Title 2—DEPARTMENT OF AGRICULTURE Division 70—Plant Industries Chapter 10—Missouri Plant Law Rules

PROPOSED AMENDMENT

2 CSR 70-10.080 Certification Requirements. The department is deleting sections (1)-(7), renumbering sections (8)-(10), and amending those renumbered sections.

PURPOSE: This amendment removes regulatory inspections that are no longer relevant.

PURPOSE: This rule sets forth the procedures for [specialized inspections and] certification of [all the following: bramble plants, strawberry plants, sweet potato seed, sweet potato plants, vegetable transplants, out-of-state growers of sweet potatoes and vegetable transplants, any plants not listed in the Missouri Plant Law and collected native wild plant material] native wild plant material, virus-free fruit tree nursery stock, and virus-free grapevine nursery stock.

- [(1) Applications for bramble plant certification must be made before May 15. Two (2) field inspections shall be required for the certification of bramble plants. The first inspection shall be made in the early spring prior to the time of fruit setting and the second inspection during early fall before freezing stops growth.
- (2) For the regular certification of strawberry plants, applications must be made before May 15. Two (2) field inspections shall be required for certification. The first inspection shall be made in early spring prior to the time of fruit setting and the second inspection during early fall before freezing stops growth.
 - (A) Strawberries must be grown in a manner that will prevent mixing of different varieties.
 - (B) A minimum of six feet (6') must be maintained between rows of different varieties.
- (3) Virus disease certification of strawberry plants is provided for under this section. Certified plants advertised or sold with reference to freedom from infectious viruses must meet one (1) of the three (3) following classifications:
- (A) Plants bearing the gold tag, registered strawberry virus certificate must be the increase directly from indexed plants at a state experiment station or other approved indexed source. Registered plants must have been grown under screen house or other insect-free conditions;
- (B) Plants bearing the blue tag, virus-free certificate must not be over two (2) generations (seasons) from state-approved plants indexed to be free of infectious viruses. State recommended and supervised virus control program must have been followed satisfactorily; and
- (C) Plants bearing the green tag, virus-free certificates must be from sources known and Missouri approved or certified to be essentially free of all known infectious strawberry viruses. They must not be over three (3) generations (seasons) from state-approved indexed plants. The strawberry virus control program being currently recommended by the state must have been satisfactorily followed.
- (4) Sweet potato seed inspection is optional and any grower desiring to produce certified sweet potato seed must apply to the state entomologist not later than July 1 for inspection. The following provisions and rules shall apply to these inspections and certifications:

- (A) Certified sweet potato seed requires three (3) inspections—two (2) in the field and the third in storage. A sweet potato certificate will be issued to the grower after three (3) satisfactory inspections have been made. The first two (2) field inspections will be made thirty (30) days apart during the growing season. Each variety must be grown separately, row by row. Mixed varieties within the row will disqualify for certification. The presence of sweet potato weevil or more than two percent (2%) of the plants per acre infected with stem rot or wilt, or both, also will disqualify for certification. The sweet potato fields must be rogued free of diseased and off-type plants and be ready for inspection at the time requested. The third inspection will be made while the potatoes are in storage. The storage house, hampers or other containers must be thoroughly cleaned and disinfected with formaldehyde solution containing one (1) pint of formaldehyde to thirty (30) gallons of water, or other approved disinfectants, before sweet potato seed is stored. Seed potatoes must be segregated and stored apart from table or ungraded stock; and
- (B) There are two (2) types of certification for seed sweet potatoes, the regular certification and the special, gold tag certification—
- 1. Regular certification will be refused for any of the following: when more than one percent (1%) of the sweet potatoes in a lot, inspected during the storage inspection, are found to be infected with black rot; when more than two percent (2%) of other diseases such as scurf, pox, charcoal rot and others are found in a lot, the entire lot will be refused; and when the total percent of infections for all diseases exceeds four percent (4%). If sweet potatoes and table stock are stored in the same house or other storage place, they must be in separate containers and separate lots. All seed potatoes must be arranged in a way that they are easily accessible for inspection; and
- 2. Special, gold tag certification requires a zero (0) tolerance for internal cork virus disease; a one-half percent (1/2%) tolerance on black rot disease; and a total of not more than one percent (1%) for all diseases. Potatoes carrying the special gold tag certificate must be in separate containers and set apart from any other stock.
- (5) Sweet potato plant or slip inspection is optional and any person desiring to produce certified plants will be issued a certificate of sweet potato plant inspection by the state entomologist when the following provisions are met:
- (A) The grower shall furnish certified evidence of the origin of his/her certified sweet potato seed and his/her plant beds must pass a satisfactory inspection for freedom from plant pests. In addition s/he must sign a statement that s/he has complied with the following requirements:
- 1. That s/he has bedded only certified sweet potato seed. A grower cannot bed both certified and noncertified seed. A plant grower cannot sell both certified and noncertified plants;
- 2. That before bedding, for the purpose of producing certified plants for sale, all sweet potato seed was hand culled carefully and all potatoes with any spots or rots were discarded;
- 3. That before bedding, all sweet potato seed was dipped to prevent disease in accordance with recommendations of the University of Missouri Extension Division;
 - 4. That the sweet potato seed was bedded in soil in which sweet potatoes had never been grown;
- 5. That the hot beds are located where drainage will not wash into them from barnyards, sweet potato houses or infected fields;
- 6. That all old hot beds were thoroughly cleaned and disinfected with formaldehyde (one (1) pint to thirty (30) gallons of water) or other state-approved disinfectants; and
- 7. That manure was not used in or on hot beds. Some method of heating the beds must be used; and
- (B) When moving certified sweet potato plants, a copy of the certificate must be attached to each separate bundle, package, basket, crate or container holding certified sweet potato plants or slips.

- (6) Vegetable transplant inspection is optional and is provided for any grower desiring to produce certified vegetable transplants. Application for inspection must be made with the office of the state entomologist at least thirty (30) days prior to shipments. A certificate of inspection may be issued after the first inspection. Reinspections may be made, and reports of inspections issued, as often as every ten (10) days during the growing season, depending upon the requirements of the state of destination.
- (7) Out-of-state sweet potato growers or any other individual or company must obtain a sweet potato permit-certificate from the Missouri state entomologist in order to ship seed sweet potatoes, sweet potato plants, slips, vines or cuttings into this state. Their permit-certificate must be attached to each package or container.
- (A) Each nonresident individual or company shall file with the state entomologist a grower's statement and a copy of the certificate of inspection issued by the proper authorities within the state in which they were grown, certifying that an authorized inspector has inspected the plants or plant parts and found them to be free from plant pests. On compliance with these requirements, the state entomologist will issue a sweet potato permit-certificate without charging a fee.
- (B) Out-of-state vegetable transplant growers must file, with the Missouri state entomologist, a grower's statement and a copy of their certificate of inspection certifying that an authorized inspector has inspected the vegetable transplants and found them to be free from plant pests.]
- [(8)] (1) The inspection of collected native wild plant material is required and is provided for in this section. Whenever an individual offers for sale collected native wild plant material, it shall be advertised and sold as such. The buyer must be informed as to the nature of this stock and all shipments must bear a collected native wild plant inspection certificate. Certification shall be on the basis of inspection of the collecting range or periodic inspections of plant material being sold.
- [(9)] (2) Fruit tree virus disease certification of nursery stock is provided for under this section. Certified nursery stock advertised or sold with reference to freedom from virus and virus-like disease and sources of propagating material for virus-certified nursery stock shall meet one (1) of the following classifications:
- (A) Cooperating nurseries may register parent trees with the Missouri Department of Agriculture to serve as source material for scion blocks. These trees will be known as Registered Parent Trees. Registered Parent Trees shall meet the following requirements:
- 1. The source of budwood for Registered Parent Trees shall be either the Interregional Research Project (IR-2), another government-approved virus-free repository or a source indexed and visually inspected for freedom from virus infection under the supervision of the Missouri Department of Agriculture for the following diseases:
- A. Malus sources shall be indexed for freedom from stem pitting, stem grooving, spy lethal, bud necrosis, and chlorotic leaf spot. These sources shall have borne fruit and shall be inspected visually for other infectious abnormalities such as scar skin, rubbery wood, mosaic, and flat limb;
- B. Pyrus sources shall have borne fruit and shall be inspected visually for foliar and fruit abnormalities of a genetic or infectious nature;
- C. Prunus sources shall be indexed for freedom from prunus ring spot virus, prune dwarf virus, and green ring mottle. They shall have borne fruit and shall be inspected visually for foliar and fruit abnormalities of a genetic or infectious nature; and
- D. The Missouri Department of Agriculture may require the indexing for any additional virus diseases as it shall determine necessary;

