

PHYTOSEIID PREDATORY MITES (ACARI: PHYTOSEIIDAE) IN FINLAND

- * 15 species recorded on strawberry, raspberry or currants
- * surrounding trees and bushes are important sources of phytoseiid mites
- * highest phytoseiid populations occur in organic or unsprayed fields
- * most common species are generalists: e.g. pollen serves as alternative food

Target pest mites in control experiments:

- strawberry: tarsonemid and spider mites
- raspberry: spider and eriophyid mites
- currants: eriophyid and spider mites

Strawberry



Strawberry mite (*Phytonemus pallidus*)

Native predatory mite species:

- *Anthoseius rhenanus*
- *Amblyseius reductus*

Introduced predatory mite species:

- *Amblyseius cucumeris*
- *Neoseiulus barkeri*



Anthoseius rhenanus

Neoseiulus barkeri

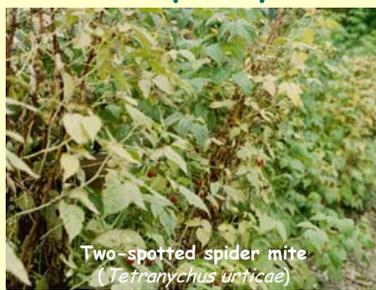


Two-spotted spider mite (*Tetranychus urticae*)

Introduced predatory mite species:

- *Phytoseiulus persimilis* (greenhouses)
- *Amblyseius californicus*

Raspberry



Two-spotted spider mite (*Tetranychus urticae*)



Raspberry leaf and bud mite (*Phyllocoptes gracilis*)

Native predatory mite species:

- *Phytoseius macropilis*
- *Euseius finlandicus*
- *Anthoseius rhenanus*

Introduced predatory mite species:

- *Phytoseiulus persimilis* (greenhouses)
- *Typhlodromus pyri*

Currants



Currant leaf gall mite (*Anthocoptes ribis*)



Two-spotted spider mite (*Tetranychus urticae*)

Black currant gall mite (*Cecidophyes ribis*)

Native predatory mite species:

- *Euseius finlandicus*
- *Phytoseius macropilis*
- *Anthoseius rhenanus*

Introduced predatory mite species:

- *Typhlodromus pyri*

Concluding remarks

In strawberry, control of strawberry mite by inundative releases of phytoseiids is applicable. In greenhouses, inundative releases are needed for spider mite control.

In open field raspberry, naturally occurring predators control spider mites if not disturbed by pesticide sprays. Natural control of gall mites is not so likely. In greenhouses, inundative releases of predatory mites are necessary for spider mite control.

In currants, naturally occurring predators can control free-living leaf gall mite, but not blackcurrant gall mite.

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