

*"Little pig, little pig, let me come in.  
'No, not by the hair on my chinny chin chin.'  
'Then I'll huff, and I'll puff, and I'll blow your  
house in.'"*

– Joseph Jacobs, *English Fairy Tales*, 1890

Not only am I a Native North Carolinian, my family has been here since the 1600s. That means that my kin and I have eaten a whole lot of barbecue and have lived through a whole bunch of hurricanes. Once I became a beekeeper, my hurricane anxiety was compounded by fears of my bee hives being carried off like Dorothy's house in Kansas (and her little dog too!). But after 20 years at risk, including direct pass-overs from several notable hurricanes, I've refined my list of bee-related things that are, and are not, of concern at my place in a conscious application of the Serenity Prayer: "God, grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference."

With respect to the Wisdom bit, we have some great resources for guidance regarding things that we could worry about, if we choose to worry. Our friends at NCSU have a great on-line guide, "[Protective Measures of Beehives During Hurricanes](#)" and the USDA has a much more extensive document, "[Hurricane Preparedness and Recovery in the Southeastern United States: Beekeeping Guide](#)".

However, as we are constantly reminded, all beekeeping is local. At my place in north-eastern Orange County, given the site and condition of my hives, most of the things that are covered in those documents are either not going to be a problem or the risk is very small relative to the risk of other issues. For example, my automobiles will likely wash away before my hives do (my hives are on higher ground). I have friends whose hive circumstances differ from mine who have spectacular stories to tell, but those haven't hit my bee yard (yet).

2024 is supposed to be a highly active hurricane year (expected to have 20 or more named storms) and the season runs until the end of November. Hurricane Debby gave us a



Hurricane Michael came through NC in 2018 right on the heels of Florence, causing round 2 of mayhem. Ryan Chamberlain found that he was one lucky beekeeper when he checked his hives after the storm passed. Photo: Ryan Chamberlain

small and somewhat wimpy reminder that we are in the path of Big Blows, and the difference between another Fran and a good soaking rain can depend on a shift of a few degrees in a storm's track.

With all that in mind, what should we be on the lookout for with respect to hurricane preparedness? For hobby beekeepers, I think the main potential concerns are:

- Direct wind damage
- Indirect wind damage
- Flooding
- Aftereffects

### Direct wind damage

Direct wind damage is when the wind blows hive covers off or worse. Back in 2020, a member of my local beekeepers' association,



What's the worst that could happen to our hives in a hurricane? This may take the prize. Photos: Carrie Donley

Rob Zelt, shared a video of straight-line winds whipping through his bee yard, knocking over first one, then another, then another complete hive along with its stand, exactly like toppling dominos, leaving all of the other hives in the row untouched. That wind was the type that would remove BBQ grills and picnic tables from a back deck. But note that it is so unusual for that to happen to bee hives that we all gasp and say "Yikes!" when we hear about it. It rarely happens in Piedmont NC. Also note that only a portion of his hives were blown over. Perhaps some stands were better than others? (See ["Don't Forget the Hive Stand!"](#) for tips on what makes a sturdy stand.)

With regard to hive covers coming off, I wish that my covers could be removed so easily! My bees propolize my covers and the seams between boxes such that they aren't going to be separated without effort. The weight of the boxes prevent them from flying off the stands. A beginner with brand new equipment or someone in a completely different environment than mine may be concerned about this type of destruction but I don't give it a second thought. I'm confident that my hives will blow away entirely before my hive covers blow off.

### Indirect wind damage

I define indirect wind damage as when the wind causes something else to damage our hives. Hmm... what is that likely to be? The answer is trees. Without question, when the topic of storm damage is discussed, the most destructive and most widespread threat is falling limbs and trees. A hive that falls over can be reset. Boxes that are scattered can be reassembled. Bees that get an unexpected rain shower can dry out. But when a many-thousand-pound tree falls on your hive, it is time to buy a new one.

What can be done as a preventive measure? If we know that a tree is going to fall, obviously we should move our hives out of its trajectory. But a thick line of trees provides a wind break – a good thing – so would moving hives to the middle of an open field be helpful or harmful? Try it with half of your hives and let me know which group fares better!

My personal conclusion is that tree damage to hives is in the same category as tree damage to my house. It is largely something that we cannot protect against, short of clearcutting all the trees off of our property. An interesting point with hurricanes is that a totally dead, standing tree is less likely to fall in high winds than a healthy, fully-leafed one because a tall, bare stick offers no wind resistance.

