

New Insecticides and their optimal use with dr. ben mcgraw

By Joel Johnston, Superintendent, West Haven G&CC

Having only two insecticidal groups to treat a multitude of pests on a golf course seems daunting. Dr. Ben McGraw can always find the positive in the situation, while entertaining all in attendance. His argument was that losing some of the chemistries we are familiar with is actually a good thing, he proceeded to explain why that is.

POSITIVES

The most effective of the two groups of insecticides that will be available to Superintendents in Ontario are anthranilic diamides. McGraw mentioned the following positives:

- 1. They are virtually non-toxic to human health.
- 2. They have lengthy residual activity.

He added that the success of these insecticide applications is dependent on the applicator. Without proper scouting of lifecycles and pest locations, an application with any chemistry would be ineffective. McGraw emphasised how crucial water volumes are; these products are Xylem mobile and need to reach the root zone to be taken up.

Next, the recommendation was made to use pyrethroids are part of a rotation with the anthranilic diamides. They are highly efficacious while being relatively environmentally friendly.

With the available chemistries dwindling,

McGraw mentioned that research is accelerating; "innovation happens when our back is against the wall," he told the crowd. McGraw also stated that much work is still to be done researching these products, but the main flaw is associated with producing these products consistently.

ANNUAL BLUEGRASS WEEVIL AND WHITE GRUB CONTROL

The second topic McGraw presented was Annual Bluegrass Weevil (ABW) and White Grub Control. He began by discussing some of the challenges associated with ABWs.

- Multiple generations in a single season provides great opportunities for adaptation.
- ABW tend to target low mow, highly important areas such as collars and putting greens.
- There is a lack of effective products for this pest.
- They have developed a resistance to pyrethroids.
- The products that do work can be highly expensive.

However, during McGraw's research, he has developed an effective control theory.

- 1. Reduce emerging adults in the spring to minimalize egg laying.
- 2. Apply 1st generation larvicide (such as Ference) and having these products in



Dr. Ben McGraw at the 2023 OGCMC.

place before larva emerge. Tetrino was also mentioned for its beneficial curative properties.

3. Once you have overlapping generations, buckle up!

Finally, alternative control was discussed. Products such as Civitas and wetting agents, that haven't been designed to control insect pest do have beneficial side effects. These products affect the insect spiracles and allow water to rush in, effectively drowning the ABWs.

McGraw's session at the 2023 OGSA conference, provided entertainment, humor, and practical advice on controlling insect pests. We look forward to having him return again.