

NeemAzal®-T/S

Spraying solution, application

NeemAzal-T/S is generally used as a 0,3% to 0,5% aqueous solution, at a rate of 1,5-3 L/ha of cultivated area. Usually 300L to 1000L of spraying solution are applied per hectare and complete wetting of the plants with the spraying solution is essential for the success. The treatment should be repeated if rainfall follows the application within about 8 hours.

Fill spray tank with the required amount of water and add **NeemAzal-T/S** under thorough stirring. Use the solution on the day of preparation. Do not prepare more spraying solution than necessary.

Phytotoxicity information

NeemAzal-T/S was tested with many plants under outdoor and greenhouse conditions and shows generally good plant compatibility during the warm season. The compatibility of **NeemAzal-T/S** depends on the variety and species of plants.

In **ornamentals** many plants react on **NeemAzal-T/S**-treatment with good leaf and blossom compatibility or good leaf compatibility, respectively.

For some varieties blossom damages or leaf damages have been observed.

In **orchards** serious plant toxicity has only been observed in the case of some pear varieties!

In the case of plant species that normally react insensitive, individual varieties can exhibit incompatibilities. This has occasionally been observed with the apple variety 'Gala'. Because of the season dependent culture conditions and the many species and varieties of plants, we can not make a general statement about the compatibility of **NeemAzal-T/S**. We recommend to perform sensitivity tests with a few plants or some leaves in the respective growth stadium 3 to 5 days before treatment of larger areas.

Updated information on observations of phytotoxic reactions can be found at: www.NeemAzal.de



NeemAzal®-T/S

Safety measures

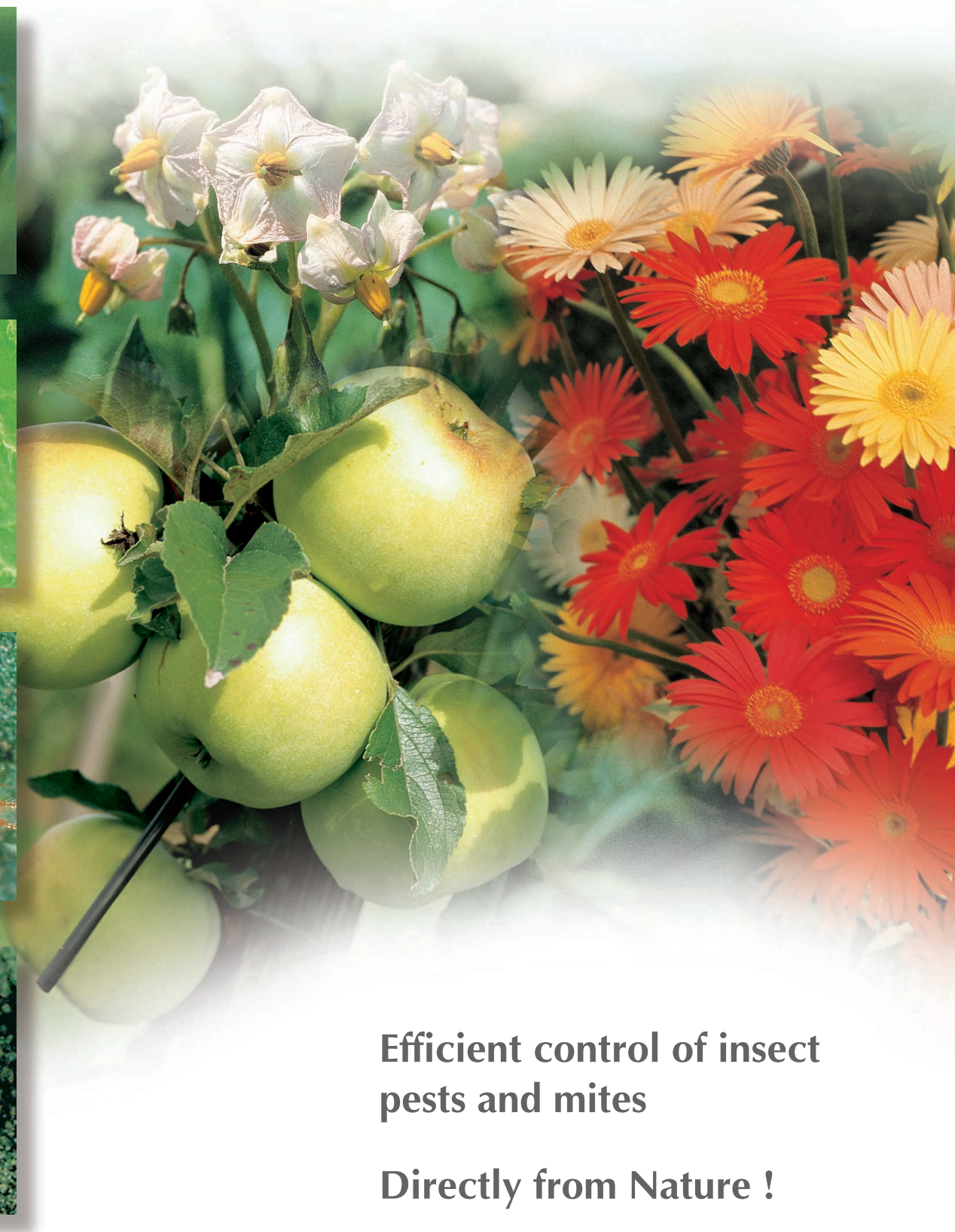
Avoid every unnecessary contact with the product. Abuse can damage your health. Keep out of reach of children. Follow the general protective measures: keep away from food, beverages and feed. Do not eat, drink or smoke at work. Avoid skin contact. In rare cases of especially sensitive persons **NeemAzal-T/S** may lead to reversible skin or eye irritations. In the case of contact wash with plenty of water.

