

Armored Scale Blythe Border Station Sampling / Dispersal Studies

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UCR Sampling of Mexican Avocados at the Blythe Border Station

- CDFA-run Blythe border station receives by far the highest volume of Mexican 'Hass' avocados entering CA
- One carton of avocados per truck is cut by border staff looking for possible internal pests (weevils, fruit flies, seed moth, etc.)
- On all trucks entering CA via Blythe, this carton is held for inspection over a 4.5-day sampling period every 3-4 weeks
- The fruit were transported inside sealed plastic bags to UC Riverside under a protocol outlined in CDFA Permit # 2513

201-2833

Indiana State
Department of Health

NOTICE
This notice is posted on the door of the mobile food service unit. It contains information regarding the health department's inspection and approval process for mobile food service units. The notice is posted in a clear plastic bag on the door of the unit.

INDIANA









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COLD ROOM

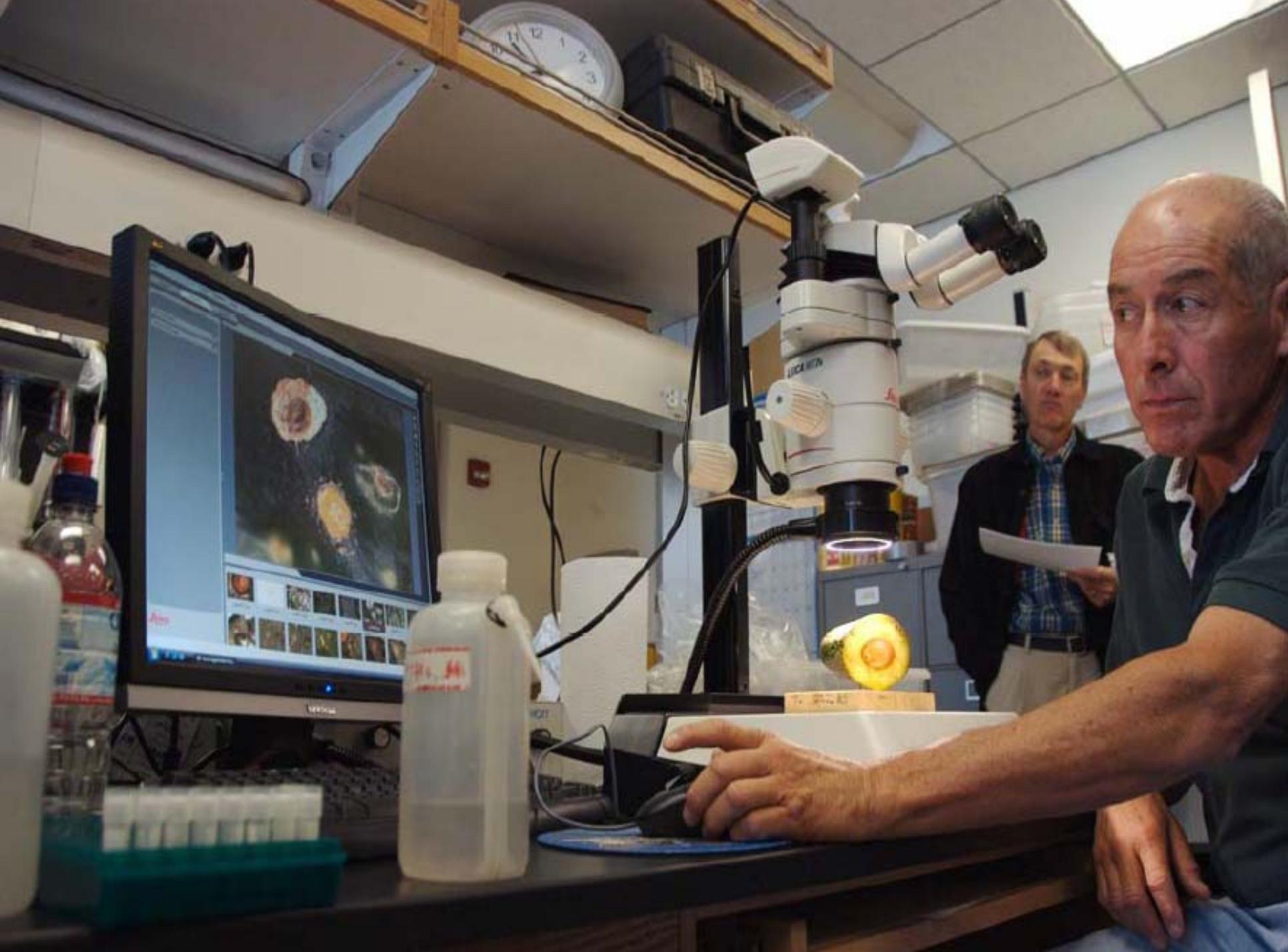


CHI













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Mason, 2018



Early survey data will soon appear in print

- Data from our Sept. 2007 - Apr. 2008 Survey will appear as a Forum article in the June 2009 issue of the *Journal of Economic Entomology*
- Morse, J. G., P. F. Rugman-Jones, G. W. Watson, L. J. Robinson, J. L. Bi & R. Stouthamer. 2009. High Levels of Exotic Armored Scales on Imported Avocados Raise Concerns Regarding USDA-APHIS' Phytosanitary Risk Assessment. *Journal of Economic Entomology* (In Press, 11 pages).
 - 1 carton from each of 140 trucks sampled
 - These trucks held 15.6% of the volume entering CA

Data / Conclusions in the JEE Forum Article

- 8 species of armored scales detected
 - 7 not known to be present in CA (Iatania scale is)
 - 4 not known to be present in the U.S. (2 FL, 1 TX)
- Estimated 47.6 million live scales entered CA 9/07-4/08
- Estimated 20.1 million live eggs/crawler
- Conclude that the volume of avocado shipments and levels of live scales post a significant risk to the CA avocado industry and other crops/plants in CA
- Suggest APHIS re-examine their ruling of “low risk”





Abgrallaspis aguacatae



Hemiberlesia sp.
nr. *lataniae*

Sampling is Continuing

- Forum article contains data from 11 4.5-day samples over 9/07-4/08
- Have continued to sample every 3-4 weeks (now have data from 23 samples)
- This year we are seeing more
 - *Acutaspis albopicta* - reported from 14 hosts in 13 plant families
 - Diaspis sp. (2) -- unknown host range (reported only from sapote and now avocado)
- Trying to establish scale cultures inside Quarantine
- Emphasis in Year 2 of sampling on parasitoids (not many in Mexican samples)

Dominant Species on Mexican Avocados Now Has a Name

Abgrallaspis aguacatae Evans, Watson & Miller was the dominant species in our samples

Evans, G. A., G. W. Watson, & D. R. Miller. 2009. A New Species of armored Scale (Hemiptera: Coccoidae: Diaspididae) Found on Avocado Fruit From Mexico and a Key to the Species of Armored Scales Found on Avocado Worldwide. *Zootaxa* 1991: 57-68. (30 Jan. 2009)

6 of the specimens used to describe the species were from our survey and are preserved as voucher specimens; these specimens are jointly listed in Evans et al. (2009) and Morse et al. (2009) and are noted as Genbank sequence FJ65731 in the latter