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Mitigating the Potential Threat Your Bees and Beekeeping Activities Pose to Other People

I started keeping bees when I was 12, roughly 26 years ago. When I first started keeping bees, I was very proud of my colonies and wanted to show them off to everyone. People from my church or my grandparents' neighbors (I kept my bees on my grandparents' farm) would stop by while I worked colonies and watch me do what a beekeeper does. I have been a bee-educator since that time, having taken thousands of people on tours of live honey bee colonies, through apiaries, etc. I confess, many of my early tours were quite cavalier. Someone would drive up to my apiary, hop out of their vehicle, and watch me work my colonies. Perhaps it was my naivety or that fact that I was a kid, but never once did it cross my mind that I may have put someone at risk, even if unintentionally. Certainly, now that I work for a university, the risks associated with negative public interactions with my bees, both my personal bees and those belonging to the university, cross my mind all the time.

Our bees are a source of wonder and endless amazement for us, notably so, given that we are beekeepers and got into the business due to our fascination with bees. However, our bees equally are a source of curiosity for our family, friends, neighbors, school groups, etc. Of course, we naturally want to share our craft with the adoring public. Yet, we must remember that bees, whether we feel strongly about this or not, pose a safety risk to humans and animals that interact with them. Thus, it behooves us to be vigilant and purposeful when making an effort to protect others from the bees we keep. I certainly understand that we do not want to contribute to the hysteria that naturally surrounds honey bees. If anything, we should work to eliminate that myth. But, it seems

prudent to take steps to ensure the safety of any person or animal that may contact our bees. The older I get, the more concerned I am when I see other beekeepers take a cavalier approach to facilitating public interactions with their bees. Given that our bees are "wild animals," even if we do not want to admit it, one cannot be too careful when it comes to safety.

With all of this in mind, I have included in this article a list of recommendations one can follow in order to minimize negative interactions between ones bees and people/animals that may come into contact with them. I tried to make this list as thorough as possible, but please let me know if you feel that I omitted recommendations that would be of use to other beekeepers.

1) Locate your apiary/colonies away from areas where people and domestic animals frequent. – One of the best pieces of advice concerning bee safety is simply to keep your bees away from any area where a possible conflict might arise. For example, I do not recommend keeping a colony near a high-traffic trail of a city park, where kids congregate at school, or close to a nursing home. All of these areas increase the chances of negative interactions between bees and people. I think this is especially important given the popularity of bees and beekeeping today and the spread of our craft into urban/suburban areas. The Apiary Inspection Section of the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry



Figure 1. An inconspicuous colony. Neighbors would have a hard time seeing this colony. This is a photograph of a bee colony at a remote apiary in South Africa. Photograph by Mark Dykes, formerly UF/IFAS.



Figure 2. A sign warning passersby that bees are near. This photograph was taken in South Africa, with the warning noted in four languages. Photograph by Mark Dykes, formerly UF/IFAS.

recommends that beekeepers not “place apiaries within 150 feet [45.7 m] of tethered or confined animals or public places where people frequent. (Examples – day care centers, schools, parks, parking lots, etc.)” (see FDACS 2013).

I want to make a special note regarding the tethered/confined animal statement. Generally speaking, most beekeepers keep their colonies away from areas *people* frequent, but give less thought about keeping colonies away from areas that *animals* frequents. The FDACS recommendation about keeping bees away from areas animals are confined or tethered (such as kennels, paddocks, small pens, cages, etc.) is born out of the fact that African-derived honey bees are present in South Florida and it generally is a good idea to keep managed colonies away from penned animals in the event the managed colony becomes Africanized.



Figure 3. A South African beekeeper’s apiary protected by a fence. People and animals will have a hard time “accidentally” interacting with these colonies. Photograph by Mark Dykes, formerly UF/IFAS.

However, I still feel that it is a good recommendation in general and it limits the chances your that your bees will interact negatively with animals that are unable to escape if your bees attack them.