Waiting period	not required
Honey Bees	not dangerous under the recommended application conditions
Beneficials	harmful for populations of <i>Episyrphus balteatus</i> (Diptera), harmless for populations of <i>Typhlodromus pyri</i> (Acarina), <i>Poecilium cupreus</i> (Coleoptera), <i>Coccinella septempunctata</i> (Coleoptera), <i>Aphidius rhopalosiphii</i> (Hymenoptera)
Water protection	do not dispose the product or remains thereof into water
Waste disposal	recycle empty and cleaned packages
Stability	two years after date of manufacture, store cool and dry! Storage below 10°C can lead to precipitations in the product. The precipitation can be redissolved by warming up to approx. 20-30°C for a short time without loss of activity.
Active substance	1% Azadirachtin A (10 g/litre) corresponding to max. 4% NeemAzal (natural Neem-Kernel-Extract).
Formulation	plant oil and surfactants based on renewable natural products.
Other references	since the application of the product is beyond our influence, we accept liability only for constant quality.

Updated information to phytotox, practical experience, scientific results, situation of registration in different countries at: www.NeemAzal.de

Trifolio-M GmbH Sonnenstrasse 22 35633 Lahnau, Germany
Phone: +49 6441 63114 Fax : +49 6441 64650
e-mail: info@trifolio-m.de www.trifolio-m.de

NeemAzal®-T/S



Efficient control of insect pests and mites

Directly from Nature !

NeemAzal® -T/S

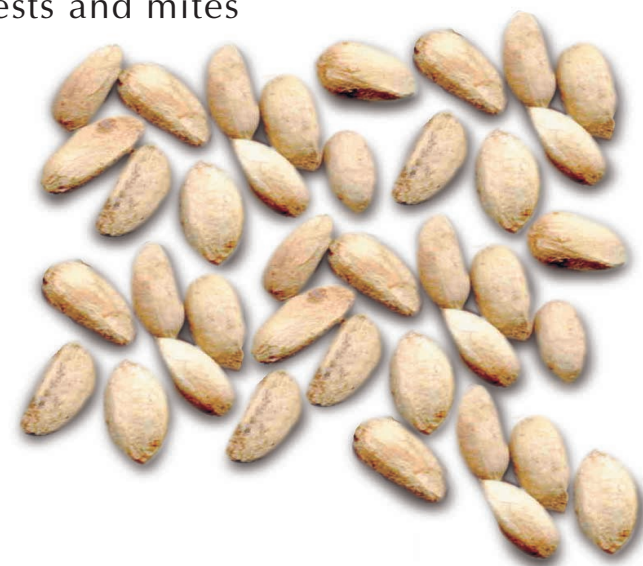


The Neem tree

Different parts of the tropical Neem tree *Azadirachta indica* A. Juss are used in India since times immemorial for curing many diseases. In a holistic perception the protection of plants and animals against diseases and illness is a medical issue. The leaves and especially the seed kernels of the Neem tree and their extracts have been used for the control of various insect pests in India. On behalf of different reasons there is a demand for standardised natural products for plant protection today. Our research has combined the results of the thousands year old Indian experience and modern demands for plant protection products. The result of our development is **NeemAzal-T/S**.

