between two adjacent frames. The beekeepers always tell me that they've heard it was better to use nine frames instead of 10, so they just put nine frames in. You may find that you like having one less frame in a box, but you'll have better success at doing this if you start with a full box of frames and foundation, and remove one after the bees have finished drawing.

Tip #8: OK, I've started the package in a deep brood box, but what goes on top of it (another deep?) and when? The question about whether to use two deeps for the hive's brood area (the part of the hive where the queen lays eggs and young bees are raised), or a deep and a shallow, or even just a single deep, is one that I'm often asked. Feel free to send me an e-mail or call me to discuss the pros and cons of the different methods in more detail, but my advice to new beekeepers to keep it simple. Use two deep boxes for brood, and then add honey supers on top of the two boxes. So put the package in the first brood box, and when about seven or eight frames are drawn out in that first brood box, add a second deep brood box. Then, when the bees draw out about seven or eight frames in the second brood box, and if there is still a nectar flow on, add a shallow box for a honey super.

Tip #9: You'll always want to feed that new package of bees. Probably the best way to feed any hive is to take a second deep hive body without frames, place it over the inner cover, and place the outer cover on top. You now have an empty box over the inner cover. You can place jars, or even plastic food storage containers with small holes in the lids, over small sticks. The bees will come through the hole in the inner cover and get the syrup. If you have entrance feeders, these feeders can be placed over the inner cover as well. The advantage to this internal feeding is that you're more likely to feed the hive that you want to feed and not bees from other, stronger hives. Bees will come from other hives (your more established hives, your neighbor's, or even feral hives) and rob entrance feeders. (This robbing will lessen as the natural nectar flow gets stronger.) By feeding above the inner cover, potential robbing bees will have to go completely through the hive to get the syrup, and they are much less likely to do that. While it is a bit more work to remove the cover to check the feeders, you can reduce this work by feeding in more than one container over the brood box.

Tip #10: After you've got your new package installed, leave the hive alone as much as possible for the first week. If you have left the empty shipping package in the hive body, briefly open the hive the next day to remove the package and put the additional frames into the hive. If you're feeding over the hive body as I suggest in Tip #9, you can open the upper hive body as often as necessary to add more syrup, but leave the bees and new queen alone. After three days, check to see if the queen has been freed from the queen cage. If she is out, remove the queen cage and add the missing frame. If she's not out, leave her alone for another day or two, and then check again. It's very important to minimize disturbances for a full week after installation of the new queen. New queens are often nervous, and additional disruption of the hive, such as removing frames, will make both her and the bees more nervous. When this happens, bees will sometimes surround a new queen, and encase her in a clump of bees (a process called balling the queen). This often results in the injury or death of the queen. So leave them alone as much as possible for a full week. I normally don't even check the cage for a full week. After a week, you can remove frames and examine them. You should see eggs, or even small larvae in the newly drawn comb, depending on how quickly the queen was released, how quickly comb is drawn, and if the queen starts laying right away. If you see eggs or larvae, you know the queen is well and doing her job. You do not actually have to see her – signs of her eggs or larvae are sufficient. On the other hand, absence of eggs or larvae is not a reason for great concern for the first week or two. Sometimes it will take a young queen that long to start the egg laying process.

Tip #11: How long should I feed my new hive of bees from my package? How long you need to feed the new hive depends on the availability of nectar (flowering of nectar-producing plants), and the ability of the bees to collect nectar. If you are installing on foundation, I would advise feeding until the bees have drawn out the foundation (or most of it) in the brood boxes (see tip #8). However, if there is a good nectar flow on (and by late April there normally is in Kentucky), you may find that at some point the bees start ignoring the syrup you offer them. If the natural nectar flow is strong, the bees may prefer the nectar to your sugar syrup. This is the nature of bees – to collect nectar – so don't worry about it. Take the feeders off.

Even if the bees are still taking syrup after they have drawn out the comb in the second brood box, you should stop all feeding when you add honey supers. You do not want to allow the bees to store sugar syrup in a honey super. Sugar syrup is not honey. Honey is made from the nectar from flowers. Honey is honey, and sugar syrup is sugar syrup.

Tip #12: Do new colonies of bees, started from packages, need to be treated for honeybee pests or diseases? New packages of bees should be considered healthy and not in need of any medication in the spring when installed. The bee producer (person raising the bees, who is not necessarily the supplier or seller of the bees to you) should be supplying you healthy bees that have already been treated as needed for any diseases or pests earlier in the spring.

