UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

DETERMINATION OF NEPA ADEQUACY (DNA) WORKSHEET

OFFICE: Eugene District

TRACKING NUMBER: DOI-BLM-OR-E000-2014-0001-DNA

CASEFILE/PROJECT NUMBER: n/a

PROJECT NAME: Travis Tyrrell Seed Orchard CY14 Integrated Pest Management Program

LOCATION/LEGAL DESCRIPTION: Tyrrell Seed Orchard; T.20S., R.5W., Sections 9, 15, 21

APPLICANT: n/a

A. Description of Proposed Action and any applicable mitigation measures

The proposed action is to implement integrated pest management (IPM) activities within the 832.5-acre seed orchard boundary in calendar year 2014. The proposed action includes items such as insecticide and herbicide applications, planting, tilling, pruning, dead and dying tree removal, pile burning, stump grinding, mowing, fertilization, thinning, and cone collection.

Mitigation measures for this project were developed during analysis of the Final Environmental Impact Statement, Integrated Pest Management, Travis Tyrrell Seed Orchard, Lorane, Lane County, Oregon; June 2005 (IPM EIS) to address predicted risks, respond to scoping concerns, and provide additional environmental protection. These mitigation measures identified include the terms and conditions specified by the National Marine Fisheries Service (NMFS) during Endangered Species Act (ESA, 16 U.S.C. §1531 et seq.) consultations; these requirements are inherent in the Selected Alternative (IPM EIS, pp. 2-15 to 2-26).

Protection measures (Best Management Practices), including those for water quality protection under the Clean Water Act (33 U.S.C. §1251 et seq.), will be implemented during any use of chemicals (IPM EIS, pp. 2-12 to 2-15). The only mitigation measure associated with the Selected Alternative addresses the potential for sublethal effects to special status species from maximum scenario applications of pyrethroid insecticides (esfenvalerate). The proposed application of esfenvalerate in 2014 falls within the typical application scenario and not the maximum application scenario (IPM EIS, pp. 2-38 to 2-46). Further information on the proposed treatments, limitations, and protection measures is contained within the CY 2014 Tyrrell Tree Seed Orchard Operations Plan, to which this analysis is tiered.

B. Land Use Plan (LUP) Conformance

LUP Name: Eugene District Record of Decision and Resource Management Plan (RMP), as amended. Date Approved: June 1995.

The proposed action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decisions:

The Eugene District Record of Decision and Resource Management Plan calls for providing improved planting stock on a portion of harvested acres. It also directs seed orchards to be maintained and managed to produce seed as needed for ecosystem management projects (p.263).

