WEST VIRGINIA SECRETARY OF STATE

MAC WARNER

ADMINISTRATIVE LAW DIVISION

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4/15/2022 11:41:57 AM

Office of West Virginia
Secretary Of State

NOTICE OF FINAL FILING AND ADOPTION OF A LEGISLATIVE RULE AUTHORIZED BY THE WEST VIRGINIA LEGISLATURE

AGENCY: Agriculture TITLE-SERIES: 61-39

RULE TYPE: Legislative Amendment to Existing Rule: Yes Repeal of existing rule: No

RULE NAME: Seed Certification

CITE STATUTORY AUTHORITY: §19-16-3a, §19-16-6

The above rule has been authorized by the West Virginia Legislature.

Authorization is cited in (house or senate bill number) SB 334

Section §64-9-1 Passed On 3/12/2022 12:00:00 AM

This rule is filed with the Secretary of State. This rule becomes effective on the following date:

April 18, 2022

This rule shall terminate and have no further force or effect from the following date:

August 01, 2032

BY CHOOSING 'YES', I ATTEST THAT THE PREVIOUS STATEMENT IS TRUE AND CORRECT.

Yes
Norman Bailey -- By my signature, I certify that I am the person authorized to file legislative rules, in accordance with West Virginia Code §29A-3-11 and §39A-3-2.

TITLE 61
LEGISLATIVE RULE
WEST VIRGINIA DEPARTMENT OF AGRICULTURE

SERIES 39
SEED CERTIFICATION PROGRAM

§61-39-1. General.

1.1. Scope. -- This legislative rule establishes the requirements governing the standards for industrial hemp seed production, inspection, and seed standards for certification. Industrial hemp, as defined by W. Va. Code, will be enforced by W. Va. Code and legislative rules promulgated under that article.

1.2. Authority. -- W. Va. Code §19-16-3a; §19-16-6.

1.3. Filing Date. -- April 15, 2022

1.4. Effective Date. -- April 18, 2022

1.5. Sunset Date. -- This rule shall terminate and have no further force or effect on August 1, 2032.

§61-39-2. Policy.

2.1. All persons involved in seed certification in the state of West Virginia are equally responsible for full compliance with the provisions of W. Va. Code, §19-16-1 *et seq*.

2.2. The Association of Official Seed Certifying Agencies (AOSCA) Seed Certification Handbook is incorporated in its entirety by reference.

§61-39-3. Seed Certification – Purpose.

3.1. Under the authority of W. Va. Code §19-16-6, the department adopts rules to establish standards for seed certification in West Virginia in order to maintain and make available sources of high quality seeds and propagating material of plant varieties so grown and distributed as to ensure genetic identity and genetic purity.

§61-39-4. Seed Certifying Agencies in West Virginia.

4.1. Seed certification in West Virginia is conducted under the authority of W. Va. Code §19-16-3a, W. Va. Code §19-16-6, and W. Va. Code R. 61 C.S.R. 9-11. The department conducts seed certification in cooperation with the West Virginia Associated Crop Growers and the Association of Official Seed Certifying Agencies.

4.2. The West Virginia Department of Agriculture certifies seed of industrial hemp. All other seed is certified by the West Virginia Department of Agriculture or the West Virginia Associated Crop Growers.

§61-39-5. Definitions of Terms Used for Purposes of Certification Programs.

5.1. Variety Classes:

5.1.1. Breeder Class: Breeder seed is seed directly controlled by the originating or sponsoring plant breeding institution, or person, or designee thereof. As applied to certified seed, breeder seed is the source for the production of seed of the other classes of certified seed.

5.1.2. Foundation Class: Foundation seed is seed which is the progeny of breeder or foundation seed produced under control of the originator or sponsoring plant breeding institution, or person, or designee thereof. As applied to certified seed, Foundation seed is a class of certified seed which is produced under procedures established by the certifying agency for the purpose of maintaining genetic purity and identity.

5.1.3. Registered Class: Registered seed is the progeny of Breeder, Select, or Foundation seed handled under procedures acceptable to the certifying agency to maintain satisfactory genetic purity and identity.

5.1.4. Certified Class: Certified seed is the progeny of Breeder, Select, Foundation, or Registered seed so handled as to maintain satisfactory genetic purity and identity, and which has been approved and certified as acceptable to the certifying agency.

5.2. Pre-Variety Germplasm Types:

5.2.1. Source-identified Germplasm: Source-identified is a type of propagating material collected from natural stands, seed production areas, seed fields, or orchards where no selection or testing of the parent population has been conducted.

5.2.2. Selected Germplasm: Selected is a type of propagating material that is the progeny of phenotypically selected plants of untested parentage that have promise but no proof of genetic superiority or distinctive traits.

5.2.3. Tested Germplasm: Tested is a type of propagating material that is the progeny of plants whose parentage has been tested and has proven genetic superiority or possesses distinctive traits for which the heritability is stable, as defined by the certifying agency, but for which a variety has not been named or released. This seed must be produced so as to assure genetic purity and identity.

5.3. Conditioning: The mechanical handling of seed from harvest until marketing.

5.4. Double Cross: The first generation hybrid between two foundation single crosses.

5.5. Foundation Backcrosses:

5.5.1. A first generation foundation backcross is the first generation cross between a foundation single cross of related inbred lines and an inbred line which shall be the same as one of the inbreds in the foundation single cross.

5.5.2. A second generation foundation backcross is the cross of a first generation backcross (ear parent) with its recurrent inbred parent (pollen parent).

5.6. Foundation Single Cross: A single cross used in the production of foundation backcrosses or of double, three-way, or top crosses.

5.7. Inbred Line: A relatively true-breeding strain resulting from controlled self-fertilization or of backcrossing to a recurrent parent with selection or its equivalent.

5.8. Off-Types: Any seed or plant not a part of the variety in that it deviates in one or more characteristics from the variety as described and may include: a seed or plant of another variety; a seed or plant not necessarily any variety; a seed or plant resulting from cross-pollination by another kind or variety; a seed or plant resulting from uncontrolled self-pollination during production of hybrid seed; or segregates from any of the above.

5.9. Open-Pollination: Seed produced as a result of natural pollination as opposed to hybrid seed produced as a result of controlled pollination.

5.10. Plant Breeder: A person or organization actively engaged in the breeding and maintenance of varieties of plants.

5.11. Pre-Variety Germplasm: Wild collected or field or nursery cultivated germplasm of a native or naturalized species which originates from a specific geographic area and has not been released as a variety.

5.12. Single Cross: The first generation of a cross of two inbred lines, an inbred line and a foundation backcross, or of two foundation backcrosses.

5.13. Three-Way Cross: The first generation of a cross of a foundation single cross and an inbred line or a foundation backcross.

5.14. Top Cross: The first generation of a cross between an open pollinated variety and an inbred line, a foundation backcross, or a foundation single cross.

5.15. Total Viable: Is the sum of percentage germination plus dormant plus hard seeds.

5.16. Variant: Variant means any seed or plant which (a) is distinct within the variety but occurs naturally in the variety, (b) is stable and predictable with a degree of reliability comparable to other varieties of the same kind, within recognized tolerances, when the variety is reproduced or reconstituted, and (c) was originally a part of the variety as released. A variant is not an off-type.

5.17. Variety: Means a subdivision of a kind which is distinct, uniform. and stable. (1) "Distinct" means that the variety can be differentiated by one or more identifiable morphological, physiological or other characteristics from all other varieties of public knowledge. (2) "Uniform" means that the variations in essential and distinctive characteristics are describable. (3) "Stable" means that the variety will remain unchanged in its essential and distinctive characteristics and its uniformity when reproduced or reconstituted as required by the different categories of varieties.

§61-39-6. Seed Standards for Proprietary Variety Certification – Application for Proprietary Certification.

6.1. The general seed certification standards provided for in this rule, together with the varieties eligible for seed certification, constitute the basic requirements for proprietary variety certification.

6.2. The owner or designee with production or marketing rights of a proprietary variety shall submit to the certifying agency a list of growers who will submit applications for certification showing the variety, acreage authorized, processor authorized, and also advising whether the variety is under genetic purity certification or under complete certification. The list of growers must be submitted prior to the application due dates for seed certification as specified by rule.

6.3. Each application for seed certification received by the certifying agency is subject to approval from the list submitted by the owner with production or marketing rights of a proprietary variety.

6.4. The certifying agency shall refuse certification of any seed that appears in a processing or conditioning plant not authorized by the owner or designee with production or marketing rights of a proprietary variety.

