



**RULE-MAKING ORDER**  
(RCW 34.05.360)

**CR-103** (10/1/89)

Agency: Agriculture

- Permanent Rule
- Emergency Rule

(1) Date of adoption: March 27, 1991

(2) Purpose: Certification of Hop Rootstock: The proposed revision would clarify the standards and tolerances for the production of certified rootstocks, and redefine plant disease terminology to conform to the currently accepted technology. Hop Disease Quarantine: Revision would clarify the intent of the quarantine, propose stricter disease tolerance limits, and

(3) Citation of existing rules affected by this order: revise violation and penalty rules.

Repealed:

Amended: Chapter 16-354 WAC, and Chapter 16-497 WAC

Suspended:

(4) Authority for adoption:

Statute: Chapter 15.14 RCW and Chapter 17.24 RCW

Other Authority:

**(5.1) PERMANENT RULE ONLY**

Pursuant to notice filed as WSR 91-04-067 on February 5, 1991 (date).

Describe any changes other than editing from proposed to adopted version:

**(5.2) EMERGENCY RULE ONLY**

Pursuant to RCW 34.05.350 the agency for good cause finds:

- (a) That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.
- (b) That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.

Reasons for this finding:

(5.3) Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?

- Yes  No If yes, explain:

(6) Effective date of rule:

**Permanent Rules**

31 days after filing

Other (specify) \_\_\_\_\_ \*

\*(If less than 31 days after filing, specific finding in 5.3 under RCW 34.05.380(3) is required)

**Emergency Rules**

Immediately

Later (specify) \_\_\_\_\_

**CODE REVISER USE ONLY**

CODE REVISER'S OFFICE  
STATE OF WASHINGTON  
FILED

MAR 27 1991

TIME

8:52

FILED

91-08-016

NAME (TYPE OR PRINT)

C. Alan Pettibone

SIGNATURE

TITLE

Director

DATE

3/27/91

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-005 HOP ROOTSTOCK--GENERAL. (1) Rootstocks of hops (*Humulus Lupulus L.*) may be designated as foundation stock, registered stock and certified stock when inspected, tested and found to be ~~((true-to-name--(not--off-type)--and))~~ discernibly free from ~~((virus--(prunus-necrotic-ringspot-strains)))~~ Iilar viruses and virus-like diseases, downy mildew, verticillium wilt, crown gall, rootknot nematode, hop cyst nematode or other serious pests, by procedures and inspections outlined in this program.

(2) The issuance of a ~~((certified))~~ state of Washington certified plant tag or stamp under this chapter affirms ~~((solely))~~ only that the tagged or stamped hop rootstock has been subjected to certification ~~((standards-and))~~ procedures to determine compliance with standards by the department. The department disclaims all express or implied warranties, including without limitation, implied warranties of merchantability and fitness for particular purpose, regarding all plants, plant parts, and plant materials under this chapter.

(3) The department is not responsible for disease, genetic disorders, off-type, failure of performance, mislabeling, or otherwise, in connection with this chapter. No grower, nursery dealer, government official, or other person is authorized to give any expressed or implied warranty, or to accept financial responsibility on behalf of the department regarding this chapter.

(4) Participation in the hop rootstock certification program shall be voluntary.

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-010 DEFINITIONS. (1) ~~((("Virus--infected--(affected)"))~~ means--presence--of-virus(es)-in-a-plant-or-plant-parts)) "Iilar virus" means a grouping of viruses, including Apple Mosaic Virus and Prunus Necrotic Ringspot, which share common characteristics including spherical in shape, with genetic material in three different particles and commonly inducing ring spots in hosts.

(2) "Virus-like" means a transmissible disorder of ~~((genetic--or nontransmissible-origin))~~ unknown cause.

(3) ~~((("Off-type"--means-not-true-to-name--(4))~~ "Index" means to determine virus infection by means of inoculation from the plant to be tested to an indicator plant or by any other method.

~~((5))~~ (4) "Foundation rootstock" means slips or rhizomes, cuttings and rooted plants taken from hop stocks established and maintained by Washington State University, that are indexed, and believed to be free from known viruses and ~~((that-are-true-to-name))~~ which will be genetically uniform. Cuttings or rooted plants, which shall be used to establish ~~((registered))~~ certified mother blocks shall be furnished to the applicant for a fee determined by Washington State University.

