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EAS and varietal susceptibility

Posted by David Maxwell

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David Maxwell

EAS and varietal susceptibility

Registered: 11 years ago Posts: 197 July 27, 2012 04:30PM We are now in year 2 of our Quassia amara spray program for control of EAS. My portion of this project involves spraying one of each

pair of 25 different cultivars in my geographically very small (1/6 ha.) orchard. (So observed variations are less likely to represent spatial factors). I am noting striking variability of attack rate of fruit by EAS between cultivars. For example, Pink Pearl controls had 67% damage in 2011, and 72% in 2012, while Northern Spy had 9.5% damage in 2011 and 0% in 2012. My question now is whether others have noted a similar variability in attack rates across different cultivars. If so, I would be most grateful if you could share with me the cultivars which seem both unusually susceptible and resistant. I shall noodle around with relative phenologic stages, (ie stage of bloom) at time of emergence of the EAS to see whether there is any obvious relationship. But first I need to establish whether this is a generally observed phenomenon or particular to my orchard.

Reply Quote

Michael Phillips

Re: EAS and varietal susceptibility

August 01, 2012 02:50PM

Sawfly shows a true hankering here for Pink Pearl as well. That's a wee bit surprising given the emphasis on a specified pigment of white used on the sticky cards set out to monitor for EAS . . . and that this red-fleshed variety has pink blossoms. Duchess of Oldenburg also sees heavy pressure here. Another factor in all this would be how long females continue to seek out blossom clusters to lay eggs. This pest species seems to have the timing down, emerging on cue with early-mid bloom, regardless how erratic the spring weather patterns. Northern Spy escapes EAS intensity in part because it's one of the last varieties to bloom.

Reply Quote

David Maxwell

Re: EAS and varietal susceptibility

August 09, 2012 03:40PM

We looked at bloom time vs attack rate in multiple cultivars and there was no obvious relationship.

Reply Quote

Dan Lefever

Registered: 10 years ago Re: EAS and varietal susceptibility April 21, 2013 02:17PM

I have observed minimal problem with EAS here in SE Penna. I don't ever recall seeing the damage at my parents homestead, but more likely was not hip to the distinctive damage as it would have been so minimal. I first became aware of it doing estate work, care taking multiple varieties of single trees not in an orchard setting. I observed most of the damage in one variety Famuese or Snow.

to be contd.

Other trees in the immediate vacinity were Smokehouse, "original strain" Red Delicious, and a Jonafree. the Snow was a very early bloomer and the earliest of this group (and most other varieties we had as well; as best as I can recall). It presented it self when blooming, because of the very large corolla size, as a cloud of white (or snow covered): [hence the name?; not because of the fruit flesh color, maybe?], as compared to most other blooming trees. Other apples in other areas: the "orchard" area, and espaliered varieties in the garden rarely sustained EAS damage as compared to the 30 to 50% on the very dwarf Snow tree. A white sticky board (delta trap liner) hanging in the Snow tree never caught a single EAS adult, in 2 or 3 seasons, so I have yet to observe the real culprit. Because of these observations; I came to the conclusion, that Snow should be planted as an EAS trap tree in amongst other varieties in an orchard setting. Its apples are good for cider so even damaged ones can be used to advantage. I don't know what its potential as a pollinator is but its early bloom time would definitely exclude it for late bloom varieties.

Hope these observations are of some use.

zone 6a (now 7b?)

Edited 1 time(s). Last edit at 07/29/2013 10:28AM by Dan Lefever.

Reply Quote

David Maxwell Registered: 11 years ago

Posts: 197

Re: EAS and varietal susceptibility

April 21, 2013 03:16PM

My Snow apples were moderately attacked - 20% damage. (Some cultivars were as high as 72% [Pink Pearl]. Other susceptible cultivars: King, Yarlington Mill.)

There is another factor operative in comparing attack rates across different orchards - there is a striking variability (at least at present) geographically. EAS arrived in Nova Scotia within the last 10 years. Around the Agricultural Research Station in Kentville it causes major damage. However 15 km. away it is apparently absent. (This whole area is devoted to apple growing, so it is not a question of buffers preventing spread.

Registered: 11 years ago

Registered: 11 years ago

Posts: 35

Reply Quote

David Maxwell

Re: EAS and varietal susceptibility

June 21, 2013 01:28AM

Posts: 197

Now we have an additional complication. In the past 2 years we have had a clear marked emergence of sawflies, (half of the total emergence over a 5 day period), as manifest by trap catches on non-UV-reflective sticky white cards. At peak emergence we were trapping up to 30 sawflies a day. This spring was inordinately wet, raining virtually every day. Sticky cards caught a total of 12 sawflies over the entire bloom period and into calyx, with no obvious peak. So, no EAS apparently emerged. What about the fruit? I have yet to find a single fruit with any sign of sawfly damage - no egg-laying stings, no primary damage, no oozing secondary punctures. Nada.

Now, in prior years I have had up to 80% damage in susceptible cultivars, (Ananas Rtte). Did the EAS all succumb to some plague? I think not. They are able to live for up to 3 years in the soil before emerging. My best guess is that they woke up from their winter sleep, took a look out at the rain, and said, "No way. By the time this stops the blossoms are going to be gone and conditions for egg-laying will be shitty. I'm going back to sleep until next year, and hopefully chances will be better.." (I admit I don't really profess to be a student of EAS psychology. But Ron Prokopy told us to "think like an insect", (echoed by Michael). So here is my effort to do so.)

Reply Quote

Claude Jolicoeur

Re: EAS and varietal susceptibility

Resistered: 11 years ago

June 25, 2013 08:54PM

Posts: 226

I have seen ONE applet with evidence of EAS yet....

And this is not because I have no apples coming up. Had very good bloom and many many applets growing.

So I guess this year is not an EAS year. For whatever reason. Some years there are no apples, other years there are no EAS! Claude

Jolicoeur Orchard

Zone 4 in Quebec

Author, The New Cider Maker's Handbook

Reply Quote

Fabio Chizzola

Re: EAS and varietal susceptibility

June 26, 2013 07:04PM

Same here at Westwind, no EAS this year, but lots of PC!!! We normally have a good 20-30% damage from EAS but none this year. Why? I want to think about the fact that 2 years ago, we bagged all the damaged fruitlets we found hand thinning, and the AMAZING HOLISTIC STUFF WE'VE BEEN SPRAYING smiling smiley, but I'll have to agree with Claude, one year no apples, another year no EAS.

Fabio

Westwind Orchard

Zone 5b in New York

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