Olive

Pests- Diseases- Disorders

Key Promoters of Organic Ideas

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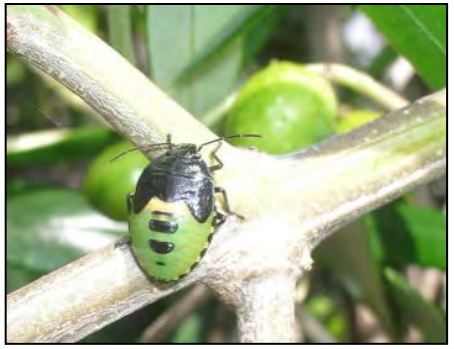
OliVera

GROWER QUESTION: What insect does these eggs cluster belong to?

ANSWER: Eggs and nymphs of Green vegetable bug *Nezara viridula.*
The insect changes colour quite extensively as it goes through its younger stages and nymphs showing this variation before reaching the adult insect, which is green.

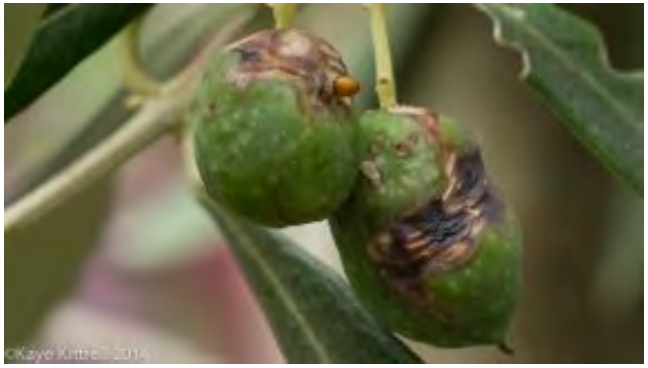


GROWER QUESTION: What name of the bug?
In this year my olives attacked by bugs. Please could you help with identification?

ANSWER: The Green vegetable bug (GVB) *Nezara viridula* or stink bug can cause trouble for olive growers. It generally pierces the fruiting parts of plants and sucks out the juices. Stink bug populations can be suppressed by predators and parasitic wasps.
<u>Biological control</u>
A parasitoid wasp *Trissolcus basalis* has proved an effective parasite of GVB. The females wasp parasitise stink bug eggs by inserting one of their own eggs inside the host's egg. They grow and pupate inside the egg where the adults emerge later.

GROWER QUESTION: What are the odd little bumps on the olive leaves?
Please help, what causes the swollen leaf spot in olives in Lebanon that look like something infested the leaves.

ANSWER: Damage by gall mites/eriophyid mites (e.g. *Aceria oleae*, *Aculus olearius*, etc.), which are relatively common in the Mediterranean basin.
Agricultural practices need to be balanced, especially avoiding excess nitrogen fertilisation and irrigation.
Natural enemies Phytoseiidae such as Typhlodromus sp. Neoseiulus californicus and Stigmaeids and Zetzellia sp.

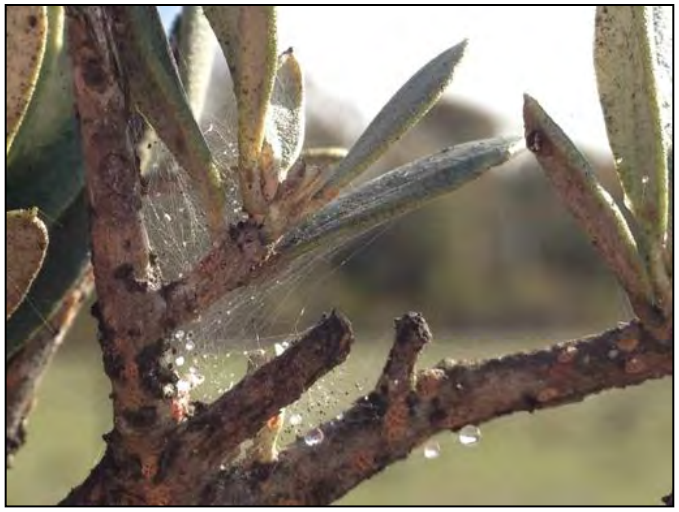


GROWER QUESTION: What damaged olive fruits?
The tree was pruned a few months ago in California. Two olives appear to have a larva crawling out or in. Would greatly appreciate your advice. Thanks!

