

**DEPARTMENT OF AGRICULTURE
PLANT INDUSTRY DIVISION**

**RULES AND REGULATIONS PERTAINING TO THE COLORADO SEED POTATO
ACT**

8 CCR 1203-22

Part 1.0 Definitions:

These Rules incorporate the definitions set forth in §35-27.3-103, C.R.S.

Part 2.0 Requirements for All Certified Seed Potatoes

2.1.0 Pursuant to § 35-27.3-108(1)(b)(II), C.R.S., all certified seed potatoes planted in Colorado before August 1, 2015, in lots sufficient to plant one or more acres as specified in Part 9.0, must meet the following requirements:

2.1.1 The lot may contain no more than 1.5% tubers with Leafroll Virus;

2.1.2 The lot may contain no more than 8% tubers with total virus based on post harvest testing;

2.1.3 The lot may contain no more than 1.5 % tubers with Necrotic viruses except that no tubers may contain any Mop Top or Tobacco Rattle Virus;

2.1.4 The lot must be free of Bacterial Ring Rot (*Clavibacter michiganensis* subsp. *sepedonicus*) and Golden nematode (*Globodera rostochiensis*),

2.1.5 All seed potatoes imported into the San Luis Valley must meet the requirements of the Quarantine for Late Blight, 8 CCR 1203-13.

2.2.0 Pursuant to § 35-27.3-108(1)(b)(II), C.R.S., all certified seed potatoes planted in Colorado on or after August 1, 2015, in lots sufficient to plant one or more acres as specified in Part 9.0, must meet the following requirements:

2.2.1 Based on the postharvest test, the lot may contain no more than 5% tubers with virus, including no more than 1% PVY^N serotype strains (PVY^N and PVY^{NTN}).

2.2.2 [Emergency regulation expired 08/11/2016].

2.2.3 No tubers may contain any Mop Top or Tobacco Rattle Virus;

2.2.4 The lot must be free of Bacterial Ring Rot (*Clavibacter michiganensis* subsp. *sepedonicus*) and Golden nematode (*Globodera rostochiensis*),

- 2.2.5 All seed potatoes imported into the San Luis Valley must meet the requirements of the Quarantine for Late Blight, 8 CCR 1203-13.
- 2.3.0 Growers must maintain documentation of compliance with these disease standards for a period of two years for each lot of seed potatoes planted.

Part 3.0 Requirements for Sampling, Testing and Inspection of Noncertified Seed Potatoes

- 3.1.0 Noncertified seed potatoes more than one year removed from certification may only be planted if the testing in 3.2.2 verifies the lot meets the disease standards in Part 4.0.
- 3.2.0 Pursuant to § 35-27.3-105(2)(b), C.R.S. noncertified seed potatoes more than one year removed from certification must be sampled and tested in the following manner prior to planting.
 - 3.2.1 Sampling
 - 3.2.1.1 The grower must provide a sample of 400 tubers for each lot along with name of the grower, cultivar name and source of the cultivar to the Colorado State University San Luis Valley Research Center Laboratory.
 - 3.2.2 Testing
 - 3.2.2.1 A 400 tuber sample for each lot to be planted must be analyzed by the Colorado State University San Luis Valley Research Center Laboratory for all disease standards specified in Part 4.0 of this Rule.
 - 3.2.3 The grower is responsible for all costs associated with sampling and testing.

Part 4.0 Quality and Disease Standards for Noncertified Seed Potatoes

- 4.1.0 Pursuant to § 35-27.3-108(1)(b)(IV), C.R.S., all noncertified seed potatoes that are planted in lots sufficient to plant one or more acres as specified in Part 9.0 shall not exceed the following standards: disease standards specified in paragraph 16.f., "Postharvest Testing Disease Tolerances," of the "General Requirements that Apply to All Certified Seed Potatoes" set forth in the most current version of the "Colorado Rules and Regulations for the Certification of Seed Potatoes," established by Colorado State University in cooperation with the Colorado Certified Potato Growers Association. The most current version of Colorado Rules and Regulations for the Certification of Seed Potatoes may be downloaded from the following website <http://potatoes.colostate.edu/potato-certification-service>.
 - 4.1.1 All of the tubers must be free from Bacterial Ring Rot (*Clavibacter michiganensis* subsp. *Sepedonicus*), Golden nematode (*Globodera rostenchiensis*), Late Blight (*Phytophthora infestans*), and Tobacco Rattle Virus (visual symptoms).
 - 4.1.2 Growers must maintain documentation of compliance with the disease standards specified in this Part 4.0 for a period of two years for each lot of seed potatoes planted.

