

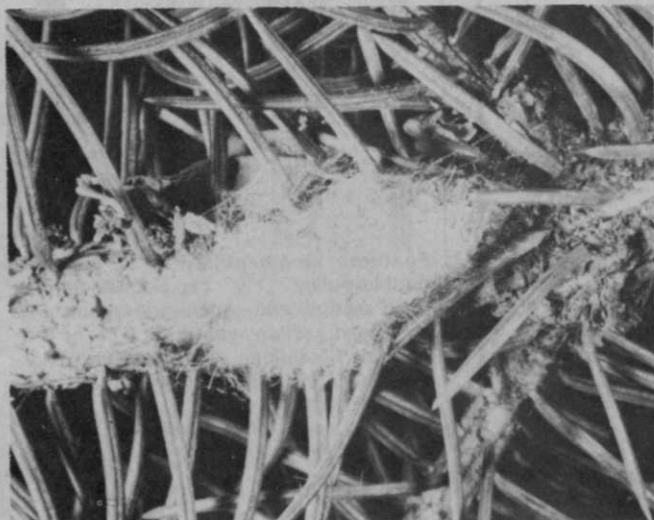
# Contingency Use Of DDT Granted



Douglas Fir Tussock Moth Pupa



Tussock Moth Larva (Photos by Roger Akre, Wash. State University.)



Tussock Moth Cocoon

Russell E. Train, Administrator of the Environmental Protection Agency, has granted the U.S. Forest Service an emergency exemption from the prohibitions of the Federal pesticides law for the contingency use of DDT against the tussock moth in the States of Oregon, Idaho, and Washington.

Announcing his decision at a news conference in Seattle in late February, Train emphasized that permission "is not a directive from EPA that DDT should be used this summer against the tussock moth. It is the hope of EPA that an actual emergency will not arise... at the time of egg hatch and that spraying will not be necessary."

Whether DDT will, in fact, be used this spring depends on the outcome of the Forest Service's ongoing biological evaluation of the extent of the moth infestation and the levels of the moth's natural enemies. DDT would be used only if the Forest Service determines that an actual emergency exists which will not be controlled naturally.

On January 3, 1974, the Forest Service requested contingency authorization for treatment of 650,000 acres of Douglas fir forest in Washington, Oregon, and Idaho, including the Colville Indian Reservation. The Forest Service request specified that the pesticide would be applied by helicopter at the rate of 0.75 pounds per acre. Spraying would begin soon after egg hatch in late May or early June and would end around June 30.

The Forest Service was required to seek an exemption from the Federal pesticides law for the use of DDT. Effective December 31, 1972, EPA banned most uses of that pesticide. Last year, the Agency denied a similar Forest Service request for DDT use on the tussock moth based on predictions that the moth population would collapse without chemical control as a result of a naturally occurring virus. Contrary to expectations, however, the natural virus did not achieve larval kills sufficient to control the total moth population.

Train noted that the 1973 failure of the virus to afford control and the inconclusive results of tests on alternative control mechanisms "put decision into a far different light."

**"After examination of all of the facts," he said, I conclude that the potential for a serious emergency this summer is present, and that DDT is the most practical control available."**

In granting an exemption for the use of DDT this year, Train imposed numerous restrictions on the actual Forest Service spray program. He required as a condition of approval that testing of alternatives to DDT be conducted. Among the restrictions are:

- maintenance of an unsprayed buffer strip of at least 200 feet long live streams and waterways.
- marking of waterways with flags and other devices to insure that they will not be sprayed.
- no spraying in winds exceeding 6 mph, or where temperatures inversions exist.
- placement of warnings in public places within all areas to be sprayed, giving the date, time, and duration of the spray project.

In imposing research requirements as a condition of his approval of the Forest Service request, Train said, "It is to remedy the inadequacies of past USDA per-

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## Maryland Agronomist Details Why Herbicides Don't Work

Why don't herbicides work all the time? Why does a herbicide work in one area and not in another?

These and other questions continually baffle applicators. According to Dr. James V. Parochetti, extension weed specialist, University of Maryland, herbicide failure can be explained in a number of reasons: 1. rainfall, either too much or not enough; 2. rate of application; 3. kinds of weeds; 4. application; 5. time of application; 6. pH level.

Activation of a preemergence herbicide takes place when rain falls within 10 to 14 days following application, says Parochetti. If it doesn't rain, the herbicide lays on the surface and weeds germinate and grow through the herbicide barrier.

Incorporated herbicides virtually eliminate the necessity of rainfall, he says. However, a word of caution: some herbicides should not be incorporated because it either destroys herbicidal activity or causes excessive injury.

Excessive rainfall can be detrimental to herbicide performance, too. On light textured soils, leaching occurs, often below the root zone of weeds.

The correct herbicide rate is important to insure adequate weed control, says the extension specialist. Reduction in rate may give acceptable weed control on light soils, but with heavier soils, weeds will not be controlled.

No one herbicide can control all weeds. Therefore, it's important to know that weeds are a problem before selecting a herbicide. Some herbicides are noted for their effective-

ness as broadleaf weed killers while others are known as grassy weed killers.

Application techniques can make the difference in the performance of a herbicide. Factors which contribute to poor application include: poor equipment, poor mixing, improper incorporation, and improper boom height or inexperience with a spray gun. Equipment that is worn — nozzles, pump, screens — will not deliver the correct rate of spray material on target.

Parochetti says that time of application can make the difference between good weed control and marginal weed control. A preemergence herbicide must be applied prior to weed seed germination.

Lastly, he says that soil pH can have an effect on herbicide activity. Triazine herbicides do not work well in soils with low pH, for example.

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formance that this Agency is force to require USDA to initiate, without delay, a fully funded, comprehensive research program which, is successful, will support registration of effective and environmentally acceptable alternatives to DDT before next year." EPA specified that the research must be completed in time to submit the necessary documents to the Agency no later than December 1, 1974.

Late last fall, Secretary of Agriculture Earl L. Butz, commented in a press conference that environmentalist had contributed heavily to the situation currently faced by our national forests. He said that "We've got our hands tied behind our backs" about the use of DDT. "We've got to do some trade-offs" if control of tussock moth is to be achieved.

In its caterpillar stage, the tussock moth, a native American insect, eats the needles of the Douglas and other fir trees. thus defoliating or killing them.

Train said that he is granting this request "reluctantly" but that, "A decision must be made at this time in order that planning and contractual arrangements needed for the 1974 control program may be made." He

noted the following as among the factors in his decision:

—emergency conditions do exist for severe defoliation and/or tree mortality from tussock moth larvae this spring.

—available evidence indicates that DDT will give better assurance of effectively controlling moth damage than any available alternatives.

—significant economic and health problems could occur without use of the pesticide. Particularly the local impacts could be catastrophic, for example, the Colville Indian Reservation depends upon forestry for 95% of its tribal income. Also, the probability of rapid spread of forest fires is greater in defoliated areas.

—the proposed use is temporary. EPA expects that alternative means of control will be available for post-1974 outbreaks. Restrictions on spraying will minimize adverse environmental impacts.

The EPA decision follows several months of investigation of the tussock moth problem, including five days of public hearings, four of which were held in the Pacific Northwest. □



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