

**DEPARTMENT OF AGRICULTURE**

**PESTICIDE AND PLANT PEST MANAGEMENT DIVISION**

**REGULATION NO. 628. SEED POTATO CERTIFICATION**

(By authority conferred on the director of the department of agriculture by section 2 of 1959 PA 221, MCL 286.72)

**R 285.628.1 Definitions.**

Rule 1. As used in these rules:

(a) "Certifiable seed potatoes" means seed potatoes which meet or exceed the standards established in these rules, which are produced and stored as required by these rules, and which originate from a state-approved laboratory or greenhouse program that involves in vitro techniques of propagation and the subsequent production of plants or tubers under a controlled environment. Seed stock produced under these controlled conditions shall be designated nuclear. Seed originating from this program will be produced in a limited generation system of foundation-field years 1 through 5, and certified field years 1 through 6. foundation-field year 1, is the first field progeny of nuclear seed produced in a laboratory or greenhouse program. Initial explants shall be screened for the presence of pathogens by using accepted techniques.

(b) "Certification" means the act of verifying compliance with the standards or requirements specified in the regulations governing the production of seed potatoes. Except as otherwise specified, the measurement method or basis for determining compliance with the standards is visual inspection of the growing grounds and crops thereon or harvested therefrom as described in the regulation. "Certification" does not constitute a guarantee or warranty or representation that the seed potatoes to which the indicia of certification (certification tags, seals, bulk certificates) are attached, or which are otherwise represented as certified, are merchantable or fit for a particular purpose.

(c) "Certified seed" means a class of seed which meets the disease and varietal tolerances established by these rules for field year 1 through field year 6 and which is the progeny of foundation seed or the progeny of seed produced in another state or country that is certified as foundation seed or a higher class by an official seed-certifying agency in the other state or country using standards comparable to the standards established in these

rules. Certified seed from other states or countries that is to be entered for certification in Michigan must meet or exceed Michigan's certified seed standards.

(d) A Commercial potato production@ means production of potatoes for other than certified seed purposes.

(e) "Field year" means a seed potato classification designating the number of years a particular lot has been grown in the field after greenhouse propagation.

(f) "Foundation seed" means the progeny of nuclear seed or a comparable seed class approved by the certifying agency. Foundation seed shall meet the disease and varietal tolerances established in these rules for field year 1 through field year 5.

(g) "Nuclear seed stock" means propagation material, including mini-tubers and plantlets, which originated in a state-approved laboratory or greenhouse program that involves in vitro techniques and which is grown under controlled conditions.

(h) "Operation" means a seed potato enterprise where the lowest class of seed planted is certified, field year 6. It includes all land, equipment, storages, and facilities used to produce certified seed.

(i) "Seed lot" means all the seed potatoes of the same variety which are of a single class, which are of a specific seed source, and which are harvested from a field or stored together in a specific storage facility.

(j) "Seed potato" means the tuber that is used for the reproduction of the potato.

(k) "Seed potatoes eligible for certification" means any of the following:

(i) Any potato variety that has been released, named, and had its description published by the potato association of America, United States department of agriculture, or a recognized state agricultural experiment station.

(ii) Cultivars that do not have published descriptions, such as advanced lines from breeding programs and protected varieties, if the seed source is approved by the official seed-certifying agency and a plant and tuber description is provided to the official seed-certifying agency.

(iii) Lines, selections, and transgenic seed stocks which are derived from previously named and described varieties, which enter an approved tissue culture program, and which carry a trait or traits that are not visibly certifiable if the lineage is clearly substantiated by signed affidavit.

(l) "Separate operation" means a distinct production unit which has a unique and dedicated storage facility and which has equipment that is assigned only to that operation. Separate operations shall be designated at the time of application for certification.

(m) "Tolerance" means a permissible allowance for a disease, varietal mixture, or grade defect as specified in the regulations governing the certification of seed potatoes.

History: 1979 AC; 1990 AACCS; 1994 AACCS.