Part 5.0 Random Selection of Potato Growers for Records Review.

- 5.1.0 Each year by April 1, the Colorado Potato Administration Committee offices for areas 2 and 3 shall submit a list of all potato growers to the Department.
- 5.2.0 The Department will select ten percent of the growers at random using computer based random number generating software.

5.3.0 The Department will conduct records inspections on the selected growers.

Part 6.0 Grower Requests for Exemptions under §35.27.3-105(3), C.R.S.

6.1.0 The grower must apply to the Seed Potato Advisory Committee by completing and submitting the official form to the Colorado Potato Administrative Committee office for the area in which the grower is located.

6.2.0 The Commissioner shall notify the grower when an exemption is authorized.

Part 7.0 Requirements for seed potatoes planted under § 35-27.3-105(3) C.R.S.

7.1.0 Seed potatoes granted an exemption pursuant to § 35-27.3-105(3), C.R.S., may not be planted unless a 400 tuber sample from the lot is submitted for testing to the Colorado State University San Luis Valley Research Center Laboratory and is confirmed to meet the following requirements:

7.1.1 The lot submitted must be free from Bacterial Ring Rot (*Clavibacter michiganensis* subsp. *Sepe-donicus*) and Late Blight (*Phytophthora infestans*).

Part 8.0 Fee schedule for services performed by the Department

8.1.0 The Department shall bill the CPAC area offices for services performed by the Department at the following rates:

8.1.1 Hourly fee: \$37.50;

8.1.2 Mileage: Cost charged by Colorado State Fleet Management for state vehicles, the state personal mileage rate when using private vehicles;

8.1.3 Per Diem: State rates;

8.1.4 Legal Services: Billed at the rate charged to the Department.

Part 9.0 Seed potatoes needed to plant one or more acres.

9.1.0 For the purposes of the Colorado Seed Potato Act and these Rules, the amount of potatoes sufficient to plant one or more acres shall be up to fifty hundredweight of seed potatoes.

Part 10.0 – 12.0 Reserved

Part 13.0 Statement of Basis, Specific Statutory Authority and Purpose

13.1.0 June 14, 2011 - Effective January 1, 2012

Statutory Authority

These rules are proposed for adoption by the Commissioner of the Colorado Department of Agriculture (“CDA”) pursuant to his authority under the Colorado Seed Potato Act (the “Act”) §§ 35-27.3-101 through 112, C.R.S.

Purpose

The purpose of these proposed rules is to implement the Colorado Seed Potato Act.

Part 1.0 explains where the definitions for terms used in the rules can be found and states that the definitions in the Act are applicable to the rules.

Part 2.0 states the requirements of the State National Harmonization Program and lists which quarantines are applicable to seed potatoes.

Part 3.0 states the requirements for compliance verification, testing, sampling, and inspection.

Part 4.0 specifies the quality and disease standards that must be met for seed potatoes to be planted.

Part 5.0 specifies how the Commissioner will randomly select ten percent of potato growers for records inspections.

Part 6.0 specifies where the growers seeking an exemption pursuant to §35-27.3.105(3), C.R.S. must submit their request and states that the Commissioner will notify the grower when an exemption is authorized.

Part 7.0 specifies the methods that must be used for determining that bacterial ring rot and late blight are not present in the seed potatoes requested for planting.

Part 8.0 specifies the fees the Department will charge for services provided.

Part 9.0 specifies the amount of seed potatoes that are sufficient to plant one or more acres.

Factual and Policy Basis Issues

The factual and policy issues encountered when developing these rules include:

- 1) The Colorado Seed Potato Act was passed by the General Assembly and signed into law by Governor Ritter in 2010. The Act requires the development of several rules for the implementation of the Act. The Act's requirements will be effective January 1, 2012, therefore all rules must be developed prior to this time.
- 2) Part 1.0: The definitions in the Act are referenced in this section so producers know where to find the definitions for terms used in the proposed rules
- 3) Part 2.0: Section 35-27.3.105(b), C.R.S. of the Act requires that seed potatoes imported into Colorado meet the requirements of the State National Harmonization Program and any applicable quarantine. Sections 2.1.1 through 2.1.5 of the proposed rules states the requirements as listed in the State National Harmonization Program. USDA developed the State National Harmonization program requirements as a means to establish minimum quality requirements for potato seed quality to facilitate international export of seed potatoes. These requirements are listed in USDA's program. Section 2.1.6 states the seed must meet the requirements of the late blight quarantine. The late blight quarantine is the only applicable quarantine at this time. The Colorado Department of Agriculture has not adopted any other quarantine for seed potatoes.
- 4) Part 3.0: Section 35-27.3.108(1)(b)(1), C.R.S. of the Act requires the Commissioner to establish requirements for compliance verification, testing, sampling, and inspection. Part 3.0 states the requirements. 400 tubers is the common quantity used for disease analysis in potatoes. These figures come from both certified seed potato regulations as well as requirements for disease monitoring on potato tubers for export. The Acts states that a grower must submit seed stock to the certifying authority of Colorado for testing and the certifying authority of Colorado approves the seed stock for planting. Colorado State

University is the certifying authority for seed potatoes in Colorado. Colorado State University operates the San Luis Valley Research Center Laboratory for potato testing so this is the best laboratory for potato disease testing.

- 5) Part 4.0: Section 35-27.3.108(1)(b)(II), C.R.S. of the Act requires the Commissioner to specify quality or disease standards for potatoes. Part 4.0 of the proposed rules states these requirements. These standards are based on seed certification requirements for potatoes. These are generally accepted standards for disease prevention and control.

Section 35-27.3.108(1)(b)(IV), C.R.S. requires the Commissioner to set standards for uncertified seed stock that may be planted pursuant to §35-27.3-105(2)(b), C.R.S. These standards are in Part 4.0 of the rules also mentioned above.
- 6) Part 5.0: Section 35-27.3.108(1)(b)(III) C.R.S. requires the Commissioner to adopt rules to allow for the random selection of ten percent of potato growers subject to the annual records review required under §35-27.3-106(2), C.R.S. These proposed rules are stated in Part 5.0. The most objective manner to choose the ten percent is through a computer random number generator. The Department has the software to do this.
- 7) Part 6.0: The Commissioner also has the authority in § 35-27.3-108, C.R.S. to adopt rules necessary for the administration and enforcement of this article. Part 6.0 of the proposed rules was developed to provide guidance to growers seeking an exemption pursuant to § 35-27.3.105(3), C.R.S. This rule states where the grower must submit their request and also states that the Commissioner will notify the grower when an exemption is authorized.
- 8) Part 7.0: Section 35-27.3.108(1)(b)(V), C.R.S. requires the Commissioner to establish methods for determining that bacterial ring rot or an unacceptable level of community diseases is not present in seed potatoes planted under §35-27.3-105 (3), C.R.S. These requirements are stated in part 7.0 of the rules. The number of tubers from each lot that must be submitted and who will do the testing are the same as previously described for Part 3.0 of the rules. This testing is the same process.
- 9) Part 8.0: Section 35-27.3.108(1)(b)(VII), C.R.S. requires the Commissioner to set a schedule of fees for services performed by the Department. These fees are stated in Part 8 of the proposed rules. The fees are based on actual costs of services from the Department.
- 10) Part 9.0: Section 35-27.3.104, C.R.S. requires the Commissioner to establish the amount of seed potatoes that are sufficient to plant one or more acres as this is the threshold for determining if a grower must be in compliance with the Act. This amount is stated in Part 9.0 of the proposed rules. Through discussion with the Seed Potato Act Advisory Committee it was determined that based on the variety of seed potatoes being planted the amount to plant one or more acres was up to fifty hundredweight of seed potatoes.

13.2.0 February 12, 2014 – Effective March 30, 2014

Statutory Authority

These Rules are proposed for adoption by the Commissioner of the Colorado Department of Agriculture pursuant to his authority under the Colorado Seed Potato Act, § 35-27.3-108(1)(b), C.R.S.

The purpose of these proposed Rule amendments are as follows:

1. To clarify in Parts 2.1.1, 2.1.2 and 2.1.3 that the disease percentage is based on the number of tubers with the various viruses or diseases.
2. To reduce the percentage of tubers allowed with necrotic viruses in Part 2.1.3 from 2% to 1.5%.
3. To clarify in 2.1.3 that PVY^N refers to all strains of PVY^N.
4. To clarify the language in 2.1.3 regarding the standard for PVY^N, PVY^{NTN}, mop top and tobacco rattle virus.
5. To require in Part 4.1.0 that the disease standards for seed potatoes to be replanted are the same as what is required in the Colorado Rules and Regulations for the Certification of Seed Potatoes established by Colorado State University in cooperation with the Colorado Certified Potato Growers Association.

