



# ATTS Group

## European Elm Scale

By Toso Bozic

European Elm Scale (*Eriococcus spurius*, also known as *Gossyparia spuria*) is a significant sap-sucking insect pest that affects elm trees (*Ulmus* species). The European elm scale (*Gossyparia spuria*), an insect pest native to Europe, was first introduced to the United States in 1884. Since then, it has spread rapidly across the continent, becoming established from coast to coast. Today, this invasive pest poses a significant threat to elm trees, particularly throughout the Prairie Provinces, where severe infestations can weaken trees, reduce their aesthetic value, and contribute to their overall decline.

### Pest ID and Symptoms

This insect is relatively easy to identify and is found exclusively on elm trees. Affected trees can often be recognized from a distance by the dark black appearance of infested branches and stems, in contrast to the normal brown or gray colour of healthy elm branches. This black coating is caused by sooty mold that develops on honeydew excreted by the scales as they feed on sap from the leaves and branches.

Upon closer inspection, the scales appear brown and are surrounded by a distinctive white waxy fringe. This characteristic white fringe readily distinguishes them from other scale insect species. Mature scales can reach up to 10 mm (5/16 inch) in length, with males being smaller than females. The species has a one-year life cycle. Adult females overwinter in protected locations such as bark crevices, cracks, and twig notches, where they remain until spring.



Picture 1. white waxy fringe around the body of the scale ( L ), dark black mold on bark ( C ) crown thinning and dieback ( R )



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## Symptoms

This insect can cause significant damage to elm trees by reducing growth, causing branch mortality, and, in severe infestations, leading to tree death. Several symptoms can indicate that an elm tree is under attack:

- Dark black discoloration of branches and trunk bark caused by sooty mold growing on honeydew excreted by the insects.
- Sticky honeydew deposits on leaves, bark, sidewalks, vehicles, outdoor furniture, and nearby structures beneath infested trees.
- Yellowing foliage followed by premature leaf drop during the growing season.
- Delayed leaf emergence in spring compared to healthy elm trees.
- Branch dieback and a sparse, thinning canopy, which are typically indicators of a severe infestation.

Early detection and management are important to minimize tree stress and prevent long-term decline.

## Management and Control

In Alberta, elm trees must not be pruned between April 1 and September 30 in order to help prevent the spread of Dutch elm disease. Therefore, any pruning of trees affected by European elm scale should be conducted outside of this restricted period.

Effective management on trees involves an integrated approach, combining cultural, biological, and maybe some chemical control methods: Several management options are available for controlling European elm scale infestations:

- Maintain tree health through regular watering and, where appropriate, fertilization to improve tree vigor and resilience. Supplemental watering is especially important during periods of drought.
- Use a high-pressure water spray to dislodge overwintering female scales after leaf drop in the fall or before bud break in the spring. Care should be taken to avoid excessive bark damage, particularly on young trees with thin bark.
- Apply dormant horticultural oil in early spring before bud break or in the fall after leaf drop to control overwintering scales. Weather conditions are critical for successful application. Temperatures should be above 0°C, and no rainfall should be forecast within 24 hours to allow the oil to dry and remain effective.
- On small trees or light infestations, scales may be physically removed using a dry brush as an alternative to pressure washing or horticultural oil applications.
- Apply insecticidal soap during the crawler stage to provide effective foliar control of young, mobile scales.
- Systemic insecticides or foliar insecticide applications may be used to protect heavily infested trees. Tree injection is performed in June and July.



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- For large and mature elm tree use of TreeAzin® is recommended. TreeAzin® is a botanical systemic insecticide derived from neem tree seeds and administered through trunk injection. It is highly effective in controlling european elm scale by disrupting the insect's growth and development.
- Chemical control measures should be performed by a qualified and licensed pest management professional in accordance with all applicable regulations and label directions.
- Avoid root damage and soil compaction around elm trees, as these stresses can reduce tree vigor and increase susceptibility to insect infestations and other health problems.

An integrated management approach that combines cultural, mechanical, and chemical control methods will provide the most effective long-term management of European elm scale populations.

For more information:

**Toso Bozic P.Ag**

ISA Certified Arborist

CERT ID: PR 5356A

Phone (780) 712-3699

[bozict@telus.net](mailto:bozict@telus.net)