### **R 285.628.2 Designation of official seed-certifying agency.**

Rule 2. The Michigan seed potato association is designated as the official seed-certifying agency of the department of agriculture for the purpose of assisting and advising the department in carrying out the provisions of 1959 PA 221, MCL 286.71 et seq. and these rules.

History: 2002 AACCS.

### **R 285.628.3 Application.**

Rule 3. (1) A person may apply for certification of seed potatoes that are eligible for certification by filing a written application with the official seed-certifying agency on or before June 10 of each year if the operation is located south of highway 55 and on or before June 20 of each year if located north of highway 55.

(2) Separate seed operations may be designated, however, the description of these separate operations shall be jointly agreed upon by the owner or manager and the official seed-certifying agency at the time of application for certification. Individual fields will not be considered separate operations in and of themselves. The owner or manager shall submit a separate application for certification for each designated operation. Each separate operation shall have a unique and dedicated storage facility, and any equipment used in the operation shall be assigned only to that operation unless the equipment is power washed and disinfected between operations. The power washing and disinfection shall be documented for future reference by the official seed-certifying agency.

History: 1979 AC; 1990 AACCS; 1994 AACCS.

#### **R 285.628.4 Conditions for certification.**

Rule 4. (1) A seed lot that is eligible for certification shall not be certified if any of the following conditions exist:

(a) Less than all of the acreage of potatoes grown by the applicant is planted to foundation or certified seed that meets Michigan standards and entered for inspection.

(b) The seed lot is planted less than 5 feet from other potatoes that are part of the certification program or less than 50 feet from other potatoes that are not part of a certification program.

(c) The seed lot is grown in a field in which weeds, insect injury, spray damage, disease, or any other factor that prevents the adequate inspection or production of certifiable seed potatoes is present.

(d) The seed lot is planted on land used for commercial potato production or that has been exposed to infection from bacterial ring rot during the preceding 2 growing seasons.

(e) The seed lot has been exposed to bacterial ring rot infection before, during, or after harvest.

(f) The seed lot is stored, graded, or handled in storage facilities that contain potatoes that were not field-inspected or potatoes that were rejected for the presence of bacterial ring rot.

(g) Severe foliar diseases including late blight, early blight, and wilt diseases such as verticillium, blackleg, and fusarium; frost injury, or any other condition that renders the seed lot undesirable for use as seed is present.

(h) Bacterial ring rot is present in a seed lot in the operation. All seed stocks of that lot are to be removed from the operation. All equipment and facilities that may have come in contact with this seed shall be cleaned and disinfected. The first lot of seed cut or planted, or cut and planted, after the infected lot is not certifiable and is not eligible for sale as certified seed for 1 growing season. These lots may be retained in the operation in the certified inspection system and may be reentered as seed that is eligible for certification the following year

if bacterial ring rot is not noted. The classification level for these lots shall be retained under the normal generation system as if they were eligible for certification. All other seed lots in the operation may be certified, but shall not be sold for future seed propagation for 1 growing season. All shipping and inspection documents for these lots that are sold during the first year after disease identification shall indicate that the seed is not to be used for seed propagation. If bacterial ring rot is detected in an operation in more than 1 seed lot in the same year or in 1 seed lot 2 of 3 consecutive years, then all seed stocks shall be removed from the operation and all equipment and facilities shall be cleaned and disinfected before further certification will be issued. If bacterial ring rot is detected in an operation in more than 1 seed lot in the same year or in 1 seed lot 2 of 3 consecutive years or noncertified production occurred in the previous year of operation, then seed potatoes will not be approved for sale or transfer from the operation to other seed propagation operations for 2 growing seasons. Cutting and planting equipment is to be thoroughly cleaned and disinfected between lots and the disinfection shall be documented for future reference by the official seed-certifying agency. This documentation shall be part of the application for certification. Materials that are used to disinfect cutting and planting equipment shall be of a type labeled for bacterial disease control.

(i) Seed lots which are eligible for sale or transfer and which have not been winter-tested or laboratory-tested or for which a sample or samples have not been submitted for winter testing by an organization approved by the official seed-certifying agency or the Michigan department of agriculture.