6.5. An application for seed certification may be withdrawn at any time prior to tagging. The applicant is responsible for fees due and owing when an application for seed certification is withdrawn.

§61-39-7. Seed Standards for Genetic Purity Certification.

7.1. All certified seed must conform to the standards of purity and identity or variety in compliance with W. Va. Code §19-16-1 *et seq.* and rules adopted thereunder. The general certification standards together with the specific crop certification standards established in this chapter are the basic requirements for genetic purity seed certification:

7.1.1. Only proprietary varieties and OECD varieties not of United States origin to be tagged under the OECD scheme are eligible for genetic purity certification;

7.1.2. Only the specific crop certification standards established in rule which pertain to genetic purity such as land requirements and isolation, apply for genetic purity certification. Fields shall not contain other varieties or off-type plants in excess of established standards. The grower is responsible for controlling noxious weeds to prevent seed formation;

7.1.3. Excessive prohibited and/or objectionable weeds, poor stands, lack of vigor, or other conditions, which make inspection by the certifying agency inaccurate, may be cause for rejection of a field;

7.1.4. Field inspection. A field inspection is made by the certifying agency each year at the time the seed crop is in bloom, or at other times as may be most advantageous to determine genetic purity. A complete record must be maintained on the condition of the field (weeds, crop mixtures, etc.) and all information reported to the authorized agent and/or grower. Upon completion of all requirements for field inspection, a final field inspection report is issued by the certifying agency that the seed produced passed genetic purity requirements;

7.1.5. Seed standards. The certifying agency shall test all lots to determine the purity and germination quality. Seed to be certified shall not contain seeds of other varieties or off-types in excess of standards established in this rule. The quality of each lot of seed represented to be certified shall be that which is normally acceptable in the marketing of high quality seed. Failure to

maintain acceptable quality shall be considered cause for revoking permission to participate in seed certification by genetic purity;

7.1.6. Processing or conditioning requirements. Only those conditioning plants approved by the department are permitted to process seed for certification. Complete records shall be kept of all processing or conditioning. Blending of seed lots of the same variety from fields passing field inspections may be permitted with prior approval and if in accordance with requirements for blending. Sampling and all other operations involving certified seed shall be under supervision of the certifying agency. The sample must be obtained in accordance with official sampling procedures. The entire lot shall be cleaned and in condition for sale at the time of sampling. This sample must be submitted to the seed laboratory for testing to evaluate quality. Lots of questionable quality may be rejected and not eligible for certification;

7.1.7. Certification tags for seed meeting the genetic purity standards shall be clearly marked, "genetic purity certified"; and

7.1.8. Fees for genetic purity certification are as established for each seed crop and the authorized agent or grower is responsible for all fees.

§61-39-8. Standards for Production of Foundation Seed.

8.1. The general seed certification standards together with specific crop standards established in this rule constitute the basic standards for production of foundation seed as determined necessary by the certifying agency. Seed to be eligible for foundation certification tags shall be approved by the originating plant breeder or his or her designated agent, and in compliance with the following standards:

8.1.1. Pre-planting report. A pre-planting inspection, an industry responsibility, shall be made of fields to be planted with breeder seed. A written report of the preplant inspection, performed by either a representative of the person issuing the contract or by the grower shall be maintained by the variety owner or designee for a minimum of three years. The report shall show the grower's name, number of acres, location, crop history for the past three years, crops to be planted, origin of breeder seed, isolation status, and any weed and crop present.

8.1.2. Planting requirement. To distinguish between any possible volunteer and the crop seeded, all fields shall be planted in distinct rows. Plants outside defined rows may be construed as volunteers.

8.1.3. Combine inspection. The combine used for seed harvesting shall be cleaned and inspected prior to harvesting foundation seed. The combine shall be free of all contaminating material. If an official combine inspection is requested, the certifying agency shall be notified of the following: The date, time, and location where the combine inspection may be made.

8.1.4. Processing plant inspection. The processing or conditioning plant shall be inspected before processing foundation seed and the processer shall make periodic inspections during processing.

8.1.5. Recleaning, re-bagging, pre-inoculation, treating, or other processes shall be approved by the certifying agency. An original tag shall be submitted with the request for recertification and the seed shall be retagged and resealed on completion.

8.1.6. For a proprietary variety the combine inspection in subdivision 8.13 of this section, and processing plant inspection in subdivision 8.1.4 of this section, responsibility may be assigned to the proprietor or his or her designee upon their request. The variety owner or designee shall maintain a report covering required inspections.

§61-39-9. Varieties Eligible for Seed Certification in West Virginia.

9.1. Only seed varieties that are accepted as meriting seed certification by an appropriate AOSCA National Variety Review Board or a member agency of AOSCA in accordance with the criteria listed in subsection (2) of this section may be eligible for seed certification in West Virginia.

9.2. The following information is required for submission to an AOSCA National Variety Review Board or other certifying agency for acceptance of a seed variety for certification:

9.2.1. The name of the variety;

9.2.2. A statement concerning the variety's origin and the breeding procedure used in its development;

9.2.3. A detailed description of the morphological, physiological, and other characteristics of the plants and seed that distinguish it from other varieties;

9.2.4. Evidence supporting the identity of the variety, such as comparative yield data, insect and disease resistance, or other factors supporting the identity of the variety;

9.2.5. A statement giving the suggested region of probable adaptation and purposes for which the variety is used;

9.2.6. A description of the procedure for maintenance of stock seed classes, including the number of generations through which the variety can be multiplied;

9.2.7. A description of the manner in which the variety is constituted when a particular cycle of reproduction or multiplication is specified;

9.2.8. Any additional restrictions on the variety, specified by the breeder, with respect to geographic area of seed production, age of stand or other factors affecting genetic purity; and

9.2.9. A sample of the seed representative of the variety as marketed.

§61-39-10. Seed Classes Recognized for Seed Certification.

10.1. Four seed classes are recognized in seed certification, namely: Breeder, foundation, registered, and certified.

10.1.1. Breeder seed is seed or vegetative propagating material directly controlled by the originating, or in certain cases the sponsoring plant breeder, institution, or firm. Breeder seed supplies the source for the initial and recurring increase of foundation seed. Breeder seed may also be used to produce subsequent generations.

10.1.2. Foundation seed, identified by white tags, is first-generation seed increased from breeder seed or its equivalent. Production shall be carefully supervised and approved by the certifying agency. Foundation seed is eligible to produce registered or certified seed.

10.1.3. Registered seed, identified by purple tags, ~~)~~ is the progeny of breeder or foundation seed that is handled as to maintain satisfactory genetic identity and purity and is approved and certified by the certifying agency. Registered seed is eligible to produce certified seed.

10.1.4. Certified seed, identified by blue tags, is the progeny of breeder, foundation, registered, or certified seed which is handled as to maintain satisfactory genetic identity and purity and is approved and certified by the certifying agency. Certified seed is not eligible for recertification, except as provided for in section 11 of this rule.

§61-39-11. Limitation of Generations for Seed Certification.

11.1. The number of generations through which a seed variety may be multiplied is limited to the number specified by the originating breeder or owner of a variety except that; and

11.1.1. Unlimited recertification of the certified seed class may be permitted for crop varieties where foundation seed is not being maintained; and

11.1.2. The production of an additional generation of the certified class may be permitted on a one-year basis when:

11.1.2.a. Prior to the planting season, the certifying agency states that foundation and registered seed supplies in the United States are not adequate to plant the needed acreage of the variety;

11.1.2.b. Permission of the originating breeder and/or owner of the variety is obtained (if applicable); and

11.1.2.c. The additional generation of certified seed produced is declared to be ineligible for recertification.

§61-39-12. Establishing the Source of Seed.

12.1. The certifying agency shall be supplied with satisfactory evidence of the class and source of seed used to plant each crop being considered for certification.

§61-39-13. Eligibility Requirements for Certified Crop Varieties.

13.1. Minimum standards of the Association of Official Seed Certifying Agencies (AOSCA) shall be met. Only those varieties that are accepted as meriting certification, in accordance with the criteria provided by the West Virginia Department of Agriculture, are eligible for certification. The department may deny or suspend certification when considered appropriate. Non-Certified seed or grains may be eligible for official AOSCA labels as outlined in the *AOSCA Quality Assurance (QA) Program* or the *General Standards for the Identity Preserved (IP) Program.*

13.1.1. Varieties will normally be considered eligible for certification if the variety has received favorable action by one or more of the following:

13.1.1.a. The National Variety Review Board (if one exists for that crop);

13.1.1.b. The Plant Variety Protection Office;

13.1.1.c. Another official seed certification agency; or

13.1.1.d. Variety is eligible for certification under the OECD Seed Schemes.

