DECISION RECORD
and
FINDING OF NO SIGNIFICANT IMPACT

for

Horning Seed Orchard Spring Insect Spray

Environmental Assessment No. OR-080-01-03

United States Department of the Interior
Bureau of Land Management
Oregon State Office
Salem District

BACKGROUND

The Horning Seed Orchard produces seed and seedlings for numerous plant species, but mostly conifers. This is done for internal BLM use as well as for numerous private and government cooperators. In order to meet customer needs for seed, the orchard must maximize seed crop production and minimize seed loss from pests. An insect control research project was completed at the orchard which helped determine the most effective insect control methods, and is the basis for this proposal.

An environmental impact statement covering an Integrated Pest Management Program for the orchard is in progress, but is not expected to be completed until Spring 2002. As an interim NEPA measure, pending completion of the environmental impact statement, an environmental assessment was prepared and is the foundation of this "Decision Record" and "Finding of No Significant Impact". **The proposed action addressed within the environmental assessment and this decision record and finding of no significant impact was limited to a single chemical, for use on specific orchard units, during the Spring of 2001 only.** If the environmental impact statement, now in progress, is not completed in time for chemical treatment in Spring of 2002, this environmental assessment will be amended to evaluate the specific orchard units needing spray in 2002.

Copies of this decision are posted on the Salem internet WEB site at: http://www.or.blm.gov/salem/html/planning/index.htm.

DECISION

Based on the analysis contained in the environmental assessment, I have decided to implement the spring insect spray proposal as described in Alternative 2, hereafter known as the “selected alternative”. This decision includes:

Before spraying, conduct a careful evaluation of insect pest population levels to determine whether pesticide application is actually needed for the current seed crop. If expected losses are acceptable, do not spray. Depending on the insect, insects caught in monitoring traps, visual signs like pitch forming on developing cones, insects or their larvae found in the duff or on the trees, and comparison of these factors to those that occurred historically is used to determine infestation levels.

The following design features will be applied to prevent undesirable effects to adjacent orchard units, nearby neighbors / private property, or orchard workers.

1.) Follow guidelines shown on the label for the pesticide being used. These guidelines, required by the Federal Insecticide, Fungicide, and Rodenticide Act, show the list of allowable uses, application rates, and special restrictions for each pesticide. The pesticide would be applied within the prescribed environmental conditions stated on the label. This includes consideration of relative humidity, wind speed, and air temperature when determining the timing of applications relative to drift reduction.

2.) Comply with the orchard’s Pesticide Safety Plan.

3.) Continue base-line health testing of workers for exposure.

4.) Prior to pesticide application, notify downstream water users within one-half mile of the project area and adjacent landowners who could be directly affected by accidental drift and water transport from normal operation.

5.) Post Material Safety Data Sheets at storage facilities and make available to workers. These sheets provide physical and chemical data, fire and reactivity data, specific health hazard information, spill or leak procedure, instructions for worker hygiene, and special precautions.

6.) Require appropriate protective clothing for all workers. At a minimum, the type and amount of protective clothing listed on the pesticide label must be used. For esfenvalerate, this consists of long-sleeved shirt and long pants + chemical-resistant gloves + shoes and socks + protective eye wear.

7.) Follow all applicable local, state, and Federal laws.

8.) Use only licensed pesticide applicators.

9.) Orchard workers who know they are hypersensitive to pesticides would not be assigned to application projects. Workers who display symptoms of hypersensitivity to pesticides during application would be reassigned to other duties.

10.) Post treated areas as “KEEP OUT” “This area was treated with pesticide on (date) and all persons warned to stay out until (date).” Posting would discourage entry into treated areas until the spray has dried, unless protective clothing is worn, and entry is permitted by instruction on the pesticide label.

11.) When specific conditions warrant, the orchard manager could implement one or any of the following additional design features to further reduce worker exposure:

a.) Increase the level of protective clothing worn
b.) Lengthen re-entry time for workers
c.) Reduce worker exposure periods to the pesticide
d.) Reduce pesticide application rates
e.) Reduce the area being treated on a given day

12.) Assure that equipment used for transport, mixing, and application will not leak pesticides into water or soil. Locate areas used for mixing pesticides and cleaning equipment where spillage would not run into surface-waters or result in ground-water contamination.

