

Phosphite Injection using Chemjet Syringes

Information prepared by the Dieback Working Group 2005

Safety

- Phosphite has a toxicity similar to table salt. It will sting eyes and cuts, but causes no permanent damage. It may irritate sensitive skin, so wear elbow length PVC gloves, safety glasses and old clothes when injecting.
- Take care when using sharp equipment such as drills and chisels.

Timing

- Injection is most effective in spring, summer & autumn, on warm, sunny mornings. Avoid injecting on days over 30°C.

Equipment

- Chemjet syringe injectors
- Chisel (only needed for large Jarrah)
- Cordless drill with 4.37 mm high speed drill bit
- Phosphite (e.g. AgriFos 600)
- 10L buckets for loading & carrying syringes

Preparation

- If using 20 % phosphite – Dilute 1 part phosphite with 4 parts water
- If using 40% phosphite - Dilute 1 part phosphite with 7 parts water.
- If using 60% phosphite - Dilute 1 part phosphite with 12 parts water.
- Use a good quality water source, preferably scheme water or rain water.

Step 1



Carefully load the chemjet syringes from a bucket that contains the diluted phosphite solution. Immerse the tip of the syringe in the phosphite solution and pull the plunger back slowly to minimise any air bubbles forming in the syringe. Twist the plunger to leave syringe in the cocked position.

Step 2



When injecting Jarrah remove the fibrous outer bark by hand to get a good seal with the syringe. A chisel can be used, however this is not broadly recommended as it can cause unsightly scars. If using a chisel be careful not to go deeper than the bark tissue. Banksia, small Jarrah and other susceptible tree species do not need the bark removed.

Step 3



Drill a hole into the tree trunk. Injection needs to be into the sapwood, so don't drill any deeper than 3-4 cm. The hole at waist height so that it is comfortable to inject, and at a slight downward angle. Do not inject trees under 10 cm diameter, they will need to be sprayed with a lower rate of phosphite.

Step 4



Drill a hole every 20 cm around the tree trunk (this is approximately one hand width). Multi stemmed trees need holes in each trunk.

Step 5



Insert syringe nozzle into the drilled hole avoiding any twisting to prevent damage to the syringe tip. Using a 4.2 mm drill bit you will not need to use the thread at the top of the syringe tip. Gently push the syringe tip into the hole to get a good seal. Release the plunger from the cocked position.

Step 6



Under ideal conditions the syringes should be finished injecting in 5-30 min. Note that trees can vary on the time taken to be injected depending on the species, time of day and weather conditions. If significant leakage occurs try injecting into another hole or delay injection to another day. Remove syringes once all the phosphite has been injected.

Step 7



Count the syringes before use to ensure that none are lost while injecting. After use clean the syringes with warm soapy water, rinse in clean water. A regular application of silicon spray inside the syringe's chamber will ensure they will inject smoothly. Syringes should be disassembled at least once a season and cleaned using the manufacturers instructions.

Repeat injection every 3 - 5 years as needed

For more information on phosphite treatment please contact your local government authority or the Dieback Working Group
Phone: 08 9257 9937
Web: www.dwg.org.au



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