13.1.2. If a variety or line has not been exposed to any of the above organizations, then the West Virginia Department of Agriculture will make the final decision. The developer, public or private, must provide reasonable assurance that the identity of the variety or line has been maintained and meets all other eligibility requirements as specified in the *Uniform System for Bringing Varieties into Certification in the United States, Operational Procedures of the Association of Official Seed Certifying Agencies*.

§61-39-14. Uniform System for Bringing Varieties into Certification in the United States.

14.1. AOSCA and the certifying agency shall require the originator, developer or owner of the variety, or agent thereof, to make the following information available when eligibility for certification is requested:

14.1.1. The name of the variety or temporary designation. Family, kind, genus and species;

14.1.2. A statement concerning the variety's origin and the breeding procedure used in its development;

14.1.3. The genealogy, including public and private varieties, lines or clones used and the breeding method;

14.1.4. Details of subsequent stages of selection and multiplication;

14.1.5. The type and frequency of variants during reproduction and multiplication and how these variants may be identified;

14.1.6. Evidence of stability;

14.1.7. A detailed description of the morphological, physiological and other characteristics of the plant and seed that distinguish it from other varieties;

14.1.8. Special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage;

14.1.9. Description of the mature plant and comparison with similar commercially available varieties grown under the same conditions;

14.1.10. Evidence supporting the identity of the variety, such as comparative yield data, insect and disease resistance, or other factors supporting the identity of the variety;

14.1.11. A statement delineating the geographic area or areas of adaptation of the variety;

14.1.12. A statement of the plans and procedures for the maintenance of seed classes, including the number of generations through which the variety may be multiplied;

14.1.13. A description of the manner in which the variety is constituted when a particular cycle of reproduction or multiplication is specified;

14.1.14. Any additional restrictions on the variety, specified by the breeder, with respect to geographic area of seed production, age of stand or other factors affecting genetic purity;

14.1.15. A sample of seed representative of the variety as marketed;

14.1.16. A declaration of the PVP (Plant Variety Protection) status as yes, no or undecided. The originator shall also declare if the variety is to be sold by name only as a class; and

14.1.17. The names of certifying agencies expected to certify seed.

§61-39-15. Standards for Handling Experimental Lines.

15.1. The Experimental Line Program provides guidelines for seed increase using published AOSCA field and seed standards during the final stages of testing an experimental line so that classes of certified seed may be available in the event of the line being released as a variety. The program is to be used for seed production of an experimental line that has not been reviewed or accepted into certification. Seed produced using this program cannot be sold or represented as a class of certified seed, nor should it be included in a certified seed mix or blend the experimental line has been accepted as a variety for certification.

15.1.1. The following definitions apply to this section:

15.1.1.a. Experimental Line: A germplasm that has not been released and/or recognized as eligible for certification and is being tested with the possibility of release as a variety at some point in the future.

15.1.1.b. Classes of Experimental Lines

15.1.1.b.1. Exp-F: Eligible for Foundation seed upon variety acceptance.

15.1.1.b.2. Exp-R: Eligible for Registered seed upon variety acceptance.

15.1.1.b.3. Exp-C: Eligible for Certified seed upon variety acceptance.

15.1.2. The Experimental Line applicant should provide documentation that includes the following information prior to field inspection~~.~~*:

15.1.2.a. The experimental line owner.

15.1.2.a.1. If the applicant is an entity other than the experimental line owner, the applicant shall provide documentation stating the owner's approval of seed productions by the applicant using this program;

15.1.2.b. The experimental line identification or the proposed name of the experimental line;

15.1.2.c. A brief description with sufficient morphological, physiological, and/or other characteristics of the plants and seed to identify the experimental line during field and/or seed inspection;

15.1.2.d. A statement of the generations through which the experimental line may be multiplied; and

15.1.2.e. Documentation of the generation of the stock seed used to plant the field. Acceptable generations are Breeder Seed, Experimental Line-F, or Experimental Line-R.

15.1.3. Standards.

15.1.3.a. The requirements of section (2) shall be met.

15.1.3.b. All land requirements, isolation standards, field standards, and seed standards for the crop and corresponding class of certified seed shall be met.

15.1.3.c. All inspections required for that crop shall be performed.

15.1.3.d. The limited generation system should be maintained, with a maximum of three generations, those being the equivalent of Foundation (Experimental Line-F), Registered (Experimental Line-R), and Certified (Experimental Line-C) classes.

15.1.3.e. Seed meeting documentation, field and seed standards is eligible for seed stock tags or documents that identify it as eligible under the Experimental Line Program.

15.1.4. Labels

15.1.4.a. Tags, labels, or official documents provided by the department for seed produced using the Experimental Line Program shall be clearly marked with the words "Experimental Line" and "Pending Certification".

15.1.4.b. "Foundation", "Registered", or "Certified" shall not appear on tags, labels, or official documents for seed produced using the Experimental Line.

15.1.4.c. Buff-colored tags shall be used for seed produced under this program.

15.1.5. Completing Certification of Seed Produced Using the Experimental Line Program

15.2. In the event that the experimental line meets AOSCA variety eligibility requirements and is accepted for certification, Experimental Line seed stock tags or documents may be replaced by AOSCA tags or documents for the appropriate class of certified seed.

§61-39-16. Applying for Seed Certification in West Virginia.

16.1. To participate in the West Virginia seed certification program, applicants shall submit an application for seed certification to the appropriate certifying agency.

16.1.1. An application for seed certification shall be submitted for each crop, variety and field.

16.1.2. Applications may be obtained from a certified seed processor or the certifying agency.

16.1.3. The applicant is responsible for payment of all fees.

16.1.4. The applicant shall attach to the application for seed certification official tags/labels and/or other verification from seed stock planted.

16.1.5. When it is necessary for a grower to reseed due to a failure to get a stand, the grower shall retain records of seed lots used and the date of reseeding. Reseeding must be done within two years of the original planting date for grasses or within one year for all other crops. If seed stock of a different lot is used for reseeding, the grower shall submit proof of seed stock used on a seedling application form. An additional application fee will be charged.

§16-39-17. Submitting an Application for Seed Certification.

17.1. Applications for seed certification are due on or before:

17.1.1. April 1st for Winter Grains;

17.1.2. May 1st for Spring Grains;

17.1.3. April 1st for Turf Grasses;

17.1.4. May 1st for Industrial Hemp;

17.1.5. June 1st for Corn;

17.1.6. June 1st for Soybeans;

17.1.7. June 1st for all other crops; and

17.1.8. March 1st for Potatoes.

17.2. An application for seed certification must be submitted to the certifying agency each year a grower plans to produce seed for certification of annual crops.

17.3. A renewal application for seed certification must be submitted to the certifying agency after a stand is established each year that a grower plans to produce seed for certification of perennial crops.

17.4. Applications received after the due date are assessed a late application fee.

17.5. Renewal application for seed certification may not be accepted after the due date if a field inspection cannot be conducted prior to harvest except at the discretion of the certifying agency.

§61-39-18. Responsibilities When Participating in the Seed Certification Program.

18.1. All participants in the seed certification program shall:

18.1.1. Maintain the genetic purity and identity during seeding, growing, harvesting, and post-harvest storage, and ensure reasonable precaution is taken to control contaminating crops and varieties with noxious weeds, and seed-borne diseases;

18.1.2. Prevent seed crop and lot mixture when harvesting;

18.1.3. Identify the seed crop as it is delivered to the processor with the assigned field number or numbers;

18.1.4. Clean the seed crop at a seed conditioner approved by the department;

18.1.5. Comply with standards and procedures for seed certification under the authority of W. Va. Code §19-16-1 *et seq.* and rules adopted thereunder;

18.1.6. Harvest of seed before a field inspection by the certifying agency causes forfeitures of both the application and field inspection fees, and completion of certification.

18.2. Failure of seed growers to comply with the seed laws and rules is cause for the department to deny certification of seed.

§61-39-19. Land History – Seed Certification.