C. Identify applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.

- Record of Decision, Integrated Pest Management, Travis Tyrrell Seed Orchard, Lorane, Lane County, Oregon; February 2006
- Final Environmental Impact Statement, Integrated Pest Management, Travis Tyrrell Seed Orchard, Lorane, Lane County, Oregon; June 2005 (IPM EIS)
- EA-02-015, Travis Tyrrell Seed Orchard Insect Control. Decision Record, December 20, 2002
- EA-03-018, Travis Tyrrell Seed Orchard Insect Control. Decision Record, October 9, 2003
- EA-04-017, Travis Tyrrell Seed Orchard Insect Control. Decision Record, February 3, 2005
- OR099-DNA-06-03, Travis Tyrrell Seed Orchard Insect Control. Decision Record, January 6, 2006
- OR099-DNA-07-01, Travis Tyrrell Seed Orchard Insect Control and Other Integrated Pest Management Activities. Decision Record, January 5, 2007
- OR099-DNA-08-02, Travis Tyrrell Seed Orchard Insect Control and Other Integrated Pest Management Activities. Decision Record, January 11, 2008
- OR099-DNA-09-02, Travis Tyrrell Seed Orchard Insect Control and Other Integrated Pest Management Activities. Decision Record, December 3, 2008
- DOI-BLM-OR-E000-2010-0001-DNA, Travis Tyrrell Seed Orchard Calendar Year 2010 Integrated Pest Management Program. Decision Record, December 4, 2009
- DOI-BLM-OR-E000-2011-0001-DNA, Travis Tyrrell Seed Orchard Calendar Year 2011 Integrated Pest Management Program. Decision Record, January 10, 2011
- DOI-BLM-OR-E000-2012-0003-DNA, Travis Tyrrell Seed Orchard Calendar Year 2012 Integrated Pest Management Program. Decision Record, January 4, 2012
- DOI-BLM-OR-E000-2013-0001-DNA, Travis Tyrrell Seed Orchard Calendar Year 2013 Integrated Pest Management Program. Decision Record, December 12, 2012
- Seed Orchard Recycling – Orchard Establishment Categorical Exclusion DOI-BLM-OR-E000-2009-00012-CX; August 2009
- Seed Orchard General Operation Activities Categorical Exclusion DOI-BLM-OR-E000-2010-00015-CX; March 2010
- Seed Orchard General Operation Activities Categorical Exclusion DOI-BLM-OR-E000-2011-00004-CX; February 2011
- Seed Orchard General Operation Activities Categorical Exclusion DOI-BLM-OR-E020-2012-CX; January 2012
- Seed Orchard General Operation Activities Categorical Exclusion DOI-BLM-OR-E020-2013-002-CX; January 2013
- 43 CFR 2300, Public Land Order 6662 (53 FR 1359)
- Right-of-Way Reservation OR-65215
- Risk Assessment of Pesticides and Fertilizers Proposed for Use at Travis Tyrrell Seed Orchard, March 18, 2002
- Programmatic Biological Assessment for Fiscal Years 2014/2017 Activities in the North Coast Province Which Might Disturb Spotted Owls or Marbled Murrelets
- USFWS Letter of Concurrence for Fiscal Years 2014/2017 Activities in the North Coast Province Which Might Disturb Spotted Owls or Marbled Murrelets (FWS Reference 01EOFW00-2013-I-0190)
- Biological Assessment, submitted to NMFS March 2, 2003, for Oregon Coast Coho salmon (proposed for ESA listing) and Essential Fish Habitat for Chinook and Coho salmon for the Proposed Integrated Pest Management Program at the Travis Tyrrell Seed Orchard
- NMFS Conference Opinion and Magnuson-Stevens Fishery Conservation and Management Act (MSA) essential fish habitat (EFH) consultation on the effects of the BLM's actions to carry out the Proposed Integrated Pest Management Program at the Travis Tyrell Seed Orchard, issued February 9, 2005 (as amended) (NMFS No. 2004/00213)
- NMFS Adoption of January 13, 2005 (amended February 9, 2005) Conference Opinion for the Integrated Pest Management Program at the Travis Tyrell Seed Orchard in Lane County, Oregon issued September 25, 2008 (NMFS No. 2008/02467)

- Request for reinitiation of formal consultation, submitted to NMFS August, 2009 for Oregon Coast Coho salmon (proposed for ESA listing) and Essential Fish Habitat for Chinook and Coho salmon for the Proposed Integrated Pest Management Program at the Travis Tyrrell Seed Orchard
- NMFS Letter of Concurrence, Endangered Species Act Section 7 Informal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Aerial Application of Esfenvalerate as Part of the IPM Program at Travis Tyrrell Seed Orchard, Lane County, Oregon; December 1, 2009 (as amended December 23, 2009)
- Endangered Species Act Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Conservation Recommendations for the IPM Program at Travis Tyrrell Seed Orchard, Lane County, Oregon; August 9, 2010 (as amended October 20, 2010)
- Tyrrell Seed Orchard Esfenvalerate Spray Project 2003 Water Quality Monitoring Report, November 2003
- Tyrrell Seed Orchard Esfenvalerate Spray 2005 Water Quality Monitoring Report, November 2005
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2006, November 2006
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2007, November 2007
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2008, November 2008
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2009, November 2009
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2010, November 2010
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2011, November 2011
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2012, November 2012
- Annual Tyrrell Seed Orchard Water Quality Monitoring Report, Water Year 2013, November 2013
- Order Amending Injunction of Herbicide Spraying on BLM Lands in Oregon, Case No. 83-cv-6272-AA, March 2011