Factual and policy basis issues encountered when developing these Rules include:

1. Adding the terminology, “tubers with,” clarifies how the percentage of a virus or disease is calculated for purposes of these Rules.
2. The potato industry is trying to reduce the amount of disease in seed potatoes. Colorado State University and the Colorado Certified Potato Growers Association are reducing their certified seed standards for necrotic diseases to 1.5%. Incorporating this standard into the Colorado Seed Potato Act Rules creates a consistent standard for the industry.
3. There are several strains of PVYN. The amendment to Part 2.1.3 recognizes this and clarifies that all of the strains are regulated.
4. The Colorado Rules and Regulations for the Certification of Seed Potatoes and the Colorado Seed Potato Act Rules both contain standards for the same diseases. Referencing the Colorado Rules and Regulations for the Certification of Seed Potatoes in these Rules is the simplest and most effective way to make the standards equivalent now and ensure consistency in the future if the standards change.

13.3.0 February 11, 2015 – Effective March 30, 2015

Statutory Authority

These Rules are proposed for adoption by the Commissioner of the Colorado Department of Agriculture (“CDA”) pursuant to his authority under the Colorado Seed Potato Act (the “Act”) §§ 35-27.3-101 through 112, C.R.S., specifically, §§ 35-27.0-108(1)(b)(II) and (IV), C.R.S.

The purposes of these proposed Rule Amendments are as follows:

1. Amend Part 2.0 title to include all certified seed potatoes, not just imported seed potatoes.
2. Amend Rule 2.1.0 to correct the statutory reference and clarify the scope of the Rule.
3. Amend Rule 2.1.2 to lower the standard for total virus from 10% to 8% based on postharvest testing.
4. Amend Rule 2.1.3 to remove the zero tolerance for PVY^N and PVY^{NTN} and include those in the 1.5% tolerance for necrotic viruses.

5. Add a new Rule 2.2.0 to provide the statutory citation for the authority of this Rule, clarify which seed potatoes are subject to the standards listed in 2.2.1 through 2.2.5, and establish disease standards in 2.2.1 through 2.2.5 for seed potatoes planted on or after August 1, 2015.
6. Adopt a new Rule 2.2.1 establishing virus standards for total virus as well as PVY^N serotype strains as determined by a postharvest test.
7. Adopt a new Rule 2.2.2 establishing an alternative standard for disease levels should a postharvest test not be useable.
8. Adopt a new Rule 2.2.3 maintaining the current zero tolerance for Mop Top and Tobacco Rattle Virus after August 1, 2015.
9. Adopt a new Rule 2.2.4 maintaining the current zero tolerance for Bacterial Ring Rot and Golden Nematode after August 1, 2015.
10. Adopt a new Rule 2.2.5 maintaining the requirement that all imported seed potatoes be free from Late Blight and meet the requirements of the Late Blight Quarantine after August 1, 2015.
11. Adopt a new Rule 2.3.0 maintaining the current requirement that records of compliance with the disease standards in Part 2.0 must be maintained for two years.
12. Amend Rule 4.1.0 to include the statutory citation that authorizes this Rule.
13. Add a new Rule 4.1.2 clarifying the current requirement that records of compliance with the disease standards in Part 4.0 must be maintained for two years.
14. Change the hourly fee charged by the Department for work conducted for the Act to reflect the current non-mandatory inspection fee charged by the Fruit and Vegetable Inspection Service.

Factual and policy basis issues encountered when developing these Rules include:

1. The current Rules in Part 2.0 apply only to imported seed potatoes, not potatoes produced in Colorado, which by default are therefore subject only to the seed potato certification standards. Part 2.0 as amended now establishes the disease standards for both imported seed potatoes and seed potatoes produced in Colorado. These standards need to be the same to clarify planting requirements.
2. The standard is being lowered for total virus to match the rules enacted by the Colorado Certified Seed Growers Association. Also the standard for total virus is being lowered to offset the increase in PVY^N strains that are now being allowed.
3. PVY^N and PVY^{NTN} are now widespread in the San Luis Valley and a zero tolerance is not realistic. As PVY^N and PVY^{NTN} are necrotic viruses, they are now included as part of the total virus tolerance.
4. A new Rule 2.2.0 is needed to ensure a smooth transition to the new standards that will apply to seed potatoes that are planted on or after August 1, 2015.
5. The standard for seed potato disease standards is a postharvest test. Rule 2.2.1 clarifies that this test is to be utilized to determine the disease level in each seed potato lot. This Rule sets a maximum of 5% total virus in the lot, which is a 3% reduction from the