19.1. Land requirements for seed certification are ~~as~~ established in the specific seed crop standards. When a cultural practice has proved to be successful, requirements may be modified upon written approval of the seed certifying agency. Cultural practice may include any of the following:

19.1.1. Mechanical means such as deep plowing;

19.1.2. Chemical means such as fumigants; and

19.1.3. Other material for seed bed preparation. Materials and methods shall be a matter of record. Any practice used must be adequate to ensure varietal purity and must be approved in writing by the certifying agency. Any deviations from established land requirements must be submitted in writing to the certifying agency.

§61-39-20. Seed Field Inspections by the Certifying Agency.

20.1. The certifying agency conducts field inspections as follows:

20.1.1. A seedling field is inspected at the most appropriate time after receipt of a seedling application. If the field produces seed the same year of planting, a seedling producing inspection is made prior to harvest;

20.1.2. Each year a crop of certified seed is produced, field inspections are made at a time when factors affecting certification are most evident;

20.1.3. The unit of certification is defined as the entire field standing at the time of inspection. A portion of a field may be certified if the area to be certified is clearly defined by flagging, stakes or other visual means. The border area of the field is considered the unit of certification if it is planted to the same crop and is inclusive of the acreage applied for; and

20.1.4. The unit of inspection may include areas adjacent to a field or areas of surveillance if these areas contain factors that would impact the certification eligibility of the seed crop as defined in the specific crop standards. Such factors may be, but are not limited to, contaminating pollen sources or weeds.

§61-39-21. Tolerances Stated as "None Found".

21.1. A tolerance of "none found" for contaminating or diseased material in either field or clean seed standards means that none was found during the normal procedure of field inspection or seed sample testing. None found does not constitute a guarantee that the field or seed is entirely free of the contaminant or disease.

§61-39-22. Seed Fields Ineligible for Seed Certification.

22.1. A seed field is not eligible for certification unless a field inspection is made prior to defoliation or harvesting.

22.2. Prohibited noxious weeds shall be controlled to prevent seed formation. Follow-up inspections may be conducted to ensure weed control was sufficiently carried out to prevent prohibited noxious weed seeds from being harvested with the seed crop. Excessive objectionable weeds may be cause for rejection of a seed field. Excessive weeds, poor stands, lack of vigor, or other conditions which make inspection inaccurate may be cause for rejection. A field producing foundation or registered seed that warrants a rejection because of noxious weeds may be reclassified to certified blue tag class if upon reinspection the field meets certified blue tag standards.

22.3. If a seed field is rejected for certification, the grower may reapply to the certifying agency and pay a fee for reinspection after the cause for rejection is corrected, unless otherwise specified in this rule. No more than two re-inspections are permitted for each field per year.

§61-39-23. Withdrawing a Field From Inspection for Seed Certification.

23.1. The applicant applying for seed certification may withdraw a field from field inspection for seed certification by notifying the certifying agency before the field is inspected.

§61-39-24. Agency Power to Reject Certification.

24.1. The certifying agency may reject from certification any lot of seed not meeting the requirements of this rule. The regulating agency reserves the right to refuse certification on any lot of seed if, in the opinion of the certifying agency, the color appearance, or the condition of the seed might be detrimental to the certification program. The certifying agency may refuse certification if the labeling of containers is misleading or may tend to be confusing as to its contents.

24.2. Persons found guilty of violation or misuse or abuse of this rule are subject to prosecution under W. Va. Code §19-16-7. Proof of violation may result in removal of privileges of certifying, dealing in or handling certified seed.

§61-39-25. Sampling – Methods Used in the Sampling, Inspecting, Testing, Analyzing, and Examining Seed for Certification.

25.1. The terms used in seed testing and the methods of sampling, inspecting, analyzing, testing and examining seed for certification are those adopted by the AOSA as shown in W. Va. Code §19-16-6. Other testing methodologies such as, but not limited to, genetic testing may also be used to determine certification eligibility.

25.2. The entire lot of seed must be cleaned, the quantity defined, and in condition for sale at the time of sampling.

25.3. A representative of the department shall take a representative sample for laboratory analysis of each lot of seed for certification. The sample shall be taken in accordance with official sampling procedures. Official sampling procedures are those adopted by AASCO as shown in W. Va. Code §19-16-6.

25.3.1. A sampling fee will be charged under provisions of this rule.

§61-39-26. Identification of Seed Containers With Field or Lot Numbers.

26.1. The field number shall be on all seed containers or bulk seed delivery documents to ensure identity when delivered to the seed conditioner.

26.2. All seed for certification shall be packaged in clean, new containers of uniform weight and identified with a lot number when tagged and sealed. The lot number must identify the producer and year of production for each lot of seed.

§61-39-27. Seed Certification – Prohibited Noxious Weed Seed.

27.1. Prohibited noxious weed seed are those found in 61 C.S.R. 9-13.1.1.

§61-39-28. Seed Certification – Objectionable Noxious Weed Seed.

28.1. Objectionable noxious weed seed are those found listed as restricted noxious weed seed in 61 C.S.R. 9-13.1.2.

28.2. Objectionable noxious weed seed for lawn and turf seed certification are those found listed as restricted noxious weed seed or undesirable grass seed in 61 C.S.R. 9-13.1.3.

§61-39-29. Completion of Seed Certification – Tagging, Labeling, or Sealing.

29.1. The seed certification tag, label or seal is evidence of the genetic identity and purity of the contents shall be attached to a container of certified seed prior to distribution. Seed that fails to meet certification standards because of genetic purity is not eligible for labeling.

29.2. Seed certification tags, labels, and seals must be obtained from the certifying agency and must be attached to seed containers in accordance with the certifying agency's rules.

29.3. Certification of seed is valid only if the tag, label or seal is affixed to each container in accordance with the AOSCA procedures.

29.4. A tag, label or seal may not be removed and reused without permission of the certifying agency.

29.5. A certified seed sale certificate shall be issued upon completion of final certification for all seed to be sold in bulk. This certificate shall accompany any shipment or transfers including those to other seed plants, out-of-state shipments or with any brokered seed. The seed plants own invoice may be used in lieu of a certified seed sale certificate for retail sales to growers. The invoice shall contain the certification information from the certified seed sale certificate as well as labeling information as required in W. Va. Code §19-16-2.

29.6. Seed that fails to meet certification requirements on factors other than genetic purity may be designated substandard at the discretion of the certifying agency. The certification tag or label attached to the seed shall clearly show the reason the seed is substandard. Seed shall not be tagged substandard if the seed can be remilled to meet minimum seed standards.

29.7. Seed labeling regulations are contained in W. Va. Code §19-16-2.

§61-39-30. Limitation of Liability – Certification.

30.1. The issuance of a certified seed label or certificate by the certifying agency for a lot of seed affirms that seed has been produced and conditioned according to this rule and the certification rules adopted thereunder. The certifying agency makes no warranty, expressed or implied or any representation as to the freedom from disease or quality of certified seed.

§61-39-31. Labeling, Advertising or Other Representation of Seed – Prohibitions.

31.1. It is unlawful and a violation of W. Va. Code §19-16-7 to label, advertise, or make any representation regarding:

31.1.1. Seed to be certified seed or any class thereof unless it has been determined by a seed certifying agency that such seed conforms to standards of purity and identity as to species (and subspecies, if appropriate), and variety, in compliance with the rules and laws of that agency pertaining to such seed.

31.1.2. Seed to be foundation, registered, or certified seed unless it has been inspected and tagged accordingly by a certifying agency as meeting certification standards of the department.

§61-39-32. Conditioning Seed in West Virginia.

32.1. Under the authority of W. Va. Code §19-16-1 et seq., a seed conditioning facility must be inspected and approved by the department or its authorized agent prior to conditioning seed in West Virginia. Upon approval by the department, a seed conditioning permit is issued and the facility is placed on a list of approved seed conditioning plants. A copy of the list can be obtained by contacting the department.

32.2. A person desiring to condition seed must make application to the department for a permit on a form provided by the department.

32.3. To obtain department approval for a seed-conditioning permit, the department or its authorized agent conducts an inspection. A facility must show evidence that:

32.3.1. Seed for certification is handled in a manner which prevents the mixture of lots of seed;

32.3.2. The seed conditioning facility is maintained and cleaned. Equipment must be easily accessible for cleaning and inspection, and must be cleaned between lots;

32.3.3. Each lot of seed is identified with a lot number; and

32.3.4. Screenings are disposed of in accordance with 61 C.S.R. 9-23.

32.4. A seed conditioning facility must be approved by the department prior to handling seed for certification in bulk.

§61-39-33. Responsibilities of a Seed Conditioner.

