

Oregon
Grower Assisted Inspection Program
Mitigation Manual for
Regulated
***Phytophthora* species**

This manual is for a fictitious nursery. The information for each GAIP manual will be unique and may or may not contain the information used in this manual.

Version: 1
Effective Date: [January/1/2008](#)
(Last updated: [June/11/2008](#))

ABC Nursery
123 Main Street
Anytown, Oregon 12345-6789
Oregon Grower Assisted Inspection Program
Mitigation Manual Status

Status Original Revision Cancelled	Document revision number	Effective date	Description of revisions made
Original	Original	1/1/08	N/A
Revision	1	2/27/08	CCP identified; new procurement process added
Revision	2	3/1/08	Roles and Responsibilities; staff completed and passed online course.
Revision	3	4/28/08	BCP added; neighbor planted multiple <i>Rhododendron spp.</i> in landscape.
Revision	4	6/11/08	Roles and Responsibilities; new Plant Health Care Supervisor

ABC Nursery
Oregon Grower Assisted Inspection Program
Cooperative Agreement

- I. This Cooperative Agreement, by and between the Oregon Department of Agriculture (“Department”) and ABC Nursery (“Cooperator”), specifies the terms and conditions that must be met by the Cooperator to participate in the Oregon Grower Assisted Inspection Program (GAIP) administered by the Department. Except as provided herein, this agreement will supersede any prior agreement or understanding that the Department and the Cooperator have had regarding the subject matter herein.
- II. Incorporated documents: The Cooperator understands and agrees that this cooperative agreement consists not only of this document (including the mitigation manual), but includes and incorporates references to the following laws, rules, and statutes.
 - a. ORS 570.105 through 570.200
 - b. ORS 570.305 through 570.375
- III. This agreement shall become effective on the date all necessary signatures have been obtained and will terminate five (5) years from said date. The agreement may be renewed at this time. This agreement may be terminated at any time by mutual consent and upon receiving 30-days written notice. The Department may terminate this agreement in whole or in part upon notice to the Cooperator if any of the following should occur:
 - a. The Department fails to receive sufficient funding, appropriations, or expenditure limitations for the GAIP to continue.
 - b. Federal or State laws or regulations are modified or interpreted in such a way that law prohibits the work outlined in this agreement.
 - c. The Department determines the Cooperator is not in compliance with the practices and procedures outlined in the Cooperator’s mitigation manual or has failed to take the corrective actions necessary to remain in compliance.
 - i. Major non-compliance issues: The Department has identified three critical control points (CCP) that must be addressed within the Cooperator’s mitigation manual: irrigation water, soil and potting media, and incoming plant material. These CCPs have been identified as the greatest risk for introducing or spreading regulated *Phytophthora* species in nurseries. Non-compliance with a best cultural practice or standard operating procedure that addresses any or all of these CCPs will result in a major violation and immediate suspension of the nursery from the GAIP. Should the nursery take corrective action(s) that successfully addresses the issue(s) of non-compliance, the nursery may be reinstated into the GAIP at the Department’s discretion.

- ii. Minor non-compliance issues: The Department will issue a letter of warning for minor issues of non-compliance.
 - 1. First offense: The nursery will be given the opportunity to correct the non-compliance and then be subject to a follow-up audit.
 - 2. Second offense; The nursery will be issued a Final Warning, notifying them that their participation in GAIP will be held in abeyance until the non-compliance has been corrected.
 - 3. Third offense: The nursery will be officially suspended from the GAIP. Should the nursery take corrective action(s) that successfully addresses the issue(s) of non-compliance, the nursery may be reinstated into the GAIP at the Department's discretion.

IV. This agreement constitutes the entire agreement between the Department and the Cooperator regarding participation in the GAIP. The Cooperator by the signature below of its authorized representative hereby acknowledges that he/she has read this agreement, understands it, and agrees to be bound by its terms and conditions. Furthermore, the person signing the agreement warrants and represents that he/she has the full right, power, and authority to execute this agreement on behalf of ABC Nursery.