13.) At a minimum, stream course and wetland buffers will be established within guidelines prescribed by the pesticide label (See also design features 23 through 28).

14.) Application will not occur on days that rainfall or fog is likely to occur. Additionally, there will be no application of esfenvalerate when rainfall is expected to exceed .5 inches per hour within the three days following application. This is the most reliable forecast window and will avoid the potential of exceeding the infiltration rates of the soil.

15.) Drift of aerially applied chemicals will be monitored during the spray operations using 4" X 5 ½" spray cards to detect the presence of drift and the relative amount. Spray cards will be installed along the perimeter of the treatment area, approximately every 50 to 100 feet in sensitive areas such as along stream buffers. Application techniques would be altered or spray operations would cease if drift were detected. Drift is affected by wind, temperatures, and humidity. High temperatures and wind and low humidity increase drift. The drift cards will be used to determine if any of these environmental factors reach the point that spray operations should cease.

16.) Avoid spraying during the day when bees are active. Bees do not become active until hive temperatures reach 55 degrees F. Spraying in mid-April, early in the morning, should allow foliage to dry before pollinators become active.

17.) Prior to insecticide applications, mow or graze the orchard fields to be treated to remove floral components to minimize the presence of pollinators, such as bees if they

are active, to prevent exposure to the pesticide.

18) Do not allow grazing back into treated fields until no detectable residues are obtained through testing. Past grazing in treated fields has not occurred until mid-August and residues were not detected.

19.) All chemical loading operations will occur within the orchard building compound. This is more than 800 feet from any of the flowing streams. Assure that equipment used for transport, mixing, and application will not leak pesticides onto the soil of the compound area.

20.) A spill containment kit will be on-site at the orchard building compound. Chemical containers will be kept in plastic drip pans which are large enough to hold the entire volume of each container in case the containers develop leaks.

21.) Procedures outlined in the orchard Spill Prevention and Countermeasure Containment Plan will be followed if there is any spill of esfenvalerate.

22.) Treatment will occur early in the morning when wind is minimal (<6 mph) to prevent drift, and preferably when there is no wind. Wind speed will be monitored on-site prior to and during spray applications. Operations will be suspended if wind speeds exceed 6 mph or drift occurs as indicated on drift cards that wind, temperature, humidity or other factors have been reached unacceptable levels to cause spray operations to be stopped.

23.) Areas immediately adjacent to no-spray buffers on all units will be treated prior to spraying the remaining portions of any of the units. This way, all of the areas adjacent to the buffers will be treated while the winds are calmest.

24.) The helicopter will treat orchard units adjacent to stream buffers by flying parallel to the buffer for the initial spray fly-over. This will reduce the likelihood of accidental overspray into the buffer.

25.) No spraying will be done over any water bodies in or around the orchard.

26.) Buffers will be marked with orange highway cones or other means visible to the helicopter pilot. No spraying will occur in buffers. Stream # 2a (Orchard Unit B-14) will receive a 200 foot buffer from the initiation point of the stream channel. This will provide a conservative distance from potential flowing water to avoid drift and increase the distance for capture of any potential sediment and organic material. A silt fence will be constructed around the stream initiation point (culvert inlet) in order to provide further confidence in capturing any material with adsorbed esfenvalerate.

27.) Stream # 2b (Orchard Unit P-12) will receive a 200 foot buffer from the edge of the stream channel. No spraying will occur in this buffer. This will provide a conservative

distance from flowing water to avoid drift and increase the distance for capture of any potential sediment and organic material.

28.) All other flowing streams will receive buffers of greater than 200 feet by virtue of the existing vegetative buffers. No spraying will occur in these buffers. This will provide considerable opportunity for capture of any sediment and re-introduction of potential surface runoff into organic and soil material.

