

TIPS ON HOW TO HANDLE BEES

Honey bees sting intruders to protect themselves or their nest from harm. Beekeepers must be prepared to receive stings and to overcome natural fears and apprehensions regarding stings. With time, one gains confidence and proficiency in handling bees and the number of stings taken in the process of bee hive manipulation decreases.

Here are some tips to help reduce the number of stings.

When to Manipulate Bees

• Open and examine bee colonies on warm, dry windless, sunny days between 10 AM and 4 PM when most older bees are out foraging. Avoid cold, windy or showery days when foragers are in the hive. More bees are in the hive on cloudy days than on sunny or partly sunny days.

• It is easier to examine bees during a nectar flow; even the most gentle bee colony may be hard to handle during a nectar dearth. Feeding colonies sugar syrup may aid your manipulations but doesn't always help.

• Colonies are easier to examine when they have a smaller population. Inspections are usually easier in the spring than in summer or fall due to the smaller populations and other factors. Fall inspections of large colonies that often have few flowers available for forage are usually the most difficult to conduct.

How Long to Keep a Hive Open

• Bees are usually quite tolerant to moderate beekeeper manipulation of 10 to 15 minutes. Avoid keeping colonies open where there is danger of chilling brood. Brood examinations should never be prolonged. In all examinations keep the colony open only as long as necessary.

• If a colony becomes noisy or very flighty it is best to close the hive. Hive bodies can usually be separated for 15-20 minutes under normal conditions.

• Combs with honey quickly attract robber bees under conditions other than nectar flow. Cover hive bodies and supers not being examined. If robbing starts, stop examinations for the rest of the day and reduce the entrances on the weakest hives to help prevent them from being robbed. It is best to avoid robbing because it is sometimes difficult to stop once it has started.

What to Wear

• Always wear a veil. Stings on the face are painful and you could have permanent injury to the ear drum or eye if stung at these sites. If a bee gets inside the veil, walk away

from the apiary and remove the bee. <u>Do not remove your</u> <u>veil in the apiary</u>.

MAAREC Publication 2.1

February 2000

• Use protective clothing. Wear white or light colored coveralls over regular clothing if it's not too hot. Use boots and securely fasten the coveralls in or over the boots. Tuck pants into socks, or tie with string, rubber bands or elastic if coveralls are not used. A windbreaker jacket will help avoid stings.

• Use gloves sparingly. During unfavorable weather or when moving colonies, gloves are handy. Otherwise, you can manipulate colonies better and with a finer touch without gloves.

• Do not wear dark or rough textured clothes. Beware of dark socks when boots are not used. Bees can grab hold of rough texture better than smooth surfaces. Avoid wool, suede or leather.

Keep veil, pant legs and shirt sleeves bee tight. If a bee gets inside clothing squeeze them in the clothing or walk from the apiary and open your clothes to allow the bee to escape.
Do not use sweet smelling cosmetic materials such as perfumes, hair sprays, colognes, etc. before handling bees. Bees may be attracted or irritated by such smells. Some people feel sweat may attract bees and lead to stings but others disagree.

How to Manipulate Colonies

•Make certain you have a lighted smoker that readily dispenses "cool" smoke. Puff smoke in the hive entrance and proceed into each colony at a leisurely pace to permit the bees time to respond to the smoke. Continue using your smoker as you examine the hive. If bees are "looking at you" on the top bars, disperse them with one or a few puffs of smoke.

• Make all movement around bees smooth and deliberate. Avoid jerky or rapid movements. Pry hives covers off gently. Avoid jarring or bumping any part of the bee hive. Bees are very sensitive to vibrations.

• Work from the back or sides of your bee hives. Stay out of the bee's flight path when walking near colonies or working them.

• After removing hive covers begin examining by removing a frame near the outside; the frame adjacent to the outermost one is a good first one to remove. If robbing is not a problem (nectar is available and bees are busily working on flowers) you can lean the first frame against the outside of the hive leaving room to work the remaining frames with ease. If robbing could start be sure to cover hive bodies you remove and do not leave any frames exposed. •If you wish to examine all boxes start with the lowest one. Pry up the top box to break the propolis seal and puff smoke between the boxes. Remove the top box and place it on the hive cover which should be placed upside down on the ground. Proceed to remove all boxes until you reach the lowest one. Cover the boxes not being examined. Examine each box after you replace it on the lower one.

