Response to European Paper Wasps and Asian Ladybugs (Lady Beetles) in Fruit in Colorado

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To: <u>Sandra K. McDonald</u> Colorado State University

To: Rick Melnicoe

Director, Western Region Integrated Pest Management Center

From: <u>Harold Larsen</u> Colorado State University

Subject: Response to European Paper Wasps and Asian Ladybugs in Fruit in Colorado

I am the person responsible for the information getting to the media. A newspaper reporter called for information on the fruit crops this year and asked if there were any other problems (e.g. the Japanese beetle situation), other than the typical annual problems faced by fruit growers here (which we had already discussed) that growers might be facing. I mentioned the wasp damage (including the European paper wasp population buildup, & impact as a predator competing with native wasps) & the Asian lady beetle as things growers needed to be aware of, although they were not major problems at this time. Things progressed from there.

I have received numerous calls about wasp damage to grapes over the past several years -- always figured they were yellow jackets (still think most are). But this year I received a call (several, in fact, from a single fruit grower with sweet cherries that were being heavily damaged by wasps (thought originally he had hail damage, but then went out on numerous occasions & found the wasps were actually causing the damage). He took photos of both the damage and the most common wasp on the damaged fruit; he has made these available to me as digital images on a CD.

There are two types of damage evident on his sweet cherries: numerous crescent shaped cuts of the fruit skin (the most common & typically associated with yellow jackets) + (much less commonly) long, wavy cuts that go around the fruit (arc radius about 1.5 times that of the yellow jacket crescents). The latter seem to be made by a larger wasp with relatively little black color on their body. He has only a single photo with one of these (or at least part of the back abdomen showing). It looks very much like a European Paper wasp to me. We do have much increased incidence of the European paper wasp over here in both the Grand Valley (Grand Junction area) and the Gunnison Valley (Delta, Cedaredge, Hotchkiss, Paonia areas).

You can readily & easily find their characteristic flat platter (with central stalk) hives attached to eaves of buildings (& they really like any open pipes, like clothesline poles, farm implements, etc.). Comments from grape growers have noted that, although most of the wasps have the characteristic black / yellow patterns of the yellow jackets, at least some of the wasps on their grapes don't have much black on them -- this would suggest that the EPW may well also be involved there. Regarding the Asian lady beetle: I have a specimen of Asian lady beetle collected in the Grand Valley last year (verified by Bob Hammon). It hasn't become a major population so far here, and, no, we haven't seen it in grapes yet. But we know that it has become a problem in the Eastern US and in the upper mid-west areas. Its tendency to emit a foul smelling material when disturbed raises concerns that it could impact grape juice used for wine production if they should move into the vines (& grape clusters) just prior to harvest as the berries become increasingly sweet.

Hope this background helps.

Dr. Harold Larsen

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