2) Site your bee colonies away from property lines. – I recommend siting colonies at least 15 feet (about 4.6 m), or more, from property lines. Bees leaving the colony need this distance to reach cruising altitude (i.e. above the head of the average human), thus helping to ensure that any passersby are out of the line of fire, so to speak. If colonies simply must be closer to the property line, for example – if you have a very small yard, you should create a flyway barrier at least 6 feet (1.8 m) in height near the hive entrance. This can consist of a wall, fence, dense vegetation, etc. and will cause the bees exiting the colony to gain altitude quickly, hopefully keeping them out of the way.

3) Make your colonies inconspicuous. – Conventional wisdom tells us to paint our colonies white and make them visible for our own enjoyment purposes. However, I like the idea of making ones colonies as inconspicuous as possible (Figure 1). The old adage “out of site, out of mind” applies here. Many non-beekeepers seem to have more bee problems when they can see your colonies than when they cannot. In fact, a well-sited colony, i.e. one that others cannot see, often poses no “mental threat” at all. This recommendation works best in urban and suburban areas and when others cannot directly access your colonies. For example, people who live on fenced property do well to “hide” their colonies since others looking into the property can have a “problem” with the colonies simply by seeing them. Making colonies inconspicuous includes locating them close to bushes, behind privacy fences, painting them to match the environment, etc. This recommendation does NOT work and is NOT advisable when others DO have access to the colonies (see point 4 below).

4) When people can access your colonies easily, mark your colonies with signage to

signal their presence and to advise people to stay away. – This recommendation may seem to contrast the one I provided in point 3 above. However, it does not. The fundamental difference between the two is that others *do not have access* to the colonies in point 3 because they are fenced or otherwise protected from random passersby. For point 4, people *can access* the colonies, usually accidentally. Let me provide an example. Let us say that you maintain an observation hive at your local museum. The entrance of this particular observation hive points toward the museum parking lot. In this instance, a random patron, employee, landscaper, etc. can stumble upon the colony accidentally, setting themselves up for a potential negative interaction with the bees therein. In this case, the presence of the colony should, in my opinion, be identified with a sign (Figure 2), flagging, etc. to let the individual know where the colony is and to stay away. I do not recommend using words such as “danger – live bees,” but rather something such as “caution – bees at work, please stay away,” or something similar. This does not just apply to observation hives, but also to any colony or colonies that you might keep in areas where humans or animals frequent. Perhaps another good example includes keeping bees at a state park, say 100 feet (30.5 m) from a popular hiking trail. I would not put a sign on the trail letting people know the bees are there (this might cause them to wander off the trail and look for the bees). Instead, I would place signs 50 and 25 feet (15 and 7.5 m) from the bees to let people know that they are getting too close to the colony(ies) and that they need to remain at a safe distance.

5) Fence your colonies whenever possible. – In my opinion, bee colonies and apiaries should be fenced to keep unwanted visitors (people and large animals) away from them. This does not simply mean putting your bees into a fenced yard to keep your neighbors away. It also includes putting a fence around your colonies in your yard to keep your children, grandchildren, visitors, pets, etc. away from your colonies (Figure 3). The “danger” of yard bees is that beekeepers (me included) tend to get very comfortable with their colonies. They do not get stung while performing routine yard tasks so they do not see the colonies as a problem. However, kids, pets, visitors, etc. are very curious and can wander to your bees if not watched. This can open the door to a potential negative interaction, one that easily could be avoided if the colonies had been contained within a fence.

6) Is rooftop beekeeping an option for you? – An interesting variation of point 5 (making your colonies inaccessible by fencing them) is making your colonies inaccessible by putting them on your roof. Perhaps you do not have space in your yard, neighborhood, or place of business to fence in your colonies. Then, you might consider keeping your bees on the roof of your garage, house, shed, etc. This comes with its own set of problems (accessibility, difficul-

ty of getting colonies up to/down from the roof, etc.), but some find it a good way to make the colonies difficult for humans and animals to access accidentally.

