



RULE-MAKING ORDER

(RCW 34.05.360)

CR-103 (7/10/97)

Agency: Agriculture	<input checked="" type="checkbox"/> Permanent Rule
(1) Date of adoption: April 15, 1998	<input type="checkbox"/> Emergency Rule
	<input type="checkbox"/> Expedited Adoption
	<input type="checkbox"/> Expedited Repeal

(2) Purpose: To re-evaluate the current rule due to recent introduction of hop powdery mildew, a plant disease formerly absent in this state. Also, updating obsolete requirements and language.

(3) Citation of existing rules affected by this order:
 Repealed: WAC 16-354-002 Promulgation
 Amended: WAC 16-354-005, 010, 020, 030, 040, 050, 070, 100
 Suspended:

(4) Statutory authority for adoption: Chapter 15.14 RCW
 Other Authority:

PERMANENT RULE ONLY (Including EXPEDITED ADOPTION)
 Adopted under notice filed as WSR 98-06-082 on March 4, 1998 (date).
 Describe any changes other than editing from proposed to adopted version:

EMERGENCY RULE ONLY
 Under 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:

EXPEDITED REPEAL ONLY
 Under Preproposal Statement of Inquiry filed as WSR ____ on ____ (date)

(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 or Expedited Repeal	Emergency Rules
<input checked="" type="checkbox"/> 31 days after filing	<input type="checkbox"/> Immediately
<input type="checkbox"/> Other (specify) _____*	<input type="checkbox"/> Later (specify) _____

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

Name (Type or Print)
James M. Jesernig

Signature
James M. Jesernig

Title
Director

Date
April 15, 1998

CODE REVISER USE ONLY

CODE REVISER'S OFFICE
STATE OF WASHINGTON
FILED

APR 15 1998

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98-09-049

**Note: If any category is left blank, it will be calculated as zero.
No descriptive text.**

Count by whole WAC sections only, from the WAC number through the history note.
A section may be counted in more than one category.

The number of sections adopted in order to comply with:

Federal statute:	New	-----	Amended	<u>0</u>	Repealed	-----
Federal rules or standards:	New	-----	Amended	<u>0</u>	Repealed	-----
Recently enacted state statutes:	New	-----	Amended	<u>0</u>	Repealed	-----

The number of sections adopted at the request of nongovernmental entity:

New	-----	Amended	<u>0</u>	Repealed	-----
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The number of sections adopted in the agency's own initiative:

New	-----	Amended	<u>0</u>	Repealed	-----
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The number of sections adopted in order to clarify, streamline, or reform agency procedures:

New	-----	Amended	<u>8</u>	Repealed	-----
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The number of sections adopted using:

Negotiated rule making:	New	-----	Amended	-----	Repealed	-----
Pilot rule making:	New	-----	Amended	-----	Repealed	-----
Other alternative rule making:	New	-----	Amended	<u>8</u>	Repealed	-----

AMENDATORY SECTION (Amending Order 5083, filed 8/28/95, effective 9/28/95)

WAC 16-354-005 Hop rootstock--General. (1) Rootstocks of hops and hop plants (*Humulus Lupulus L.*) may be designated as foundation stock, registered stock ~~((and))~~ or certified stock ~~((when inspected, tested and found to be discernibly free from))~~, if the rootstocks and plants from which they were produced have been inspected and tested in accordance with procedures and requirements outlined in rule. At a minimum, these procedures and requirements deal with Ilar viruses and virus-like diseases, downy mildew, ~~((powdery mildew,))~~ verticillium wilt, crown gall, rootknot nematode, hop cyst nematode ~~((or))~~ and other serious pests ~~((by procedures and inspections outlined in this program))~~.

(2) ~~((The))~~ Issuance of a state of Washington certified plant tag ~~((or))~~, stamp, or other document under this chapter ~~((affirms))~~ means only that the tagged ~~((or))~~, stamped ~~((hop rootstock))~~, or otherwise documented rootstock or plant stock has been subjected to ~~((certification))~~ procedures and requirements described in this chapter and determined to ~~((determine))~~ be in compliance with its standards ~~((by the department))~~ and requirements. The department disclaims all express or implied warranties, including without limitation ~~((7))~~ 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 ~~((7))~~ 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))~~ is voluntary.