~~((6))~~ (5) "Certified mother block" means a planting of hop stocks established from foundation rootstock.

~~((7))~~ (6) "Certified rootstock" means rootstock produced from ~~((registered))~~ certified mother blocks and meeting the requirements as herein provided.

~~((8))~~ (7) "Verticillium wilt" means the disease caused by *Verticillium albo-atrum* Reinke & Berth. or hop strains of this organism.

~~((9))~~ (8) "Downy mildew and/or black rot" means the disease caused by *Pseudoperonospora humuli* Miy. & Tak., G. W. Wils. Black roots caused by this disease shall not be permitted.

~~((10))~~ (9) "Crown gall" means the disease caused by *Agrobacterium tumefaciens* E. F. Sm. & Towns., Conn.

- ((11)) (10) "Rootknot nematode" means the nematode Meloidogyne sp.
- ((12)) (11) "Hop cyst nematode" means the nematode Heterodera humuli Filipjev.
- ((13)) (12) "Crown" means a slip or layered stem cutting with visible buds, that has been grown for one or two years.
- ((14)) (13) "Fairly fresh" means that the roots or cuttings are not excessively wilted.
- ((15)) (14) "Firm" means that the plant parts are not soft or spongy, although they may yield to slight pressure.
- ((16)) (15) "Moist" means that the plant parts are reasonably turgid and not dried to a degree that would affect normal growth.
- ((17)) (16) "Fairly clean" means that the plant parts are not matted or caked with dirt.
- ((18)---"Mold") (17) "Free from damage caused by mold" means that the plants shall be free from excessive mold or decay. Plants slightly affected by mold shall be allowed.
- ((19)---"Freezing") (18) "Free from damage caused by freezing injury" means that the roots shall be of a normal color and only moderately affected by discolored roots which affect the normal growth of the plant.
- ((20)) (19) "Broken or mutilated rootstock" means the breaking of the root section or splitting of the plant part or other mechanical injury that would affect the normal growth of the plant.
- (20) "Department" means the Washington state department of agriculture.
- (21) "Director" means the director of the Washington state department of agriculture or the director's authorized representative.

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-020 FIELD STANDARDS FOR PRODUCTION OF CERTIFIED HOP ROOTSTOCK. (1) Land requirements:

(a) ~~((A-registered-mother-block-to-be-eligible-for-the-production-of-certified-rootstock-shall-be-planted-in-a-site-that-has-been-out-of-hop-production--three--years--(poles-and-trellis-removed).))~~ New land (land that has never grown hops), proposed for the establishment of certified mother blocks, shall be approved by the department prior to planting.

(b) ~~((New-land-(land-that-has-never-grown-hops)-proposed-for--the-establishment--of--registered--mother--blocks-shall-be-approved-by-the-department-prior-to-planting-in--respect--to--location--and--drainage--and--adaptability.))~~ A certified mother block to be eligible for the production of certified rootstock shall be planted in a site that has been out of hop production for three years (poles and trellis removed). The site shall be inspected the season prior to planting. Sites with residual hop plants or with hop hullings present shall be rejected.

(c) ~~((Old-hop-land-proposed-for-the-establishment--of--registered-mother-blocks-shall-be-inspected-the-season-prior-to-planting-in-order-to--determine--the--absence--of--holdover-hop-plants:--PROVIDED,--That-a-field-is-eligible-to-be-replanted-with-the-identical-hop-strain-of-equal-standards.))~~

(d)) Hop hullings shall not be spread over proposed planting sites prior to and/or during certified rootstock production.

(2) Isolation requirements:

(a) A field to be eligible for production of certified hop rootstock shall be separated by a strip of ground at least twenty-one feet in width from any other hop plants.

(b) A grower of certified hop rootstocks may grow more than one hop variety or strain: PROVIDED, That each variety or strain is separated by a hop plant free buffer strip not less than twenty-one feet in width.

## (3) Plant requirements:

(a) Only foundation rootstock shall be planted to establish a ~~((registered))~~ certified mother block for the production of certified rootstock.

(b) ~~((Registered))~~ Certified mother blocks shall remain in place no more than four growing seasons: PROVIDED, That after four years, rootstock to be certified may be moved ~~((to-a-new-eligible-site-if-approved-by-a-Washington-State-University-pathologist--PROVIDED-FURTHER,-That-if-male-plants-are-found,-the-field-will-be-disqualified-in-the-year-following-discovery-of-the-male-plants))~~, if approved by the department after consultation with a Washington State University pathologist, to a new approved site.