7) Be reasonable about the number of bee colonies you have per unit area. – One of the things that having bees does is make you want to have more bees. It is contagious. I have seen some overzealous beekeepers stock their small apiaries with too many colonies. This always seems to lead to more problems. Overstocked apiaries cause problems because (1) the bee density is so great that the chances someone will encounter a bee increases significantly and (2) the bee colonies are competing for limited resources, which seems to make bees defensive certain times of the year.

So, what are the right densities (number of colonies per unit area) for bee colonies in a given area? This question has caused me considerable heartache over the years for two main reasons. First, there is no simple answer to this question. Your small tract of land can support more colonies if it is surrounded by citrus groves or clover than it can if it is surrounded by pine trees (Figure 4). There is a sliding scale of recommended colony densities based on the locations you have your apiaries.

Second, governments, local municipalities, etc. tend to want to legislate bee density any time recommendations or best management practices are put onto paper. Thus, there is a danger associated with making any true density recommendations because someone might read them and want to turn them into a general law they believe is applicable to every situation. As a result, it is hard to make blanket recommendations that fit every situation. However, I have seen a number of density recommendations made by bee authorities in various states around the U.S. and many seem reasonable to me. I include below *general density recommendations* (not laws) made by the FDACS (FDACS 2013). These recommendations are very consistent with those I have seen other state agencies make. Again, they are only recommendations that beekeepers can use when stocking apiaries. One of the end goals of any such recommendations is to minimize negative interactions between a beekeeper's managed colonies and people/animals around them.

“Honey bee colony densities on **non-agricultural private land** are limited to the following property size to colony ratios:

- A. One quarter acre or less tract size – 3 colonies. Colony numbers may be increased up to six colonies as a swarm control measure for not more than a 60 day period of time.
- B. More than one-quarter acre, but less than one-half acre tract size – 6 colonies. Colony numbers may be increased up to 12 colonies as a swarm control measure for not more than a 60 day period of time.
- C. More than one-half acre, but less than

one acre tract size – 10 colonies. Colony numbers may be increased up to 20 colonies as a swarm control measure for not more than a 60 day period of time.

- D. One acre up to two and a half acres – 15 colonies. Colony numbers may be increased up to 30 colonies as a swarm control measure for not more than a 60 day period of time.
- E. Two and a half to five acres – 25 colonies. Colony numbers may be increased up to 50 colonies as a swarm control measure for not more than a 60 day period of time.
- F. Five up to 10 acres – 50 colonies. Colony numbers may be increased up to 100 colonies as a swarm control measure for not more than a 60 day period of time.
- G. Ten or more acres – 100 colonies. The number of colonies shall be unlimited provided all colonies are at least [45.7 m] from property lines.”

The FDACS made the statement about allowing an increase in colony density during swarm season to allow for splits to be made and housed on site prior to moving them elsewhere. At the end of the day, most beekeepers know when they have too many colonies in a given area. It is always best to err on the safe side. When in doubt, have fewer colonies.

8) Tell your neighbors about your bees. – I know that a lot of people will disagree with me on this point, but I feel it is best to let your neighbors know you have bees so that they are not caught off guard when having to deal with a bee issue. I think neighbors have a right to be informed. You can keep your chickens, cows, dogs, and cats (to some extent) in your yard. You cannot do the same with your bees. Furthermore, your neighbor will be mowing by your fence, swimming

in their pool, having barbecues, etc. These activities, especially mowing, weed eating, using the chainsaw, etc. can put your neighbor at increased risk for negative encounters with your bees. Thus, I think it is best that they know you are a beekeeper and where on your property your bees are located. That way, they know how to mow when close to your fence, know who to call when a swarm is hanging on their trampoline, etc. Perhaps you feel it is best to let them live in ignorance – maybe that telling them will put the thought in their mind, causing them to worry unnecessarily or blame your bees for something they are not guilty of doing. However, most neighbors are reasonable and can be won over with a jar of honey and a quick lesson on how your bees will help their garden and landscape plants.

