



DEBUG TURBO

APPLICATION RECOMMENDATION FOR ALMONDS

General: DEBUG TURBO is a neem based (containing about 67% Neem Extract with Azadirachtin, and 15% Synergist) insecticide, repellent, anti-feedant and growth regulator. We recommend the use of DEBUG TURBO by itself with no additional pesticides unless the insects reach economically damaging levels, in which case organic pesticides may be used in conjunction with DEBUG TURBO. Apply even if there is no insect problem, as a preventative. DEBUG TURBO is soft on beneficials and pests do not develop resistance to it.

Water pH should be around 5.5. Use buffers if necessary
It is recommended that the application be made late in the evening and early morning to be most effective.

For the Control of: **Ants, Beetles, Borers, Brown Mites, Red Mites, Caterpillar, Leafrollers, Moths, Aphids, Webworms, San Jose scales, Orangeworms, Stink Bugs, Spider mites**

APPLICATION RATES, DILUTION AND TIMINGS

(1) European Red Mite (*Panonychus ulmi*), Peach Silver Mite (*Aculus cornutus*), Spider Mites (*Tetranychus- pacificus- urticae- turkestan*)

The Red mites overwinter as eggs at the base of buds and spurs. Newly hatched mites are green, but feeding turn red in color. These mites have 5 to 10 generations in a year. The Spider mites reproduce rapidly between June and September. They could have 8 to 10 generations in a growing season.

DAMAGE:

The Red mites cause leaf stripping. If the trees are stressed it may cause defoliation. For Peach Silver Mites the symptoms resemble Thrips or Leafhopper damage. The Spider mites damage foliage by sucking cell contents from leaves.

WHEN TO TREAT:

The **first treatment** of DEBUG TURBO should be around 300 degree days from first bio-fix. In Almond growing areas in California this would be approximately around the end of April.

TREATMENT:

Botanical treatments are ideal. DEBUG TURBO is preferred to other botanicals, as the mites cannot develop resistance to DEBUG TURBO.

For the **first treatment** - spray DEBUG TURBO at the rate of 3-1/4 quarts per 100-150 gallons of water **per acre** using high pressure equipment. In applying DEBUG TURBO spray, all leaves, twigs, and nuts should be covered. Hydraulic machines are designed to use large volumes of water to carry the chemicals to the trees. Sprays should be applied until water runs off leaves in



the upper portion of the tree. Do not attempt to concentrate or use low volume sprays with hydraulic equipment.

Air blast and mist blowers are designed for low volume applications. Air blast equipment should be adjusted before the spray season begins to deliver the desired volume of spray in the proper pattern as is dictated by tree size. Consult instruction manuals or spray machine representative for advice on correct placement of spray nozzles. Remember, when spraying with air blast sprayers, the Neem active ingredient is carried to the tree in a small volume of water, which is diluted, by a larger volume of air. Too fast a rate of travel will result in insufficient coverage, where the trees are not filled with spray-laden air resulting in poor coverage.

For the **second treatment** – spray DEBUG TURBO 10 to 15 days after the first treatment at the rate of 3-1/4 quarts per 100- 150 gallons of water **per acre**. Follow the instructions given above for the first treatment.

For the **third treatment**- spray DEBUG TURBO 10 to 15 days after the second treatment at the rate of 2-3 quarts per 100 – 150 gallons of water **per acre**. Follow the instruction given above for the first treatment.

Subsequent treatments may not be needed due to the timing of the three treatments above.

(2) Ants, Beetles, Borers, Caterpillar, Leafrollers, Moths, WEBWORM, San Jose Scale, Orangeworms, Caterpillar, and Stink Bugs:

Aphids would probably appear in May. Red mites are not generally a problem unless they have high populations. Webworms can be taken care of on individualized trees. Frosted scale is a problem only if more than 5 nymphs are present per foot of wood. Navel Orangeworm problem may be taken care of with orchard sanitation as well as Mites treatments. Insecticide treatments for other infestations would probably keep the caterpillar populations in check. Spider mites are a problem between June and early July. They colonize on the lower branches of the inner canopies. If there are brown clusters of leaves in 10% of trees and no sign of any predators or if there is danger of leaf drop and exposure of nuts to sunburn, then a treatment becomes necessary.

TREATMENT:

Botanical treatments are ideal. DEBUG TURBO is preferred to other botanicals, as the insects cannot develop resistance to DEBUG TURBO.

Spray DEBUG TURBO at the rate of 2- 3 quarts per 100-150 gallons of water **per acre** using high pressure equipment. In applying DEBUG TURBO spray, all leaves, twigs, and nuts should be covered. DEBUG TURBO is a contact insecticide and total coverage is very important.

Repeat the application in about 15 days. Further applications may not be necessary if already treating for mites, which should take care of other insects and pests if present.

MAXIMUM APPLICATION RATE FOR DEBUG TURBO IS 3.25 QUARTS PER ACRE PER APPLICATION TO COMPLY WITH THE US-EPA TOLERANCE EXEMPTION LIMIT.