Chapter 16-319 WAC
FOREST TREE SEED CERTIFICATION

WAC
16-319-001 Promulgation. [Order 1028, Promulgation, filed 8/4/66, effective 9/4/66.] Repealed by WSR 05-05-051, filed 2/14/05, effective 3/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

16-319-002 Promulgation. [Order 1089, § 16-319-002, filed 6/4/68; Order 1044, Promulgation, filed 4/14/67, effective 5/15/67; Order 1030, filed 8/19/66, effective 9/19/66.] Repealed by WSR 05-05-051, filed 2/14/05, effective 3/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

16-319-003 Promulgation. [Order 1151, § 16-319-003, filed 4/16/70.] Repealed by WSR 05-05-051, filed 2/14/05, effective 5/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

16-319-004 Promulgation. [Order 1189, § 16-319-004, filed 4/16/71.] Repealed by WSR 05-05-051, filed 2/14/05, effective 3/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

16-319-006 Promulgation. [Order 1247, § 16-319-006, filed 4/13/72.] Repealed by WSR 05-05-051, filed 2/14/05, effective 3/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

16-319-007 Promulgation. [Order 1369, § 16-319-007, filed 6/12/74.] Repealed by WSR 05-05-051, filed 2/14/05, effective 3/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

16-319-008 Basis for refusal to inspect. [Order 1089, § 16-319-008, filed 6/4/68; Order 1044, Regulation 7, filed 4/14/67, effective 5/15/67; Order 1030, Regulation 8, filed 8/19/66, effective 9/19/66.] Repealed by Order 1151, filed 4/16/70.

16-319-009 Basis for refusal to inspect. [Order 1151, § 16-319-009, filed 4/16/70.] Repealed by WSR 05-05-051, filed 2/14/05, effective 3/17/05. Statutory Authority: RCW 15.49.310, 15.49.370(3) and chapter 34.05 RCW.

WAC 16-319-010 Forest tree seed certification—Certifying agency. The Washington State Crop Improvement Association is designated to act as the authorized agent of the director of agriculture for the purpose of assisting in certifying forest tree seeds and shall perform such duties as the director may assign as provided in chapter 15.49 RCW, specifically RCW 15.49.370(3).

[Statutory Authority: RCW 15.49.310 and chapter 34.05 RCW. WSR 14-10-047, § 16-319-010, filed 5/1/14, effective 6/1/14; Order 1028, Regulation 1, filed 8/4/66, effective 9/4/66.]

WAC 16-319-020 Forest reproductive material certification standards—Purpose and definitions. (1) Purpose. The purpose of certification of forest reproductive material is to make available reproductive material properly identified by species or species and cultivar, and by source or source and origin.

(2) Definitions:
(a) "Applicant" means the person or organization who submits application for certification of forest reproductive material to certifying agency and who assumes responsibility for compliance with these standards.
(b) "Audit" means periodic examination and check by certifying agency of any part or all of the records and procedures specified in field standards and conditioning standards, and of additional records pertinent to inventory and distribution of reproductive material including verification of corresponding physical inventory to assure that no significant errors or omissions exist.
(c) "Batch" means all or part of a lot of reproductive material of a single species collected during one crop season from within stated breeding zone(s) or from within stated five

(5/14)
Forest Tree Seed Certification

hundred foot elevation increment(s) in stated seed zone(s) that is collected or processed at one time.

(d) "Breeding zone" means a specific designated unit of land, the description of which is on file at the certifying agency, for which an improved population of trees of a specific species or species cross is being produced.

(e) "Buyer" means person who first receives reproductive material from the producer.

(f) "Certificate of genetic identity" means a document furnished by the producer on demand and verified by the certifying agency describing the ancestry and breeding behavior of a lot of reproductive material.

(g) "Certification of reproductive material" means execution by certifying agency of field inspection, plant/warehouse inspection and/or audit to accomplish the purpose described in subsection (1) of this section.

(h) "Certifying agency" means the designated agent of the state agency: In Washington state, the designated agent is the Washington State Crop Improvement Association.

(i) "Certificate of provenance" means a document issued by certifying agency which verifies source and origin of reproductive material by field inspection and audit. (Only certificates of provenance are issued to satisfy O.E.C.D.)

(j) "Character" means a distinctive trait, but not necessarily an invariable feature, exhibited by all individuals of a group and capable of being described or measured: E.g., growth; form; color; resistance to disease, insects, weather, animals, etc.

(k) "Code" means a unique identification of a group of the producer's pertinent records about a lot of forest reproductive material.

