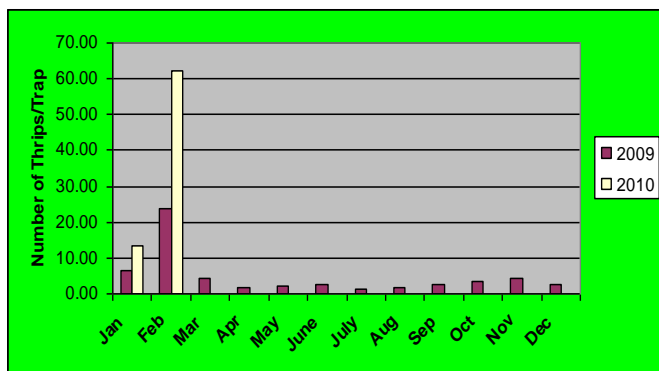
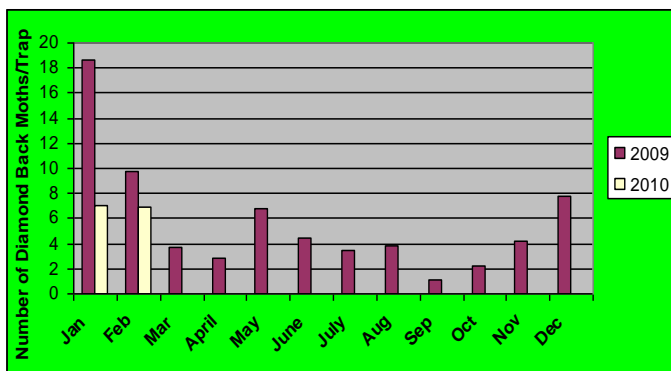


Thrips infestation on Orchids



Comments: The overall average thrips populations showed a rapid increase in Feb.2010 which could be due to prolonged dry weather conditions. Except for one orchid nursery, all the other four nurseries had higher than normal numbers of thrips. Farmers were advised to take up adequate plant protection measures including rotation of chemicals and use of correct dosage to get the maximum kill.

Diamond Back Moth infestation on Vegetables



Comments: The average DBM population maintained at low levels in 2009 is being continued this year too. This was due to adequate plant protection measures taken and removal of debris from the farm by the vegetable growers. Only one farm recorded a higher count.

Rust disease caused by *Phakopsora jatrophiicola* on *Jatropha curcas*

With the exponential rise in petroleum prices and increase in demand for petroleum products around the world, the price of crude oil is expected to remain high for a very long time. This is the reason why many governments and researchers are looking for alternate means of fuel. Bio-diesel is one such option and *Jatropha curcas* is one of the plant species many are working as the seeds of this species contain 27-40% oil that can be processed to produce a high-quality bio-diesel fuel which can be used in standard diesel engines. Because of the above property this species is gaining importance as a plantation species in many parts of the world and in Singapore it is grown in trial plots for bio-diesel research purposes.

J. curcas is a species belonging to family Euphorbiaceae. This family has other members such as rubber. The species is native to the American Tropics such as Mexico and Central America. Common names include Barbados Nut, Purging Nut, and Physic Nut. *J. curcas* is a semi-ever green shrub or small tree, reaching a height of around 6 m (20 ft). It is resistant to a high degree of aridity (lack of water), allowing it to be grown in deserts.

The species is generally non-vulnerable to pests and diseases. However during our routine surveillance activity we had come across *J. curcas* infected by a rust disease. The disease severity was around 25-30%. *Phakopsora jatrophiicola* was recovered from the leaf samples (Fig. 1), with the characteristic rust spores (urediniospores) being produced on their lower surfaces (Fig. 2). Most incidences of this disease have been reported in the Americas.



Fig 1. *Phakopsora jatrophicola* causing rust disease on the leaves of *Jatropha curcas*

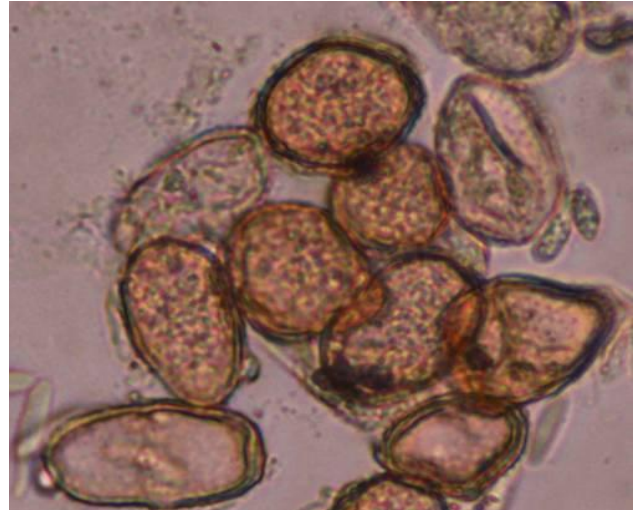


Fig 2. The urediniospores of *Phakopsora jatrophicola*

Pest Interceptions from Importing Countries (February 2010)

AVA was notified of a pest interception from exported aquatic plant consignments for February 2010 as follows:

Commodity = *Hygrophila angustifolia*

Pest Intercepted = *Bemisia tabaci*

Intercepting Country = United Kingdom

Exporters are advised to implement pest control management on farm with yellow sticky traps and insecticide applications to control whiteflies infestations. Pre-shipment chemical dip treatments for whiteflies will further increase the killing of the whitefly pupae on aquatic plants

CONTACT US

Please report any unusual occurrence of pests and diseases (new or severe occurrence) to Plant Health Laboratories, AVA. It would help to protect our plant industry and the garden city from new invasive pests or diseases. You can report your observations through:

Email : AVA_Planthealth@ava.gov.sg or Telephone: [63165168](tel:63165168) or [188](tel:188) or Fax: [63161090](tel:63161090).

Please provide the location, plant hosts attacked and suspected pests or diseases to our officers to follow-up and confirm the situation if required.

Visit us at:

<http://www.ava.gov.sg/AgricultureFisheriesSector/PlantHealthServices/PlantHealthLabServices/index.htm>