



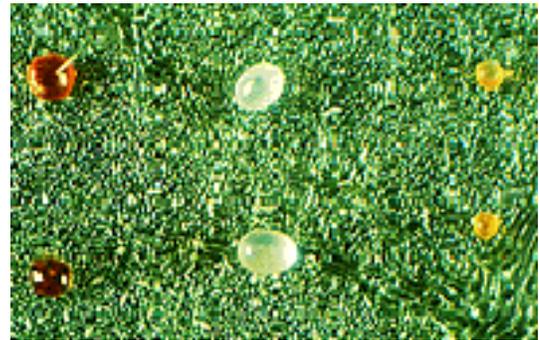
Fallacis - Mite predator
Neoseiulus fallacis
 = *Amblyseius fallacis*

PO Box 1555, Ventura, CA 93002
 800-248-2847 * 805-643-5407 * fax 805-643-6267
 questions bugnet@rinconvitova.com
 orders orderdesk@rinconvitova.com
www.rinconvitova.com

- Reproduces at lower temperatures than other predatory mites (*P.persimilis*)
- Resistant to more pesticides than most biological controls
- Survive in the absence of mite prey by feeding on other small arthropods and pollen



Adult *Neoseiulus* attacking a European red mite. Note the pale adult in the lower right that has not yet fed. **G.Catlin**



Mite eggs. From left, European red mite, phytoseiid, and *Zetzellia mali*. **J.Ogrodnick**

Target: Fallacis strongly prefers tetranychid mites--the **European red mite** and the **two-spotted spider mite**--in fruit tree orchards and will maintain these below economic thresholds. Also preys on Pacific Mites, Bank's grass mite and cyclamen mite. Will eat 2-16 spider mites per day.

Packaging: Bottles – mite adults in vermiculite or corn grit carrier, easy distribution.
 Bean leaves – all life stages on bean leaves, food supply while in transit.

Appearance: Adults are pear-shaped and slightly smaller than the European red mite adult. They are white until they feed when they take on the coloration of their prey (usually red or brown). The eggs are pear shaped, almost transparent, but slightly larger than the round European red mite eggs.

Life Cycle and Fecundity: Mated adult females overwinter in crevices of the tree bark if prey are available in the fall. They emerge as early as bloom, but in reduced numbers due to heavy winter mortality. *N. fallacis* increases in number rapidly and adults become numerous by July or August. They live about 20 days and lay an average of 40-60 eggs. Eggs are laid along the ribs of the undersides of leaves. They will diapause when in response to shortened days, less than 14 hours of light

Introduction Rates: Fallacis is most effective when applied at the first sign of a mite infestation – careful monitoring is necessary for effective control with predator mites.

Greenhouse crops: Introduce at a rate of **1-5 Fallacis/10 ft² (m²)** to all infested plants. Use the lower rate for preventative introductions onto mite susceptible plants; use the higher rates if there are established mite populations. They will usually become

established in the crop after one introduction, where they remain if mites or pollen are available for food.

Field crops (including berries and mint): Release 7,000 to 10,000/acre when spider mite densities are 0.3/leaf or higher. Spread evenly throughout field using 60-80 release spots, concentrating where mites are worst. Make first release early in spring for control that year and release in summer for control the next season.

See Oregon State University's release rate calculator for extra information:

<http://pnwpest.org/ipm/mcalc.html>

General Handling: Overnight storage is possible at 35° and 50° F or until release.

Release when temperatures are between 55° and 80° F, preferably not in the middle of the day. *Fallacis* needs relative humidities of over 50% to survive, particularly in the egg stage. In hot, dry conditions, raise the humidity by watering or misting plants.

Release: For corn/grit vermiculite bottles – gently rotate container to distribute mites and sprinkle contents over misted foliage with highest spider mite densities. If densities are low, then spread as evenly as possible.

For bean leaf product, place or staple leaves as directed for bottles. The predators spread themselves by crawling on plants and tumbling in air currents.

Pesticide compatibility: *Fallacis* is resistant to many organophosphate insecticides including Imidan and Guthion. It is resistant to the miticides Kelthane, Omite, Vendex, and to all but one of the available fungicides, including Capstan, Ronilan, Rubigan, Polyram and Thiram. It is susceptible to the fungicide Benlate, carbamate, and both synthetic and natural pyrethroids which leave a long lasting residue. Overuse of mist-applied sulfur can suppress predator reproduction and reduce effectiveness. Check with supplier with compatibility questions.

IPM Strategy: The habit of *N. fallacis* to overwinter in crevices can be used to advantage in the early spring with a pre-bloom horticultural oil application. This greatly reduces the number of European red mite eggs while not affecting predatory mite populations.

When humidity can be maintained above 60%, use in combination with the mite predatory midge *Feltiella acarisuga*.

When 70% humidity and 72°F can be maintained, use in combination with *P. persimilis*.

In drier conditions, use with *Stethorus punctum* ladybeetle.

Adapted From

<http://www.nysaes.cornell.edu/ent/biocontrol/predators/neofall.html> Copyright is held by Cornell University.

Kain, D. and Nyrop, J. March 1995. Predatory Mites. Insect Identification Fact Sheet No. 23. Cooperative Extension, Cornell University, Ithaca, NY.

Helle, W. and Sabelis, M.W. (Eds.) (1985) Spider mites: Their Biology, Natural Enemies and Control. Vol. 1B. Elsevier, Amsterdam. 458 pp.