(l) "Collector" means a person who collects forest reproductive material at its source.

(m) "Elevation" means altitude above sea level and is divided in five hundred foot increments as shown below, or may mean appropriate elevational bands as provided for under code or breeding zone.

<table>
<thead>
<tr>
<th>Elevation</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 500 feet</td>
<td>Code 05</td>
</tr>
<tr>
<td>501 - 1000 feet</td>
<td>Code 10</td>
</tr>
<tr>
<td>1001 - 1500 feet</td>
<td>Code 15</td>
</tr>
<tr>
<td>1501 - 2000 feet</td>
<td>Code 20</td>
</tr>
<tr>
<td>2001 - 2500 feet</td>
<td>Code 25</td>
</tr>
</tbody>
</table>

and so forth.

(n) "Field" inspection means observation by certifying agency of all activities and records involved in propagation, collection, buying, production, and transportation of forest reproductive material to assure compliance with field standards.

(o) "Forest reproductive material" means plant material of genera and species of trees which will be used for forestry.

(p) "Genetic identity" means the ancestry and breeding background of selected and tested classes only of the forest reproductive material.

(q) "Genetic superiority" means that forest reproductive material originated from tree(s) whose superiority in one or more characters important to forestry has been proven by tests conducted in specified environments.

(r) "Location" means description by seed zone or portion thereof and elevation and/or breeding zone or code.

(s) "Legal description" means legal cadastral survey subdivision.

(t) "Lot" means a homogeneous quantity of forest reproductive material.

(u) "Origin" means the location of the indigenous parents; for nonindigenous parents, it is the location from which the seed or plants were originally introduced.

(v) "Provenance" means the original geographic source of seed, pollen or propagules.

(w) "Reproductive material" means seed, pollen, trees, cuttings, scions, etc., originating from forest trees.

(x) "Seed zone" means a geographic area delineated on western forest tree seed council's seed zone map published July 1973, or similarly authoritative maps of seed zones as approved by certifying agency.

(y) "Test" means evaluation of parents by comparing the performance of their offspring under more controlled conditions that exist for the parent(s) or other applicable tests which evaluate specific characteristic(s) of the parents or the offspring.

(z) "Unit of measure" means a consistent volume of measure, i.e., bushels, pounds, grams, number, cubic centimeters, etc.

[Statutory Authority: RCW 15.49.310 and chapter 34.05 RCW. WSR 14-10-047, § 16-319-020, filed 5/1/14, effective 6/1/14. Statutory Authority: Chapter 15.49 RCW. WSR 87-12-006 (Order 1930), § 16-319-020, filed 5/22/87; WSR 84-13-079 (Order 1834), § 16-319-020, filed 6/21/84; WSR 80-10-001 (Order 1704), § 16-319-020, filed 7/24/80; WSR 79-05-070 (Order 1625), § 16-319-020, filed 4/30/79; Order 1506, § 16-319-020, filed 4/11/77; Order 1369, § 16-319-020, filed 6/12/74; Order 1151, § 16-319-020, filed 4/16/70; Order 1089, § 16-319-020, filed 6/4/68; Order 1044, Regulation 1-5, filed 4/14/67, effective 5/5/67; Order 1030, filed 8/19/66, effective 9/19/66.]

WAC 16-319-030 Classes of reproductive material.

(1) "Tested class" means that forest reproductive material came from tree(s) which have been tested for specific character(s) as determined by progeny or other applicable tests and under specified conditions. Further, such forest reproductive material is produced and processed in a manner assuring
and certifying agency know reproductive material is identified as collected from within a seed zone(s) or described portions thereof and from within 500-foot elevation increment(s), and, for nursery stock, certifying agency knows that it was produced from audit class or better reproductive material. Containers of said reproductive material shall carry a serially numbered brown and white label stating "audit certificate." All records of the applicant for this class of reproductive material are subject to audit.

**WAC 16-319-041 Application for certification of forest reproductive material.** (1) The conditions of applicant's submittal and of certifying agency's acceptance of application are:

(a) The application should show all classes for which certification services are requested.

(b) All reproductive material acquired or distributed by applicant of a type for which certification is requested is subject to audit.

(c) Applicant shall be responsible for payment of fees for certification services.

(d) Applicant is responsible for developing a record keeping system and labels available and satisfactory to the certifying agency.

(e) Certifying agency reserves the right to refuse certification service to applicant.

(f) Application for audit certification reproductive material shall be filed with the certifying agency.