V. Signatures:

ABC Nursery:

Oregon Department of Agriculture:

John Smith

Melissa Lujan

Signature

Signature

JOHN SMITH

Melissa Lujan

Print Name

Print Name

ABC Nursery Manager

GAIP Nursery Auditor

Title

Title

January 8, 2008

January 8, 2008

Date

Date

ABC Nursery
Statement of Commitment

- I. **ABC Nursery** acknowledges that we are signing a Cooperative Agreement with the Oregon Department of Agriculture indicating our commitment to participating in the Oregon Grower Assisted Inspection Program (GAIP).
- II. We agree to develop and annually review this document hereinafter referred to as our GAIP mitigation manual, and make any appropriate changes. In the event of any production or procurement process changes, personnel changes affecting responsible parties, best cultural practice (BCP) or standard operating procedure (SOP) changes, or any other change affecting the GAIP mitigation manual requirements we agree to revise our manual as needed to keep it current.
- III. We are committed to using BCPs or SOPs to meet the Oregon nursery industry's three goals for GAIP.
 - a. Prevent the introduction and spread of regulated *Phytophthora* species on *Rhododendron* and *Camellia* plants.
 - b. Meet or exceed USDA Animal and Plant Health Inspection Service (APHIS) standards for shipping *Rhododendron* and *Camellia* plants potentially infected with regulated *Phytophthora* species.
 - c. Assure that exported *Rhododendron* and *Camellia* plants are essentially free from non-regulated aerial *Phytophthora* species.
- IV. We agree to have at least one staff member complete the Oregon State University *Phytophthora* online course (<http://ecampus.oregonstate.edu/phytophthora>) and receive a certificate of mastery. We agree to complete this task before or at the signing of this document.
- V. **ABC Nursery** agrees to keep records for auditing purposes that include exact values whenever possible for each BCP, or SOP described in the mitigation manual. These records will be kept for at least 24-months.
- VI. We agree to correct any deviations from the BCPs and SOPs described in our GAIP mitigation manual. If we are found to not be in compliance with the mitigation manual, we understand a notice of non-compliance will be issued and, depending upon the severity of the non-compliance, our participation in the GAIP may be put in abeyance or suspended until the non-conformity is corrected.

- VII. [ABC Nursery](#) understands that the specific information in our GAIP mitigation manual is considered confidential and will not be shared with any other affiliation except for the Oregon Department of Agriculture. Any other distribution of our GAIP mitigation manual to a third party will be at the discretion of ABC Nursery.
- VIII. We understand that we may terminate our participation in the Oregon GAIP at any time. In order to terminate this agreement, written notice must be given to the Oregon Department of Agriculture.
Attention: State Plant Regulatory Officer
635 Capitol St NE
Salem, OR 97301-2532
- IX. We at [ABC Nursery](#) understand that our GAIP mitigation manual is subject to annual review by the Oregon Department of Agriculture and other experts to ensure the BCPs and SOPs described in the manual mitigate the risk of introducing or spreading regulated *Phytophthora* species such as the federally quarantined pest *P. ramorum* on *Rhododendron* and *Camellia* nursery stock.