- 2. The source of understock for Registered Parent Trees shall be one (1) of the following:
 - A. True seedlings of Malus or Pyrus;
- B. Clonal understocks indexed and certified for freedom from virus by the Missouri Department of Agriculture or the department of agriculture of another state or country whose certificate is acceptable to the Missouri Department of Agriculture; and
- C. Prunus seedlings from seed from trees indexed and certified for freedom from seed-borne virus by the Missouri Department of Agriculture or a certifying body acceptable to the Missouri Department of Agriculture;
- 3. Registered Parent Trees shall be maintained in isolation from noncertified trees of the same genus. Malus and Pyrus shall have at least one hundred fifty feet (150') of isolation. Prunus shall have at least one-fourth (1/4) mile of isolation;
- 4. All Registered Parent Trees shall be inspected visually at least once a year under the supervision of the Missouri Department of Agriculture;
- 5. Registered Parent Trees may be indexed at any time at the discretion of the Missouri Department of Agriculture;
- 6. Any Registered Parent Tree found infected with virus shall be removed within no more than ten (10) days of receipt of notice from the Missouri Department of Agriculture;
- 7. The nursery shall provide the Missouri Department of Agriculture with charts showing the location and variety of each Registered Parent Tree. The nursery's records of the indexing and maintenance history of these trees shall be available for inspection by the Missouri Department of Agriculture during normal business hours after reasonable notice;
- 8. The nursery shall notify the Missouri Department of Agriculture before adding any tree to the Registered Parent Tree growing area; and
- 9. Registered Parent Trees shall be marked in such a manner as to be easily recognizable to the Missouri Department of Agriculture;
- (B) Cooperating nurseries may register groups of trees with the Missouri Department of Agriculture to serve as source material for the propagation of virus-certified nursery stock. These groups of trees will be known as Registered Scion Blocks. Trees in Registered Scion Blocks shall meet the following requirements:
- 1. The source of budwood for Registered Scion Block Trees shall be from Registered Parent Trees as set forth in subsection ([9]2)(A), IR-2, or another government-approved virus-free repository;
- 2. The source of understock for Registered Scion Block Trees shall meet the same standards as understocks for Registered Parent Trees as set forth in paragraph[s] ([9]2)(A)2.;
- 3. Registered Scion Blocks shall be maintained in isolation from noncertified trees of the same genus. Malus and Pyrus shall have at least one hundred fifty feet (150') of isolation. Prunus shall have at least four hundred fifty feet (450') of isolation;
- 4. In any Registered Scion Blocks established after these rules go into effect, whenever there is more than one (1) variety in a row, there shall be a separation of at least ten feet (10') between varieties;
- 5. All Registered Scion Blocks shall be inspected visually at least once a year under the supervision of the Missouri Department of Agriculture;
- 6. Registered Scion Block Trees may be reindexed at any time at the discretion of the Missouri Department of Agriculture;
- 7. Any Registered Scion Block Tree found infected with **a** virus shall be removed within no more than ten (10) days of receipt of notice from the Missouri Department of Agriculture;