ANSWER: The brown pupa coming out from the fruit is the olive fruit fly (*Bactrocera oleae*).
Olive fruit fly larvae are the main stage causing damage and feed exclusively in olive fruits. Infestation of olive fruit by the larvae causes premature fruit drop and reduces fruit quality. It is considered the most devastating insect pest of olives in the Mediterranean region. Presently, the olive fruit fly occurs in all olive growing areas of California.
Life cycle of *Bactrocera oleae*
Number of generations: 2 to 5 per year depending upon local conditions. Adults give rise to the 1st. generation of emerging pupae, overwintering in the soil. Mortality of the pupae will depend on the severity of the winter. When temperatures are higher than 7°C (minimum threshold for development) the adults appear. Mating occurs 2-4 days after the emergence. Eggs are laid singly on fruits, each inserted under the skin. The larvae while feeding tunnel throughout the fruit, destroying the pulp and allowing secondary infestations of bacteria and fungi that rot the fruit.

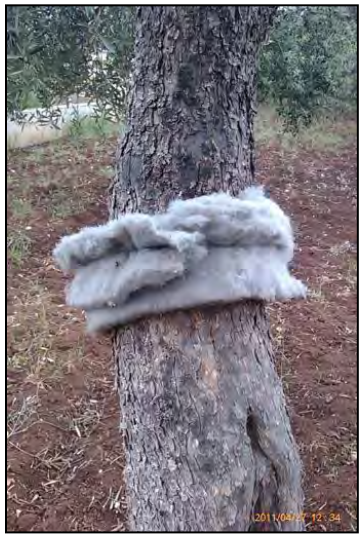
GROWER QUESTION: What causes the problem on olive fruits and leaves?
I'm hoping you can help. I have a diseased tree, which I took some photos of.

ANSWER: Black Scale and Sooty mould
Black Scale insects suck plant juices and produce honeydew (a sugary substance) as they feed.
Sooty mould (black saprophytes fungi) grows on top of the honeydew, coating leaves, twigs and fruit.
Sooty mould can delay colour break and interfere with photosynthesis.
By fertilising too frequently, you may actually be creating a situation that favours the scale. At least 15 species of parasitoid wasp have been recorded in Australia. These wasps lay their eggs inside scale insects. The wasp larva hatches and feeds on the host as it grows. Beneficial parasitic wasps and predators (e.g., lacewings and lady beetles) that control scale are available from commercial sources.



GROWER QUESTION: What I can use on the organic control of black scale?
I have been reading your article in the Olive grower & processor. Great read!!! I have an olive grove near Nagambie.
We have a black scale problem on the grove. On the weekend we pruned the trees. Can you give us some information & ideas on the organic control of scale?

ANSWER: Very important monitoring and timing of control.
Brown/black scale has multiple generations and females and nymphs can be present throughout the year.
You should inspect scale infestations in early spring.
Spray every five to seven days for a month as needed, covering both sides of the foliage.
Trees can be sprayed with dishwashing soap and some LUX laundry flakes.
Potassium carbonate is used successfully as a foliar nutrient spray and also helps to control black scale and also adequate water supply in a dry year.
Regardless of what product is used, sprays are always applied diluted with water, at a concentration of soap 2 %. The concentration of baking soda is a 1% solution.



GROWER QUESTION: How to control Apple weevil?