There is one exception to this, and that is giving a new package a dose of Fumidil-B for Nosema disease (a digestive tract disease), after the bees are installed. Not everyone, including some package bee suppliers, monitors or treats for Nosema. So I think it's a good idea to add to the first gallon of sugar syrup you feed them one teaspoon of Fumidil-B for control of Nosema. See http://maarec.cas.psu.edu/bkCD/labels/Fumidil_B.html for more information about Nosema and Fumidil-B. The exception to this would be if the supplier lets you know, in his ads or correspondence, that the bees in the packages are from colonies fed Fumidil-B or are monitored or treated for Nosema disease.

Kentucky Agricultural Development Board grant funds

I've had several Kentucky beekeepers ask me about the availability of grant funds for beekeepers. Some of these beekeepers had heard about Kentucky beekeepers receiving grant funds in the past and wanted to know about these programs. It is true that there are grant funds available for beekeepers as well as for other growers in Kentucky. These grant funds are from the Kentucky Agricultural Development Board. The following is detailed information about grant funds and how to get more information about them. There are grant funds available at the state and county levels, and at the county level there are also agricultural diversification grants. Most Kentucky beekeepers who have received grants have received agricultural diversification grants in their home counties, but other grants are available, and beekeepers have been the recipients of these funds as well.

History of Agricultural Development Funds

In the 1998 Master Settlement Agreement (MSA), the major cigarette manufactures agreed to pay 46 states \$206 billion through 25 years. The money was paid to 46 states to settle lawsuits states had filed against cigarette manufactures. As part of the MSA, Kentucky is expected to receive \$3.4 billion over the 25-year period. In 2000 the Kentucky General Assembly outlined a plan to allocate MSA funds among three programs. Twenty-five percent of the state's settlement dollars are allocated to health care initiatives with 25 percent going toward childhood development programs. The Agricultural Development Board (ADB) oversees the remaining 50 percent of the settlement dollars, which are referred to as Agricultural Development Funds (ADF), to support agricultural diversification in Kentucky. The Governor's Office of Agricultural Policy (GOAP) administers the Agricultural Development Board.

The ADF is split between an allocation for county-level projects (35 percent) and projects throughout the state (65 percent). One hundred and eighteen of Kentucky's 120 counties receive a portion of the 35 percent county allocation. The specific funding level of a county is dependent upon its tobacco production dependency relative to other counties in the state. The ADF represents the largest state-financed agricultural development effort in the United States and is intended to assist Kentucky farmers with diversifying their operations to meet the challenges of a changing agriculture industry and decline in tobacco revenues.

County and State Agricultural Development Funds

Agricultural Development Funds are available on a cost-share basis from two sources, county funds and state funds. Applications for county agricultural development funds should be made directly to county agricultural development councils. Completed applications will be prioritized by the county council according to the County Comprehensive Plan and forwarded to the state Agricultural Development Board for a final funding decision.

Applications for state funds should be made directly to the ADB. Each application will be evaluated for completeness. The ADB will evaluate proposals according to the “Guiding Principles for Board Investment” and consideration to Kentucky’s Long-term Plan for Agricultural Development. A requirement to receive agricultural development funds is that the applicant must provide a 50 percent contribution or dollar-for-dollar match.

County Model Programs

Model programs have been developed to help individual producers access county funds. County model programs provide assistance to individual producers through local administrative organizations. They are designed to provide farmers with cost-share funding, giving them the opportunity to improve and diversify their current production practices. The Agricultural Diversification Model Program provides cost-share for beekeepers for items that include the purchase of bee hives, extractor, honey processing, bottling and storage equipment, purchase of bees, protective suits, honey- and candle-making equipment and supplies, and approved medications. More information about Agricultural Diversification is further down in this article.

Non-Model Projects

The purpose of non-model projects is to give an applicant the opportunity to apply for funding for projects that do not fit in the cost-share model programs. Individual beekeepers may apply for either county, state or both county and state funds as a non-model project. Requests for county funds must show benefit to the agriculture community within the county to be eligible for county funds. Proposals requesting state funds must demonstrate benefit to producers on a regional or statewide basis.

Proposals that have been successful in obtaining state agricultural development funds have been submitted from statewide groups or growers associations that have proposed projects that will benefit producers throughout the state. For example, both Kentucky State University and the Kentucky State Beekeepers Association have obtained state grants for statewide beekeeping projects. At least one individual Kentucky beekeeper has been awarded state agricultural development funds to expand pollination services to farmers in a multi-county area. Local beekeepers benefited from this arrangement with access to the applicant’s honey house (for a fee) to extract honey.

Non-Model Project Application Process

Any individual, agribusiness or agriculture organization seeking funding from the ADF must submit a non-model project application. This application packet provides guidelines and detailed instructions to assist the applicant with the application process. If at any time there is a question concerning the application process, the applicant is encouraged to contact the GOAP project analyst assigned to your county as listed on the GOAP Web site.

Tips on how to receive agricultural development funds

Any grant application process, including those for agricultural development grants, tends to be somewhat complicated. Those interested in applying for agricultural development funds should take the following action.