ABC Nursery

Roles and Responsibilities

- I. **ABC Nursery** staff involved with the development and implementation of the BCPs and SOPs described in our GAIP mitigation manual.
- a. Nursery Manager - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Oversees all documentation and issues relating to BCPs and SOPs.
Ensures sources of plant material are from certified nurseries.
Reviews all shipping manifests for HAP.
 - b. Nursery Manager - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Coordinator of staff training, and certification for *Phytophthora*.
Documents all training. Revises mitigation manual as changes occur. Designs nursery layout with irrigation manager.
 - c. Propagation Coordinator - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Supervises all propagation procedures. Orders and controls inventory for all chemicals and bio-security supplies relating to *Phytophthora*. Disease scouting.
 - d. Propagation Lead - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Ensures proper sanitation procedures are followed in propagation area. Monitors footbath stations. Disease scouting.
 - e. Production Coordinator - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Supervises all production procedures. Coordinates staff training on proper sanitation practices. Keeps container storage area clean. Orders new pots, trays, and flats and coordinates sanitation of used containers.
 - f. Production Lead - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Ensures proper sanitation procedures are followed in production area. Orders potting media. Keeps media storage areas clean. Enforces bio-security in production area. Organizes cull pile location and burns.
 - g. Irrigation Manager - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Scouts for water needs and schedules irrigation. Plans nursery layout with management. Checks chemical levels in recycling ponds. Oversees drain and pipe maintenance.
 - h. Lead Spray Technician - ABC Nursery, Anytown, OR 12345-6789.

Ensures that no fungicides are applied on incoming HAP for 60 days. Coordinates weed control program. Works with Plant Health Care Supervisor for any applications.

- i. Plant Health Care Supervisor - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Scouts nursery beds and property perimeter for signs and symptoms of disease. Assigns weekly duties. Works with Lead Spray Technician for any applications.
- j. Loading Dock Supervisor - ABC Nursery, 123 Main Street, Anytown, OR 12345-6789.
Monitors deliveries and scouts for disease symptoms on HAP. Ensures loading area is clean. Checks delivery vehicles for cleanliness.

See appendix I

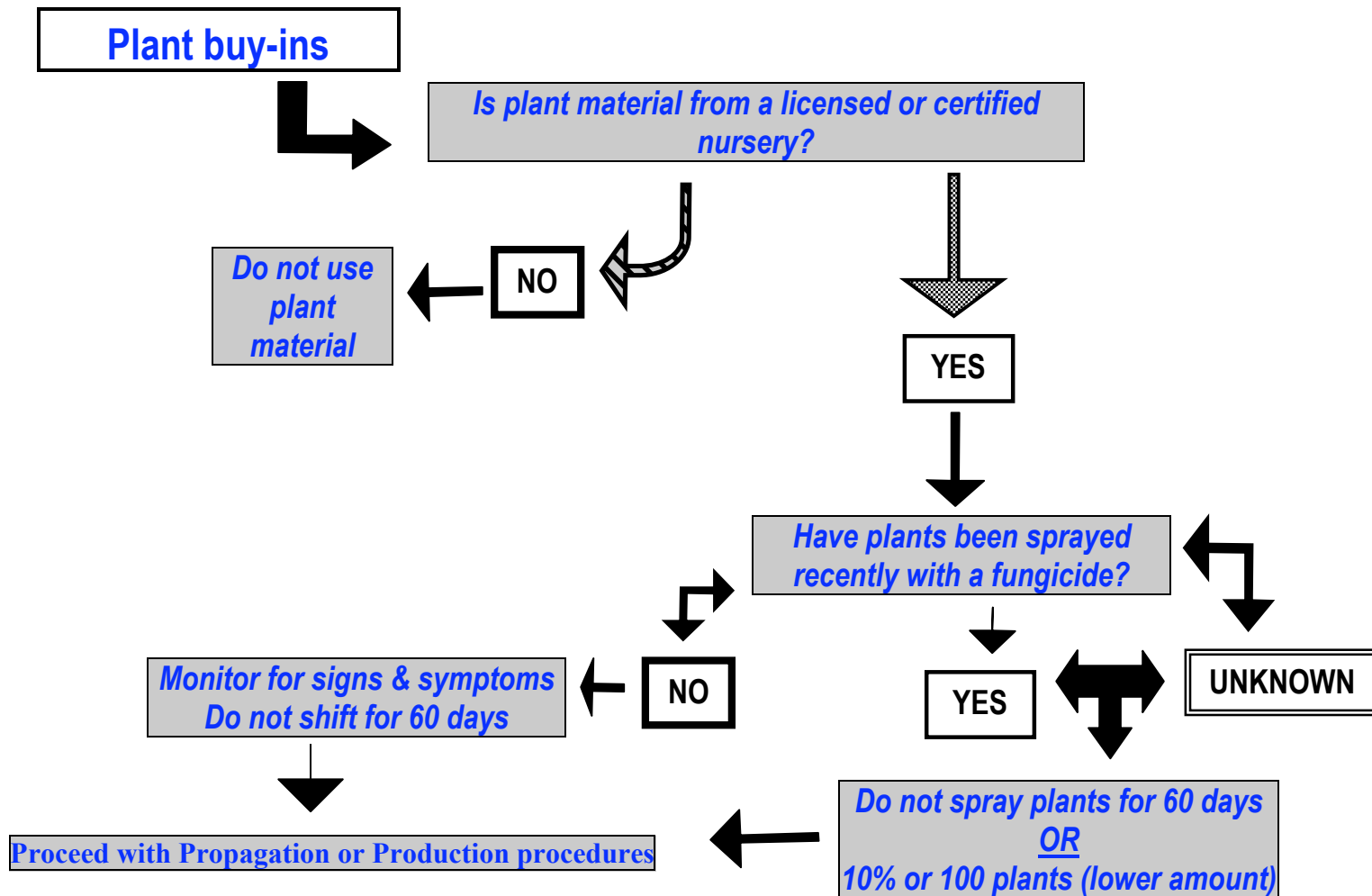
- II. Oregon Department of Agriculture staff involved with oversight and administration of the GAIP.
 - a. Nursery and Christmas tree Program Manager, Oregon Department of Agriculture - Plant Division, 635 Capitol St NE, Salem, OR 97301-2532.
Provides administrative oversight for the GAIP program.
 - b. Plant Health Program Supervisor, Oregon Department of Agriculture – Commodity Inspection Division, 635 Capitol St NE, Salem, OR 97301-2532
Provides official testing for regulated *Phytophthora* species and State expertise on plant health issues.
 - c. Nursery Auditor, Oregon Department of Agriculture - Plant Division, 635 Capitol St NE, Salem, OR 97301-2532.
Provides assistance for the GAIP to nurseries, oversees program.