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes. The IPM EIS for Tyrrell Seed Orchard considered each of the proposed orchard activities for 2014 (IPM EIS, pages 2-1 to 2-11). Proposed insecticide and herbicide treatments in 2014 were analyzed in the IPM EIS. Attachment 1 shows orchard units that were successfully sprayed in the past with esfenvalerate or treated with imidacloprid and projected 2014 insecticide and herbicide treatments. All pesticide and fertilizer use and other orchard activities would be confined to the area within the boundaries of Tyrrell Seed Orchard as was analyzed in the IPM EIS, Table 2.2-1.

Other orchard activities such as pruning, dead and dying tree removal, pile burning, stump grinding, mowing, fertilization, thinning and cone collection will be conducted in a manner similar to those discussed (IPM EIS, pages 2-2 to 2-11). Orchard recycling/orchard establishment activities such as removal of existing orchards, roguing, land clearing, tilling, site preparation, stump grinding, pile burning, and planting were recently reviewed (Orchard Recycling/Orchard Establishment CX, pages 1-3) as well as other general seed orchard activities such as cone collection and mowing (2014 Seed Orchard General Operation Activities CX, pages 1-4 and attachments).

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

Yes. The IPM EIS analyzed a range of alternatives given the purpose and need for the project. Five alternatives were analyzed (IPM EIS, pp:2-12 to 2-28):

1. Alternative A – Maximum Production IPM
2. Alternative B – IPM with Environmental Protection Emphasis (Selected Alternative)
3. Alternative C – Ground-Based IPM
4. Alternative D – Non-Pesticide IPM
5. Alternative E – No Action; Continue Current Management Approach

The IPM ROD selected Alternative B. An aerial application of esfenvalerate (about 44.6 acres) is proposed for insecticide treatment in 2014, about 55.8% of the typical scenario acres analyzed (IPM EIS, pages 2-39). If an aerial application is not feasible (e.g., no contractor bids), a ground application is an allowable alternative (111.5% of the typical scenario acres analyzed or 44.6% of the maximum acres analyzed, IPM EIS, pages 2-40). Imidacloprid is scheduled to be applied to about 15 acres in September 2014, about 100% of the typical scenario acres analyzed (IPM EIS, page 2-40). The herbicides dicamba, glyphosate and picloram may be applied to about 12 acres that include fence line, road prisms, fallow areas and upland buffers to control noxious weeds and unwanted vegetation, about 10% of the typical scenario acres analyzed, depending on the chemical used (IPM EIS, pages 2-42, 43, 44). Glyphosate may be applied to 30.1 acres of newly planted orchards to reduce grass competition to seedlings, about 25.1% of the typical scenario (IPM EIS, page 2-42).

None of the proposed cultural methods are beyond the scope of that which was analyzed (IPM EIS, pages 2-9 to 2-11; Seed Orchard General Operation Activities CX, pages 1-4). Examples include control of vegetation (mowing, tilling, use of mulch mats), control of insects and diseases (pruning, thinning, vacuuming duff and litter, stump grinding, dead tree removal), control of animal pests (pruning limbs at the base of trees to discourage vole damage, installing Vexar® tubes, etc.), or promotion of overall tree health, cone production and disease resistance (fertilization, thinning, cone stimulation). No new environmental concerns, interests, resource values, or circumstances have been identified since the IPM EIS was published in 2005 or the General Operation Activities CX in 2014 that would indicate a need for additional alternatives.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Yes. No new information or circumstances have arisen since the IPM EIS was published in 2005 or the General Operation Activities CX in 2011 that could affect the adequacy of the analysis. Water monitoring conducted following insecticide application in 2003, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, and 2013 documented that there were no detrimental effects to water quality or fish populations, as was predicted in part using the Groundwater Loading Effects of Agricultural Management System (GLEAMS) model.