(j) Bacterial ring rot-infected potatoes and other plant parts that might provide a source of contamination or cull potatoes from another location or farm are stored or disposed of at, or are introduced into, the operation.

(2) If a potato disease of significant impact to the seed industry is identified for which certification standards have not been established in these rules, then the director shall appoint an advisory committee to provide recommendations for appropriate certification standards and actions. The committee shall consist of 1 certified or foundation seed potato producer and 1 representative each from all of the following:

(a) The department of plant pathology and the department of crop and soil sciences at Michigan state university.

(b) The official seed-certifying agency.

(c) The Michigan department of agriculture.

(3) The signed affidavit required for the genetic material defined in R 285.628.1(j)(iii) shall be provided by the applicant to the official seed-certifying agency upon request, in order to propagate and certify this material in Michigan. The certified seed tag for this material shall specify that it has met all certification standards, except for nonvisual characteristics. The plant and tuber descriptions and any required affidavits shall be in a format approved by the official seed-certifying agency.

(4) Except as otherwise specified, the measurement method or basis for determining compliance with the stated tolerances is visual inspection of a sample of the plants or tubers in the field or lot, respectively. Further, except as specified, sample sizes are to be determined by the certification agency. Diseases, varietal mixtures, or grade defects may be present at a level in excess of specified tolerances; however,

disease symptoms, varietal mixtures, and grade defects shall not be visually detectable at the time of official inspection due to numerous factors, including environmental conditions and varietal differences. Furthermore, even the inspection of larger samples might not reveal deviations in excess of specified tolerances. Finally, with respect to the zero tolerances for such defects as varietal mixture, bacterial ring rot, root knot nematode and spindle tuber, the tolerances are chosen for reasons of convenience and practicality and are not construed to mean that the lot inspected is free of the defects. Negative inspection results mean that varietal mixture, bacterial ring rot, root knot nematode or spindle tuber were not found during the inspection process.

(5) Only seed lots produced from foundation class material or better is eligible for sale or transfer for recertification.

History: 1979 AC; 1980 AACCS; 1994 AACCS.

#### **R 285.628.4a Rescinded.**

History: 1990 AACCS; 1994 AACCS.

#### **R 285.628.5 Official seed-certifying agency; duties.**

Rule 5. The official seed-certifying agency shall do all of the following:

(a) Make 2 or more inspections of all fields of seed potatoes eligible for certification and all nuclear seed stock eligible for certification. An application for such certification shall be filed according to the requirements of R 285.628.3. Inspections shall be made at times when plant growth and other conditions are optimum for varietal identification and disease expression. All potato production shall have at least 1 field inspection for ring rot.

(b) Make at least 1 tuber inspection of all seed lots entered for field inspection certification.

(c) At least annually and before the establishment of each greenhouse crop, inspect storage, laboratory, greenhouse, and screenhouse facilities for proper isolation and sanitation. If both greenhouse or laboratory production and the field production are inspected by the official seed-certifying agency, then they will be considered separate production units. If only the greenhouse or laboratory production or only the field production is inspected, then it will be considered 1 unit. Storage, laboratory, greenhouse, and screenhouse inspection and testing protocols shall be approved by the director of the department of agriculture based on acceptable sanitation procedures.

(d) Collect, or cause to be collected, representative tuber or plant samples of certifiable seed potatoes for winter testing or other tests as may be required for certification.

(e) Issue certification tags, or bulk certificates for each container or bulk shipment of certifiable potatoes or, upon request by an applicant who has sold seed potatoes which must be shipped before the winter test results are known and which are otherwise certifiable, issue tags or bulk certificates for each container or bulk shipment that

contains the statement that the potatoes met summer field and laboratory certification requirements but were shipped before the official winter test results were available.

(f) Apply inspection tolerances to field inspections and winter tests on the basis of visual observations, except when deemed appropriate by the certifying agency to confirm visual observations or suspected latent infections by analytical methods.

History: 1979 AC; 1980 AACs; 1990 AACs; 1994 AACs; 2011 AACs.