Even if you end up with a cranky neighbor who is totally against your bees, it is best for you to try to find a new apiary site before you have a problem with a cranky neighbor than after they have had a problem with your bees. You will get a good feel for how your neighbor will view any bee-related problems once you introduce them to the idea that you keep bees and that you are keeping them in your yard. Be willing to accommodate your neighbor's requests regarding your bees and educate them appropriately if they have a concern about your bees. I also feel that you must be willing to move your bees if neighbor relations sour. You might say “I have nowhere else to put my bees.” However, everyone knows someone who would be willing to let you house your bees on their property. At the end of the day, I like to solve problems before I have them. I suggest telling your neighbors, and then suggest making your colonies as inconspicuous as possible (point 3).

9) Do not take guests close to your bee colonies if they are not protected appropriately. – As noted earlier, we beekeepers



Figure 4. How many colonies are appropriate for your apiary? This site is secluded and located in an area where people do not frequent. Thus, it can accommodate more colonies than could a typical apiary site in an urban area. Photograph UF/IFAS.



Figure 5. A professional public bee demonstration. Notice how all members of the audience are wearing bee veils. Photography by Tyler Jones, UF/IFAS

tend to get very comfortable around our bees. We walk up to our colonies and may even work them without a veil or other protective equipment. Keep in mind, though, that we know how bee stings feel, how we will react, etc. Do not let this lull you into believing that everyone is as safe around your bees as you are. The temptation when we get a new bass boat, corvette, or gun is to show it off to everyone who stops by for a visit. However, I would caution you not to do the same with your bees. Show your friends, family, and neighbors your bees. Just do it at a safe distance so that they are not in any real danger of being stung.

To provide an example of this, my high school superintendent allowed me to keep a colony of bees at school because I conducted science fair projects on bees. The only stipulation was that I not tell anyone that the colony was there. What did I do? I told my ag teacher about the bees and he instantly wanted to take the class to see them. How do I say no to a teacher? So, we went and one of the students from the class looked into the entrance of the colony. It was a cool day and I was not too worried, thinking the bees would not be flying. Sure enough, a bee flew out of the entrance of the colony on cue and stung the student between the eyes. Did I forget to mention that this particular student was allergic to bees? Everything turned out OK, but the take-home message sunk into my head – I should not take people close to colonies unless they are protected adequately. Please, bee safe around your bees.

10) Give only professionally conducted tours and public demonstrations of bees/beekeeping. – What do I mean by this? I simply mean that when giving a tour of your colonies to a school group, church group, 4-H club, etc., you do everything within your

ability to ensure the safety of those who are on the tour. Make sure that you have enough suits for everyone and make them wear the suits (Figure 5). Smoke the bees before and while working the colony(ies). Discuss with the audience what to do if stung.

You should have answers to the following questions before providing tours of your colonies or public demonstrations with bees.

- Are you prepared to handle a sting emergency if someone is stung and goes into anaphylactic shock?

- Does your homeowner’s or work insurance policy (if beekeeping is your business) cover injuries to others who are stung by your bees?

- How are you going to respond if, for whatever reason, your bees simply go ballistic that day and are stinging everyone and everything in sight?

Tell the participants beforehand what to expect and, equally important, what to wear. Members of my team teach a beekeeping laboratory to University of Florida students once a semester. These students know they are going to work live colonies when they come to the event. For some reason, however, many college students seem to be in this perpetual contest of who can wear the least amount of clothes, even when going to an apiary. I have to remind them to wear socks, shoes, pants, etc. all for their own safety. It should be common sense, but clearly it is not.

Often, public demonstrations include observation hives, small colonies or nucs, or bee beards. What happens when you are selling honey at a farmer’s market and the observation hive you brought is dropped and broken? What is your containment/contingency plan? How will you subdue

the bees? Bee beards are a particular phobia of mine, not because I am scared of doing one (which I am not), but because, it seems to me, that they come with an unnecessary amount of public risk. They often are conducted by novices, in public settings, when the observers have no protection whatsoever. This seems like a recipe for disaster. I certainly am not advocating doing away with bee beards (or bee-kinis for that matter...just my attempt at a joke); I only am suggesting that the organizer of the bee beard event has his/her “ducks in a row” and takes steps necessary to ensure the safety of everyone involved, both the person getting the beard and the audience watching. At the end of the day, you should be prepared for any emergency and know what to do should something happen if you plan on giving others guided tours through live bee colonies or are offering a public demonstration that includes the manipulation of live bees.