(2) Timing of application requests for certification services:

(a) Application requests for source identified subclass B and lower classes for the current year's production of reproductive material shall be received by certifying agency from applicant not later than three days prior to initiation of collection, production, or propagation of forest reproductive material.

(b) For source identified subclass A and higher certification class, the applicant shall make application for service, and present a written plan to the certifying agency two weeks prior to the beginning of the collection season. The written plan will include the following:

(i) For subzone collection, areas shall be defined by legal description.

(ii) Details of the collection organization including names of buyers and field supervisors, estimated harvest volume, receiving station location(s), and other pertinent information.

(c) Application requests for all other services shall be received by certifying agency from applicant not later than seven days before need.

(3) The certifying agency establishes the fee schedule for certification services. These may be adjusted at the beginning of a crop year if certifying agency determines that costs are significantly more or less than anticipated: Provided, That increases shall not exceed twenty-five percent.
(a) Cones and seed:
   (i) Tested and selected - The service includes review of test plans, audit of pertinent records and field inspection at the hourly job time rate shown in current fee schedule.
   (ii) Source identified classes - The fee includes field inspection at the per bushel rate shown in the current fee schedule and audit of conditioning at the hourly rate also shown in the current fee schedule.

The fee for each lot containing less than sixty bushels shall be a maximum of thirty-six dollars: Provided, That the certifying agency, due to specific circumstances, may waive this maximum fee or a part thereof.

   (iii) Audit class - The fee includes audit of applicant's field and conditioning records at the hourly rate shown in the current fee schedule.

   (b) Trees: The fee includes the verification of the source of the trees from the seed source, stratification, sowing, bed identification, lifting, sorting, package identification, storing and/or transplanting.

   (c) Not entered for certification: The fee for audit of reproductive material not entered for certification service is performed as required by and satisfactory to certifying agency to exercise said audit simultaneously with audit of reproductive material which applicant has requested certification service.

   (d) The fee for certification classes applied for shall be charged whether or not offered material qualifies.

   (e) The certifying agency may provide other services, such as training to comply with these standards, advising on the development of recordkeeping systems directly connected with certification needs if requested by the applicant.

(4) Fee schedule:
   (a) Tree cones and seed -

<table>
<thead>
<tr>
<th>Certification Classes</th>
<th>Field Inspection Fee</th>
<th>Audit Fee</th>
<th>Due When billed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tested and Selected</td>
<td>$27.00/ hr.</td>
<td>$27.00/ hr.</td>
<td>Billed</td>
</tr>
</tbody>
</table>

Source Identified Classes:
   - Lots 11 bu. and more: $0.90/bu.
   - Lots 6-10 bu.: $23.00/lot
   - Lots 0-5 bu.: $13.00/lot

Audit:
   - None: $27.00/ hr.

   (b) Tree certification - $27.00/ hr.

   (c) Other services including education to comply with the standards, development of record system, verification of source of pollen, cuttings, audit of forest reproductive material not offered for certification by applicant or other services requested, etc. at $27.00/ hr. payable when billed.

   (d) OECD certification (certificates of provenance) - 0.60 per certificate plus the hourly audit rate. (Auditors shall issue certificates.)

**WAC 16-319-051 Forest reproductive material—Field standards.** (1) Tested and selected classes. Applicant shall maintain continuous record(s) satisfactory to certifying agency which maintains the identity of the reproductive material through all stages of production, collection, processing, storage, and disbursement from stores, and, in addition, such records as needed to trace the pedigree and document the performance of the reproductive material. The records shall include but are not limited to those involving:

   (a) Selection, location, and origin of the parent trees.
   (b) Pollen, seed, scions, etc., collection, processing, inventory, storage, and use in tree improvement and breeding programs.
   (c) Design, establishment and management of test(s) and the collection, analysis and interpretation of test data.
   (d) Nursery stock production.

   Certifying agency shall inspect all phases of the field operation including periodic checks of parent trees, pollen and scion collections; pollinations; cone harvest, storage, processing and inventory; and tests, together with appropriate records.

(2) Source identified reproductive material. Applicant shall develop and make correct use of collector and buyer labels, collector registration, and transportation records, and for nursery stock, labels and records identifying the stock as originating from source identified or better reproductive material.

   (a) Subclass A.
   (i) Control of collectors shall be such that applicant and certifying agency personally know beyond a reasonable doubt the seed zone or breeding zone or code or portions thereof (as delineated by legal description), and 500-foot elevation increment or specified elevation increment for breeding zone(s) or code(s) within which reproductive material was collected. Control of producers of nursery stock shall be such that applicant and certifying agency personally know beyond a reasonable doubt that the nursery stock was produced from source identified subclass A or better reproductive material.
   (ii) Applicant shall provide certifying agency with a written reproductive material collection and/or nursery stock production plan (not later than three days) prior to collection of reproductive material or production of nursery stock.
(iii) Further, all following requirements of subclass B shall be met.