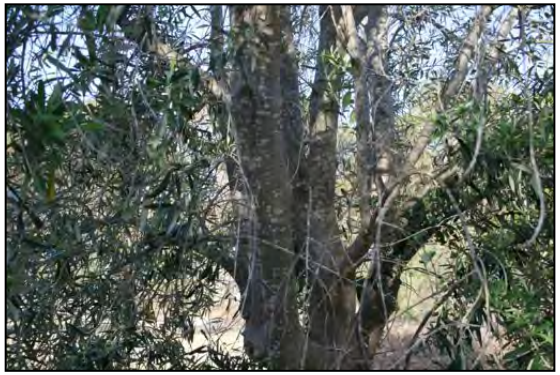
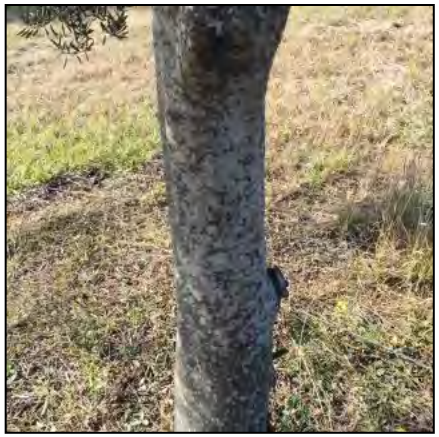
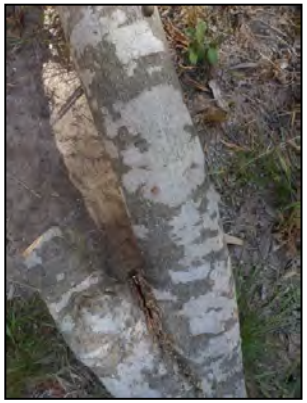
ANSWER: Apple weevil (*Otiorhynchus cribricollis*) Rincotrap is a bandage 20 metres long and 17-18 centimetres high.You cutit with your hands (it's really easy) and bandage enough to do a round around the stem of the tree and after you have to tie with a string. In this way you put a collar around the stem.

Otiorhynchus haven't wings; they have to walk on the stem to go to eat the leaves.

The trap is ecologic, economic and really efficacious.

Rincotrap is a mechanic trap that catches the pests and they are trapped and they dead because of starvation.

Inside Rincotrap there is a tiny quantity of a biological substance that attracts pests.

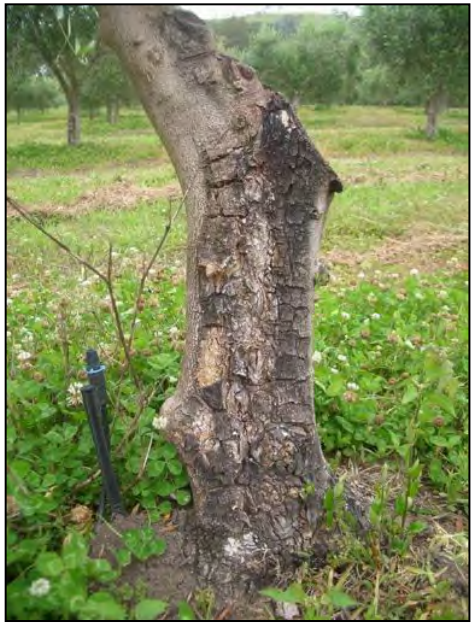
GROWER QUESTION: What does a mottled grey in colour trunk mean?
What is happening with trees? White patchy spots are forming on the bark. I am not sure what it is but it does not look healthy. The trunks are a mottled grey in colour on the outside.

ANSWER: Lichens are particularly adaptable as they are able to exist where nutrients, and sometimes water are. Many lichens are more evident on stressed tree trunks.

GROWER QUESTION: What causes bark splitting in olive trees?

ANSWER:

The bark on trunk sunburn very easily when exposed to direct sunlight. The sun causes sunscald, which damages the tree significantly. Treating sunscald is a matter of preventing it before it starts. After the damage has been done, there is no way to repair it.