previous year in order to require seed potatoes to have lower levels of virus diseases and therefore hopefully diminish the disease levels in the crop produced by these seed potatoes. The Rule also establishes a maximum of 1% PVY^N strains for the lot as part of the total 5%. This reduces the tolerance by 0.5% from the previous year in order to require seed potatoes to have lower levels of necrotic disease and therefore hopefully diminish the disease levels in the crop produced by these seed potatoes.

6. A postharvest test requires the plants to sprout and grow to a sufficient size to be evaluated for disease levels. Many factors can contribute to this not being successful such as weather events and changes in the growing conditions. Rule 2.2.2 therefore provides an alternative method as a backup.
7. The industry wishes to maintain a zero tolerance for Mop Top and Tobacco Rattle Virus for production and trade purposes. As this is achievable the standard will remain at zero in Rule 2.2.3.
8. The industry wishes to maintain a zero tolerance for Bacterial Ring Rot and Golden Nematode for production and trade purposes. As this is achievable the standard will remain at zero in Rule 2.2.4.
9. The Late Blight Quarantine applies to all imported seed potatoes. Rule 2.2.5 clarifies that imported seed potatoes must meet those requirements apart from any requirements in the Seed Potato Act and associated Rules.
10. Two years is the longest a seed lot could be used without certification or other testing so the record retention requirement in Rule 2.3.0 aligns with the time frame to provide documents for verification of compliance.
11. The Fruit and Vegetable Inspection Service's current fee for non-mandatory inspections is \$37.50. The Fruit and Vegetable Inspection Service conducts the inspections for compliance with the Act.
12. These amendments incorporate changes as a result of the Department's Regulatory Efficiency Review Process.

13.3.1 Adopted April 13, 2016 - Effective April 13, 2016

Statutory Authority

This Emergency Rule amendment is proposed for adoption by the Commissioner of the Colorado Department of Agriculture ("CDA") pursuant to his authority under the Colorado Seed Potato Act ("the Act") Sections 35-27.3-101 through 112, C.R.S., specifically, Sections 35-27.3-108(1)(b)(II)

The purpose of this proposed rule amendment is as follows:

1. Amend Part 2.2.2 to provide that if a postharvest test is not available in 2016 lots will be evaluated for eligibility for planting based on the second seed certification field inspection results for total viruses.

Factual and policy basis issues encountered when developing this Rule amendment:

1. The current Rules in Part 2.2.0 became effective on March 30, 2015 and applies to all seed potatoes planted after August 1, 2015. When these Rules were adopted they required all seed potatoes to undergo a postharvest test to be eligible to be planted in

2016 and subsequent years. The postharvest test is typically conducted by Colorado State University as part of the seed potato certification process.

2. Colorado seed potatoes are certified under rules and regulations promulgated by the Board Of Governors of the Colorado State University system in conjunction with the Colorado Certified Potato Growers Association. When Rule 2.2.2 of the Seed Potato Act was adopted, it was not clear that the Colorado certified seed potato growers rules only required that nuclear stock and Generation 1 seed potatoes be subjected to a postharvest test if the seed was to be sold. A large percentage of nuclear stock and Generation 1 seed potatoes are not sold but rather are retained to be planted by the producer in the next year. Therefore after production of the 2015 seed potato crop, very few lots of nuclear or Generation 1 seed potatoes were subjected to a postharvest test. All other classes of seed potatoes (G2 – G6) that were requested for certification were subjected to postharvest testing.
3. Over 100 lots of nuclear stock and Generation 1 seed potatoes were not subjected to a postharvest test. Without a change to the Rule to allow these two classes of seed potatoes to be planted, almost two entire generations of seed potatoes would be lost and the resulting effect on the availability of seed potatoes to be planted in future years would be catastrophic. It could result in a shortage of certified seed potatoes or potato growers needing to import significant amounts of seed potatoes from other states.
4. This oversight was not noticed until early 2016, well after the postharvest tests could be completed. The alternative option proposed in this Rule to allow for the production of nuclear stock and Generation 1 seed potatoes to be planted if the second field inspection showed no more than 1% total virus provides adequate protection for other potato growers from these classes of seed as they are rarely infected with viruses at this level.