ABC Nursery
Critical Control Points in Procurement and Production Processes

- I. Procurement process for *Rhododendron* and *Camellia* nursery stock.**
- a. *Written description and flow diagram*
- Are plants from a certified or licensed nursery?
 - If the nursery is not certified or licensed, do not accept plant material.
 - Ensure loading dock has been cleaned of all old plant debris before unloading/loading orders.
 - When truck driver is checking in, examine vehicle undercarriage and tires for cleanliness.
 - After unloading/loading is complete, clean area of all debris and properly dispose of.
 - Look for any signs and symptoms of *Phytophthora* on plant material.
 - Do not accept any plants that look questionable.
 - If information is available, see when the crop was last sprayed with a fungicide. Keep plants quarantined 60 days from last spray. If this information is unavailable:
 - Keep the plants quarantined until 60 days has passed
 - OR
 - Quarantine 10% or 100 plants (lower amount) and monitor for signs and symptoms.
 - Do not commingle new plants with old plant material.
 - Do not unload any returned plant material without consulting with management first.

(Flowchart)

The following is an example flow chart stating procedures to follow when high-risk plant material is received from another nursery. Nurseries may have several flow charts for other areas such as production or propagation.



b. Critical Control Points (CCPs)

Procurement

1. Plant material from different nurseries
2. Customers and delivery trucks visiting nursery property
3. Potting media storage area
4. Loading dock
5. Recycled irrigation water