- 8. The nursery shall provide the Missouri Department of Agriculture with charts showing the location and varieties included in each Registered Scion Block. The nursery's records of the sources of budwood and understock shall be available for inspection by the Missouri Department of Agricul-ture during normal business hours after reasonable notice;
- 9. The nursery shall notify the Missouri Department of Agriculture before adding any trees, buds, or understocks to any Registered Scion Block; and
- 10. Registered Scion Blocks shall be marked in such a manner as to be easily recognizable to the Missouri Department of Agriculture;
- (C) Cooperating nurseries may register Prunus trees with the Missouri Department of Agriculture to serve as a source of seed for the production of virus-certified nursery stock, Registered Scion Block Trees, and Registered Parent Trees. These trees will be known as Registered Seed Source Trees. Registered Seed Source Trees shall meet the following requirements:
- 1. Registered Seed Source Trees shall be either indexed under the supervision of the Missouri Department of Agriculture for freedom from seed-borne viruses or must be propagated from budwood and understock meeting the same requirements as for propagating Registered Scion Block Trees as set forth in paragraphs ([9]2)(B)1. and 2.; and
- 2. Isolation, inspection, indexing, recordkeeping, and notification requirements shall be the same as for Registered Parent Trees as set forth in paragraphs ([9]2)(A)3.–9.;
- (D) Cooperating nurseries may register clonal plantings of self-rooted certified trees with the Missouri Department of Agriculture for the purpose of producing vegetatively-propagated rootstocks. These plantings will be known as Registered Stool Beds and shall meet the following requirements:
- 1. The source of propagating material for Registered Stool Beds shall meet the same requirements as budwood for Registered Parent Trees as set forth in paragraph ([9]2)(A)1.;
- 2. Registered Stool Beds shall be maintained in isolation of one hundred fifty feet (150') from noncertified trees of the same genus; and
- 3. Inspection, reindexing, removal, recordkeeping, and notification requirements shall be the same as for Registered Parent Trees as set forth in paragraphs ([9]2)(A)4.–9.;
- (E) Nursery stock bearing the Fruit Tree Budwood and Understock Virus Certificate shall meet the following requirements:
- 1. The source of budwood for the top variety and interstems shall be Registered Scion Block Trees or Registered Parent Trees as set forth in subsections ([9]2)(A) and (B);
 - 2. The source of understock shall be one (1) of the following:
 - A. True seedlings of Malus or Pyrus;
- B. Clonal understocks produced in Registered Stool Beds as set forth in subsection ([9]2)(D) or bearing a virus certificate from a certifying body acceptable to the Missouri Department of Agriculture; and
- C. Seedlings from seed of Registered Seed Source Trees as set forth in subsection ([9]2)(C) or from seed bearing a virus certificate from a certifying body acceptable to the Missouri Department of Agriculture;
- 3. The nursery stock shall be grown in blocks separated from noncertified trees of the same genus by at least ten feet (10');
- 4. In any new plantings of nursery stock under this certification established after these rules go into effect, whenever there is more than one (1) variety in a nursery row, there shall be a separation of at least five feet (5') between varieties;