AMENDATORY SECTION (Amending Order 5083, filed 8/28/95, effective 9/28/95)

WAC 16-354-010 Definitions. ~~((1))~~ "Ilar 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 unknown cause.~~

~~((3))~~ "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.~~

~~(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 which will be genetically uniform. Cuttings or rooted plants, which shall be used to establish certified mother blocks shall be furnished to the applicant for a fee determined by Washington State University.~~

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

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

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

~~(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.~~

~~(9) "Powdery mildew" means the disease caused by *Sphaerotheca humuli* (DC) Burrill = *Sphaerotheca macularis* (WALLR.: FR) Lind.~~

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

~~(11) "Rootknot nematode" means the nematode *Meloidogyne* sp.~~

~~(12) "Hop cyst nematode" means the nematode *Heterodera humuli* Filipjev.~~

~~(13) "Crown" means a slip or layered stem cutting with visible buds, that has been grown for one or two years.~~

~~(14) "Fairly fresh" means that the roots or cuttings are not excessively wilted.~~

~~(15) "Firm" means that the plant parts are not soft or spongy, although they may yield to slight pressure.~~

~~(16) "Moist" means that the plant parts are reasonably turgid and not dried to a degree that would affect normal growth.~~

~~(17) "Fairly clean" means that the plant parts are not matted or caked with dirt.~~

~~(18) "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) "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) "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.~~

~~(21) "Department" means the Washington state department of agriculture.~~

~~(22) "Director" means the director of the Washington state department of agriculture or the director's authorized representative.)~~

(1) "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.

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

(3) "Certified rootstock" means rootstock produced from certified mother blocks and meeting the requirements as herein provided.

(4) "Crown" means a slip or layered stem cutting with visible buds, that has been grown for one or two years.

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

(7) "Director" means the director of the Washington state department of agriculture or the director's authorized representative.

(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.

(9) "Fairly clean" means that the plant parts are not matted or caked with dirt.

(10) "Fairly fresh" means that the roots or cuttings are not excessively wilted.

(11) "Firm" means that the plant parts are not soft or spongy, although they may yield to slight pressure.

(12) "Foundation rootstock" means planting material taken from hop stocks established and maintained by Washington State University, which are indexed and believed to be free from known viruses. Such stock must, as much as practicable, be genetically uniform.

(13) "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.

(14) "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.

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(16) "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.

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

(22) "Virus-like" means a transmissible disorder of unknown cause.

WAC 16-354-020 Field standards for production of certified hop rootstock. (1) ~~((Land))~~ Certified rootstock may be produced only from certified mother blocks. In order to be a certified mother block, a proposed hop planting site must meet all of the following requirements:

~~((a) 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) 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. Provided that greenhouse grown certified plants may be planted the same year of site approval, with planting starting on or after August 15th. Sites with residual hop plants or with hop hullings present shall be rejected.~~

~~(c) 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 certified mother block for the production of certified rootstock.~~

~~(b) 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, 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, diseased or otherwise abnormal plants.~~

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

(a) The site must be inspected and approved by the department during the growing season immediately prior to planting. An exception may be made to allow inspection and planting during the same growing season, if exclusively greenhouse grown certified plants are planted on or after August 15th.

(b) The site must have been out of hop production, and all poles and trellis removed, for a minimum of three full growing seasons prior to planting.

(c) The site must be entirely free of residual hop plants or hop hullings.

(d) The same must be separated from any other hop plants by a strip of land at least twenty-one feet wide.

(2) A certified mother block must meet the following requirements:

(a) The certified mother block must consist of no more than one hop variety or strain. Certified mother blocks of different varieties or strains must be separated at all points by a strip of land at least twenty-one feet wide and free of hop plants.

(b) Any material planted in a certified mother block must meet one of the following criteria:

(i) Foundation rootstock produced by Washington State University;

(ii) Rootstock from another certified mother block;

(iii) Growing plants or cuttings from foundation mother plants grown by Washington State University; or

(iv) Growing plants or cuttings from another certified mother block.

(c) Plant material, including rootstock and plants described in (b)(ii) and (iv) of this subsection, may be moved from one certified mother block to another certified mother block site only after appropriate testing by a Washington State University plant pathologist and written approval by the department.

(d) A certified mother block must be kept free of hop hullings at all times.

(e) No certified mother block location may retain certification for more than:

(i) Four consecutive growing seasons, if the certified mother block was produced from rootstock; or

(ii) Five consecutive growing seasons, if the certified mother block was produced from cuttings or growing plants.

(f) If a male plant or pollinated female plant is found during any inspection, the grower may harvest certified rootstock from the certified mother block for the subsequent harvest only. After this harvest, the mother block site must be decertified.

(g) Plant pests and weeds must be effectively controlled.