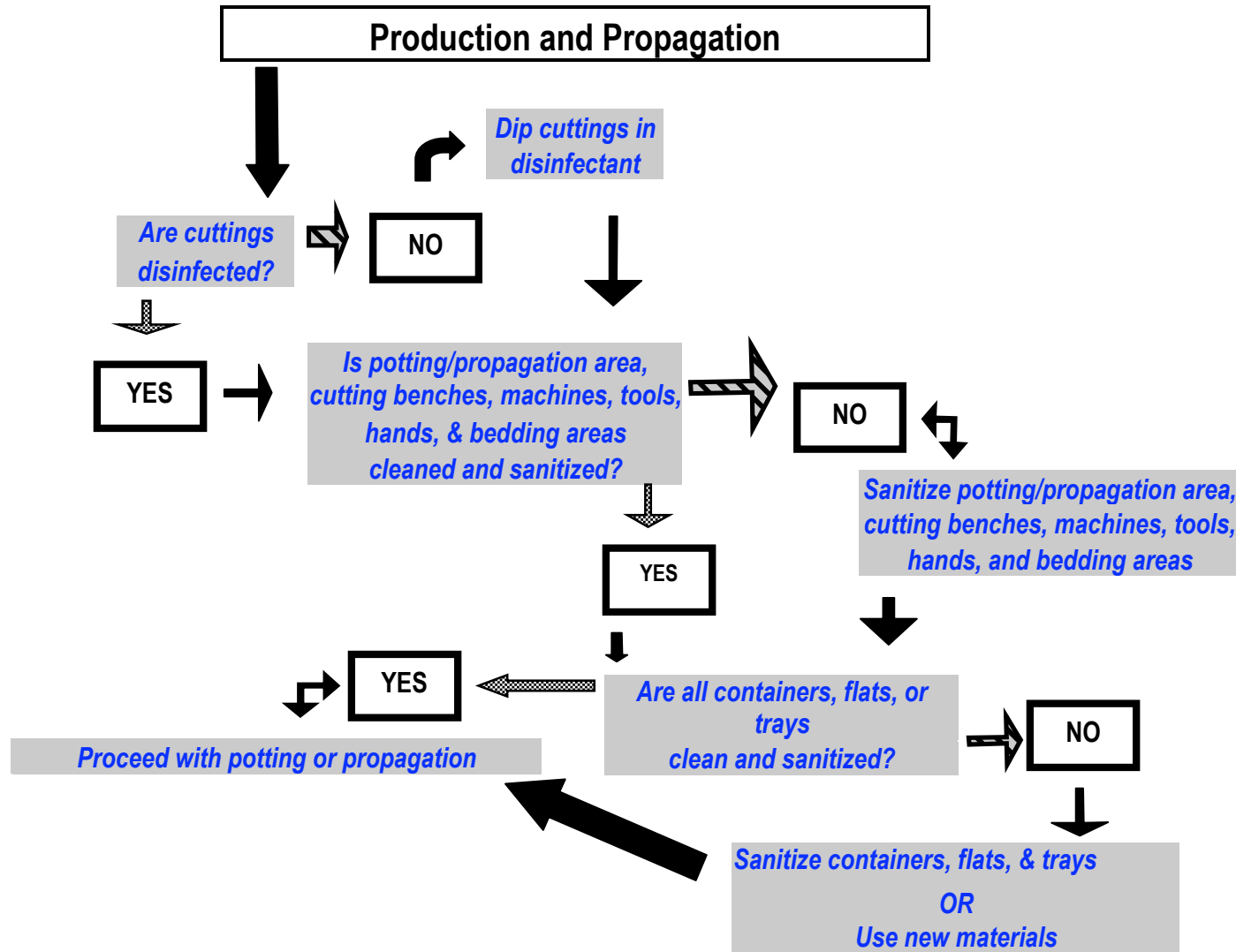
c. Potential pathways

7. Footwear, clothing, and hands
8. Vehicles visiting nursery property
9. Shipping container contents
10. Nursery equipment, pallets, benches, beds, and tools
11. Overhead irrigation
12. Standing water in greenhouse gutters