(c) If, during inspection, a male plant is found and that plant has pollinated female hop plants (seeded), the mother block site will be disqualified beginning in the year following discovery of the male plants. For the growing season in which the male plants are detected, the rootstock from that site may be dug and sold as certified while in the dormant stage.

(d) In roguing, growers shall dig and immediately destroy all low yielding, unhealthy appearing, ~~((off-type,))~~ diseased or otherwise abnormal plants.

~~((d))~~ (e) Plant pests and weeds shall be effectively controlled.

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-030 HOP ROOTSTOCK INSPECTIONS. (1) The first inspection shall be for downy mildew, ~~((verticillium-wilt))~~ and other diseases and pests. ~~((The-presence-of-verticillium-wilt-shall-disqualify-the-field.))~~

(2) The second inspection, depending on suitable weather conditions, shall be primarily for detection of Iilar viruses, and virus-like diseases.

(3) The presence of verticillium wilt, detected in any inspection, shall disqualify the field.

(4) Rootstocks. The planting material (slips or rhizomes, layered stem cuttings, or crowns) shall be inspected at digging and/or at planting time to determine freedom from serious pests.

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-040 HOP ROOTSTOCK CERTIFICATION APPLICATION AND FEES. (1) The applicant grower shall furnish to the department all information pertinent to the operation of the hop rootstock certification program and shall give his/her consent to the department to take material from ~~((registered))~~ certified mother blocks and/or greenhouses for examination and testing.

(2) Application for inspection and testing of ~~((registered))~~ certified mother blocks and certified stocks shall be filed with the department by April 1 of each year accompanied by a seventy-five dollar application fee.

(3) Inspection fees ~~((are))~~ shall be sixteen dollars for each acre per inspection with a minimum fee of eighty dollars for five acres or less per inspection.

(4) Payment for inspection of ~~((registered))~~ certified mother blocks and nursery stock for registration and certification shall be made upon completion of the inspection. Billing to the nursery stock grower shall be made by the ~~((chemical-and))~~ plant services division.

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-070 HOP ROOTSTOCK FIELD STANDARDS. (1) The unit of certification shall be the entire lot within the field standing at the time of inspection.

(2) Specific requirements. (Percentage tolerances)

	<u>Certified</u>
Downy mildew	1%
Nematodes (visible)	1%
Verticillium wilt	0
((Virus-(Prunus-necrotic ringspot-strains))) <u>Iilar viruses</u>	0

AMENDATORY SECTION (Amending Order 1867, filed 7/16/85)

WAC 16-354-100 HOP ROOTSTOCK TOLERANCES. (1) In order to allow for variations incident to proper grading and packing, not more than a combined total of six percent, by count, of the rootstocks in any lot shall fail to meet the requirements of ((the-above-grade)) Washington No. 1, and not more than six percent of the rootstock shall have rhizomes or layered stem cuttings less than five inches in length.

(2) ((The-contents-of-individual-containers-in-the-lot,-based-on sample-inspection,-are-subject-to-the-following-limitation:--PROVIDED, That-the-averages-for-the-entire-lot-are-within-the-tolerances--specified:--When--a-tolerance-is-six-percent-or-more,-individual-containers in-any-lot-shall-have-not-more-than-one-and-one-half-times-the--tolerance--specified\*)) In order to insure lot uniformity, no individual container within a lot may contain more than one and one-half times the established tolerance.

(3) Hop plants shall be packed to retain a fresh condition.

AMENDATORY SECTION (Amending Order 1663, filed 12/31/79, effective 6/1/80)

WAC 16-497-001 ESTABLISHING QUARANTINE. The introduction of dangerous diseases of hops into the state of Washington would entail great losses to the horticultural interests of the state, and the most rigid examinations cannot determine the presence of disease on dormant hop plants or parts of plants; therefore this quarantine is established by the director of agriculture, pursuant to the authority provided in chapter 17.24 RCW, setting forth the rules for the importation of hop plants into the state of Washington.

NEW SECTION

WAC 16-497-005 HOP DISEASE QUARANTINE--DEFINITIONS. (1) "Director" means the director of the Washington state department of agriculture or the director's authorized representative.

(2) "Department" means the Washington state department of agriculture.

