## Chemical won't save trees, says expert

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CAPITOLA — The hundreds of dying pine trees in Santa Cruz County won't be saved by a controversial chemical injection treatment which has failed in a series of experiments in Capitola.

However, the forest pathologist who developed the treatment using the chemical Fungisol, has already reacted angrily, saying, "The whole damn experiment was loaded against it from the beginning."

University of California Co-Operative Extension Adviser Steve Tjosvold, who conducted the experiment on five mature Monterey pine trees over the past five months, said, "It didn't work."

He concluded the Fungisol injections neither prevented nor eradicated the pitch canker disease. Later this month, he will report to the state inter-agency task force studying the disease, and recommend against use of Fungisol.

Two thousand to 3,000 trees, mostly Monterey pines within a 23-square-mile area between Santa Cruz and Aptos, are

dying from the fungus. The state Department of Transportation, which originally called for cutting down 900-1,200 diseased trees after the fungus was discovered here last year, backed off and cut only 62 dead trees earlier this fall.

A Caltrans official has since said at least another 62 trees in the fishhook area where highways 1 and 17 meet are dead and must be cut down. A new landscape plan, which could call for removing most of the overgrown and old pines along the highways, is being developed by the state.

Tiosvold, in releasing information about the Capitola experiment, said all five Fungisol-treated trees that were artificially inoculated with the fungus came down with characteristic pitch canker symptoms - namely, browning branch tips, cankers on trunks and resinsoaked tissue.

"Observations indicated that symptoms took around six weeks from inoculation to begin to occur and, by eight weeks, symptoms were fully manifested." said Tiosvold. "Clearly. Fungisol treatments did not eradicate the fungus from diseased branches. Clearly,

the Fungisol treatments did not prevent development of disease in inoculated branches."

However, Dr. William Thomas of Lafavette, the developer of Fungisol, said the experiment had "dice loaded against us" due to the presence of twig bore beetles that were also killing the treated pines. He says the insects are killing the trees, not the pitch canker.

"They never took into account any possibility of twig bore," said Thomas. "And we found twig bore there. They just wouldn't acknowledge that it was there. I told them then that I wouldn't accept the experiment unless they included a treatment against the insects.

"They have a bunch of closed minds there," he added. "I expected this from the beginning. I knew the thing was loaded against us. I just feel apprehensive for the poor trees."

According to Thomas, he has successfully treated 75 to 100 pitch canker-diseased pines during the past 20 years. George Reynolds, the tree surgeon from Cambria who injected the Fungisol in the

Capitola pines, said he successfully treated 100 diseased pines in Southern California during the past three years.

Reynolds agreed with Thomas' assessment adding, "I'm confident that if I had the chance to use insecticide with the Fungisol, it would have been a success. I told them at the time that I should use insecticde. But, Art McCain said 'no.' He said it was a fungus problem, not an insecticide problem."

Dale Dodge, a chemist and president of the Mauget Co. in Los Angeles, which markets Fungisol, has said he is "100percent sure" that Fungisol works.

However, Tjosvold now has joined the ranks of non-believers.

McCain, a Berkeley plant pathologist with the California Co-Operative Extension Service, has said Fungisol doesn't work. He's been supported by L. David Dwinell, a world-renown pitch-canker expert with the U.S. Department of Agriculure, who said, "Yes, we've used Fungisol. No. it doesn't work."

Tjosvold added, "I feel the Fungisol experiment is over. I'm confident we tested it thoroughly and it didn't work."