



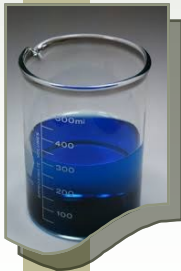
May 2015

Robert Hodgkinson (Omineca Entomologist) led a team of Mackenzie and Smithers FLNR staff to Frog Lake, 15 km south of Mackenzie, to do something that has never been tried before. Create a lethal trap tree for spruce beetle using aqueous Copper Sulfate (CuSO_4).



How?

- ◇ Find 40 healthy spruce trees, free of beetles, in an area where spruce beetles are active
- ◇ Make a fringe in the tree bark of 30 treatment trees and apply various concentrations of aqueous copper sulfate around the circumference of the tree: 10 trees each of 25%, 12.5%, and 6.25%. 10 trees/treatment-concentration with 10 trees untreated
- ◇ Allow two weeks for the trees to translocate the solution
- ◇ Fell all 40 trees in the shade to attract adult beetles
- ◇ In September, go back to the trees and see which concentration (if any) was most successful in killing adult beetles



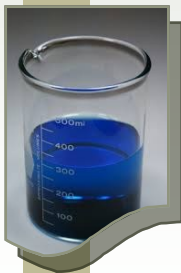
In this experimental trial, the trees are in a planned community forest harvesting area. Robert will take phloem samples (in Sept.) and have them analysed to determine if the treated trees are safe to mill.



Mackenzie Natural Resource District Spruce Beetle Lethal Trap Tree Trial



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Aqueous Copper Sulfate (CuSO_4) has *never* been tried on spruce trees to control spruce beetle.

In conjunction with the Mackenzie trial, a trial in the Cranbrook area will be conducted on Lodgepole pine and mountain pine beetle.

If successful, lethal trap trees with aqueous Copper Sulfate will be used for beetle control in isolated areas that cannot rely on forest operations to control beetle populations.

Frequently Asked Questions

Chemicals? Yes. Copper Sulfate (CuSO_4) has been used for years in organic farming and for algae/ fungus control in pools and water treatment plants. Approximately 125ml of the solution is applied in the fringe of each tree.

Bioaccumulation? Not likely. A successful lethal trap tree will kill the adult beetles before they lay their eggs. It is the larvae that are attractive to most predators like woodpeckers.

Will it work? We hope so. To be able to use lethal trap trees in remote locations will assist in managing spruce beetle and protecting the THLB.



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