**R 285.628.5a Nuclear, foundation-field year 1 through 5 and certified field year 1 through 6 seed lots; certification requirements.**

Rule 5a. Seed lots of nuclear, foundation-field year 1 through 5 and certified seed shall not be certified as such if any of the following provisions apply:

(a) Less than all of the potato acreage on the farm producing such lots was planted with seed that had been certified.

(b) The following visual field inspection or laboratory testing tolerances for diseases and varietal mix are exceeded during any field inspections or laboratory observations:

<b>FOUNDATION CLASS</b>			<b>CERTIFIED CLASS</b>		
	<b>NUCLEAR/FY-1</b>	<b>FY-2 THROUGH FY-5</b>		<b>FY-1 THROUGH FY-6</b>	
Leaf roll	0.00%	0.25%	Leaf roll	0.50%	
Mosaics	0.00%	0.25%	Mosaics	1.00%	
Spindle tuber	0.00%	0.00%	Spindle tuber	0.00%	
Aggregate	0.00%	0.25%	Aggregate	1.00%	

B.R.R.	0.00%	0.00%		B.R.R.	0.00%
Varietal mix	0.00%	0.10%		Varietal mix	0.25%

\* Any varietal mixture in nuclear or foundation-field year 1 stock shall be rogued to achieve 0 (zero) tolerance.

(c) Roguing is not completed before the second inspection.

(d) The tuber samples that are winter-tested exceed the disease inspection tolerances for virus leaf roll, rugose mosaic, potato virus Y, and spindle tuber, which shall be an aggregate of 0.5 for foundation-field year 1 through foundation-field year 5, and 5.0% for certified field year 1 through certified field year 6.

History: 1990 AACS; 1994 AACS.

**R 285.628.6 Rescinded.**

History: 1979 AC; 1990 AACS; 1994 AACS.

**R 285.628.7 Rescinded.**

History: 1979 AC; 1980 AACS; 1990 AACS; 1994 AACS.

**R 285.628.8 Storage facilities and equipment; packaging facilities; sanitation; isolation of certifiable seed potatoes.**

Rule 8. (1) All equipment and storage facilities shall be thoroughly cleaned and disinfected before use.

(2) Storage facilities, including those located at packaging sites in foundation-field year 1 through 5 and certified-field year 1 through field year 6 seed are stored, shall contain only lots of potatoes that have passed field inspection or have been rejected for reasons other than exposure to, or infection by, bacterial ring rot, if the lots are isolated from the certifiable seed potatoes. Storage facilities which are maintained by the propagator and in which nuclear seed is stored shall contain only lots of nuclear seed stock that have passed laboratory or greenhouse inspections. Each foundation and certified seed lot shall be separated by a physical barrier that will prevent the mixing of seed.

(3) Agricultural equipment that is used for noncertified potato production and processing equipment shall not be allowed to enter certified seed potato storages, processing areas, and production fields unless the equipment is power washed and

disinfected. Nonagricultural equipment shall not be allowed to enter certified seed production fields unless the equipment is power washed and disinfected. The power washing and disinfection of equipment shall be documented for future reference by the official seed-certifying agency. Materials that are used to disinfect storage and production equipment and nonagricultural equipment shall be of a type labeled for bacterial disease control.

(4) Trucks and other means of conveyance which are not owned or operated by the seed farm operator and which are used to transport certified seed potatoes from the seed farm operation shall not be cleaned on the seed farm premises.

(5) Packaging facilities and equipment used for certified seed potatoes shall be power washed and disinfected and shall be inspected and approved by the certifying agency before the facilities are used or the equipment is operated. Materials that are used to disinfect packaging facilities and equipment shall be of a type labeled for bacterial disease control.

(6) Storage and packaging facilities that are operated by someone other than the seed potato propagator shall maintain grade inspection and bulk shipment certificates, certification documents, and other records as deemed necessary by the certifying agency for each lot of seed that is stored or packaged at that facility. These documents shall be maintained for a period of not less than 4 years after the seed lot has been removed from the facility and shall be accessible to the director or the certifying agency during normal business hours.

History: 1979 AC; 1990 AACS; 1994 AACS.