- 5. The nursery stock shall be inspected visually at least once a year by the Missouri Department of Agriculture;
- 6. Samples of nursery stock bearing the Fruit Tree Budwood and Understock Certificate may be indexed at the discretion of the Missouri Department of Agriculture;
- 7. The nursery shall provide the Missouri Department of Agriculture with charts showing the growing location and quantity of nursery stock produced under this certificate. They also shall provide copies of virus certificates for nursery stock and propagating material received from outside Missouri. The records of sources of propagating material shall be open for inspection by the Missouri Department of Agriculture; and
- 8. Nursery stock in the field and in storage shall be marked in such a manner as to be easily identifiable to the Missouri Depart-ment of Agriculture as virus-certified material;
- (F) Nursery stock bearing the Fruit Tree Budwood Virus Certificate shall meet the following requirements:
- 1. The source of budwood for the top variety and interstems shall be Registered Scion Block Trees or Registered Parent Trees as set forth in subsections ([9]2)(A) and (B);
- 2. The nursery stock shall be grown in blocks separated from noncertified trees of the same genus by at least ten feet (10');
- 3. In any new plantings of nursery stock under this certification established after these rules go into effect, whenever there is more than one (1) variety in a nursery row there shall be a separation of at least five feet (5') between varieties;
- 4. The nursery stock shall be inspected visually at least once a year by the Missouri Department of Agriculture;
- 5. Samples of nursery stock may be indexed at the discretion of the Missouri Department of Agriculture;
- 6. The nursery shall provide the Missouri Department of Agriculture with charts showing the growing location and quantity of nursery stock produced under this certification. They also shall provide copies of virus certificates for nursery stock and propagating material received from outside Missouri. The nursery's records of sources of propagating material shall be open for inspection by the Missouri Department of Agriculture during normal business hours after reasonable notice; and
- 7. Nursery stock in the field and in storage shall be marked in such a manner as to be easily identifiable to the Missouri Depart-ment of Agriculture and nursery personnel as virus-certified material; and
- (G) Nursery stock or seed bearing the Fruit Tree Understock Virus Certificate shall meet the following requirements:
- 1. The source of seed bearing this certificate shall be Registered Seed Source Trees as set forth in subsection ([9]2)(C). Seedlings bearing this certificate must be grown from seed of Registered Seed Source Trees as set forth in subsection ([9]2)(C) or from seed bearing the virus certificate of a certifying body acceptable to the Missouri Department of Agriculture. Clonal understocks bearing this certificate must be propagated in Registered Stool Beds as set forth in subsection ([9]2)(D);
- 2. Seedlings shall be grown in blocks separated from noncertified trees of the same genus by ten feet (10');
- 3. The nursery stock shall be inspected visually at least once a year by the Missouri Department of Agriculture;

- 4. Samples of nursery stock or seed bearing the Fruit Tree Understock Virus Certificate may be indexed at the discretion of the Missouri Department of Agriculture;
- 5. The nursery shall provide the Missouri Department of Agriculture with charts showing the growing location and quantity of nursery stock and seed produced under this certificate. They also shall provide copies of virus certificates of seed received from outside Missouri. The records of sources of propagating materials shall be open for inspection by the Missouri Depart[-]ment of Agriculture; and
- 6. Nursery stock in the field and in storage and seed in storage shall be marked in such a manner as to be easily identifiable to the Missouri Department of Agriculture as virus-certified material.
- [(10)] (3) Grape virus disease certification of nursery stock is optional and is provided for under this section. Grapevines advertised or sold with reference to freedom from virus and virus-like diseases and propagating material for virus-certified grapevines shall meet one (1) of the following classifications:
- (A) Foundation blocks shall be registered with the Missouri Department of Agriculture. These will serve as source material for the propagation of registered stock blocks and virus-certified nursery stock and may be located at cooperating nurseries or other locations approved by the Missouri Depart-ment of Agriculture and shall meet the following requirements:
- 1. Propagating wood for foundation blocks shall be from material which has been tested for and found to be apparently free from the following viruses: fanleaf degeneration, leaf-roll, corky bark, American grape decline (peach rosette-mosaic virus), fleck, stem-pitting, tobacco ringspot virus, and tomato ringspot virus;
- 2. Foundation block vines shall be tested at appropriate intervals by the Missouri Department of Agriculture for the viruses listed in paragraph (10/3)(A)1.;
- 3. Foundation blocks shall be at least one hundred feet (100') from land on which noncertified grapevines have been grown within the past ten (10) years;
- 4. All foundation blocks shall be inspected visually at least twice a year in the spring and in the fall by the Missouri Department of Agriculture;
- 5. Any foundation block plants found to be infected with virus or virus-like diseases shall be removed under the supervision of the Missouri Department of Agriculture and within ten (10) days of receipt of notice from the department;
- 6. The Missouri Department of Agriculture shall be provided with charts showing the location and variety of each foundation block plant;
- 7. The Missouri Department of Agriculture shall be notified before any grapevines are added to a foundation block;
- 8. Foundation block plants shall be marked in such a manner as to be easily recognizable to the Missouri Department of Agriculture; and
- 9. The Missouri Department of Agriculture may require such treatments or precautionary measures as may be necessary to protect against infection or infestation with the viruses listed in paragraph ([10]3)(A)1.;
- (B) Registered Stock Block—Cooperating nurseries shall register stock block plants with the Missouri Department of Agriculture. These may serve as a source of propagating material for nursery stock. Plantings of these vines will be known as Registered Stock Blocks and shall meet the following requirements:
- 1. Propagating wood for Registered Stock Blocks shall originate from foundation blocks or from grapevines which meet or exceed the Missouri requirements for foundation block plants;