11) Have insurance. – I certainly am no insurance expert. However, it is prudent to ensure that your homeowner’s insurance policy (if the bees are at your home) or business insurance policy (if you are a professional beekeeper) covers you in the event that someone or something is injured because of your bees or associated enterprise. Not all homeowner’s policies will cover you if you admit that you have bees on your property. Again, however, I feel it is important to be forthright about this. It is better to know that a given company does not cover you on the front end than to discover after the fact that they do not if you are being sued because of something your bees did.

12) Consider developing and using a sting waiver. – A sting waiver is simply a document that tells any visitors to your bees that they are assuming the risk associated with visiting your bees, i.e. that they know they are interacting with live bees, that they might be stung, and that there could be consequences of being stung. We use them for my extension programs and require that all participants to our programs sign them when registering for our numerous events. You might think that waivers only protect those issuing them. Of course, that is one intent of the waiver. However, the waiver also lets the individual know the risks associated with what they are about to do, thus allowing them to determine if the activity in which they are about to engage is right for them. Personally, I think this is another mechanism to help ensure the safety of those who are about to interact with our bees. As an example only, I include in the boxed article information from the sting waiver we use at the University of Florida. Hopefully, it will be of some use to you.

13) Be especially mindful when managing bees at public places. – I have discussed parts of this recommendation in other points, but I wanted to discuss it again separately here. A lot of beekeepers maintain a colony or colonies in public places such as libraries, churches, schools, parks, etc. I certainly am OK with this. But, beekeepers

doing this must be more prudent and careful with their approach to keeping bees. Are the bees out of reach of the public or does the public have access to them? Are the colonies appropriately marked if they can be accessed by the public? Did you fence in the colonies? Do you have liability insurance? Does the property owner have insurance? Are you on good terms with the manager of the public space? These and other questions are worth considering if you elect to keep bees in public locations.

14) Take similar precautions when keeping bees on private lands. – The same recommendations I have discussed thus far apply even when keeping bees on someone else’s property. Remember, the property owners may have guests, family, friends,

pets, hunters, etc. accessing their property. These individuals need to be protected as well. The same rules regarding fences, signage, insurance, etc. remain appropriate.

15) Learn as much as you can about bee stings, how to prevent them, and how to treat them. – For many years, I was ill-prepared to handle any sting emergency that could arise as a result of someone’s interactions with my bees. This obviously was not good. All beekeepers and bee educators should have a good understanding of how and why bees sting. They also should know what the body’s range of possible reactions to bee stings is and the appropriate response/treatment to the sting. For example, let us say that you are showing your neighbor around your apiary and they are

stung on the arm. Five minutes later, their arm is red and itchy. Ten minutes after that, the arm is swollen to twice its size. What is the appropriate response? I wrote an article in the January 2016 issue of the *American Bee Journal* (Ellis 2016) in which I discussed bee stings and human reactions to them in great detail. I now require all of my employees to read this article so that they know how to recognize problems related to stings and respond appropriately. That way, we will know what to do if a student is stung and is dizzy, or if a visitor begins vomiting after a sting, etc. Hopefully, you will never have to save someone from a sting emergency. But if you do, it is best to be armed with the appropriate knowledge and respond accordingly.

16) Provide your contact information to people who live near or frequent the area around your colonies. – Generally speaking, I believe it is a good idea to leave your contact information (home phone, cell phone, and email address) with people who have a greater chance of interacting with your bees. This can be your neighbor, the property owner of the land where your bees are located, the park manager, landscapers, utility companies, and other frequent visitors to the apiary location. This way, the affected parties will have a quick way of contacting you should the need arise.

