

## European Elm Scale By Toso Bozic

European Elm Scale (*Eriococcus spurius*, also known as *Gossyparia spuria*)

The elm trees add significant beauty to our cities, towns and farms. These majestic trees are mostly recognizable by the umbrella looking crowns, thick furrowed bark and unique leaves with very uneven bases at the leaf stalk: a familiar characteristic of all elms. European elm scale has introduced insects from Europe in 1884 to the USA and spread very quickly from coast to coast. It can create significant damage to many elm trees on the Prairie Provinces.

### Pest ID

It is relatively easy to recognize this insect. It attacks only elm trees. From a short distance, you will notice the dark black colour of branches or stems on affected trees (compare to the brown/gray colour of healthy trees). This black colour comes from oozing soothing mold that is growing on the honeydew produced by the insect sucking sap from the branches and leaves.

In closer inspection, you will notice a brown colour scale surrounded by a very distinct white waxy fringe around the body of the scale. The other scales do not have this white waxy fringe around the body of the scale. The scale is up to 10 mm (5/16 inch) long with males smaller than females. It has a one-year generational life cycle. Female scale overwinters between bark cracks or twig notches.



Picture 1. European elm scales with white waxy fringe around the body of the scale

## Symptoms

This insect can significantly reduce growth, kill branches and eventually kill trees. There are several symptoms to recognize that elm trees are under the attack of this insect:

- The dark black colour of bark on branches or trunk due to soothing mold growing on honeydew
- Sticky honeydew secretion on leaves, bark, sidewalks, vehicles or nearby structures
- Yellowing of the leaves will lead premature leaves drops
- In springtime, leaves are developing later compared to healthy trees
- Branch dieback and the very thin canopy is usually a symptom of a very heavy infestation



Picture 2. Thin crown with branches dieback and dark black mold on bark

## Management

In Alberta, you **are not allowed prune elm** trees between **April 1 to September 30**. So any pruning of affected trees should be done after these dates. There are several management options for the control of the European Elms scales:

- Keep elm trees healthy by regular watering and if necessary adding fertilizer to boost growth and vigor of affected trees. Watering is critical during a drought period
- Use a pressure water gun to remove overwinter female's scales to produce new eggs once leaves drop or before spring bud break. Make sure that you don't excessively damage bark during this process especially on young trees
- To kill overwinter nymphs you can use dormant horticulture oil early in spring before bud breaks or in fall when leaves drop. When you apply horticulture oil, you need to be conscious of the weather. Weather is a critical factor when using horticultural oil. The temperature should be above 0 Celsius and there is no rainfall in the weather forecast with 24 hours allowing oil to dry



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- On very small trees you can use a dry brush to physically remove scale instead of using water pressure or horticulture oils
- Use of insecticidal soap to kill crawlers as foliar control
- To protect trees you may use insecticide. For any chemical control, you may hire a professional pest licensed company to inject insecticide in the tree or for performing foliar spraying
- Avoid root damages and soil compaction which overall will negatively impact the health and vigor of the elm tree

For more information:

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