

Since that time the MGCSA, UMN and our golf allies have conducted several meetings with BWSR, and the state agencies MDA, DNR and MPCA, in an effort to create a plan which would allow continuous access to water, although limited in times of drought, in exchange for individual course certification. The idea is simple to understand: if a club is willing to fulfill certification through the implementation of industry accepted BMPs and documented compliance with all state regulations, including the creation of a crisis irrigation management plan, that club would never have its water permit suspended completely; thus insuring a viable economic destination.

The same certification principal should be acceptable for securing access to plant protectants and nutrients when they come under scrutiny, which they will, also.

This 'concept' if implemented today, would only impact the surface water users consisting of roughly 20 percent of all golf courses in

Minnesota, as those waters are continuously monitored for flow and depth. However, and this must be recognized by the golf industry now and into the future, I am learning through participation at groundwater strategic planning sessions that water stored, used and recharged in our aquifers is now measured on a regular basis with additional monitoring wells coming on line regularly. This increase in surveillance will eventually impact groundwater users and make them equally susceptible to permit suspension like their surface water peers.

“Patience, patience”, I counsel myself. Moving forward at my pace is impossible and sometimes it seems that we move backwards on this project, but we do now know what a few of our agencies currently desire:

The MDA would like compliance of existing regulations and to that end, have even created a special communication position and program specific for golf courses.

The MDA also would like to see

an assessment of the industry. Sam Bauer and the UMN are picking up this pilot plan. The material will provide representative information from a range of clubs and include both surface and aquifer water users.

The DNR would like to see the MGCSA encourage the surface water users to drill wells for greater assurance of access to water or find alternative sources. Options being suggested include using waste water from local industries and drilling a small well with a 'kicker' pump to irrigate tees and greens when the surface water permits are suspended. Some access is better than none.

The MPCA would like to see the development of practical BMPs to support pollution prevention. This background material is already available and ready to roll when the time is right.

Will fulfilling these criteria promise access to limited water during times of crisis? Will developing an Environmental Stewardship Certification program assure the

Minnesota golf industry access to nutrients and pesticides when they become micro-managed? We don't know yet, as the process is still in the beginning stages and current regulations don't allow for changes.

Is this endeavor worthwhile? Yes. Something we do know is that our interest in working with state agencies for the public good is highly regarded by the MDA, DNR, MPCA and BWSR. Also, the MGCSA's presence upon several agency committees also lends viability to our professionalism and good intentions.

Will this project be completed on my timeline? No, and I need to take a pill to suppress my type 'A' expectations. With your endorsement I will continue to position our industry in the best possible light, and help provide you, the members of the MGCSA, materials on how you can do your part to support the initiative. Without your help, insuring the access to water, nutrients and plant protectants likely will not happen.

A TOAST, IN APPRECIATION OF YOUR BUSINESS. HERE'S TO YOU.

At Par Aide, we'd like to raise a paper cup to you, our valued customer. Because it's your unyielding dedication to the course that inspires us to keep building the industry's most innovative products. So from Par Aide, we salute all you do. Cheers.



Wherever golf is played.



PAR AIDE IS A PROUD SPONSOR OF
MCCSA, GCSAA, THE FIRST TEE
AND THE WEE ONE FOUNDATION.



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.

Protecting Pollinators

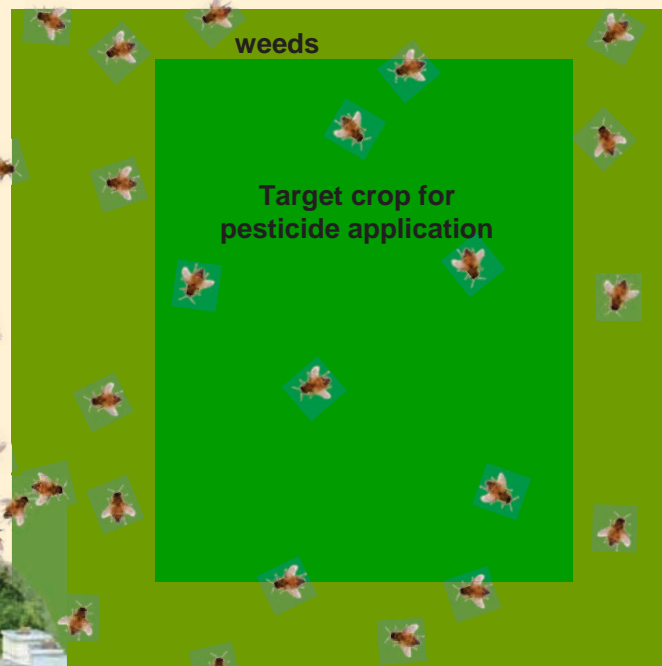
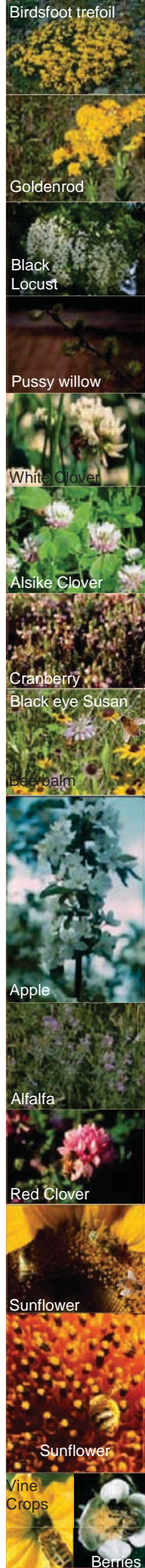
Marla Spivak and
 Dept. Entomology, U
www.extension.u

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,
and 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



Motherwort

Wildflower

Scilla

Wildflower

Aster

Spotted knapweed

Penstemon

Thistle

Sunflower

Goldenrod

Otherberry

Fruits and Nuts



Clover

Alfalfa

Red Clover

Home Garden

Onion

Canola

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

12-27-07



HERFORT ▣ NORBY

Golf Course Architects

Phone: 952.361.0644 Fax: 952.361.0645

e-mail: golfnorby@earthlink.net web: herfortnorby.com



duininckgolf.com

Nobody likes to wind up
in the bunker – *except us.*

Bunker construction, restoration and renovation –
using the latest, most innovative method.

Better
Billy Bunker
Method