17) When possible, register your bees with your state’s appropriate regulatory agency. – Not every state in the U.S. requires that their beekeepers register their colonies, but some do. For example, beekeepers in Florida, by law, must register their colonies with the FDACS. In other states, however, registration is voluntary. Even if it is voluntary, I recommend that you register your colonies. This usually opens the door to a wealth of information on bees and beekeeping maintained by your state’s bee inspection program. In Florida’s case, beekeepers are made aware of the Best Management Recommendations for keeping bees in areas where African bees are present, for example. This can only help as beekeepers there work to limit African bee impact on their colonies, and correspondingly, their colony impact on other people and animals. It also can afford some level of protection, showing others that you are serious about your beekeeping efforts and that you want to take the steps necessary to manage bees appropriately. Registration can come with the added benefit of regular colony inspections for pests and pathogens. It is a good idea to register your colonies if that option is available to you.

Bee management techniques to reduce negative human/animal interactions with your bees

Beekeepers also can remember a few management tricks that will help minimize negative human/animal interactions with their bees.

18) Ensure that your bees have a nearby source of clean water. – Honey bees need

WAIVER OF LIABILITY AND HOLD HARMLESS AGREEMENT

1. In consideration for participating in a learning workshop provided by members of the University of Florida Honey Bee Research and Extension Laboratory and on the subject of keeping honey bees, I hereby RELEASE, WAIVE, DISCHARGE, AND COVENANT NOT TO SUE the University of Florida, any University Organization, the University of Florida Board of Trustees, the State of Florida, their officers, servants, agents, or employees (hereinafter referred to as RELEASEES) from any and all liability, claims, demands, actions, and causes of action whatsoever arising out of or related to any loss, damage, or injury, including death that may be sustained by me, or to any property belonging to me, WHETHER CAUSED BY THE NEGLIGENCE OF THE RELEASEES, or otherwise, while participating in such course activity, or while in, on or upon the premises where the activity is being conducted.
2. To the best of my knowledge, I am not allergic to bee stings. I am fully aware of risks and hazards connected with the activity of keeping honey bees, including the risk of being stung by a honey bee, and I hereby elect to participate voluntarily in said activity, and to enter the above named premises and engage in such activity knowing that the activity may be hazardous to me and my property. I VOLUNTARILY ASSUME FULL RESPONSIBILITY FOR ANY RISKS OF LOSS, PROPERTY DAMAGE OR PERSONAL INJURY, INCLUDING DEATH, that may be sustained by me, or any loss or damage to property owned by me, as a result of being engaged in such an activity, WHETHER CAUSED BY THE NEGLIGENCE OF RELEASEES or otherwise.
3. I further hereby AGREE TO INDEMNIFY AND HOLD HARMLESS the RELEASEES from any loss, liability, damage or costs including attorney’s fees, they may incur due to my participation in said activity, WHETHER CAUSED BY THE NEGLIGENCE OF RELEASEES or otherwise.
4. It is my express intent that this Release shall bind the members of my family and spouse, if I am alive, and my heirs, assigns and personal representative, if I am deceased, and shall be deemed as a RELEASE, WAIVER, DISCHARGE AND COVENANT NOT TO SUE the above-named RELEASEES.

IN SIGNING THIS RELEASE, I ACKNOWLEDGE AND REPRESENT THAT:

- A. I have read the foregoing Release, understand it and sign it voluntarily as my own free act and deed;
- B. No oral representations, statements, or inducements, apart from the foregoing written agreement, have been made;
- C. I am at least eighteen (18) years of age and fully competent;
- D. I execute this Release for full, adequate and complete consideration fully intending to be bound by same.

Signature of Participant: _____

Date: _____

Printed Name of Participant: _____

OR

Signature of Consenting Guardian: _____ for

Printed child name _____

Printed Name of Consenting Guardian: _____

Date: _____



(l) Figure 6. Requeen defensive colonies. This colony is exhibiting typical heightened defensive behavior. It should be requeened to minimize its threat to people and animals. *Photograph: UF/IFAS.* (r) Figure 7. An apiary containing unprotected equipment (super in foreground). This can cause a robbing frenzy. All apiaries should be kept clean and tidy, thus minimizing robbing behavior. *Photograph by Mark Dykes, formerly UF/IFAS.*

water for various colony functions. They are going to go to the nearest source of quality water, collect it, and bring it back to their colony. This means that your bees may be going to your neighbor's bird bath, the local school's fish pond, or the community swimming pool just down the road. Always try to provide your bees a source of water so that they do not congregate at other water sources. This is a very common complaint of neighbors with swimming pools. Prudent beekeepers stop this activity before it ever happens.