- Find out the availability of your county funds – contact your local extension agent or GOAP project analyst as listed on the GOAP Web site.
- Determine if county funds for your county are being made available to beekeepers through the Agricultural Diversification Model Program – contact your local extension agent, beekeeper association or GOAP project analyst.

- If county funds are available through the Agricultural Diversification Model Program, determine what organization is administering the program and the local application process. You will also need to obtain the needed forms, guidelines and application deadlines. Very often business plans of your farm business are required as part of the grant application.

Keep in mind that it is *possible* to obtain as much as 50 percent of a project's cost on a cost-share basis. There is no dollar limit on county or state funds that can be requested for a non-model application. However, model programs have a \$5,000 maximum per producer per year as specified in the state guidelines, and it can be lowered by the administering entity and the local county council. Please note the use of the word POSSIBLE in the preceding information.

County Agricultural Development Councils

Each county has a county council that is established by state statute. The county council is made up of eight members. The county FSA office appoints two members, the county Extension Council appoints two members, the Conservation District appoints two members and those six appoint two young farmers between the age of 21 and 40. Every application for county funds must be reviewed by the respective county council and ranked with a priority on compliance with the county comprehensive plan. The council then sends a recommendation to the state board for a funding or no-funding decision.

If your county has not offered cost-share assistance to beekeepers through the Agricultural Diversification Program, contact your county council members and urge them to do so. It will be important to point out the economic benefits to the agricultural community to offer cost-share assistance to local beekeepers. Please be mindful that your request will be one of many that will be competing for limited funds. It is important to be respectful of the challenge facing county council members as they determine the best use of county funds.

To see a list of Kentucky counties with Agricultural Diversification Programs, go to http://www.kyagpolicy.com/funds/county_diversification.shtml. This list may not be current, but it will give you insight as to whether your county has offered the Agricultural Diversification Program in the past. You can also learn more about agricultural diversification projects at: <http://www.kyagpolicy.com/funds/diversification.shtml>.

Again, to determine the availability of local Agricultural Development Funds, contact your county agriculture Extension agent. County agriculture agents assist in facilitating the local agricultural development councils and will be knowledgeable about the availability of agriculture development funds, programs and application process. Go here: <http://www.ca.uky.edu/county/> for contact information for your local Extension office and agents.

If you are interested in making an application to the state Agricultural Development Board, contact me for contact information for the Governor's Office of Agricultural Policy or go to its Web site at <http://www.kyagpolicy.com/index.shtml>, or call (502) 564-4627 and ask for the project analyst for your county.

Beekeeping Events Calendar – mark “your” calendar so you won’t forget!

- **April 22, 2006, 1 p.m. EDT: Beginner class on Trouble-shooting your hives**, at the Kentucky State University Agriculture Research Farm outside Frankfort. Beginners will be instructed on how to deal with bee diseases, mites, swarming and other beekeeping problems. The class is free, and registration is not required. Those who attend should bring their own bee veil and be prepared to observe beekeeping techniques. For more information contact Phil Craft, Kentucky State Apiarist, at (502) 564-3956 or by e-mail at phil.craft@ky.gov. For directions to the KSU farm go to: http://www.kyagr.com/state_vet/bees/documents/DirectionstoKSUFarm.pdf
- **May 13, 2006, 9:30 a.m.-3 p.m. CDT: Allen County Beekeepers Association Spring Field Day** at the home of Gordon and Bobbie Vernon, 3583 Browns Ford Road, Scottsville. There will be Beginner’s and Intermediate Classes. Participants need to bring their bee suits, veils, smokers, and a bag lunch. The Allen County Beekeepers Association will provide chips and soft drinks. Please RSVP through Martin Hickey at Queenannsrevenge2002@yahoo.com or by calling (270) 846-1702.

To have THE BUZZ! sent directly to you!

If someone has forwarded you this issue of THE BUZZ! and you would like to have THE BUZZ! sent directly to you via e-mail, send me an e-mail at phil.craft@ky.gov and ask to be added to my list. I organize my e-mail list by name, so make sure you sign your e-mail with first and last name. Also, if you are a Kentucky beekeeper, I’d appreciate knowing a little about you and your beekeeping activities – address, how many hives, years of beekeeping experience, and if you belong to a local beekeeping group or to the Kentucky State Beekeeping Association. I would also like your mailing address. This information helps me better serve the beekeepers of Kentucky by knowing where beekeepers are located and allows me to let you in on regional beekeeping activities or to drop you a note if I discover your e-mail address stops working. This e-mail newsletter is not restricted to Kentucky residents. Many subscribers are from our surrounding states, especially Tennessee and Indiana. If you’re from out of state, I need only your full name and home state; any other information is optional.

Keep those smokers lit and your bee veils on!

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