•When removing a frame, pry it loose on both ends from adjacent frames with the hive tool. Grasp the loosened frame firmly and pull it up gently, being careful not to scrape the bees on the adjacent frame. This is difficult to accomplish with the first frame you remove but be as careful as possible. After one frame is removed, leave it outside to give a working space for subsequent frames. Frames with much burr or brace comb may take extra prying. When replacing the frames use the working space and replace the last frame (first one removed) carefully.

•If you scrape burr and brace comb as you examine the colony, put it into a can or container of some sort. Do not leave bits of comb or frames lying about the apiary. Scraping can be irritating to the bees so scrape only comb that is in the way.

What to do if You Get Stung

•When you open a hive, bees may land on you or crawl upon your hands or clothing. Brush them away gently or leave them alone.

•When a honey bee stings, the stinger usually stays behind because there are barbs on the sting. As quickly as possible, scrape, do not pull, the stinger from the sting site. The hive tool or finger nail can be used to scrape the stinger.

•The stinger contains some glands that secrete chemicals that serve as an alarm odor. If other bees quickly sting the same area or buzz about the area, puff smoke on the site with your smoker. You might need to withdraw from the colony and wash the site with water to remove the chemical. Washing isn't usually necessary as the chemical is with the sting; by scraping the sting away and removing it, you remove the alarm chemicals.

•The sting site will hurt for a while. Application of a sting relief remedy helps some individuals. Otherwise, a cool compress (ice cube, mud, cool water, etc.), may provide some relief.

• If you are allergic you will quickly notice a reaction. Typical symptoms are difficulty in swallowing, shortness of breath, itching on parts of the body away from the sting, a rash or blushing of the skin, dizziness or faint feeling and swelling in the throat or around the eyes, face or nose even though the sting is at another location. If symptoms are very severe, seek medical attention quickly.

•If you experience pain and the sting site begins to swell in the first 15 minutes you probably don't have an allergy. For the next few hours, the sting bite may continue to swell. The amount of swelling is highly variable with each sting. If the swelling stays at the sting site, even though it may be extensive, you should not be concerned.

•After a day or so, the sting site will itch. Try to resist scratching since that only makes it worse and you could get an infection. A first aid cream may provide relief from the itching.

•Swelling and itching may persist for a day or two following a sting. You should be over the effect of a sting after 3 or 4 days.

What to do if You Receive Multiple Stings

•Multiple stings may create more discomfort than a single sting. The amount of swelling will not necessarily be more extensive with multiple stings but the itching will probably be more intense. Multiple stings are no more severe to an allergic person than a single sting – both are serious.

•Multiple stings may be an indication of aggressive bees. Perform your manipulations and close the hive as quickly as possible under such circumstances. In some instances it is best to close up without further examination.

•If there is a specific reason for aggressive behavior by the bees you might be able to eliminate it. After the bees have had time to calm down they may become manageable once more.

MAAREC, the Mid-Atlantic Apiculture Research and Extension Consortium, is an official activity of five land grant universities and the U.S. Department of Agriculture. The following are cooperating members:

University of Delaware	University of Maryland
Newark, Delaware	College Park, Maryland
Rutgers University	The Pennsylvania State University
New Brunswick, New Jersey	University Park, Pennsylvania
West Virginia University	USDA/ARS
Morgantown, West Virginia	Bee Research Lab

Requests for information or publications should be sent to: MAAREC, 501 ASI Building, University Park, PA 16802 Phone: (814) 865-1896 Fax: (814) 865-3048 Web site: http://MAAREC.cas.psu.edu

Beltsville, Maryland

This publication is available in alternative media on request.

The mention of trade names or commercial products in this publication is for illustrative purposes only and does not constitute endorsement or recommendation by the Mid-Atlantic Apiculture Research and Extension Consortium or their employees.

The U.S. Cooperative Extension Service and the U.S. Department of Agriculture provide Equal Opportunities in employment and programs.

Participants in MAAREC also include state beekeeper associations, and State Departments of Agriculture from Delaware, Maryland, New Jersey, Pennsylvania and West Virginia.

MAAREC Publication 2.1. Author: Dewey M. Caron, University of Delaware