

Section I
Mites and Sap Sucking Insects

PINE ERIOPHYID (*Triseticus sp*) SPRAY TRIALS, 1989

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A landscape setting of shore pine, *Pinus contorta*, in Tacoma, WA was chosen for this experiment. The trees were arranged in a lineal planting allowing easy access for commercial spray trucks to make applications that had minimal impact relative to cross treatment contamination. Plot profile consisted of three trees per treatment with four replicates per treatment. Buffer trees were designated between each treatment. Pretreatment sampling in early March demonstrated an existing overwintering population of near uniform distribution. Treatments consisted of a check; 2 lb Sevin 50W plus 64 oz superior oil/100 gal H₂O on May 23; Sevin plus oil as above but reapplied again on May 31; 1 lb Diazinon 50W plus 64 oz superior oil/100 gal H₂O on May 23 and again on May 31. Applications were made with a standard truck mounted power sprayer typical of those used by commercial tree sprayers and sprayed to point of run off. Sampling consisted of taking four tips per plot and examining 20 needles per tip. Counts were based on mites per needle. Counts were made on June 15 and again on September 6, 1989.

Results of this experiment are presented in the table below. The June 15 "random" samples produced virtually no mites. Sampling a second time was based on "sample biasing" in that tips taken reflected some level of damage. Damaged tips were sparse and did not become apparent until late in the season. There is no numerical economic or aesthetic threshold established for this pest, however, tolerance for chlorotic-stunted growth tips is low. Based on comparisons to numbers present in the check plots, the single Sevin/oil application gave mediocre control and the dual applications of Sevin/oil and Diazinon/oil gave good control.

\bar{x} Number of Eriophyid Mites/Pine Needle -- Tacoma, WA 9/6/89

Treatment	Rate/100 gal H ₂ O	\bar{x} **
Check	---	33.1A
Sevin	2 lb	12.5 B
* Diazinon 50W plus oil (0.5%)	1 lb	1.9 BC
* Sevin 50W plus oil (0.5%)	2 lb	0.7 C

* These treatments applied twice (May 23, May 31).

**Average of four replications. RCB. Mean separation by DMRT at 5% level.