

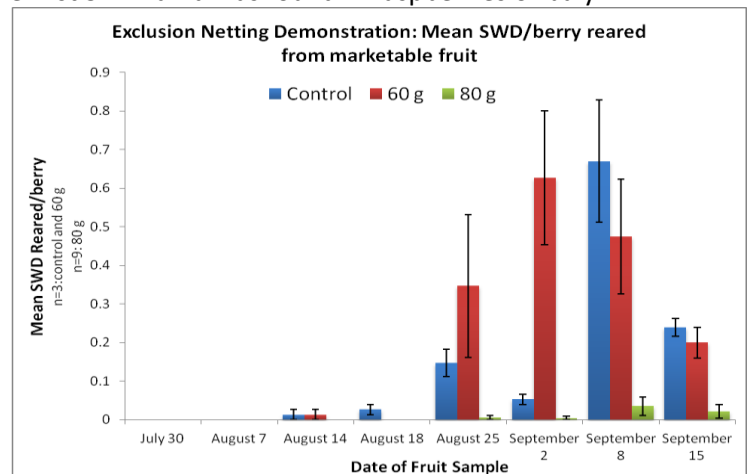
Using Exclusion Netting to Manage Spotted Wing Drosophila in Blueberries

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In 2014, I received a Northeast Sustainable Agriculture Research and Education (NE SARE) Farmer grant to test the feasibility of using insect netting to prevent Spotted Wing Drosophila (SWD) from infesting my half acre blueberry planting. Because the NE SARE grant did not cover the costs of the netting, funding from the NYS Legislative allocation to the NYS Berry Growers Association was used to purchase the netting from Tek-Knit Industries in Mont Royal, Montreal, Quebec.

I adapted my existing bird netting support system of greenhouse hoops to work as a support system for the netting. Six rows of blueberries (250 feet long) were covered with 80 gram netting using 3 pieces of 26 foot wide netting. The pieces of netting were joined together by wrapping them around greenhouse purlins and clamping them, using plastic greenhouse clamps approximately every two to three feet. The sides were anchored on the ground by wrapping them around purlins, clamping the netting, and placing rock bags on the netting approximately every 5 feet. One row of blueberries was covered with one piece of 26 foot wide 60 gram netting from TekKnit, and one row was covered with only bird netting. The row that was covered with bird netting was sprayed with two applications of Delegate plus sugar on July 29th and August 5th and two applications of Assail plus sugar on August 10th and August 24th. Berries were harvested for sale from July 11 through September 20. Berries were sampled weekly from July 15 through September 15, examined through a dissecting scope for oviposition damage, and put in a rearing chamber to rear out SWD. The control plot and 60 gram netting had 75 berries collected every week; the 80 gram netting had 225 berries collected every week.

A photo of the netting is below with the designated entry to the planting. The summarized data below clearly shows that the 80 gram netting successfully excluded SWD from the planting. Berries sampled on September 8 had a total of 8 SWD reared out from a sample of 225 berries. Berries sampled on September 15 had a total of 4 SWD emerge from 225 berries. The first SWD emerged from fruit collected on August 14 – 1 each in the 60 gram and control treatments. Peak infestation occurred in the 60 gram netting on Sept. 2 (never sprayed) when 47 SWD emerged from 75 berries. Peak infestation occurred in the control on September 8 (last spray was on August 24) when 51 SWD emerged from 75 berries. At The Berry Patch, the first SWD larva was found in raspberries on July 22nd.



Despite the prototype nature of the project, and learning curves associated with anchoring netting that survived through 60 mph winds and hail in thunderstorms, this trial clearly shows that 80 gram insect netting is a viable alternative for managing SWD. Beside providing protection from SWD, it prevents bird predation, and protects the crop from hail. It is three in one protection. The netting can be obtained from Tek Knit's U.S. distributor:

Berry Protection Solutions 413-329-5031, berryprotection@fairpoint.net. A website will be available in the future.