29.) Infiltration of rainfall into the soil and avoidance of potential runoff will be promoted through use of aerating equipment in the orchard blocks proposed for and prior to application.

30.) If rain has preceded the intended application window, units will be checked for their infiltration capacity. Application will not occur if soils are in a saturated condition.

31.) Water quality monitoring for detectible concentrations of esfenvalerate will be conducted immediately before, and after the aerial spray. This will be done in channels 2b, 5a, and 6a. The results of this monitoring combined with the results from the spray cards should provide evidence of the immediate impacts from any potential drift. If any rainfall events occur after the spray project that result in surface runoff (during Spring), runoff and sediment sampling will be conducted with the intent of validating the esfenvalerate modeling and impact assessment. This data, along with a proposed long-term monitoring program, will be included in the Integrated Pest Management environmental impact statement.

ALTERNATIVES CONSIDERED

The alternatives considered in detail included the required “no action” alternative, and the proposed action alternative which initiated the environmental analysis process. A complete description of the alternatives analyzed in detail are contained in the environmental analysis, pg 9.

Four other alternatives were considered but not evaluated after initial review because the height of the trees involved or the method under consideration was impractical or not approved for the kind of application required. A description of these dismissed alternatives is contained in the environmental analysis, pg 13.

REASONS FOR THE DECISION

Considering public comment, the content of the environmental analysis, supporting project record, and management direction contained in the Salem Resource Management Plan, I have decided to implement the selected alternative as described above. My rationale for this decision follows:

1. The selected alternative addresses the identified purpose and need. It provides control of pest insects if infestation levels reach the point that without control, a viable seed crop at Horning Seed Orchard would be precluded during 2001.

2. The selected alternative is consistent with applicable land use plans, policies, and programs (see page 2 of the environmental analysis).

3. The selected alternative addresses issues brought forward through public scoping and includes appropriate design features to cover concerns.

PUBLIC INVOLVEMENT

The project was described in the Salem District "Project Update," distributed in December 2000 to over 1200 people and organizations on the District mailing list. No specific comments regarding this proposed action were received. An environmental impact statement is in progress to address Integrated Pest Management at the Horning Seed Orchard in the future. Public scoping conducted for the environmental impact statement was used to help formulate the issues and design features included in this environmental analysis for a single chemical, for use on specific orchard units, during the Spring of 2001 only.

Copies of the environmental analysis and draft "finding of no significant impact" were made available to the public for review and comment between February 12, 2001 and March 12, 2001. No comments were received on the proposed action.

The interdisciplinary team did not identify any additional significant or major issues[1] from public input that led to the development of an additional action alternative or revision of the environmental analysis.

Based on team generated issues, Chapter 3 (Affected Environment) and Chapter 4 (Environmental Consequences) of the environmental analysis focused on six relevant elements of the environment (i.e., soils, water resources, fisheries, human health, vegetation, and wildlife).

FINDING OF NO SIGNIFICANT IMPACT

Based upon review of the environmental analysis and supporting documents, I have determined that the selected alternative (Alternative 2) is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27. Therefore, an environmental impact statement is not needed. This finding is based on

[1] A significant or major issue is defined as a major point of discussion, debate, or dispute about environmental effects of the proposed action. For the purposes of the National Environmental Policy Act, a significant or major issue is an issue within the scope of the proposed action that is used to formulate alternatives, develop mitigation measures, or is important in tracking effects.

the following discussion:

Context. The selected alternative is a site-specific action potentially involving only 29 acres out of the total 800 acres of land on the seed orchard, that by itself does not have international, national, region-wide, or state-wide importance. The discussion of the significance criteria that follows applies to the intended action and is within the context of local importance. Chapter 4 of the environmental analysis details the effects of the selected alternative. None of the effects identified, including direct, indirect, and cumulative effects, are considered to be significant and do not exceed those effects described in the Salem Resource Management Plan/Final Environmental Impact Statement.

Intensity. The following discussion is organized around the "Ten Significance Criteria" described in 40 CFR 1508.27.