19) Use bee stocks known to be gentle. – It probably goes without saying, but no single colony exhibits predictable behavior. That said, there are stocks of bees that tend to be gentler than are other stocks. For example, Italian-, Carniolan-, and Caucasian-derived honey bees are known to be quite gentle. On the other hand, African-, and German-derived bee stocks tend to be very defensive.

20) Requeen defensive colonies. – Beekeepers should determine the temperament of every colony they own or work. Colonies that are too defensive should be requeened immediately (Figure 6). I argue that there is no place for a colony that expresses heightened defensiveness in an apiary. This not only protects other people, but it also protects the beekeeper.

21) Ensure that your colonies have adequate food reserves. – Colonies that do not have adequate food stores are more likely to rob other colonies than are colonies that have sufficient food reserves. Robbing behavior is a type of feeding frenzy where bees from certain colonies are trying to rob or steal honey from another colony or honey that if left outside a colony (see point 22). It can lead to dangerous, agitated bees.

22) Do not place or leave anything in your apiary that will cause an apiary-wide feeding frenzy. – You should not allow unprotected nectar or honey to be available in

an apiary that other people and animals can access or do access frequently. This means that dead-out colonies, weak colonies, abandoned equipment, extracted combs (Figure 7), etc. should not be allowed to remain in an apiary. These immediately attract robbing bees and can increase the general defensiveness of colonies in the apiary. Robbing bees become somewhat agitated because they are positioning against other bees to get to the free food or fighting off defenders from weakened/stressed colonies. This high volume of agitated bees can threaten people and animals if it gets out of hand. The best offense in this case is a good defense where you work to avoid the situation altogether by limiting the availability of items that can be robbed.

23) Practice good swarm control techniques. – This recommendation is an important one. Beekeepers should practice good swarm control techniques, if for no other reason, so that they will not lose swarms to their neighbors yard...or worse yet...have a swarm establish a colony in a sensitive area on their neighbor's property. I doubt anything is scarier to a neighbor than to see a swarm move into their yard or see a cluster of bees hanging on their doghouse. Swarm control works miracles in this regard. An ounce of prevention (in this case) is worth a pound of cure.

24) Follow locally adapted best management practices. – Beekeepers should follow general best management practices aimed at keeping their colonies strong and healthy. These best management practices include recommendations such as keeping colonies away from property lines, keeping them well fed, etc. However, it also includes disease/pest management, appropriate management for production, etc. Healthy colonies are happy colonies.

25) Work your colonies in a manner that minimizes colony disturbance. – I conducted my PhD studies in South Africa where I worked with African bee hybrids. I worked the colonies without gloves. Over time, I learned how to work a colony in such a way to minimize stings. On the other hand,



Figure 8. Work your colonies in such a way to minimize disturbance. These colonies have been open too long and the bees are agitated and flighty. *Photograph: UF/IFAS.*

I had some student colleagues at the time who were not as gentle with colonies as was I. Working colonies with them always got me more stings. The moral of this story is that beekeepers can work colonies in a way to minimize disturbance to the colony and thus limit any negative interactions between your bees and innocent bystanders. This includes always using smoke when working colonies, not leaving colonies open too long (Figure 8), working a colony with smooth, deliberate movements, not having multiple colonies open at one time, etc. Learn to work your colonies in a way that keeps them calm during the process.

Conclusion

It is my hope that your bees are never engaged in a negative situation with other people or animals. The good news is that the vast majority of beekeepers will never experience such a situation. However, it is helpful to know how to limit the likelihood of such interactions and how to respond appropriately if such an interaction does occur. I hope that I have provided some food for thought as you introduce the people you know to the bees you love.

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Only serious inquiries. Call 001 204 248 2645 and ask for Pierre, or by internet at frenchbeefarm@hotmail.com