(b) Subclass B.

(i) All collectors shall be supervised sufficiently so that either buyers know where reproductive material was collected, or buyers shall purchase all reproductive material that collectors present for sale without differential of acceptance stated or implied, as to source, location, seed zone, or elevation.

(ii) Buyer shall require collector to sign collector's registration record prior to collection of reproductive material. He shall also issue collector's labels, and direct collector to complete them and place them in or attach them to each container of reproductive material before it is transported from point of collection. Coincident with purchase of reproductive material, he shall complete description on labels including species, source by seed zone, breeding zone or code, elevation increment, special collection area if any, certification class, date of purchase and his signature or initials.

(iii) Buyer shall maintain a buyer record on a form for all reproductive material received, listing species, seed zone, elevation increment, units of reproductive material, date of purchase, collector's name and buyer's name.

(iv) Buyer shall maintain transportation record showing species, seed zone, elevation increment, units of reproductive material, and date shipped.

(v) Producers of nursery stock shall be supervised sufficiently so that applicant knows that the stock was produced from source identified subclass B or better reproductive material.

(vi) The certifying agency shall advise the applicant of problems or conditions that affect competent verification or execution of these standards by certifying agency and applicant.

(vii) Unless other arrangements are made, the certification class shown by the producer on all containers of reproductive material shall be verified by the certifying agency before being transported from the receiving station. The producer is responsible for evidence of verification of the certification class applied for.

(3) Audit class reproductive material.

(a) Buyer shall require collector to sign collector's registration record and to complete collector's labels prior to purchase of reproductive material.

(b) Buyer shall maintain a buyer record on a form for all reproductive material received, listing species, seed zone, elevation increment, units of reproductive material, date of purchase, collector's name and buyer.

(e) Buyer or other shipper of reproductive material shall maintain a transportation record showing species, seed zone, elevation increment, units of reproductive material and date shipped.

(d) Producers of nursery stock shall maintain auditable records identifying the stock as being produced from audit class or better reproductive material.

WAC 16-319-061 Forest reproductive material—Conditioning standards. (1) Applicant shall maintain a continuous record for each lot and batch of reproductive material at each plant or warehouse, showing lot and batch number or code, species, seed zone, breeding zone or code, elevation increment, date received and units of reproductive material. Reproductive material stored at plant or warehouse prior to conditioning shall be assembled by lot or batch and so arranged as to be reasonably accessible for audit. The auditor will advise producer before making changes in the certification class of cones or seed offered by the producer.

(2) Labels shall be maintained on containers until reproductive material is conditioned. During conditioning, labels shall be removed and immediately deposited in a container marked with the lot or batch designation or code. Upon completely emptying the containers for each lot or batch of audit or source identified classes, the package of labels from it shall be closed and set aside for examination by the certifying agency auditor. All labels for tested and selected classes shall be attached to or placed inside of the seed containers by the producer for examination by the certifying agency auditor. These labels shall remain with the seed until the lot is depleted.

(3) All reproductive material shall be handled in a manner to prevent lot mixture and maintain lot identity. All machinery, containers, and equipment shall be thoroughly cleaned before conditioning another lot or batch.

(4) Specific requirement: Certifying agency may refuse to certify reproductive material failing to meet the following maximum standards: Other distinguishable species or cultivars: Seed one-half of one percent by weight; trees, cuttings, scions, etc. one percent by number; pollen one percent by number.

(5) Labeling and sealing of tested, selected, or source identified reproductive material shall be done by the certifying agency.

(a) Labeling of audit class reproductive material shall be done by the applicant with the label being affixed to the container: Provided, That for small sales (any quantity of reproductive material less than a full container of a size normally used by the applicant) the label may be affixed to the invoice or sales slip.

(b) For each lot of tested or selected reproductive material, a certificate of genetic identity shall be prepared and provided to the buyer or other shipper: Provided, That for small sales (any quantity of reproductive material less than a full container of a size normally used by the applicant) the certificate of genetic identity shall include the following information:

(i) The donor or parents which produced the reproductive material, including their selection generation, type of selection made, selected character(s), seed zone(s) and elevation increment(s) in which selection was made, and selection procedure.

(ii) For each prior selection generation, the same information.

