



CHARACTERISTICS

EPA Registered
No.: 64137-14

Active Ingredient
6% Azadirachtin

Package Size
1.06 quart (1 liter)

Storage information
12 month shelf life, store in a cool dry place (>73°F) out of direct sunlight; do not freeze

Always read and follow label instructions

SUPERIOR BIOPESTICIDE FORMULATION EFFECTIVE AGAINST A WIDE VARIETY OF INVASIVE PESTS

LALGUARD AZA is a water-soluble, botanical insecticide applied by microinjection into the active sapwood of affected trees. The active ingredient, azadirachtin, is derived from the neem tree, and is an extract of neem seeds (not neem oil). It is not a neonicotinoid (i.e.: imidacloprid) or from the avermectin family of pesticides (i.e.: emamectin benzoate).

LALGUARD AZA is effective in controlling a wide variety of invasive pests which includes:

- ✓ Emerald Ash Borer
- ✓ Scales
- ✓ Aphids
- ✓ Defoliators

Refer to the product label for the complete list of pests.

ADVANTAGES

- Compatible with multiple tree injection systems, in addition to the EcoJect System.
- No known risk of resistance due to multiple modes of action, making it a key tool in IPM programs.
- Translocates rapidly (within 48 hours) throughout the tree, providing protection immediately post-injection.
- Degrades naturally within tree and leaf tissues, and does not persist in soil and aquatic environments.
- Formulated with a naturally occurring active ingredient that poses minimal risk to applicators, bystanders, bees, other pollinators, pets and wildlife.



MODES OF ACTION

The active ingredient in LALGUARD AZA acts as an insect growth regulator. When ingested by the pest, azadirachtin:

- Inhibits young larvae from molting, eventually killing the larvae.
- Decreases adult female fertility, reducing the amount and viability of eggs laid.
- Stimulates an antifeedant response.



EUROPEAN ELM SCALE (EES)

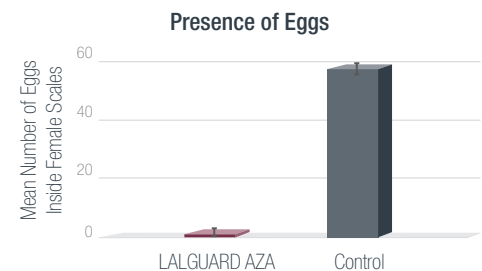
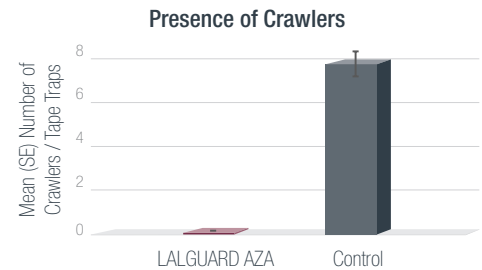
In May of 2018, in partnership with the City of Lethbridge, Alberta, Canada, an EES field trial was conducted. Half the trees in the trial were injected with LALGUARD AZA while the other half remained untreated. All trees were in a park that was historically highly infested with EES.

EFFICACY EVALUATION

- Translocation and dissipation of LALGUARD AZA was evaluated by analyzing foliar concentrations of azadirachtin at regular intervals throughout the summer.
- EES populations were evaluated by dissecting female adult scales and recording the number of eggs.
- EES density was measured using sticky tape on branches at all cardinal directions, and recording the number of crawlers per tape trap. The traps were replaced every two weeks.

RESULTS

LALGUARD AZA reduced crawler presence by 99% and reduced female egg presence by 96.8% which indicates LALGUARD AZA provides exceptional control of EES.



EMERALD ASH BORER (EAB)

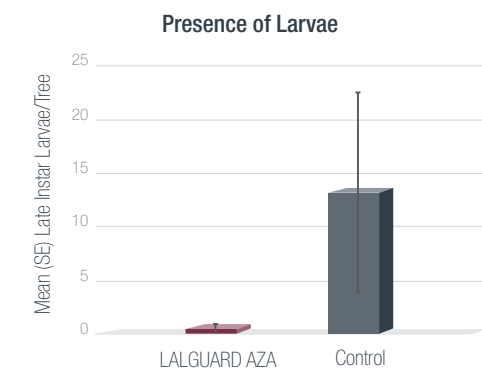
In 2019, in partnership with the Garnas lab at the University of New Hampshire, green ash trees in a highly infested woodlot were injected with LALGUARD AZA, while additional trees were left untreated as controls. In late October 2020, after two full growing seasons, all study trees were felled and debarked.

EFFICACY EVALUATION

- EAB larvae were counted within each tree's cambial tissues.
- The number of late stage larvae was compared between the treated and control trees to determine LALGUARD AZA's efficacy against their damaging feeding.

RESULTS

Systemic injections of LALGUARD AZA prevented nearly all early stage larvae in each treated tree from reaching the damaging later stages of larval growth which indicates biennial treatments with LALGUARD AZA provides excellent control of EAB.



About Lallemand Plant Care

Since the beginning of the 20th Century, LALLEMAND has been an expert in yeast and bacteria manufacturing. The family-owned company is now a global leader in the development, production, and marketing of microorganisms for various agri-food industries. In 2015, BioForest became a subsidiary of Lallemand Plant Care to oversee and develop its Forestry division. Using sound science and know-how, Lallemand Plant Care works closely with clients to deliver the right technology, in the right formulation, for the right application. We are committed to solving plant health care challenges and forest health strategies using microbial and botanically based solutions.