

# Pest Profile

## Table grapes face three new potential pests

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In a world of global commerce, and where going in and out of the country is as easy as catching a flight from Bakersfield to Mexico, exotic insect pests are going to continue to be a concern for San Joaquin Valley agriculture. There is no doubt that many safeguards are in place to help protect us from such organisms; however, it is up to all of us on the ground to quickly detect and deal with any that slip through the system.

Currently there are three exotic pests of concern to San Joaquin Valley grape growers. They are light-brown apple moth, chilli thrips and *Diaprepes* root weevil.



### Light-brown Apple Moth

Light-brown apple moth is a leafroller similar to omnivorous leafroller. It feeds on over 250 host plants (including weeds and grapes) and originates from Australia. In the spring of 2007 this pest was found for the first time on the continental US in the Bay Area. Since then, as of late April it has been confirmed in Alameda, Contra Costa, San Francisco, Marin, Monterey, San Mateo, Santa Clara, and Santa Cruz counties. So

far none have been found in the San Joaquin Valley, though detection programs by the Agricultural Commissioner's offices in Tulare and Kern County are ongoing.

If this pest were found in table grapes in the Valley, the primary concern would be the export of fruit. This pest is present only in Australia, New Zealand, New Caledonia, Hawaii, and the British Isles and could lead to export protocols and or restrictions to any other countries. In fact, the USDA currently imposes packing house mitigation measures of all citrus in Australia before it is shipped to the US, and some other states such as Florida are already imposing importation restrictions and mitigations on ornamentals destined for their states from California.

It is uncertain what the future will hold for this pest since the delineation efforts are still ongoing. Once the true range of the establishment of this pest is established, CDEFA will develop quarantine and or abatement programs. Updates on their process can be accessed through periodic news releases posted at the CDEFA light-brown apple moth web site. [http://www.cdca.ca.gov/phpps/pdep/lbam\\_main.htm](http://www.cdca.ca.gov/phpps/pdep/lbam_main.htm)

### Chilli Thrips

Chilli thrips, *Scirtothrips dorsalis*, is a close relative to citrus thrips. It has a very wide host range and uses its rasping mouthparts to feed on new plant tissues. Adult thrips are pale yellow to grayish-white, and have incomplete dark stripes

on the dorsal surface at joints in the abdominal segments. Chilli thrips can complete its life cycle in 14-20 days with adult females producing 60 to 200 eggs.

Chilli thrips in established in Hawaii, and in October 2005 heavy populations were found on a landscape rose plant in Florida. By the end of 2006 Chilli thrips had been detected in 24 of 67 counties in Florida on 46 host plants in 33 botanical families, as well as in nurseries in three counties in Texas and in Puerto Rico. To date it has not been found in California.

The biggest concerns to California agriculture are likely peppers, several ornamentals and grapes. In grapes the thrips feed within the cluster, causing scarring of both the rachis and berry surface. This a concern due to the direct damage the thrips can cause to the cluster. It is also a concern since managing this pest would likely require one or more thrips sprays late in the season, in addition to those currently used at bloom for western flower thrips. Chilli thrips also has the potential to cause export restrictions to places like the European Union where this pest is not present.

At this point it is important that growers and pest control advisors of grapes, as well as a wide range of vegetable and ornamental crops keep vigilant about any atypical damage being caused by thrips. Growers with anything abnormal should collect samples and submit them to their local UCCE office for identification.

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## Three pests

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### Diaprepes Root Weevil

Diaprepes weevil has received much local press during the past two years due to infestations found in urban landscaping in Long Beach, Newport Beach, and 9 cities in San Diego County. This pest is known for its wide host range of more than 270 plant species and long life cycle. Most Diaprepes weevils have a two-year life cycle in which most is spent in the grub stage feeding on the roots of plants. Adults live for about four to five months, with females laying an average of 5,000 eggs in her adult lifespan.

Diaprepes weevils are a concern due to the vast number of agricultural crops they can impact, and severe damage they can cause. Grubs can completely consume small roots and girdle large ones.

This can cause complete decline of vines or trees as well as facilitate infections by diseases such as Phytophthora.

The California Department of Food and Agricultural has currently imposed quarantines around known infestations, and in Kern County has done promotional mailings encouraging anybody that finds suspect beetles to turn them in to their local Ag Commissioner or UCCE office. The same recommendation holds true for any agricultural stakeholder. Currently this pest is not in the Central Valley and we want to keep it that way.

More information on Diaprepes root weevil can be found at <http://anrcatalog.ucdavis.edu/pdf/8131.pdf>.

## Conclusions

Threats from new exotic agricultural pests are just a part of modern day agriculture. In this article I have detailed three such examples, but there are many others. In many cases these pests could slip in without us even knowing what to look for. As such, please do not hesitate to report anything new or even suspicious that you might find out in the vineyards. Regardless of the situation, dealing with such new exotic pest is much easier when they are identified within one or a couple vineyards than once they have taken over a county.

### Consolidated Central Valley Table Grape Pest and Disease Control District mission

"To monitor, research, and support the control of any pest or disease which endangers the commercial production and/or viability of the table grape industry in Kern and Tulare counties."

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