

## IPM State Report (2016-'17) - West Virginia

The IPM team members in West Virginia have been carrying out Extension IPM programs in High Value and Agronomic Crops, and Urban Horticulture. A 3-yr study of mating disruption to control clearwing borers determined that mate finding behavior by male PTB and LPTB was successfully disrupted using Isomate-PTB Dual dispensers in peach orchards less than 2 hectares in size. The percentage of infested trees in mating disruption blocks was equivalent to conventionally controlled (i.e. chlorpyrifos) blocks.

During 2017 growing season, tree fruit growers were provided with the information pertaining to fire blight infection risk and best application timing of antibiotics and copper. Maryblyt forecasting system was also presented at tree fruit growers' twilight meetings. Educational outreach on strobilurins and other fungicide resistance was provided through Tree fruit twilight meetings and Master gardeners' classes. Cucurbit downy mildew and late blight diseases were tracked and reported through online forecasting systems <http://cdm.ipmpipe.org/scripts/map.php> and [usablight.org](http://usablight.org), respectively. As diseases were detected and reported in the online system from the neighboring states, AgAlerts were sent to growers to adopt preventative measures. Growers did not use fungicides prior to the alert, saving many sprays and costs involved. Growers who received tomato seeds from our program, started sending evaluations on new lines compared with WV'63. Most respondents liked WV'17B (Mountaineer Delight) due to better taste as well as enhanced tolerance to Septoria leaf spot. Workshops on grafting tomatoes on resistant rootstocks were conducted with growers as a practical IPM tool for managing soil-borne tomato diseases.

The IPM team routinely engaged in carrying out Extension programs for Master Gardeners and Urban Horticulture providers in West Virginia to reach out to the consumers/general public. Workshops on pruning as part of the regular maintenance and sanitation for overall better disease and insect management were conducted throughout the state. Training was provided in Basic Master Gardener Training and Advanced Master Gardener Training through 75 classes. About 220 trained MG volunteers in turn provided assistance through our WVU Extension offices in some of the Citizens Science projects. MG's are also teaching IPM concepts to our youth preparing them to be good stewards of the environment

An effective method to manage jointhead Arthraxon (*Arthraxon hispidus*), an invasive annual weed in pastures and hayfields, was developed in 2016 and disseminated to growers through the Pesticide Recertification Video. Specialists are also co-authors on regional Pest Management Guides for Tree Fruits, Vegetables, and Agronomic Crops. Quarterly issues of 'The IPM Chronicle' were published during the past cycle. This newsletter has a wide audience within and outside the state, and was also selected as the 2017 National Winner for 'Team Newsletter' by the National County Agricultural Agents Association. Fact-sheets, pamphlets, IPM bulletins, AgAlerts etc., were also published both electronically and as hard copies for distribution to county offices, and other clientele.

### Challenges.

We have initiated a partnership with NRCS to establish an IPM program for Tree Fruit Growers. Plans are to implement insecticide and fungicide sprays based on scouting data as

opposed to a calendar-based schedule. We developed an IPM plan but are in the process of reconciling it with the NRCS IPM Practice Standards (595). According to 595, growers can undertake strategies other than threshold-based sprays to implement IPM and obtain the benefits. According to our plan, monitoring is mandatory for certain pests and diseases in order to qualify as IPM-certified. We are currently in discussions with NRSC state officials to finalize the program and hope to get it started by 2018 growing season.

Recently, the WVU-KTFREC has lost most of its functionality. A limited staff remains at the facility, and its website is now offline. The IPM team currently working with the WVU Extension Service Office of Communications to establish a website where insect and disease monitoring data and updates can be posted during the season. The Extension entomologist will be collaborating with county agents and the USDA-ARS Appalachian Fruit Research Station to collect insect monitoring data from several geographically distinct areas of the state.

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