



## Evaluation of Herbicide Drift on Shumard Oak Trunks

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### **Nature of Work:**

In ground trees may unintentionally have their trunks sprayed with Roundup during the production season. Nurserymen use Roundup as a contact spray for miscellaneous weeds in field nurseries and in pot-n-pot operations. The labeled rate for Roundup PRO for perennial weeds is generally a 2% solution. Workers may accidentally spray the trunks or the spray may drift on to the trunks. No symptoms are reported during the season of application, but next spring reports of malformed leaves and branches are reported, while the cause is not clear.

Twenty four three gallon seedling shumard oaks were transplanted into 15 gallon containers and placed in the ground in pot-n-pot containers in the spring of 2001. The plants were placed under spray stakes and rooted out. The trees were pruned to remove all lower branches and expose at least one foot of clear trunk above the potting mix. Pruning wounds were allowed to callus before the application of the herbicide.

On August 7, 2001 four treatments were applied to a one foot section of the clear trunk. The treatments were applied as a sponge wipe to the one foot section and covering one half the diameter of the stem. The treatments were 1) water, 2) 0.5% Roundup PRO, 3) 1% Roundup PRO and 4) 2% Roundup PRO. Six single plant replicates were treated for each treatment. Plants will be observed for one year after application.

### **Results and Discussion:**

On August 10, 2001 one of the trees in the 2% treatment exhibited a couple of terminal leaves with browning. On September 7, 2001 several of the trees in the 2% treatment had new short shoots that had completely died. However, there has been no general symptoms over all the replications in a treatment.

There were no symptoms on the trees this year that were contributed to the Roundup PRO treatments. Treatments will be observed during the 2002 production season.