



# *Honey Bees and Golf Courses, One Sweet Partnership Part I*

*Rebecca Masterman, UMN Bee Squad Coordinator*

Bees are in the news these days due to the multiple threats that they face to their health. Scientists agree that it is a combination of factors including poor nutrition, pesticides, pathogens and pests that are interacting to threaten the health of honey bees. While approximately 1 out of every 3 bites of food we eat are benefited by bee pollination, we are also losing 1 out of every 3 honey bee colonies each winter due to these multiple health challenges. The honey bee is often the attention getter when it comes to news because beekeepers are able to track these losses easily and report them. Most people aren't aware that Minnesota has between 350-400 different species of non-managed bees that are also impacted by similar issues. These wild bees, nesting in tunnels and stems, additionally suffer from a loss of habitat.

In response to the bee decline that has occurred since 2006, the Bee Squad was founded by Dr. Marla Spivak, MacArthur Fellow and Distinguished McKnight Professor in Entomology at the University of Minnesota. The Bee Squad operates within the University of Minnesota's Bee Lab. Our goal is to bring back

a bee friendly world. We provide ways for beekeepers and a relatively new, rapidly growing group of bee supporters, to help bees. We are committed to educating, training, and assisting people engaged in making bees thrive. By promoting awareness about the critical contribution of pollinators to nutritious foods and a green environment, the Bee Squad helps people make choices that are good for the bees and ultimately good for us all.

One of our programs for our bee supporters is called Hive to Bottle, where families and organizations own honey bees and hire the Bee Squad to manage them. As the Bee Squad Coordinator, one of my favorite locations to manage honey bees is on the rooftop of the Somerset Country Club maintenance building. These



Honey bee colonies at the end of the season in 2013 at Somerset Country Club in Mendota Heights, MN. Photo by Rebecca Masterman

bees are sponsored by one of their members. Often, I am able to have a conversation about how the bees are doing with golfers in the tee box visible from their rooftop home. These interactions nicely represent how our Hive to Bottle program has been successful in sharing the bee decline story with the public.

Maintaining bees at the Town & Country Club is also at the top of my list for bee management location favorites. The bees are supported by people from all levels of their organization and they make every effort to help them thrive. I have the opportunity to give numerous presentations about the Bee Squad and the

bee crisis throughout the year. At these talks, I am excited to highlight the golf courses where we manage bees. I am often questioned about the relationship between bee health, golf courses, and pesticide after my presentations. In response, I describe the commitment that I have seen from both golf courses to use chemicals prudently. The audiences are always impressed to hear about Town & Country Club's Audubon and Green Restaurant Certifications.

In addition to the wise use of pesticides, both of the golf courses where we manage bees have made a commitment to plant food for them also. It is good news for the bees of Minnesota that we are seeing a significant number of our



Honey bee colonies at Town & Country Club in St. Paul, MN  
Photos by Rebecca Masterman

Hive to Bottle customers as well as the public take up this cause. Planting food for bees and other pollinators on golf course properties can be as simple as selecting good pollen and nectar sources that provide food throughout the growing season (Plants for Minnesota Bees) and caring for

them in ways that will ensure that the food will be clean

(<http://www.pollinator.org/golfcourse.htm>). Pollinator gardens are becoming more popular as people want to contribute to the bee decline solution.

Healthy bees make surplus honey and that is the sweetest reward for participation in our Hive to Bottle program. Both Somerset Country Club and Town & Country Club had generous supply of honey extracted from their colonies

last year. As a part of the Hive to Bottle program benefits, we manage the bees and then extract any surplus honey that the bees make. We make sure to leave enough for the bees to survive the winter (about 100lbs), but then are eager to deliver the extras to our customers.

With the increased level of awareness regarding bee health issues today, the UMN Bee Squad is excited to be in the position of helping people and organizations, like golf courses, help bees. We are especially grateful to our Hive to Bottle program participants for their commitment to being part of the solution to this issue. Participation in our Hive to Bottle program provides the additional benefit that is gained from managing honey bee colonies across the Twin Cities metro area. We are able to collect data on colony health throughout the management season. We use these data to identify trends and direct research.

Participating in the Hive to Bottle program takes some planning. Honey bee colonies are ordered in January for the arrival in April. It is often a good idea



to check out potential colony sites well ahead of time in order to determine the best location for bees on a property. Part 2 of Honey Bees and Golf Courses will highlight our Hive to Bottle golf course customers and explore the benefits that they have gained from participating in our program. For now, if you would like more information about participating in our Hive to Bottle program, please send an email to [beesquad@umn.edu](mailto:beesquad@umn.edu).