33.1. A department approved seed conditioner shall operate in a manner that:

33.1.1. Maintains the purity and identity of seed conditioned, stored, transshipped or labeled;

33.1.2. Complies with the standards and procedures for conditioning seed in accordance with W. Va. Code §19-16-1 et seq. and rules adopted thereunder; and

33.1.3. Prior to shipping seed out-of-state, adheres to the interagency seed certification requirements set forth in this rule.

33.2. Records of all operations must be complete and adequate to account for all incoming seed and final disposition of seed.

33.2. Failure of a seed conditioner to comply with the seed law and rules is cause for the department to revoke a seed conditioning permit.

§61-39-34. Considerations for Blending Seed.

34.1. Size of seed blend permitted is dependent on factors such as quality of the seed lots to be blended and the conditioning plant facilities.

34.2. A blend data sheet is filed with the certifying agency and shall be maintained by the seed conditioner. Laboratory analysis shall be completed before tags are issued.

34.3. Seed shall be blended by a seed conditioner approved by the department, W. Va. Code §19-16-1 et seq.

34.4. A representative of the certifying agency may supervise the blending operation.

34.5. Seed lots resulting from a blend of different certified classes may only be labeled at the lower class.

§61-39-35. Standards for Verification of Turf Seed Ingredients.

35.1. The general rules for seed certification are basic and together with the following specific requirements constitute the rules for certification identity of mixtures of different kinds of turf certified seed:

35.1.1. A blend data sheet, including proof of certification, verifying the origin and the certifying agency along with the analysis and pounds of each lot shall be submitted to the certifying agency for approval.

35.1.2. Each lot of certified seed shall:

35.1.2.a. Meet standards acceptable to the certifying agency; and

35.1.2.b. Be sampled under supervision of the certifying agency prior to mixing. The sample shall be obtained in accordance with official sampling procedures. The sample shall be identified with:

35.1.2.b.1. The verification of certification, origin, and certifying agency;

35.1.2.b.2. The kind/variety; and

35.1.2.b.3. The analysis and size of lot.

35.1.3. The certifying agency reserves the right to:

35.1.3.a. Refuse permission to use individual lots;

35.1.3.b. Approve the equipment to be used and procedure to follow in mixing;

35.1.3.c. Approve the containers and labeling to be used; and

35.1.3.d. Sample the final mixture.

35.1.4. The certifying agency shall identify each container with an official certification label verifying that the individual lots used were certified seed lots.

§61-39-36. Interagency Seed Certification Standards and Procedures.

36.1. Interagency certification is the participation of two or more certifying agencies in performing the services required to certify the same final lot or lots of seed.

36.1.1. Eligibility

36.1.1.a. Seed recognized for interagency certification shall be received in containers carrying official certification labels, accompanied by transfer certificates or other proper documentation showing evidence of its eligibility from another official certifying agency together with the following information:

36.1.1.a.1. Variety and species;

36.1.1.a.2. Quantity of seed;

36.1.1.a.3. Class of seed; and

36.1.1.a.4. Field or lot number traceable to the previous certifying agency's records.

36.1.1.b. Seed tagged and sealed with official certification tags is eligible for interagency certification without obtaining approval from the certifying agency of the originating state.

36.1.1.c. An "interagency certified seed" report form shall be submitted to all certifying agencies involved. Information required to complete the form includes:

36.1.1.c.1. Section A:

Name, Address of shipper, Destination, Shipping weight, Lot number and receiving weight, Grower name, Field number, Date of seed shipment, Amount of seed used, Date shipment is received by the receiving state; and

36.1.1.c.2. Section B:

Clean weight, Bag count, New lot number (if different than the receiving lot number).

36.1.1.d. Certified seed not tagged and sealed with official certification tags shall follow the interagency certification procedure.

36.1.2. Procedure

36.1.2.a. Certified seed that is produced in West Virginia and shipped out-of-state shall comply with the interagency seed certification procedure.

36.1.2.a.1. The interagency seed certification procedure is as follows:

36.1.2.a.1.a. An applicant shall complete Section (A) of "interagency certified seed" report. One copy of the "interagency certified seed" report shall be submitted to the department and one copy to the certifying agency where seed is being processed.

36.1.2.a.1.b. The applicant shall mark each container with the lot number and field number.

36.1.2.a.1.c. If the department is to finalize certification, upon completion of seed processing, Section (B) of "interagency certified seed" must be completed and submitted to the department. A sample must be taken by the department and submitted to the department seed laboratory.

36.1.2.a.1.d. When West Virginia certification tags are used, the lot must be tagged and sealed under supervision of the department. The applicant must pay a mileage fee and hourly rate for all additional mileage and travel time required.

36.1.2.a.1.e. When West Virginia interagency tags are used, the tags must be mailed to the nearest representative of the certifying agency having jurisdiction for tagging.

36.1.2.a.1.f. If another state receives seed and finalizes certification, the department must advise the receiving state's certifying agency of certification eligibility. Sampling, testing, and tagging shall be in accordance with the receiving state's requirements.

36.1.2.a.1.g. The applicant for interagency seed certification is responsible for all fees authorized under West Virginia's certification program and any additional fees that may be assessed by both agencies involved. Fees for West Virginia's interagency certification program must be paid upon submission to the department of the "interagency certified seed" report, Section (A).

36.1.3. Seed Produced Out-of-State

36.1.3.a. Certified seed produced out-of-state and shipped into West Virginia for processing is eligible for West Virginia interagency tags only after obtaining approval from the certifying agency of the originating state. The seed shall then comply with West Virginia certification standards.

36.1.3.b. Certified seed produced out-of-state that is officially tagged and sealed shall be handled under the interagency program if seals are to be broken for reinoculation or other processing. The applicant for interagency seed certification shall obtain approval from the department prior to breaking the official seals and all operations shall be under the supervision of the certifying agency.

36.1.4. Blends

36.1.4.a. Blends of different origin can be authorized only after obtaining approval from the certifying agencies involved. Blends shall comply with blend standards established by the department. Interagency tags used shall show the percentage of each origin involved.

§61-39-37. Other Considerations in Applying the Standards for Certification.

37.1. Any crop certification standard, with the exception of germination, that is expressed as a percent will be derived from a test based on the minimum weight for purity analysis as specified in the AOSA rules for that crop unless otherwise specified in rule.

37.2. Any crop certification standard that is based on a number per pound will be derived from a test based on the minimum weight for noxious weed seed examination as specified in the AOSA rules for that crop unless otherwise specified in rule.

37.3. For species that have a high rate of inherent dormancy, it will be acceptable to use the percent of total viability instead of germination percentage for certification only. State and federal seed laws require seed be labeled on a germination test.

37.4. For species or varieties that contain GMO (genetically modified organism) traits, herbicide resistant traits, or other novel traits, each seed lot shall be required to meet minimum trait standards as defined by the breeder or trait owner. The variety description shall define the trait. To determine the level of trait present, a test such as PCR (polymerase chain reaction) or specified bioassay test shall be required. If a test is not otherwise available the variety owner must provide testing protocols to the department.

§61-39-38. Certification Fees.

38.1. Fees apply to both new and renewal applications.

38.1.1. The application fee for seed certification is $35 per field. The penalty for late applications is $50.

38.1.2. The Inspection & Sampling Fee for the seedling producing or field is $35 per hour, plus mileage rates as established by WVDA. This fee schedule applies also to any additional inspections or reinspections that may be required.

38.1.3. The Production Fee, including tagging, is $0.15 per tag issued, with a minimum fee of $15.00.

38.3. A laboratory testing fee of $150.00 for tetrahydrocannabinol (or THC) analysis will be assessed on each sample of industrial hemp.

38.4. The winter test for seed potatoes will cost $50.00 per lot.

38.5. Seed testing fees are established by W. Va. Code R. 61 C.S.R. 9.

§61-39-39. Industrial Hemp (*Cannabis sativa L. Subsp. sativa*) Certification Standards.

39.1. Standards for Industrial Hemp Seed Production

39.1.1. The general seed certification definitions and standards in this rule are basic and together with the following specific standards constitute the standards for industrial hemp seed certification.

39.1.2. Fees for seed certification are set forth in section 38 of this rule.

39.1.3. All growers of industrial hemp certified seed crops shall be licensed under the department's industrial hemp licensing rules, W. Va. Code R. 61 C.S.R. 9.

39.1.4. Only varieties of industrial hemp approved by the department *are* be eligible for certification. An approved variety must be a variety recognized by an international organization recognized by the department, such as the association of official seed certifying agencies or the organization for economic cooperation and development (OECD) seed scheme.