NMFS issued a conference opinion on January 13, 2005, as amended on February 9, 2005, that identified conservation recommendations to protect essential fish habitat, and applicable terms and conditions should Coho salmon (*Oncorhynchus kisutch*) be listed. The terms and conditions and conservation recommendations of the February 9, 2005 conference opinion were incorporated into the selected alternative analyzed in the Final IPM EIS and the decision, and will take place regardless of the species ESA listing status. The BLM reinitiated consultation with NMFS when Oregon Coast (OC) Coho salmon was listed in 2008 and requested that the February 9, 2005, conference opinion be formally adopted as a biological opinion (BO). NMFS adopted the conference opinion on September 25, 2008; which expired February 9, 2010. In August of 2009, the BLM reinitiated consultation for a new five-year consultation with NMFS. On December 1, 2009, NMFS issued a letter of concurrence (LOC), as amended on December 23, 2009, for aerial application of insecticide esfenvalerate for which the terms and conditions are still in effect. On August 9, 2010, NMFS issued a BO, as amended October 20, 2010, that concluded

that the proposed action of implementing the IPM Plan would not likely jeopardize the continued existence of Oregon Coast Coho salmon nor adversely modify designated critical habitat.

The U.S. Fish and Wildlife Service issued a letter of concurrence for activities proposed during fiscal years 2014/2017 which might disturb Spotted Owls or Marbled Murrelets (FWS reference number 01EOFW00-2013-I-0190). Because of timing, distance to historic sites of listed species and activity type, it was determined that the proposed aerial applications "May Affect, but are Unlikely to Adversely Affect" the Spotted Owl and Marbled Murrelet due to disturbance from those activities.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes, there is no change in the direct or indirect impacts for the 2014 IPM program. Overall, the IPM EIS predicted no adverse impacts to air quality (IPM EIS, page 4-3), water resources (IPM EIS, page 4-10), non-target vegetation (IPM EIS, page 4-36), geology and soils (IPM EIS, page 4-5), land use (IPM EIS, page 4-11), noise (IPM EIS, page 4-38), cultural resources (IPM EIS, page 4-39), or socioeconomics and environmental justice (IPM EIS, page 4-40) from any of the alternatives. The IPM EIS analysis included typical effects that would be expected at the site-specific level, and identified limitations and protection measures (IPM EIS, pages 2-13 to 2-26) and mitigation measures (IPM EIS, pages 4-43 to 4-44) that would be implemented as needed depending on site-specific conditions.

The direct, indirect and cumulative effects that would result from implementing the new proposed action (aerial or ground application of esfenvalerate, systemic application of imidacloprid, and ground application of dicamba, glyphosate and picloram) are the same as the effects that were analyzed and described in the IPM EIS. Potential effects to surface and ground water is expected to be minimal to negligible. Protection measures, limitations, and mitigation measures are expected to minimize potential water quality impacts from runoff and spills. No impacts to aquatic species are expected under the proposed action. As described in the IPM EIS, a quantitative non-target species risk assessment was used to determine that no lethal or sublethal risks for aquatic species would occur under "typical" water runoff conditions, or any lethal risks under "maximum" water runoff conditions. Under "maximum" scenario runoff conditions, temporary and localized risks to fish species would occur from the use of fertilizers (under maximum application rates). As identified in the IPM EIS (Table 4. 7-3 *Risk-Responsive Limitations to Protect Ecological Resources under Alternative B*), the proposed action includes "risk-responsive limitations" to reduce or minimize these identified risks.

The impact to non-target insects may potentially be high in the spray units, but the overall effect to foraging birds and mammals, which might otherwise feed on these insects, is expected to be minor (IPM EIS, page 4-31).

The potential for imidacloprid to enter air, soil, or water is negligible using capsules or direct injection. Movement of the pesticide is restricted to the vascular system of the tree. Effects to non-target species are expected to be minimal (EA-03-018, page 4).

Cumulative effects considered in the IPM EIS included those from pesticide and fertilizer application on adjacent lands and in the watershed, as well as the risk to the public and workers involved with IPM (IPM EIS, p. 4-41).