Trunk protection for trees

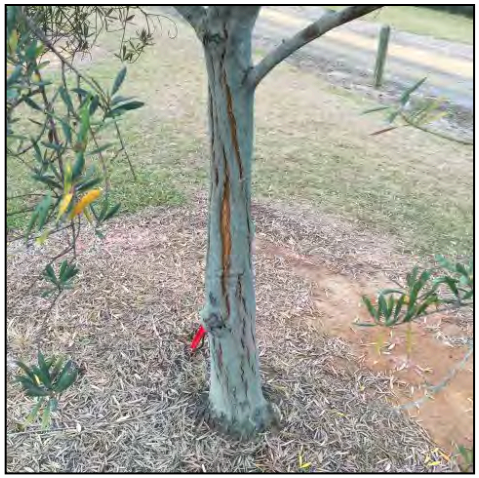
-A full canopy of leaves should be maintained in order to protect the bark of the trunk and scaffold branches from direct sun and potential sunburn.

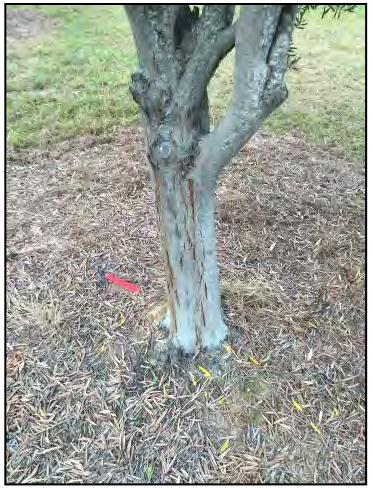
-Something should be done to young plants in the autumn - wrap the trunks loosely with commercial tree wrap strips, winding the strip up the trunk like an overlapping candy cane stripe. Tape the end of the tree wrap to itself and never to the tree trunk. Remove the wrapping in the spring to allow the tree to grow naturally, than wrap it again the next fall.

-The tree should be protected by white paint after planting, to prevent damage from the sun's rays.

GROWER QUESTION: What causes bark splitting in olive trees?
The olives have been showing this condition for the last couple of years, but it is getting progressively worse. It is only showing up in Picholine. The bark is cracking and fragile.
Underneath the bark is moist and crumbly, looks to me like some kind of rot? Starts at the base of the trunk and is working its way up the tree, splitting the trunk badly as it goes

ANSWER: Sun damage (sunsclad) and possibly the soil fungus that attacks the tree trunks. Plant health is dependent on the soil. Pay attention to feeding the soil and its micro-fauna. And protect the tree from damage by sun.





GROWER QUESTION: What causes bark splitting in olive trees?

My olives in south east of Qld. The olive trees 12 years old effected and I do not know that happen with them. The splitting of bark 30 trees Manzanillo out of 400 at this stage. Then start to show some sign of cracks on the truck, then more yellow leaf and start to become brown and drop.

ANSWER: It suggests that there is a soil fungus, which has attacked the trees. The problem with the olive trees started some time earlier but without visible symptoms**.** Unfortunately there is no way of reversing the process when plants start to die.

Plant health is dependent on the soil. Pay attention to feeding the soil and its micro-fauna.

GROWER QUESTION: What causes bark splitting in olive trees?

