Injectable insect pest control for trees

The most environmentally sound way to achieve insect control in trees.

**SilvaShield® Injectable Tree Insecticide** is a novel formulation of imidacloprid developed specifically for direct injection into trees. The unique formulation enhances systemic uptake and distribution of imidacloprid in the tree, allowing much lower rates of active ingredient compared to alternative application methods such as soil injection. A single treatment can provide extended protection against various insect pests with minimal impact on non-target organisms.

**Key features:**
- Formulated specifically for injection into trees
- Provides long term protection of trees against insect damage
- The trunk injection application method provides greater flexibility in terms of site conditions than soil injection (e.g., trees surrounded by concrete in pavements or roadsides)
- Minimal off-target impact (active substance is placed right into the tree where it is needed)
- Lower levels of chemical used compared to soil injection
- No additional water required for treatment
- Provides faster results than soil injection
- Depending on the injection system used, trunk injection is less labour-intensive than soil injection
- Compatible with many types of application equipment

**Application rate and delivery**

3–5 mL product / 10 cm tree diameter at breast height (dbh), applied using dedicated tree injection equipment.

**General comments on application**

- SilvaShield is intended to be applied undiluted (do not attempt to dilute product with water). This allows the solvent within the formulation to aid penetration into the tree.
- Space injection points evenly around the circumference of the tree.
- Do not use on fruit or nut trees intended for food use.
- Do not use on trees likely to be used by commercial beehives.
- In all situations, application post-flowering is recommended.

**Comparison of trunk injection vs soil injection**

- To compare the amount of active ingredient applied between soil injection with a suspension concentrate and trunk injection with SilvaShield
- For a 50 cm diameter tree, at label rates, 28 g of active ingredient would be required via soil injection whereas only 3–5 g of active substance would be required via trunk injection

Through market-leading Research and Development, Bayer Environmental Science is committed to providing quality, highly effective and safe insect management solutions for the tree-care industry.
FAQ’s:

How easy is it to inject trees?
Appropriate injection equipment is necessary in order to efficiently and effectively use this product. A certain level of expertise is also required to ensure that injection is carried out properly. It is recommended that trained arborists or otherwise experienced or qualified persons carry out the treatment with this product.

How long does it take to inject a large tree?
Depending on the application equipment used and the level of expertise of the person carrying out the treatment a large tree (eg. 100 cm in diameter) can take as little as 10 minutes to treat.

Does injection damage the tree?
The chemical itself has been shown not to cause significant damage to a wide range of tree species when injected directly using a number of different injector systems. Trials have shown that compartmentalisation of the injection points occurs after application and there is no evidence to suggest that direct trunk injection causes any long-term structural or physiological damage to the tree.

How does trunk injection protect the rest of the tree?
The active ingredient in SilvaShield is imidacloprid which is taken up systemically through the tree vascular system and distributed to areas such as the leaves.

How long does treatment with SilvaShield protect the tree?
Trials with eucalypts and thaumastocorids have shown that a single treatment of SilvaShield can control insect numbers for a period of 3 years. The length of protection conferred against other pests in other tree species has not been determined but there is evidence from other applications to suggest that extended protection could be expected.

Bayer Environmental Science is committed to sustainable development

The application of SilvaShield involves direct injection of the undiluted chemical into a tree; minimising exposure to the environment and reducing the reliance upon water compared to soil injection or sprays. This information sheet is printed on 100% recycled paper using waterless printing process.