Obvious advantages of NeemAzal-T/S

- Efficient control of many insect pests and mites
- Harmless to most beneficials
- Non toxic to honey bees
- Safe to aquatic organisms
- Accepted for organic farming



For biological plant protection

NeemAzal® -T/S

Registrations

Registrations against different pests (Selected data)

Country (Reg. Nr.)	Crop	Pest
Germany (4436-00)	Ornamentals, Public Green, Potato, Orchards	Aphids, Whiteflies, Thrips, Free Feeding Larvae, Colorado Potato Beetle, Mites
USA (71908-1)	Leafy Vegetables, Legume Vegetables (dry), Misc. Crops, Cereal Grains, Berries, Herbs and Spices, Fruit & Nut trees, Ornamentals, Flowers and Shrubs, Ornamental trees	Bugs, Leafhoppers, Whiteflies, Aphids, Beetles, Weevils, Thrips, Leafrollers, Cutworms, Loopers, Armyworms, Flies, Midges, Mites
India (3-F/2001)	General crops	General Species
Switzerland (5351)	Apple, Ornamentals	Aphids, Thrips, Whiteflies, Mites
Austria (2699-01)	Ornamentals, Public Green, Potato, Orchards	Aphids, Whiteflies, Thrips, Free Feeding Larvae, Colorado potato beetle, Mites
Estonia (0211/12.10.01)	Cereals, Potato, Vegetables, Orchards, Ornamentals	Aphids, Cereal Leaf Beetle, Colorado Potato Beetle, Cabbage Butterflies, Diamond-Back Moth, Webworms, Miner Flies, Cabbage Aphid, Pea Weevils, Leaf Miners, Whiteflies, Spider Mite, Winter Moth, Apple Ermine Moth, Cockchafer, Thrips
Turkey (3792)	General crops	General Species
Georgia (065)	Potato, Cabbage, Plum, Peach, Apple	General Species
New Zealand (5412)	Various cultures	Thrips, Whiteflies, Scale Insects & Mealy Bugs, Aphids, Leaf miners (flies)

All registrations are based on the information supplied by Trifolio-M according to the specific requirements in the different countries.

Updated information on registrations in different countries can be found at: www.NeemAzal.de

For biological plant protection

NeemAzal® -T/S

Mode of action

NeemAzal-T/S contains **NeemAzal**, the purified active ingredient of the seed kernels of the tropical Neem tree *Azadirachta indica* A. Juss. The active substance permeates into the leaves and is distributed partially systemic in the plant; the pest insects take it up orally upon feeding (sucking or biting).

NeemAzal-T/S has a special mode of action. It stops the insect's feeding and plant damaging activity. However, a "knock down" effect should not be expected. Within a few hours after application of **NeemAzal-T/S** pest insects become inactive and after a few days the population does not develop any longer and collapses.

After the treatment with **NeemAzal-T/S** larvae react with feeding and moulting inhibition and mortality; adult (beetle) show feeding inhibition, infertility and to a lesser degree mortality.

As a result of this comparatively slow "insectistatic" mode of action of **NeemAzal-T/S** a final assessment of the treatment should be done 7-10 days after application under practical conditions. The number of dead pest insects is not necessarily a good evaluation criterion. For the assessment the following criteria are appropriate: loss of leaf mass, damage to leaves, formation of honey dew, yield of crops, development of the pest population, positive effects on beneficials.

The success of the application of **NeemAzal-T/S** depends on the progress of the pest infestation and adequate timing of the treatment.

NeemAzal-T/S is harmless to most beneficials - they are an important factor in the control of the remainder of the pest population. **NeemAzal-T/S** can favourably be combined with the use of beneficials in the plant protection conception.



For biological plant protection