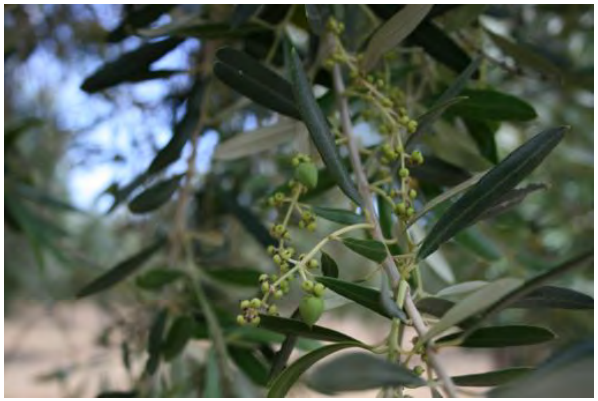
What do you think is the cause of the problem considering that the foliage is looking pretty well considering the sever bark splitting & dead wood. If I were to scrape some of the material away there is some white foam.
These fifteen years old trees have been like this for a few months.
The most effected is the one in the photos.
The bark is still very dry and split with the canopy having lost a few more leaves. We had a very wet January with twelve rainfall days.
These four trees are in a spot that becomes very wet during rain. The photos were taken about a month after the rain and the soil had dried hence the sprinklers being on. Each tree has one sprinkler causing the trees to have only one wet side.
We are hoping that we won't lose any of these trees. Any advice will be much appreciated.

ANSWER: "wetwood" or "slime flux".
The foul-smelling and unsightly seepage of sap from the trunk of shade trees is commonly called slime flux or wet wood. Several bacteria are associated with wetwood.
Wetwood-infected tissue slightly alters the strength properties of the wood. However, it inhibits the development of wood-rotting fungi, which is unable to grow in the affected wood because of lower oxygen content. Wetwood also causes warpage and splitting problems when boards cut from affected trees are dried.
Fungal disease Armilaria is responsible for the "white rot" root disease. The Armillaria fungus damages the root system. The fungus survives in the soil until the infected root breaks down. Characteristic white fan-shaped mycelial mats can be seen growing on the wood when the rotting bark is peeled back. Freshly infected roots have a strong mushroom smell.

GROWER QUESTION: What is stem canker on olive trees?

ANSWER:

Stem of olive exhibiting cankerous symptoms caused by bacteria



GROWER QUESTION: Why is my olive fruit so small?

I have problem in fruit setting in olive trees. I don't know the reason why is my olive fruit so small? Thanks for your help.

ANSWER: Shot berries/parthenocarpic olives

Pollination and ovule fertilization are essential steps to guarantee a normal fruit set and crop.

The flowers are mainly wind pollinated and most of the olive varieties are self-pollinating, although fruit set is normally improved by cross pollination with other varieties. There are self-incompatible varieties that do not set fruit without another variety nearby, and there are varieties that are incompatible with certain species.

Incompatibility can sometimes occur because of environmental conditions, for example, high temperatures.
Availability of N and P, not K was found to influence flowering intensity and fruit set of olive trees.
Results proved what spraying olive trees with 100ppm Boron + 2% Calcium twice (with interval in two weeks) was the promising treatment for a good fruit set.

GROWER QUESTION: What is causing black spots on olive trees?

Vera, please could you visit the olive grove. 80% of olive trees with symptoms unknown black spots on branches.

ANSWER: Sap - physiological disorder is caused by: automatic irrigation, dripping from the tree after use heavy rains following a dry period or fluctuations in the temperature.

Irrigation needs to be planed carefully according to the local climate. There is never any need to over irrigate olive trees.

GROWER QUESTION: What are these blemishes/marks on olive fruit?
I'm not sure what this is, but these appeared on my fruit. Please let me know that you think.

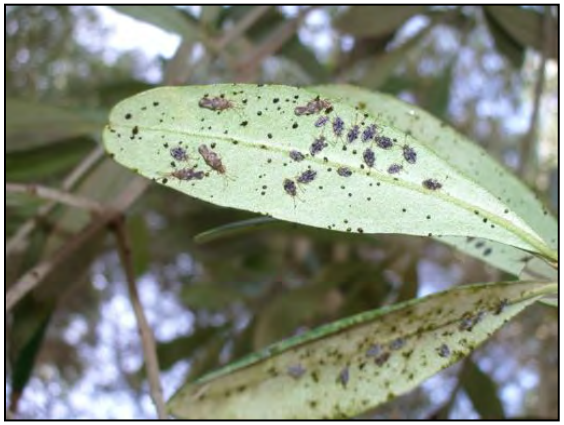
ANSWER : Anthracnose disease

ANSWER: Symptoms after fungicide applications, previously fruits were damaged by anthracnose disease.