- 2. Registered Stock Block plants may be tested for infection by viruses at any time at the discretion of the Missouri Department of Agriculture; and
 - 3. Requirements of paragraphs ([10]3)(A)3.–9. also shall apply to Registered Stock Blocks;
 - (C) Nursery stock bearing the Grapevine Virus Certificate shall meet the following requirements:
- 1. The source of propagating wood shall be registered stock block vines, foundation block vines or propagating wood which meets the requirements of Registered Stock Block vines;
- 2. Samples of nursery stock bearing the Grapevine Virus Certificate may be virus-tested at the discretion of the Missouri Department of Agriculture;
- 3. The nursery stock shall be planted at least one hundred feet (100') from land on which noncertified grapevines have been grown within the past ten (10) years. This also includes container-grown stock;
- 4. The propagating area shall be disinfected in a manner approved by the Missouri Department of Agriculture any time it is utilized for the propagation of grape plants that do not meet the virus-free certification requirements;
- 5. The nursery stock shall be inspected at least once a year by the Missouri Depart[-]ment of Agriculture;
- 6. The nursery shall provide the Missouri Department of Agriculture with the charts showing the growing location and quantity of nursery stock produced under this certificate;
- 7. Nursery stock in propagating areas in the field and in storage shall be marked in such a manner as to be easily recognizable to the Missouri Department of Agriculture as virus-certified material; and
- 8. Nursery stock shall remain in the nursery row for no more than two (2) growing seasons; and
- (D) Foundation container grapevines, grown in greenhouses, which are isolated from noncertified grapevines, may be registered with the Missouri Department of Agriculture to serve as propagating material for virus-certified nursery stock and virus-certified stock plants, and shall meet the following requirements:
- 1. Propagating wood for foundation container grapevines shall have been tested and found to be apparently free from the viruses listed in paragraph (/10/3)(A)1.;
- 2. Requirements set forth for foundation blocks in paragraphs ([10]3)(A)3.–9. shall apply to foundation container grapevines; and
- 3. Nursery stock propagated from foundation container grapevines bearing the Grapevine Virus Certificate shall be no more than four (4) cutting generations removed from plants which have been tested for and found to be apparently free from the diseases listed in paragraph ([10]3)(A)1.

AUTHORITY: section 263.040, RSMo 1986.* Original rule filed Aug. 4, 1958, effective Aug. 14, 1958. Amended: Filed April 22, 1965, effective May 2, 1965. Amended: Filed March 25, 1966, effective April 4, 1966. Amended: Filed May 27, 1975, effective June 6, 1975. Refiled March 11, 1976. Amended: Filed March 16, 1977, effective June 15, 1977. Amended: Filed Jan. 13, 1982, effective April 15, 1982. Amended: Filed Jan. 13, 1984, effective May 15, 1984. Rescinded: Filed Aug. 14, 1984, effective Jan. 1, 1985. Readopted: Filed Sept. 12, 1984, effective Jan. 1, 1985. Amended: Filed Oct. 2, 1989, effective Dec. 28, 1989.

*Original authority: 263.040, RSMo 1939, amended 1984.

PUBLIC COST: This proposed amendment will not cost public entities more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Department of Agriculture, ATTN: John Brunnert, PO Box 630, 1616 Missouri Boulevard, Jefferson City, MO 65102, or online at Agriculture.Mo.Gov/proposed-rules/. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.