II. Production processes (including propagation) for *Rhododendron* and *Camellia* nursery stock.

a. *Written description and flow diagram*

- Was procurement process followed?
 - Do not continue if procurement procedures were not followed.
- **Propagation** - dip cuttings in proper disinfectant.
- Make sure the potting area, machinery, farm equipment, tools, bedding areas, benches, boots, and hands have been cleaned before shifting/propagation begins.
- Do not use old containers unless they have been properly cleaned and sanitized. If the containers are not sanitized, use only new containers on HAP.
- Proceed with canning/propagation.
- When complete, clean up entire area.



b. Critical Control Points (CCPs)

Production and Propagation

1. Plant material from different nurseries
2. Customers and delivery trucks visiting nursery property
3. Potting media storage area
4. Loading dock
5. Recycled irrigation water
6. Irrigation runoff areas

c. Potential Pathways

8. Footwear, clothing, and hands
9. Vehicles visiting nursery property
10. Shipping container contents
11. Nursery equipment, pallets, benches, beds, and tools
12. Overhead irrigation
13. Standing water in nursery beds
14. HAP in surrounding landscape

ABC Nursery

Best Cultural Practices and Standard Operating Procedures

Potential pathway: Contamination from footwear, clothing, and hands.

- a. Before entering propagation areas, footwear must be brushed to loosen debris and properly sanitized in footbaths.
- b. Any clothing containing soil and plant debris needs to be changed, or properly sanitized.
- c. Wash hands, and sanitize as often is required.
- d. SOP Monitoring:
 1. A daily logbook will be used to document sanitation practices. The logbook will record the date, time, and staff member testing and replenishing footbath stations. Supervisor on duty will record all bio-security practices for staff and visitors.
 2. The nursery will review the logbook every Friday. Should the logbook show non-compliance with the SOP, the nursery will retrain staff members on proper sanitation practices. This retraining will be recorded in logbook.

Potential pathway: Loading dock area.

- a. Loading dock will be cleaned of all debris before and after deliveries.
- b. All debris will be collected, bagged, and delivered to cull pile for burning.
- c. All delivery vehicles will be visually inspected before approaching loading dock area. Clean undercarriage if dirty.
- d. SOP Monitoring:
 1. A logbook will be used to monitor incoming/outgoing plant material. The date, time, and any vehicle cleaning will be included. Any material taken to cull pile will be documented.
 2. The nursery will review the logbook at the beginning of each month. Should there be any non-compliance with the SOP, the nursery will retrain staff members on proper loading area procedures. This retraining will be recorded in logbook.

Potential pathway: Overhead irrigation

- a. HAP is organized by similar water needs.
- b. HAP will be watered early in the day to minimize the time leaves are wet.
- c. Proper spacing will be followed for maximum airflow.
- d. Monitor weather to avoid over watering.
- e. SOP Monitoring:

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1. A notebook will be kept that will include weather reports, irrigation schedules, and nursery layout.
2. Irrigation schedules will be made on Mondays; any changes throughout the week will be documented and explained by Friday.
3. Notebook will be reviewed in monthly management meetings. Any deviations from irrigation schedule will be reviewed. If necessary retraining may be necessary. Nursery layout will also be reviewed at this time.

Appendix I

Roles and Responsibilities

- | | | |
|-------|---------------|---|
| I (a) | John Smith | <i>Phytophthora</i> course passed January 1, 2008 |
| (b) | Jane Smith | <i>Phytophthora</i> course passed January 1, 2008 |
| (c) | Ann Williams | <i>Phytophthora</i> course passed January 1, 2008 |
| (d) | Jason Miller | <i>Phytophthora</i> course passed January 1, 2008 |
| (e) | Michael Jones | <i>Phytophthora</i> course passed January 1, 2008 |
| (f) | Mary Black | <i>Phytophthora</i> course passed March 1, 2008 |
| (g) | Bill Johnson | |
| (h) | Bob White | |
| (i) | Amy Larson | <i>Phytophthora</i> course passed June 5, 2008 |
| (k) | Sam Brown | |