(iii) For sexual reproductive material, whether pollination was controlled or not: If controlled, the pollen situation; if controlled, the pollen or pollen mix used, including identi-
fication of pollen parent(s), also the number of maternal parents, and, if applicable, the crossing design used.

(b) For tested reproductive material only.

(i) A progeny, clonal, or other applicable test plan shall normally be submitted to the certifying agency for review and acceptance before installation. Acceptance of the test plan may be made after installation providing requirements in WAC 16-319-051(1) and 16-319-061 (6)(b)(ii) are met. Applicant may request assistance from the certifying agency in the development of a plan.

(ii) The plan shall include in the test both randomization and replication for the material to be tested and the identity and background of the check material to be used.

(iii) Complete randomization and balanced randomized blocks are recommended. The actual design of the established test shall be recorded in detail.

(iv) Trees to be planted for tests shall be grown together in soil as uniform as possible, or, if they are grown in different soils, shall be so distributed that like proportions of all clones or progenies are produced in each distinct class of soil.

(v) Test measurements are to be presented in numerical form. Each character to be evaluated is to be measured separately. The genetic superiority as compared with the check shall be clearly demonstrated for at least one of the characters being tested. Characters of economic importance in forestry identified in the test shall be clearly reported if they are significantly inferior at the ninety-five percent level to those of the check material.

(vi) The results of the test measurements and data shall be readily available to the certifying agency and prospective user or purchaser.

(7) A document, acceptable to the certifying agency for informing the purchaser of species and certification information of each item, and, for auditing purposes, shall be issued by the producer for each sale of tested, selected, source identified, and audit class reproductive material. Such document may be a certificate of provenance for tested, selected, or source identified reproductive material, or an invoice, shipping order, or sales slip for audit class reproductive material. The certifying agency may authorize use of said certificate of provenance for portions of reproductive material from labeled and sealed containers in lieu of labels and seals when relabeling and resealing by the certifying agency is impractical.

(8) If a lot is composed of reproductive material from more than one seed zone, elevation increment or code in excess of seven percent if of contiguous seed zones, elevation increments, or codes or if in excess of two percent of other than contiguous seed zones, elevation increments, or codes, the certification label shall show all seed zones, elevation increments, or codes either with or without the percentage of each.

(9) The allowance for accidental mixing of noncertifiable reproductive material with audit class, or noncertifiable or audit class reproductive material with source identified classes is two percent. When in excess of two percent, the lot shall drop to the lowest class represented. No mixing of lower classes with selected or tested classes is permissible.

16-319-081 Forest reproductive material—Affirmation by certifying agency. Affixing of label or label and seal to a container of forest reproductive material or to a certificate of provenance or certificate of genetic identity by the certifying agency affirms that to the best of its knowledge the reproductive material meets these forest reproductive material certification standards.

[Statutory Authority: Chapter 15.49 RCW. WSR 87-12-006 (Order 1930), § 16-319-081, filed 5/22/87; Order 1506, § 16-319-081, filed 4/11/77; Order 1369, § 16-319-081, filed 6/12/74; Order 1151, § 16-319-081, filed 4/16/70.]

WAC 16-319-091 Forest reproductive material—Mixing of lots. (1) When lots collected in the same or different crop seasons are deliberately mixed, the new lot shall be given a new identification number and certification label. The certification class shall drop to the lowest certification class represented in the new lot.

(2) For the tested and selected classes, the certification label shall show the components of the new lot and the percentage of each in the new lot, or this information shall be contained on a properly executed certificate of genetic identity placed in, or attached to each container of the lot before other labels or seals are affixed.

(3) For the source identified classes and the audit class, the certification label shall show the components of the new lot and the percentage of each in the new lot.

(4) Lots being mixed shall be uniformly blended into the new lot so that they are nearly equally represented throughout the new lot.

(5) The producer of the new lot shall make the last viability information for the component parts of the new lot available to the certifying agency and prospective user or buyer upon demand.

[Statutory Authority: Chapter 15.49 RCW. WSR 87-12-006 (Order 1930), § 16-319-091, filed 5/22/87.]

WAC 16-319-101 Forest reproductive material—Rejection of certification. Any lot may be rejected if certifying agency determines that said lot fails to meet these standards. The privilege of certification may be withdrawn by certifying agency for a definite period of time in case of flagrant violations of field or processing standards. If applicant believes an erroneous decision has been rendered, he may make written appeal to certifying agency for review by its governing body.

[Statutory Authority: Chapter 15.49 RCW. WSR 87-12-006 (Order 1930), § 16-319-101, filed 5/22/87.]