# Protecting Pollinators

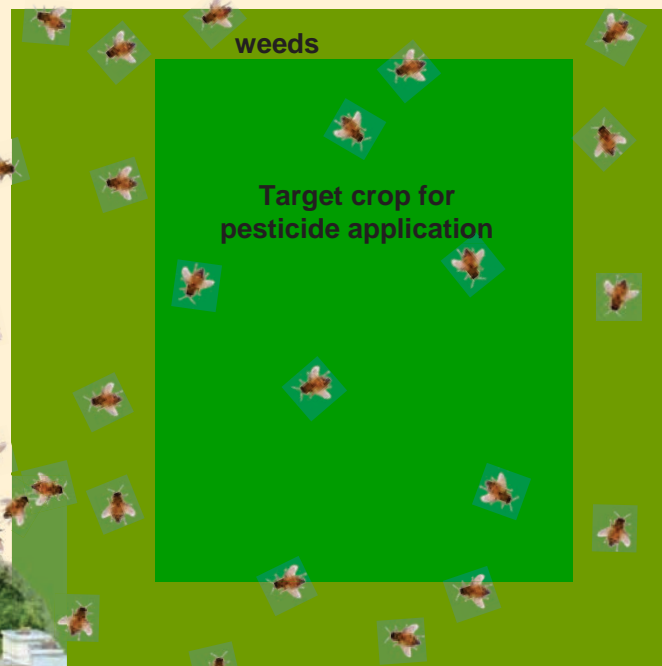
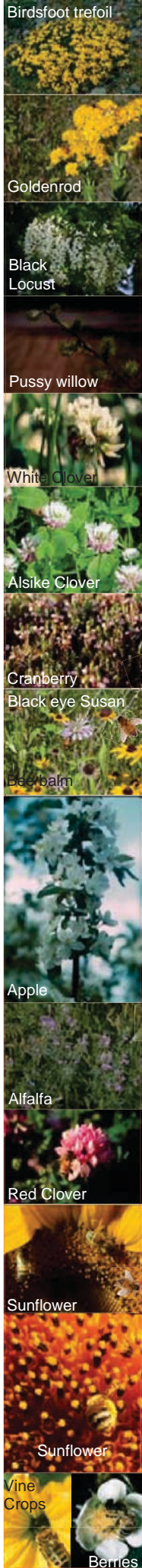
Marla Spivak and  
 Dept. Entomology, U  
[www.extension.u](http://www.extension.u)

## Why should I protect bees?

In Minnesota these crops require insect pollination to set seed and fruit:

- |           |          |                 |
|-----------|----------|-----------------|
| apple     | cucumber | strawberry      |
| blueberry | melon    | sunflower       |
| canola    | pumpkin  | wildflowers     |
| cranberry | squash   | clover, alfalfa |

**If flowers are  
 bees may be**



### Bee hives may be exposed to pesticides

- Direct spray on bee hives
- Pesticide exposure on crop
- Overspray or drift off the target crop

### Because:

- Bees are kept in bee hive boxes
- Bees may be foraging on target crop
- Bees may be foraging on weeds in or around t
- Bees may be foraging on near non-target crop

# While Using Pesticides

and Gary S. Reuter

University of Minnesota  
umn.edu/honeybees  
2008

are blooming,  
are foraging.

## BEE CAREFUL!

Some pesticides remain toxic on plants for an extended period. They can be identified by the word "residue" in the label under Bee Caution and put bees at increased risk!

### Things you can do:

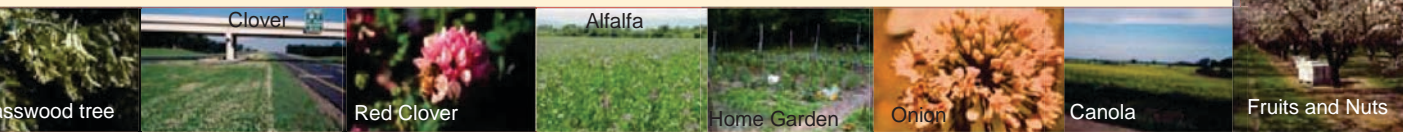
1. Know and communicate with beekeepers about bee locations
2. Scout application area for bees, bee hives and flowering crops or weeds
3. Choose pesticides with LOW toxicity and LOW residue
4. If at all possible, do not spray on blooming plants while bees are foraging
5. Do not allow spray to drift on blooming plants
6. It is best to spray in evening or early morning



Bees fly up to 2.5 miles when foraging

comes from:

target crop



12-27-07

and weeds) bees forage (visit) for pollen and/or honey.