39.1.5. The allowable area of an industrial hemp seed crop area or seed production field may be determined and limited by the department under W. Va. Code §19-12E-1 *et seq*.

39.1.6. All industrial hemp fields established for seed certification shall be planted with not less than thirty-inch row spacing to facilitate inspection, roguing, and harvesting.

39.1.7. Growers must post signage approved by the department on at least four sides, including the main entry point of each authorized field.

39.1.8. The department shall sample plants to analyze for tetrahydrocannabinol (THC), as required by W. Va. Code §19-12E-7.

§61-39-40. Definitions Specific to Industrial Hemp Seed Production.

40.1. "Approved Cultivar" means any variety designated as eligible for production by federal or local regulatory authorities.

40.2. "Approved Laboratory" means a laboratory approved by the commissioner under this article.

40.3. "Commissioner" means the Commissioner of Agriculture of the State of West Virginia or his or her duly authorized agent.

40.4. "Dioecious type" means a type of industrial hemp that has male and female flowers on separate plants.

40.5. "Industrial hemp" means all parts and varieties of the genera Cannabis, cultivated or possessed by a grower, whether growing or not, that contain a THC concentration of .03 percent or less by dry weight.

40.6. "Industrial hemp seed production" means an industrial hemp seed production field established with an appropriate generation of certified seed intended to produce a subsequent generation of certified seed.

40.7. "Monoecious type" means a type of industrial hemp that has male and female flowers on the same plant.

40.8. "Tetrahydrocannabinol" or "THC" means the natural or synthetic equivalents of the substances contained in the plant, or in the resinous extractives of, cannabis, or any synthetic substances, compounds, salts, or derivatives of the plant or chemicals and their isomers with similar chemical structure and pharmacological activity.

40.9. "Too male" means an intersexual plant that exceeds the ratio of male and female flowers as described in the variety description.

40.10. "Unisexual female" means a monoecious type of industrial hemp plant that has a sterile male and fertile female flowers.

40.11. "Unisexual female hybrid" means a hybrid where the A line is a unisexual female type and the B line produces fertile male flowers.

40.12. "Volunteer plant" means an industrial hemp plant that results from a previous crop.

40.13. "West Virginia landrace cannabis seed" means seed from the plant *Cannabis sativa* that possesses characteristics of a unique and specialized cannabis seed variety that is present in West Virginia or has been recognized as produced in West Virginia.

§61-39-41. Land Requirements for Industrial Hemp Seed Certification.

41.1. Crops shall not be planted on land where foreseeable volunteer growth from a previous crop may cause contamination detrimental to certification.

41.2. Fields for foundation and registered classes shall not be planted on land which in the previous three years produced a crop of industrial hemp.

41.3. Crops for certified class shall not be planted on land which in the previous year produced a certified crop of the same variety of industrial hemp.

41.4. Crops for certified class shall not be planted on land which in either of the previous two years produced a non-certified crop of industrial hemp or a different variety of industrial hemp.

41.5. The presence of Broomrape (*Orobanche* spp.) in industrial hemps crops is cause for declining certified status.

§61-39-42. Isolation Requirements for Industrial Hemp Seed Certification.

42.1. Isolation areas shall be kept free of any harmful plants that can cause contamination. The area, density, stage of maturity, and location of any contaminating pollen source is an important factor in cross pollination, and therefore shall be noted on the *Seed Crop Inspection Report* for consideration in determining certification status. There shall not be any *Cannabis sativa* L. plants within 100 m of the crop and not more than 10 plants/ha beyond 100 m within the isolation requirement. The conditions of each crop are assessed by the department, which may alter this standard, usually by reducing the number of contaminant plants permitted per square yard, according to identified contamination risks.

42.2. The required isolation shall be present prior to flowering and crop inspection.

42.3. Industrial hemp seed production crops for certification shall be isolated from all other industrial hemp varieties or fields not meeting the varietal purity requirements for certification as follows:

Inspected Crop	Isolation Factor	Isolation Distance in Feet
Dioecious type: Foundation	Different varieties of industrial hemp	15,748
	Non-certified crop of industrial hemp	15,748
	Lower certified class seed crop of same variety	6,460
	Same class of certified seed crop of same variety	10
Dioecious type: Registered	Different varieties of industrial hemp	15,748
	Non-certified crop of industrial hemp	15,748
	Seed crop of same variety that meets Certified standards for varietal purity	5,249
	Seed crop of same variety that meets Registered standards for varietal purity	3
Dioecious type: Certified	Different varieties of industrial hemp	2,624
	Non-certified crop of industrial hemp	2,624
	Planted with certified seed of the same variety that meets Certified standards for varietal purity	656
	Seed crop of same variety that meets Certified standards for varietal purity	3
Monoecious type: Foundation	Dioecious variety of industrial hemp	15,748
	Non-certified crop of industrial hemp	15,748
	Other Monoecious varieties	9,690
	Lower certified class seed crop of same variety	9,690
	Same class of certified seed of same variety	16
Monoecious type: Registered	Dioecious variety of industrial hemp	15,748
	Non-certified crop of industrial hemp	15,748

Inspected Crop	Isolation Factor	Isolation Distance in Feet
	Different varieties of the same type of industrial hemp (Monoecious or Female Hybrid)	6,460
	Seed crop of same variety that meets Certified standards for varietal purity	3,230
	Seed crop of same variety that meets Registered standards for varietal purity	3
Monoecious type: Certified	Dioecious variety of industrial hemp	3,230
	Non-certified crop of industrial hemp	3,230
	Different varieties of the same type of industrial hemp (Monoecious or Female Hybrid)	656
	Planted with certified seed of the same variety that meets Certified standards for varietal purity	656
	Seed crop of same variety that meets Certified standards for varietal purity	3

§61-39-43. Field Inspection Standards and Tolerances for Industrial Hemp Seed Certification.

43.1. Industrial hemp seed production crop fields shall be inspected by the department in three stages.

43.1.1. The first inspection for all classes of monoecious types shall be made just before or at early flowering. First inspection for all classes of dioecious types must be made after flowering when male plants are beginning to senesce.

43.1.2. The second inspection for all classes of monoecious types, and the Foundation class of dioecious types shall be made when seeds are well forming.

43.1.3. The third inspection should be conducted within ten days prior to harvest. The grower shall notify the department of the anticipated harvest date. Fields not harvested within ten days of the third inspection shall require an additional inspection and THC test.

43.1.4. Isolation areas will be inspected for volunteer plants and harmful contaminants at each department inspection.

43.2. Off-type male flowers shall be removed by the grower prior to producing pollen and evidence of removal must be identifiable during the department's crop inspection.

43.3. Rogued male flowers shall be removed from the field and buried or otherwise destroyed by the grower to prevent pollen production.

43.4. If dioecious male plants start flowering before removal from the field, all plants around them must be destroyed by the grower within a radius of ten feet for foundation seed, six feet for registered seed and three feet for certified seed.

43.5. If dioecious male plants or if other off-type male flowers are found to be shedding pollen during any inspection, an additional inspection is required within seven days to verify adequate control of detrimental pollen. An additional reinspection fee will be assessed by the department.

43.6. Plant samples will be taken by the department for THC testing at the third inspection. Violative THC test results will be cause for rejection and the field shall be subject to destruction.

43.7. The seed crop for certification shall be harvested after the third inspection and the THC sample has been submitted for testing. However, no seed or other industrial hemp by-products shall be transported off of the registered land area until THC testing with an acceptable result has been received and a release notice to the grower has been issued by the department.

43.8. Intersexual plant type ratios shall not exceed the limits when defined in the variety description by the breeder.

43.9. The Department may reject the affected field for certification purposes if excessive weeds or other factors that prevent varietal purity and identity determination.

43.10. Fields planted in such a manner that prevents inspector access shall be cause for the department to reject the affected field for certification purposes unless the grower remedies the condition in a timely manner as required by the department.

43.11. Maximum impurity standards must not be exceeded based on six replicated counts of ten thousand plants according to the following table:

	Maximum impurity standards per 10,000 plants		
		Maximum number of dioecious male plants shedding pollen	Maximum number of off-types or other varieties
Dioecious type: Foundation	-	-	3
Dioecious type: Registered	-	-	10
Dioecious type: Certified		-	20
Monoecious: Foundation		1	3
Monoecious: Registered		2	10
Monoecious: Certified		100	20

§61-39-44. Seed Standards for Industrial Hemp Seed Certification.