### **R 285.628.9 Shipping inspection.**

Rule 9. Each lot of seed shall be inspected for grade at the time of shipping to complete the certification process. The inspection may be made by the federal-state inspection service or by the certifying agency. A shipping time inspection for grade shall be made each time a load of seed potatoes is transferred or shipped, unless, at the discretion of the inspector and certifying agency, the lot can be adequately assessed and certified by inspecting less than every load based on the fact that a representative portion of the lot has been inspected and approved. This overall seed lot certification requires an inspection of the initial load shipped from each lot, an overall assessment of the lot for uniformity, and at least 1 load for each purchaser. A certificate of inspection shall accompany each shipment. Inspection protocols for lot certification shall be approved by the director of the department of agriculture based on the certifying agency's ability to adequately verify the condition of the entire lot.

History: 1979 AC; 1980 AACS; 1994 AACS; 2011 AACS.

### **R 285.628.10 Shipping containers; bulk shipments.**

Rule 10. Seed potatoes, except those shipped in bulk, when sold shall be packed in new, clean, unused containers and sealed as required by the certifying agency and approved by the director of agriculture. Containers for bulk shipment shall be properly cleaned. A certificate for bulk shipment issued by the certifying agency

shall accompany each shipment in bulk. Seed potatoes for foreign export shall be packaged to comply with the requirements of the importing country.

History: 1979 AC.

**R 285.628.11 Grades and sizes; adoption of standards by reference.**

Rule 11. (1) Grades and sizes of foundation and certified classes of seed shall conform to the current United States standards for grades of seed potatoes effective March 6, 1987. These standards are adopted in these rules by reference and are available from the Superintendent of Documents, United States Government Printing Office, Washington, DC 20402, at no cost, or from the Michigan Department of Agriculture, P.O. Box 30017, Lansing, Michigan 48909, at no cost.

(2) Blue tag grade seed potatoes shall be in compliance with the requirements of the United States no. 1 seed potato grade. The size shall be not less than 1 1/2 inches and not more than 3 1/4 inches in diameter or more than 12 ounces in weight, unless otherwise specified. If stones are present, they shall be duly noted on the grade inspection report.

(3) Yellow tag grade seed potatoes shall be in compliance with the blue tag United States no. 1 seed potato grade standards, except that, to allow for variations incident to proper grading and handling, both of the following tolerances are permitted:

(a) The allowance for sprouts may be exceeded after March 15.

(b) Twenty percent or less of the potatoes in any seed lot shall fail to meet the remaining requirements of this grade if neither of the following tolerances is exceeded:

(i) Twelve percent for external or internal defects based on the following allowances:

(A) Six percent for damage, including not more than 2 3% for serious damage due to dry or moist-type fusarium tuber rot.

(B) Six percent for serious damage due to other defects.

(C) Total serious damage shall not be more than 6%.

(ii) One percent for frozen, soft rot, or wet breakdown.

(4) All sellers and purchasers of a given lot of red tag grade seed potatoes shall jointly agree as to size and defects, except that neither of the following tolerances shall be exceeded:

(a) Six percent for damage due to dry or moist-type fusarium tuber rot, including not more than 4% for serious damage due to dry or moist-type fusarium tuber rot.

(b) One percent for frozen, soft rot, or wet breakdown.

(5) A purple tag shall be used for nuclear seed stock. All sellers and purchasers of a given lot of nuclear seed stock shall jointly agree as to size and condition.

History: 1979 AC; 1980 AACS; 1990 AACS; 1994 AACS.

**R 285.628.12 Rescinded.**

History: 1979 AC; 1980 AACS; 1994 AACS; 1997 AACS.

**R 285.628.13 Modification of standards.**

Rule 13. The director of the department of agriculture may modify the standards established herein for certifiable seed when due to weather, disease or any other factor the application of the standards would threaten the normal propagation of potato variety.

History: 1979 AC.

**R 285.628.14 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.15 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.16 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.17 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.18 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.19 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.20 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.21 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.22 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.23 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.24 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.25 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.26 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.

**R 285.628.27 Rescinded.**

History: 1979 AC; 1980 AACS; 1997 AACS.