1. **Impacts may be both beneficial and adverse.** Due to the design features of the proposed action, none of the predicted environmental effects on the six relevant elements of the environment (i.e., soils, water resources, fisheries, human health, vegetation, and wildlife), discussed in detail in Chapter 4 of the environmental analysis, are considered significant.

2. **The degree to which the selected alternative will affect public health or safety.** There will be no significant effect on human health or safety (see page 37 of the environmental analysis).

3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas**. There are no historic or cultural resources, park lands, prime farm lands, wild and scenic rivers, Areas of Critical Environmental Concern, or wildernesses that would be affected by the selected alternative. With the designed buffers for riparian areas, which contain wetlands, the spraying for insects would not impact wetlands.

   The selected alternative would not retard or prevent the attainment of the Aquatic Conservation Strategy (ACS) objectives (see page 59 of the environmental analysis).

4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** No responses to scoping were received. Based on responses to EIS scoping, specific concerns by neighbors to the orchard were considered and addressed in the design features of the selected alternative. The predicted effects are not highly controversial. A complete disclosure of the predicted effects of the selected alternative is contained in the environmental analysis, Chapter 4.

5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The selected alternative is not unique or unusual. The BLM has experience in spraying for insects at the seed orchard and has found effects to be reasonably predictable. The environmental effects to the human environment are fully analyzed in the environmental analysis, Chapter 4. There are no predicted effects on the human environment which are considered to be highly uncertain or involve unique or unknown risks.

6. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The selected alternative does not set a precedent for future actions that may have significant effects, nor does it represent a decision in principle about future consideration. Future projects are currently being evaluated as part of an integrated pest management proposal in an environmental impact statement process and will stand on their own as to environmental effects.

7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The interdisciplinary team conducted a cumulative effects analysis based on past actions combined with the selected alternative and no significant cumulative effects were predicted. A complete disclosure of the effects of the selected alternative is contained in the environmental analysis, Chapter 4.

8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The selected alternative will not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will the selected alternative cause loss or destruction of significant scientific, cultural, or historical resources (see page 35 of the environmental analysis).

9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.** No federally listed threatened or endangered wildlife occur in or near the Horning Seed Orchard (see the wildlife section of Chapter 3 in the environmental analysis).

   For fish species, generally there is negligible effect to most proposed or listed species due to total absence, or presence so far downstream that the selected alternative had negligible effects. A few populations of steelhead trout were rated as “may affect, but not likely to adversely affect” during consultation with

National Marine Fisheries Service (see page 51 of the environmental analysis). Some adverse affects on local populations of cutthroat trout within the orchard were noted, but design feature should minimize those effects (see page 52 of the environmental analysis).

10. **Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.** The selected alternative does not violate any known Federal, State, or local law or requirement imposed for the protection of the environment.

APPEAL PROVISIONS

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and Form 1842-1. To appeal this decision, a person must submit a written appeal to Denis Williamson, District Manager, 1717 Fabry Rd. S.E., Salem, OR, 97306, by the close of business (4:00 P.M. Pacific Standard Time) on April 12, 2001. The appeal should clearly and concisely state the reasons why the decision is believed to be in error.

If you wish to file a petition pursuant to regulations 43 CFR part 4 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior board of Land Appeals and the appropriate Office of the Solicitor (see (43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied,
(2) The likelihood of the appellant's success on the merits
(3) The likelihood of immediate and irreparable harm if the stay is not granted, and
(4) Whether the public interest favors granting the stay.

IMPLEMENTATION DATE

If no appeal is received by the close of business (4:00 P.M. Pacific Standard Time) on April 12, 2001, this decision will become final, but will not be implemented until consultation is completed with the National Marine Fisheries Service and conferencing is completed with U.S. Fish and Wildlife Service. If a timely appeal is received, this

decision will be reconsidered in light of the statements of reasons for the appeal and other pertinent information available and a final decision will be issued which will be implemented in accordance with 43 CFR Part 4.

Approved by: _____ _____

Denis Williamson Date

Salem District Manager