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Cyclamen mite on strawberries

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A new pest of strawberries has appeared, and it has the potential to have catastrophic effects on strawberry productivity.

This pest is not unknown, in fact a search of the literature shows that it can be a major problem in North America – but mainly on certain varieties when using a two-year cropping cycle.

In North America according to the literature, the variety Cabot appears to be particularly sensitive to this tiny mite, but in our current greenhouse strawberry trial the very promising variety Albion appears to be particularly sensitive. (See photo).

It is unclear where the particular infestation originated. The greenhouse had previously grown strawberries, but had been thoroughly washed down before planting. Survival in an empty greenhouse is unlikely as the mites avoid light and require high humidity for survival. Mites could be introduced to a clean greenhouse by visitors or even pollinating insects. Another possible source might have been the planting material, and we are reminded that at one time it was a standard procedure to dip strawberry runners in a white oil/copper fungicide dip prior to transplanting. Is this still carried out? We certainly did not do this.

So where to from here?

North American literature provides us with the following information: The cyclamen mites (*Phytonemus pallidus*) at low population densities are usually found along the mid-vein of young, unfolded leaves and under the calyx of newly emerged flower buds. When populations increase, these mites can be found anywhere on non-expanded plant tissue. They are not visible to the naked eye, and when mature, they measure only about .025mm long.

Leaves heavily infested with cyclamen mites become severely stunted and crinkled, resulting in a compact leaf mass in the centre of the plant. Mites feeding on flowers can cause the flowers to wither and die. Fruit on infested plants is small and bronzed, with prominent seeds which stand out on the flesh of the berry. When uncontrolled, this mite can prevent plants from producing fruit.

Propagating nursery stock free of cyclamen mites is essential to prevent introducing populations into fruit-producing fields. This may be a sound justification for changing our runner production methods to a tip runner system.



Although there are some chemical controls which can be used, the materials are reasonably toxic. In our research study (in which we are attempting to minimise the use of pesticides), we seem to be getting reasonable control of the seriously damaged plants by using a summer oil at regular (weekly) intervals. This is currently only being done on the Albion variety, and the other varieties are only being sprayed with oil occasionally. Hot water and hot humid air have been used to control cyclamen mite on ornamental greenhouse crops but this is unproven on strawberries. 🇩

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