(3) "Iilar viruses" means a grouping of viruses, including Apple Mosaic Virus and Prunus Necrotic Ringspot, which share common characteristics including spherical in shape, with genetic material in three different particles and commonly inducing ring spots in hosts.

(4) "Verticillium wilt" means the disease caused by Verticillium albo-atrum Reinke & Berth, or hop strains of this organism.

AMENDATORY SECTION (Amending Order 1663, filed 12/31/79, effective 6/1/80)

WAC 16-497-020 (~~COMMODITIES---COVERED~~) REGULATED ARTICLES. Plants and all parts thereof (except the kiln dried cone) of hops (*Humulus Lupulus L.*)

AMENDATORY SECTION (Amending Order 1663, filed 12/31/79, effective 6/1/80)

WAC 16-497-030 REGULATIONS--CONDITIONS GOVERNING THE MOVEMENT OF REGULATED ARTICLES. Hop plants and all parts thereof will be admitted into the state of Washington: PROVIDED, That the following provisions are complied with.

(1) The hop plant or parts thereof have been certified in accordance with the regulations of an official state agency, which certification program requires at least two field inspections during the growing season, and requires that certification tolerances shall not exceed: Verticillium wilt, (*albo atrum (dm) ((7-dahliae-(ms)))*) and Iilar viruses, zero percent (~~(7-and-virus7-or-virus-like-symptoms-one-tenth-of-one-percent)~~): AND PROVIDED FURTHER, That all shipments of such hop planting stock shall be apparently free of insect pests and shall be accompanied by a certificate issued by ((said)) an official ((state)) agency of the state of origin certifying that ((said)) the hop planting stock was produced under official certification regulations and meets official standards.

(2) All shipments of hop planting stock shall be plainly marked with the contents on the outside of the package or container.

(3) ~~((All-products-admissible-under-the-foregoing-provisions-must be--held--by--common--carrier--agent--and--not--delivered--to--consignee--or--agent--until--inspected--and--passed--by--the--director--of--agriculture--of--the--state--of--Washington--or--his--designee,))~~ Persons shipping or transporting regulated articles into this state from areas under quarantine shall notify the department's plant certification branch of the nature and quantity of each shipment, the expected date of arrival at destination, the name of the intended receiver and the destination. The person to whom the articles are shipped shall hold the same until they are inspected and/or released by the department.

AMENDATORY SECTION (Amending Order 1663, filed 12/31/79, effective 6/1/80)

WAC 16-497-040 DISPOSITION OF MATERIAL SHIPPED IN VIOLATION OF THIS QUARANTINE. All ~~((hop-plants-or-parts-thereof))~~ regulated articles arriving in the state of Washington in violation of this quarantine shall be immediately sent out of the state or destroyed at the option and expense of the owner or owners, ~~((or-his))~~ or their responsible agents.

AMENDATORY SECTION (Amending Order 1663, filed 12/31/79, effective 6/1/80)

WAC 16-497-050 EXEMPTION. The ~~((foregoing--does--not))~~ restrictions on the movement of regulated articles set forth in this chapter shall not apply to ((the-experiments--of)) hop plants or parts of plants imported for experimental or trial purposes by the United States Department of Agriculture ((and)) or the state experiment stations in the state of Washington.

AMENDATORY SECTION (Amending Order 1663, filed 12/31/79, effective 6/1/80)

WAC 16-497-060 VIOLATION AND PENALTY. ~~((All-violations-of--this order--shall--be--dealt--with--as--provided--for--in--RCW-17.24.100, as follows:~~

~~"Penalties--Second-and--subsequent--offenses.--Every--person--who shall--violate--or--fail--to--comply--with--any--rule--or--regulation--adopted and--promulgated--by--the--director--of--agriculture--in--accordance--with--and under--the--provision--of--RCW-17.24.020--through--17.24.100--shall--be--guilty of--a--misdemeanor,--and--for--a--second--and--each--subsequent--violation--or failure--to--comply--with--the--same--rule--or--regulation,--shall--be--punished by--imprisonment--in--the--county--jail--for--not--less--than--thirty--days--or more--than--one--year,--or--by--a--fine--of--not--less--than--one--hundred--dollars, or--more--than--one--thousand--dollars--or--both--such--fine--and--imprisonment."))~~ Violations of this quarantine shall be punishable by the criminal and/or civil penalties provided by law in addition to any other inspection costs that may be assessed.