	Foundation	Registered	Certified
Pure seed (minimum)	98.00%	98.00%	98.00%

Other crop (maximum)	0.01%	0.03%	0.08%
Inert matter (maximum)*	2.00%	2.00%	2.00%
Weed seed (maximum)	0.10%	0.10%	0.10%
Other kinds (maximum)**	0.01%	0.03%	0.07%
Other varieties (maximum)**	0.005%	0.01%	0.05%
Germination (minimum)***	80.00%	80.00%	80.00%

* Inert matter shall not contain more than 0.50% of material other than seed fragments.

** Other kinds shall not exceed 2 per lb. (454 grams) for Foundation; 6 for Registered; 10 for Certified.

***Exclusive of dormancy, firm or hard seed, or any other reference to viability.

§61-39-45. Seed Potato (*Solanum tuberosum*) Certification Standards

45.1. Standards for Seed Potato Production

45.1.1. The general seed certification definitions and standards in this rule are basic and together with the following specific standards constitute the standards for seed potato certification.

45.1.2. Fees for seed certification are contained in section 38 of this rule.

45.2. Definitions Specific to Seed Potato Production.

45.2.1. "Seed Potato" means the vegetatively propagated tubers used for potato production rather than true botanical seed sexually produced from potato flowers.

45.2.2. "Seed Potato Stock" means seed potatoes intended for use as a planting source for certification that are identity preserved with a certification number and a North American Plant Health Certificate.

45.2.3. "Generation" means a classification scheme of seed potatoes based on the number of field production years completed.

45.2.4. "Limited Generation Seed" means seed potatoes grown for a specific maximum number of field production years.

45.2.5. "Bacterial Ring Rot" is a disease caused by the bacterium *Clavibacter michiganensis ssp. sepedonicus*.

45.2.6. "Blackleg" is a disease caused by the bacterium *Pectobacterium atrosepticum* or *Pectobacterium carotovorum ssp. carotovorum*.

45.2.7. "Corky Ring Spot (Spraing)" is a disease caused by tobacco rattle virus.

45.2.8. "Late Blight" is a disease caused by the fungus *Phytophthora infestans*

45.2.9. "Root-Knot Nematode" means the plant parasitic nematodes *Meloidogyne hapla, Meloidogyne chitwoodii,* and *Meloidogyne incognita*.

45.2.10. "Mosaic Virus" means Potato Virus Y (PVY) and all of its various strains, PVA and other viruses including severe forms of PVX.

45.2.11. "Potato Leaf Roll Virus (PLRV) is a virus primarily transmitted by the peach potato aphid which colonizes potato crops during July and August.

45.3. Seed Classification.

45.3.1. Limited Generation Classes.

45.3.1.1. Pre-Nuclear (PN) – *In vitro* plantlets and microtubers used for production in a protected environment.

45.3.1.2. Nuclear (N) – Minitubers produced in a protected environment utilizing Pre-Nuclear material as planting stocks.

45.3.1.3. Field Year 1 (FY1) – 1st field production and meets FY1 tolerances.

45.3.1.4. Field Year 2 (FY2) – 2nd field production and meets FY2 tolerances.

45.3.1.5. Field Year 3 (FY3) – 3rd field production and meets FY3 tolerances.

45.3.1.6. Field Year 4 (FY4) – 4th field production and meets FY4 tolerances.

45.3.1.7. Field Year 5 (FY5) – 5th field production and meets FY5 tolerances.

45.3.1.8. Field Year 6 (FY6) – 6th field production and meets FY6 tolerances.

45.3.1.9. Field Year 7 (FY7) – 7th field production and meets FY7 tolerances.

45.3.2. Each generation of seed is derived from planting the previous generation. At planting, the seed stock that was planted is automatically moved down one generation. For example, FY1 becomes FY2, FY2 becomes FY3. Seed potato stocks have to meet tolerances for the generation in which they are classified, regardless of field year production.

45.4. Seed Stock Eligibility Requirements.

45.4.1. Limited generation seed stocks are eligible for certification for seven (7) field production years. FY7 seed stocks, the 7th field production year, are not eligible for certification.

45.4.2. All seed stocks purchased by a farming operation from another farming operation and subsequently entered for certification shall be tagged unless the purchaser was a co-applicant for certification of that seed.

45.4.3. The eligibility of seed purchased for recertification must be verified by one of the following: Tags, Bulk Sale Certificates, or an Invoice from the seed. The invoice shall include the variety, pounds sold, generation of seed, and lot number.

45.4.4. Bacterial ring rot found in a seed lot of a seed farm shall be cause to remove the lot from certification. All fields on that seed farm planted with the same seed lot as the rejected field will also be refused certification. All other seed lots associated with or planted after the rejected lot shall not be eligible for recertification but are eligible for commercial planting if all other certification requirements are met.

45.5. Land Requirements.

45.5.1. A field is not eligible to produce certified seed potatoes if noncertified potatoes or potatoes proven to be Bacterial Ring Rot infected were grown in ~~this~~ the field within one previous growing season.

45.5.2. A field must be farmed for 1 (one) year with a crop other than potatoes immediately following the growing season in which potatoes were disqualified for Bacterial Ring Rot.

45.6. Field Isolation Requirements

45.6.1. Potatoes entered for certification shall be planted at least 20 feet from potatoes not entered for certification.

45.6.1.1. Seed lots shall be separated from each other by at least one row left unplanted or planted to some other crop.

45.6.2. Potatoes entered for certification as two seed lots of the same variety in the same field and found not to have the proper separation shall be designated as a single seed lot with the latest generation designation of the two seed lots.

45.7. Field Inspection Requirements

45.7.1. At least two inspections shall be made for each field entered during the growing season, prior to harvest.

45.7.1.1. Seed potatoes shall not exceed the tolerances for the 1st and 2nd inspections.

Table 1 – Percentages Allowed For 1st Inspection[1]

Factor[2]	FY1	FY2	FY3	FY4	FY5	FY6/7
Varietal Mixture	0.00	0.00	0.02	0.10	0.25	0.50
Mosaic	0.00	0.00	0.50	1.00	1.50	2.00
Potato Leafroll	0.00	0.00	0.03	0.05	0.10	0.20
Blackleg[3]	0.00	0.10	0.50	1.00	2.00	[4]
PVX	0.00	0.50	2.00			
Total Virus[5]						2.00

Table 2 – Percentages Allowed For 2nd Inspection[1]

Factor[2]	FY1	FY2	FY3	FY4	FY5	FY6/7
Varietal Mixture	0.00	0.00	0.01	0.05	0.10	0.20
Mosaic	0.00	0.00	0.25	0.50	0.75	1.00
Potato Leafroll	0.00	0.00	0.02	0.03	0.08	0.20
Blackleg[3]	0.00	0.10	0.50	1.00	2.00	[4]

Total Virus[5]						1.00

[1]Field inspections of FY1 and FY2 seed lots are advisory and all factors are required to be rogued when found in order to maintain the tolerance of 0.00%.

[2]Some disease may be present in a seed potato lot and not exhibit symptom expression in plants or tubers at the time of a regular inspection

[3]Determination of Blackleg disease is based on a visual plant symptom of an inky black stem originating from the seed tuber. Visible Blackleg has no tolerance in Generations 5 and 6 and therefore is not a disqualification factor.

[4]Visible Blackleg will not be a disqualification factor in FY6 or FY7.

[5]Total is the combined percentage of potato leafroll, calico, mosaic, and all other viral, viroid, and phytoplasmas (including Candidatus Liberibacter).

45.7.2. Fields shall be considered ready for inspection at all times. Additional inspections may be made at the discretion of the inspector but will not be made in order to allow growers to rogue fields which will not pass inspection.

45.7.3. Seed lots that exceed the generation tolerance for a particular factor shall be downgraded to the next generation for which the seed lot does not exceed the tolerance.

45.7.4. Volunteers must be rogued from any field of FY1 and FY2 seed potatoes. FY3 through FY7 fields that show volunteer potato plants remain eligible for certification when the volunteer plants are not found in excess of 3% of the total plants in the field. Volunteer plants shall be considered as part of the field from the standpoint of all factors of inspection.

45.7.5. FY3 and FY4 fields downgraded but not disqualified at the time of either the regular 1st or 2nd inspection because of a rogueable viral or varietal mixture problem may be reinspected one time.