(h) Growers shall rogue (i.e., dig and remove) and immediately destroy all male, diseased, unhealthy appearing or otherwise abnormal plants. For purposes of assessing disease intensity, an exception may be made for plants exhibiting powdery mildew symptoms.

AMENDATORY SECTION (Amending Order 2077, filed 3/27/91, effective 4/27/91)

WAC 16-354-030 ((Hop rootstock)) Certified mother block inspections. ((1) The first inspection shall be for downy mildew, and other diseases and pests.

(2) The second inspection, depending on suitable weather conditions, shall be primarily for detection of Ilar 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.)~~

(1) A minimum of three inspections per year will be conducted by the department at each certified mother block. Additional inspections may be conducted as needed.

(2) Timing and inspection methods will vary, depending on weather conditions, the disease or pest being sought, and other factors.

(3) The first inspection is intended primarily to detect downy mildew, as well as other diseases and pests.

(4) The second inspection is intended primarily to detect Ilar viruses and virus-like diseases.

(5) The third inspection is intended primarily to detect powdery mildew, as well as other diseases and pests.

(6) Inspection reports may contain observations and information on diseases, pests, and other factors for which no specific tolerances are established or which do not affect the certification status of the rootstock or hop plants.

(7) The presence of verticillium wilt, detected at any time, shall cause immediate decertification of the site. The grower must dig and destroy all affected plants immediately. Affected material may be removed from the site under suitable precautions only by a Washington State University plant pathologist or the department for diagnostic or verification purposes.

AMENDATORY SECTION (Amending Order 2077, filed 3/27/91, effective 4/27/91)

WAC 16-354-040 Hop rootstock certification application and fees.

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

(2) As a condition of participation in the hop rootstock certification program, the applicant grower (~~shall~~) must furnish to the department all requested information pertinent to the operation of the (~~hop rootstock certification~~) program and (~~shall~~) must give (~~his/her~~) consent to the department to take material from certified mother blocks and/or greenhouses for examination and testing.

~~((2) Application for inspection and testing of 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) Field inspection fees (~~shall be~~) are sixteen dollars for each acre per inspection with a minimum fee of eighty dollars for five acres or less per inspection.

(4) Fees for inspection of harvested rootstock for grade, phytosanitary certification, or other purposes are assessed at the appropriate rate established in WAC 16-401-025.

~~(5) Payment for each inspection (of certified mother blocks and nursery stock for registration and certification shall be~~

made)) is due on completion of the inspection. Billing ~~((to the nursery stock grower shall))~~ may be ((made by the plant services division)) arranged subject to department policies and processes.

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

WAC 16-354-050 Hop rootstock ~~((tagging))~~ tags and identity.

(1) ~~((Tagging. The department shall issue a certificate covering hop rootstock that meets the requirements of the hop rootstock certification program and authorize the use of official certification tags for the identification of such rootstock.))~~ Application for inspection and testing of certified mother blocks and certified stock shall be filed with the department by April 1 of each year accompanied by a seventy-five dollar application fee.

(2) ~~((Identity.))~~ Any person selling ~~((certified))~~ or offering for sale hop rootstock ~~((shall be))~~ bearing a certification tag or otherwise identified as certified is responsible for the ~~((identity of the stock bearing each tag and for the stock meeting the requirements of the hop rootstock certification program.))~~ following:

(a) Accurately identifying the rootstock as to variety and year of harvest;

(b) Accurately identifying the rootstock as complying with all of the conditions of the certified hop rootstock program.

(3) Any person ~~((s))~~ issued ~~((tags authorized by the certification program shall account for stock produced and sold, and keep records as may be necessary. Containers for hop rootstocks shall be new))~~ certification tag(s) must keep written records of stock produced and sold. These records must be produced at the request of the department.

AMENDATORY SECTION (Amending Order 5083, filed 8/28/95, effective 9/28/95)

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))~~ is the entire certified mother block.

(2) ~~((Specific requirements. (Percentage tolerances.))~~ Each entire certified mother block may have no more than the following percent of affected plants:

	<u>((Certified))</u> <u>Tolerance</u>
Downy mildew	1%
<u>Visible nematode ((s-visible))</u> <u>damage</u>	1%
Verticillium wilt	0
Har viruses	0
((Powdery mildew _____ 0))	

AMENDATORY SECTION (Amending Order 2077, filed 3/27/91, effective 4/27/91)

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 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) 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.

(4) The department may inspect rootstock from certified mother blocks after harvest and packing for the purpose of verifying that it meets grades and standards established in rule.

REPEALER

The following section of the Washington Administrative Code is repealed:

WAC 16-354-002 Promulgation.