Cumulative health risks from aerial application of esfenvalerate are well below those associated with hazard indices and cancer risks (Risk Assessment, pages 6-5 to 6-6; pages 6-33 to 6-36). The effect of human health by injecting encapsulated imidacloprid would be minimal (EA-03-018, page 4). The probability for esfenvalerate to reach streams would be low; potential stream concentrations would be below the amount likely to result in adverse effects to Coho salmon (EA-

03-018, page 5). The cumulative effects from ground applications of dicamba, glyphosate and picloram were also analyzed in the IPM EIS and are expected to be minimal when mitigation measures are followed (IPM EIS, page 4-41 to 42).

There is no indication that implementing the 2014 IPM program at Tyrrell would result in different direct, indirect or cumulative environmental effects than those anticipated in the IPM EIS.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Yes. The Tyrrell IPM EIS had numerous scoping-related activities between 1999 and 2002. In May, 1999, a scoping letter and fact sheet were mailed to 31 groups, businesses, local government agencies, and individuals, announcing that the BLM was seeking help identifying issues and concerns regarding IPM at Tyrrell. An open house was held at the seed orchard on June 8, 1999. In November 2001, orchard staff visited six adjacent landowners to obtain information on water use and identify any concerns with the proposed project. In June, 2003, the draft EIS was released for a 60-day comment period. A second mailing, advertising a public hearing and a revised EIS schedule, was sent to approximately 70 interested public and 15 agencies. Additionally, public notices were placed in three local newspapers, a newspaper article was printed, and a local television station aired and interview on the subject. The second open house was held on July 16, 2003 at the orchard, where BLM staff and resource specialists were present to solicit the public's comments and concerns regarding the project. In June 2005, a 30-day public review period began following the publication of notice of the availability of the Final EIS. Copies were sent to 16 state or government agencies, 22 public interest groups, 6 government officials, and 46 private individuals.

Formal conference with NMFS resulted in the issuance of a conference opinion on February 9, 2005, and adopted as a biological opinion on September 25, 2008, concluding that the selected alternative is not likely to jeopardize the continued existence of coho salmon that are proposed for listing under the Endangered Species Act, but may adversely affect essential fish habitat for Chinook and Coho salmon. The opinion specified reasonable and prudent measures, with associated terms and conditions, to protect the Coho salmon. The opinion also identified conservation recommendations to protect essential fish habitat. These terms and conditions and conservation recommendations were incorporated into the selected alternative analyzed in the Final EIS and the decision. In August of 2009, the BLM reinitiated consultation for a new five-year consultation with NMFS. On December 1, 2009, NMFS issued a letter of concurrence (LOC), as amended on December 23, 2009, for just aerial application of insecticide esfenvalerate for which the terms and conditions are still in effect. On August 9, 2010, NMFS issued a BO, as amended October 20, 2010, that concluded that the proposed action would not likely jeopardize the continued existence of Oregon Coast Coho salmon nor adversely modify designated critical habitat.

The U.S. Fish and Wildlife Service issued a letter of concurrence for activities proposed during fiscal years 2014/2017 which might disturb Spotted Owls or Marbled Murrelets (FWS reference number 01EOFW00-2013-I-0190). Because of timing, distance to historic sites of listed species and activity type, it was determined that the proposed aerial applications "May Affect, but are Unlikely to Adversely Affect" the Spotted Owl and Marbled Murrelet due to disturbance from those activities.

E. Persons/Agencies /BLM Staff Consulted

Name	Title	Resource	Agency Represented
Francisca Paulete	District Planner	NEPA	BLM
Dan Crannell	Wildlife Biologist	Wildlife	BLM
Brett Blundon	Fisheries Biologist	Fisheries & Water Quality	BLM
Molly Widmer	Botanist	Botany	BLM
Rudy Wiedenbeck	Soil Scientist	Soils	BLM
Mike Crawford	Orchard Program Manager	Seed Orchard	BLM

Conclusion

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitute BLM's compliance with the requirements of the NEPA.