### Flooding

Beekeeping 101 teaches us to avoid placing hives in damp, low-lying areas. Damp encourages a variety of bee maladies. But most of us aren't land barons with thousands of acres to choose the very best spot for hives; we take what we have available. If you've got hives placed in an area that could possibly flood, your bees are at risk. Celeste Mayer had first-hand





This hive stand and bottom board are downstream from where they are supposed to be.  
Photo: Celeste Mayer/Kathleen Baker

experience with this fact in the aftermath of Hurricane Florence in 2018. She had placed a hive in a lovely spot near a picturesque lake. Florence turned the stream feeding the lake into a raging river and raised the lake's water level by at least a half-dozen feet. Checking the status of her hive after the storm, it was nowhere in sight.

Celeste put out a call to the intrepid Rasmussen boys (Ian, Leif and Silas), well-known in our county for their beekeeping expertise, adventurous spirit and general good natures. Think of Scandinavian versions of Huckleberry Finn crossed with Indiana Jones, with the cleverness of Encyclopedia Brown. The boys canoed downstream in search of the missing hive. They eventually found the boxes, frames still in place and covered with bees, loaded everything up and reassembled it in its proper place. There was plenty of mud, mold on the honey frames and opportunistic Small Hive Beetle grubs enjoying the chaos, but the hive did recover.

### Aftereffects

Those who have been through hurricanes know that the day after they've passed by typically has gorgeous weather, with blue skies,



When your hives wash away, it pays to be friends with adventurous, experienced beekeepers who have a canoe!  
Photo: Celeste Mayer/Kathleen Baker

sun and singing birds. But the threat to our hives isn't over. Not only do flood waters commonly not peak until several days after the storm, but often hurricanes leave behind prime mosquito-breeding conditions. Normal People respond by blanketing the environment with mosquito sprays, either DIY or from pest companies. Due to public health concerns, the government may respond to severe post-hurricane mosquito outbreaks with neighborhood-wide spraying.

The first line of defense against mosquito spraying is to register with the free, online BeeCheck program. See "[Save the Bees, Starting with Yours](#)" for details. This program, supported by the NC Department of Agriculture and Consumer Services, provides a simple and direct way for pesticide applicators to notify affected growers and beekeepers that spraying will occur in their areas. It may not be universally used or 100% effective but it is free and has great potential. You'll never have a chance for the program to work if you do not register.

If spraying is scheduled that may affect your hives, there are basically two reliable ways to protect your bees:

1. Move your hives offsite before spraying is going to occur and return them when it is completed. See "[Have Bees, Will Travel](#)" for moving tips.
2. Prevent flight by closing the hive entrance while spraying is occurring. Covering hives

with a damp sheet is commonly recommended; this prevents airborne pesticides from drifting into the hive entrance. Regardless of the technique used, ensure that the bees have abundant ventilation so that they don't overheat and/or suffocate.

### You are on your own

All beekeeping is local, meaning that I cannot tell you what is the best way for you to prepare for, endure or recover from a hurricane passing through your apiary... because your apiary and mine are different. However, this discussion hopefully gives you some things to consider.

First and foremost, I encourage you to focus on the likely threats and ignore the hypothetical ones that aren't reasonably expected to impact you. In my opinion, the most bang for the buck is to ensure that your hive stands are sturdy – that is important whether we have hurricanes or not. If you can make your hives wobble on the stand, a strong wind can do even more than that. And the wind isn't the only factor in toppling hives – rain-soaked ground can allow the legs of a perfectly good stand to sink in one direction or the other, resulting in hive boxes being scattered on the ground. Using 2x4s to prop up a tall stack of top-heavy supers may look unprofessional but it is effective.

Beyond that, at my place, the most likely threat is from falling limbs and trees. Hurricanes easily bring down trees that aren't damaged and therefore which ones will fall isn't very predictable, so that risk is something that is essentially beyond my control. I'm at peace with that. Besides, if a hurricane brings down trees at my place, my honey bee hives are way



Hurricanes aren't our only weather problem. A weeklong heavy rain turned the ground underneath this hive into a soggy mess, causing the back legs to sink. Being very top-heavy, the result was inevitable. Fortunately, everything went back together nicely and no lasting harm was done. Photo: the author

down on the list of things that I don't want to be smashed. Me, my wife, my house, my car and lots of other things are ahead of my hives on that list. Bee hives, and the bees in them, can easily be replaced.

*Many thanks to Celeste Mayer, Kathleen Baker, Carrie Donley, Ryan Chamberlain, Brad Kosiba, Lauren Carreto, Phil Crump, Rob Zelt and others for sharing photos and stories of storm mayhem.*

*Randall Austin is a NC Master Beekeeper who keeps a few honey bee hives in northern Orange County, NC. He can be reached at [s.randall.austin@gmail.com](mailto:s.randall.austin@gmail.com).*

*Note: All previous articles are archived at [https://baileybeesupply.com/educational\\_resources/](https://baileybeesupply.com/educational_resources/) Copyright 2024, no reproduction in whole or in part without permission of the author, except for noncommercial, educational purposes.*