GROWER QUESTION: What is the disease?
Infected fruit can eventually rotted on olives in Turkey. Please help with identification.
ANSWER: Botryosphaeria fruit rot.

GROWER QUESTION: What causes the "rash" mark on olive fruits*?*
I've been having a close look at this marking on the skin of olives - especially over 50% of the HV Manzanillo this year. Even trees that have been sprayed with copper have the problems.
During the wet summer the olives have got wet and stayed wet. We never really had any drying winds, so at the bottom end of the olive a small wet patch has developed and stayed there.
Each time it dried out, more rain came along and wet it again. This constant wetness has caused a weakness in the skin and softness in the fruit at this spot, and this seems to be where the marking is developing from. I've look at a lot of olives recently and by just turning them to look at the bottom I can generally find a mark at this lowest point. The mark becomes the "rash" and spread as the fruit ripens.

ANSWER: Russet.
Causes:
Large variations in temperature, when daytime temperatures are high (accompanied by relatively low humidy) and night temperatures are low.
Sensitivity varies with different varieties.



GROWER QUESTION: What is a natural method to control olive lace bug?

I live at Ipswich, Qld. I have olive trees that I treat with the insecticide Natrasoap + Spraytech oil for olive lace bug. I wish to use natural methods to control the pests. Is this the best way to do this?

ANSWER:

Biological

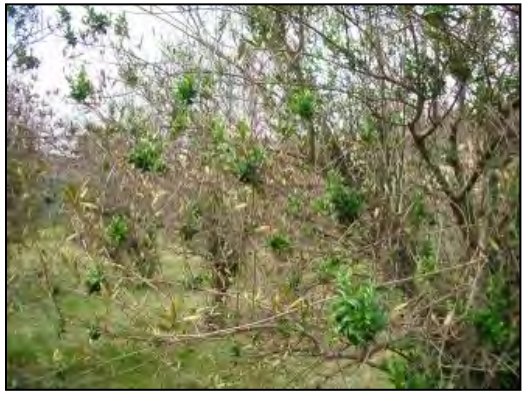
Natural enemies are important in controlling some species of lace bugs. Predators of lace bugs include lacewing larvae, lady beetles, jumping spiders, predatory thrips, and predaceous mites.

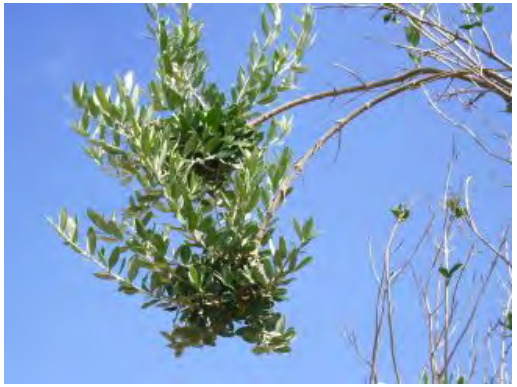
Soil Nutrition

Chlorophyll is the stuff in the leaves, which makes photosynthesis possible. It is vital for tree health and a component, which is damaged by olive lace bug (OLB) attack that causes the leaves to turn yellow.

Magnesium builds chlorophyll and helps the tree resist OLB attack. So look hard at the soil analysis and work on the Ca:Mg balance. You may have to spread some dolomite to raise the Mg content.

Potassium carbonate is used successfully as a foliar nutrient spray and also helps to control OLB and also adequate water supply in a dry year.





ANSWER: Olive ‘witches’ broom: an olive disorder associated with phytoplasmas