Signature of Project Lead:

/s/ Larry Johnston Date: 1-29-2014
Larry Johnston, Orchardist

Signature of NEPA Coordinator:

/s/ Francisca Paulete Date: 1/27/14
Francisca Paulete, District Planner

Signature of the Responsible Official:

Michael J. Korn Date: 1/30/14
Michael J. Korn, Field Manager

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program specific regulations.

1790A
DNA-14-01
Tyrrell IPM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EUGENE DISTRICT OFFICE

DECISION RECORD

DOI-BLM-OR-E000-2014-0001-DNA
Travis Tyrrell Seed Orchard CY14 Integrated Pest Management Program

DECISION

It is my decision to implement this action as described in the Determination of NEPA Adequacy documentation DOI-BLM-OR-E000-2014-0001-DNA.

DECISION RATIONALE

The proposed action has been reviewed by BLM staff. The Proposed Action is in conformance with the 1995 Eugene District Record of Decision and Resource Management Plan (as amended). Based on the Determination of NEPA Adequacy, I have determined that the existing NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of the NEPA.

ADMINISTRATIVE REMEDIES

This forest management decision may be protested under 43 CFR 5003 - Administrative Remedies. In accordance with 43 CFR 5003.2, the decision for this project will not be subject to protest until the notice of decision is first published in the Eugene Register-Guard. This published notice of decision will constitute the decision document for the purpose of protests of this project (43 CFR 5003.2b). Protests of this decision must be filed with this office within fifteen (15) days after first publication of the notice of sale. As interpreted by BLM, the regulations do not authorize the acceptance of protests in any form other than a signed, written hard copy that is delivered to the physical address of the BLM Eugene District Office.

Signature of the Responsible Official:

/s/ Michael J. Korn
Michael J. Korn
Field Manager, Siuslaw Resource Area
Eugene District Office

1/30/14
Date:

Attachment 1. Insecticide and Herbicide Treatments by Application Year

Orchard Units or Other Areas at Tyrrell Seed Orchard	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	EA-02-015	EA-03-018	EA-04-017	DNA-06-03	DNA-07-01	DNA-08-02	DNA-09-02	001-DNA	001-DNA	003-DNA	001-DNA	001-DNA (Projected)
1.0 Generation Orchards (all Douglas-fir)												
Coquille 16		I		E		E		E		E		E
Coquille 17 High		I		E		E		E		E	I	E
Coquille 17 Low		I		E		E		E		E	I	E
Elkton											E	
Gold Beach 1&2		I		E		E		E		E	E	E
Gold Beach 3		I		E		E		E		E	E	E
Lorane		I			E		E		E		E	I
McKenzie High				I		E/I		E/I	I	E	I	E
McKenzie Low			E		E		E		E		E	
North Umpqua 1			E		E		E		E		E/I	I
North Umpqua 2			E		E		E		E		E	I
North Umpqua 3				I		E/I		E		E	E/I	E
North Umpqua 4&5				I		E/I		E		E	I	E
Noti	E		E		E		E/I		E		E	
Powers 1					E			E		E	I	E
Powers 2					E			E		E	I	E
Riddle 1&2					E		E/I	I	E		E	I
Riddle 3&4					E		E		E		E	
South Umpqua 1			E		E		E		E		E	
South Umpqua 2			E		E		I	I	E		E/I	I
South Umpqua 3&4				I		I		I	I		I	
Swisshome/Mapleton	E		E		E		E		E		E	
Tyee 1					E		E		E		E	
Tyee 2		I			E		E		E		E	
Wells Creek				I					I		E	
1.5 and 2.0 Generation Orchards (SP = sugar pine, DF = Douglas-fir)												
Siskiyou Mid-SP												G
Siskiyou Low-SP												G
Medford Hills-DF												G
Central Coast Low-DF											G	G
Central Coast High-DF												G
North Coast-DF												G
Siskiyou Low-DF												G
Elk Creek-DF												G
Other												
Multi-species							P					
Other Areas											G	D, G, Pi
Insecticides: E=esfenvalerate, I=imidacloprid, P=permethrin; **Herbicides:** D=dicamba, G=glyphosate, Pi= picloram												