45.7.6. Any seed lot shall only be allowed one reinspection during the season.

45.7.7. Chemical Injury.

45.7.7.1. The inspector may withhold certification pending the outcome of the winter test plot growout or refuse certification on a field or portion of a field sprayed or contaminated with a chemical that causes seed-borne injury to seed potatoes.

45.7.7.2. Those portions of a field that show enough chemical injury to the potato foliage to interfere with the field inspection process shall be rejected from certification if the potatoes are stored.

45.7.7.3. Those portions of a field that do not show enough chemical injury to interfere with field inspections but still may be contaminated to the degree that seed-borne chemical injury may occur in the next crop, shall be harvested and stored separately from other potatoes in that seed lot.

45.7.7.4. Under the direction of an inspector, a separate winter test sample shall be collected and submitted from those potatoes with the possible chemical injury.

45.7.7.5. Certification will be withheld until winter test readings are completed.

45.7.8. Fields may shall be refused certification due to unsatisfactory appearance caused by weeds, poor growth, poor stand, disease, insect damage, and any other condition which prevents accurate inspection or creates doubt as to the identity of the variety.

45.7.9. The following are grounds for seed lot disqualification:

45.7.9.1. Seed lots or portions thereof may be disqualified for certification because of any condition that interferes with the inspection of the potato plants;

45.7.9.2. Bacterial Ring Rot and Root-Knot Nematode are zero tolerance factors. Any seed lot, regardless of generation, is automatically disqualified from certification when any of these factors are found at any time;

45.7.9.3. Evidence of failure to remove daughter tubers from rogued hills;

45.7.9.4. When Bacterial Ring Rot is found in a seed lot, all potatoes grown by that farming operation from that seed source shall be disqualified;

45.7.9.5. The presence of any new or exotic disease to the state of West Virginia;

45.7.9.6. Failure to list on an application all seed sources that were used to plant a particular seed lot; and

45.7.9.7. Failure to have potatoes graded, inspected, and tagged at shipping.

45.8. Post-Harvest Testing Requirements.

45.8.1. Each seed lot shall be post-harvest tested. Lots, or portions thereof, which are shipped prior to post-harvest testing will be certified based on the two (2) summer field inspections.

45.8.2. Only seed lots that have passed the equivalent of a 2nd field inspection shall be eligible for post-harvest testing.

45.8.3. The number of single drop tubers to submit for winter testing, regardless of generation or testing format are for:

45.8.3.1. Lots representing one acre or more: 400 tubers;

45.8.3.2. Lots representing 0.5 – 0.9 acres: 200 tubers;

45.8.3.3. Lots representing 0.1 – 04 acres: 100 tubers; and

45.8.3.4. Lots representing less than 0.1 acres: 10% of tubers to a maximum of 100.

45.8.4. Seed lots are disqualified for certification if seed-borne chemical injury in excess of 5% is found during post-harvest testing.

45.8.5. Seed lots are not eligible for recertification if any of the following factors are found during post-harvest testing at a percentage greater than:

45.8.5.1. Potato Leafroll Virus of 0.8%; or

45.8.5.2. Mosaic of 1.0%.

45.9. Potato Virus X (PVX) Testing Requirements: All seed entered for certification in the FY1, FY2, and FY3 classes shall be laboratory tested for PVX.

45.10. Bacterial Ring Rot Testing Requirements.

45.10.1. A random sample of stems or tubers obtained from all seed lots FY2 or higher shall be laboratory tested for bacterial ring rot.

45.10.2. The required testing shall be completed prior to final certification.

45.10.3. The minimum sample size shall be 10% of stems or tubers to a maximum of 200 stems or tubers for seed lots 0.1 acres or less, and 400 stems or tubers for seed lots exceeding 0.1 acres.

45.11. Pre-nuclear Class Production Requirements.

45.11.1. Pre-nuclear Materials.

45.11.1.1. Pre-nuclear materials consist of *in vitro* propagative materials, e.g., tissue culture plantlets and micro-tubers, maintained under aseptic conditions.

45.11.1.2. *In vitro* propagative materials may originate from the following sources:

45.11.1.2.1. The introduction of any potato plant part, including stems and tubers, into *in vitro* culture using aseptic technique; or

45.11.1.2.2. Existing *in vitro* materials obtained from another recognized tissue culture facility.

45.11.2. Record Keeping.

45.11.2.1. Tissue culture facilities shall maintain records of the origin and date of acquisition of all pre-nuclear materials.

45.11.2.2. The tissue culture facility shall assign a unique identifying code to each individual clone that will be used to track its multiplication and test history. A new identification code shall be assigned to each clone or sub-clone when:

45.11.2.2.1 Plant materials are introduced into *in vitro* culture; or

45.11.2.2.2 *In vitro* material is received from another recognized tissue culture facility.

45.11.3. Required Testing.

45.11.3.1. All testing of pre-nuclear material shall be performed by the WVDA or a laboratory approved by the WVDA.

45.11.3.2. Introductory testing is performed when plant materials are introduced into *in vitro* culture or when *in vitro* material is received from another recognized tissue culture facility.

45.11.3.3. A minimum of two plantlets for each clone shall be tested and found free from PVA, PVS, PVM, PVY, PVX, PLRV, PotLV, PMTV, TRV, PSTVd, *Clavibacter michiganensis* subsp. *sepedonicus, Pectobacterium* spp. Materials that test positive for any of these pathogens are ineligible for certification.

45.12. Nuclear Class Production Requirements.

45.12.1. Nuclear materials.

45.12.1.1. Nuclear materials are the progeny of pre-nuclear materials produced in a protected environment (e.g., greenhouse or growth chamber).

45.12.1.2. Approved Planting Stocks:

45.12.1.2.1. Nuclear materials shall be produced using pre-nuclear stocks meeting the requirements described in subsection 45.11 of this rule.

45.12.1.2.2. First generation nuclear class mini-tubers produced in the grower's own protected environment facility may be used as planting stocks with the prior approval of the WVDA.

45.12.1.3. No plants other than those listed on the Application for Certification may shall be present in the individual units of a protected environment being used for the production of nuclear class materials.

45.12.1.4. Nuclear materials shall be physically separated to maintain seed lot integrity and purity at all times. Nuclear seed lots that are comingled shall be combined, downgraded, or rejected, as appropriate, as outlined in subsection 45.7 of this rule.

45.12.2 Inspections.

45.12.2.1. Nuclear crops shall be entered for certification within 14 business days of the planting of the crop.

45.12.2.2. A minimum of two inspections shall be performed on each nuclear seed lot entered for certification.

45.12.3. Required Testing.

45.12.3.1. Nuclear crops shall test free of the following pathogens: PVA, PVY, PVX, PLRV, *Clavibacter michiganensis* subsp. *sepedonicus, Pectobacterium* spp.

45.12.3.2. Testing must be done on a representative sample consisting of 1% of the plants or tubers with a minimum of five plants or tubers sampled per lot.

45.12.3.3. Units or lots in greenhouse production found to be infected with any of the organisms indicated above shall be downgraded or rejected, as appropriate, as outlined in subsection 45.7 of this rule.

45.13. Storage Facility Requirements

45.13.1. Storage inspections may be conducted at any time on all storage facilities containing seed potatoes eligible for certification.

45.13.1.1. Seed potatoes shall be stored in sanitized storage areas after harvest and shall not be stored in the same storage facility with potatoes known to be infected with bacterial ring rot and root knot nematode.

45.13.1.2. Each lot of seed potatoes shall be harvested, graded, and stored separately in such a manner as to preclude intermixing.

45.13.1.3. Each lot of stored seed potatoes shall be clearly identified in a manner approved by the WVDA.

45.13.1.4. All containers shall be new for Nuclear and FY1. Containers for FY2, FY3, FY4, FY5, FY6, and FY7 shall be cleaned and sanitized if they have been previously contained potatoes.

45.13.1.5. Storage where sprout inhibitors were used in the previous season is not to be used to store certified seed potatoes.

45.14. Grade Requirements.

45.14.1. Blue Tag Seed Potatoes.

45.14.1.1. The Blue Tag is equivalent to U.S. No. 1 seed potato grade.

45.14.1.2. The Blue Tag will carry the information of producer's name, address, variety, certification number, seed class or other variations, and the crop date for which the tags were issued.

45.14.2. Green Tag Seed Potatoes.

45.14.2.1. The Green Tag is equivalent to U.S. No. 2 seed potato grade.

45.14.2.2. The Green Tag will carry the information of producer's name, address, variety, certification number, seed class or other variations, and the crop date for which the tags were issued.