

DEPARTMENT OF AGRICULTURE

Date: May 12, 1960

To: Mr. Richard White, Code Reviser, Legislative Building, Olympia  
From: Joe Dwyer, Director of Agriculture, General Administration Building  
Re: Order No. 812

Enclosed herewith are the original and two copies of Order No. 812 signed by me on May 9, 1960.

Would you please indicate the date of filing on the original and return it to my office?

Thank you for your assistance.

DON'T TRY TO REMEMBER IT—WRITE IT DOWN!

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STATE OF WASHINGTON  
DEPARTMENT OF AGRICULTURE  
OLYMPIA

Order No. 812  
Supersedes Order No. 671

STATE OF WASHINGTON  
**FILED**  
MAY 12 1960  
CODE REVISER'S OFFICE  
DOCKET # 69 FILE # 11

**RULES FOR CERTIFICATION OF SEED POTATOES**

I, Joe Dwyer, Director of Agriculture of the State of Washington, by virtue of the authority vested in me under Chapter 15.16, Revised Code of Washington, after due notice and public hearing held at Bellingham on April 12, 1960 (pursuant to RCW 43.32.010 and 34.04.020), do establish the following rules for Certification of Seed Potatoes.

**Regulation 1. PLANTING STOCK**

Section 1. Eligible planting stock must consist of foundation or certified seed potatoes. Foundation seed is seed that has met the field standards and test plot standards for foundation seed.

Certified seed is seed that has met the field standards and test plot standards for certified seed.

"EXCEPTIONS" may be made for desirable planting stock of known history and varietal purity, produced the preceding year under the special observation of the State Department of Agriculture and the Washington State University.

Section 2. Planting stock from states other than the State of Washington is eligible for certification only if those states have standards at least as high as the State of Washington.

Seed from states allowing Bacterial Ring Rot is NOT ELIGIBLE under any circumstances. Information as to the eligibility of seed from other states may be obtained from the State Department of Agriculture, Olympia, Washington.

Section 3. Tags, bills of sale and other evidence of the origin of the seed stock must be preserved and be available upon request by the Certifying Agency.

**Regulation 2. APPLICATION FOR CERTIFICATION**

Section 1. Application for certification must reach the State Department of Agriculture, Olympia, Washington, not later than June 15, accompanied by the application fee and tags or other evidence of eligibility that was attached to the seed planted.

Section 2. No applications will be accepted after July 1, and no application from any grower owing the Department of Agriculture for previous fees will be considered.

Section 3. A penalty of \$5.00 per application will be charged for applications received between June 15 and July 1.

**Regulation 3. TEST PLOT RECORDS**

Section 1. Each lot of seed entered for certification must have a record of the previous year's plot or greenhouse test. When a field entered does not have an official plot-test record it will be necessary to withhold final certification until a sample is taken from the field and greenhouse tested.

**Regulation 4. FEES**

Section 1. The APPLICATION FEE is \$2.50 per acre.

Section 2. The total certification fee, which includes the

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application fee is \$5.50 per acre. The final fees shall be due and payable upon completion of the last field inspection. REFUNDS of the application fee will be made only when the field is properly withdrawn from certification by written notice to the State Department of Agriculture before the first field inspection is made.

Section 3. Charges for PLOT or GREENHOUSE TESTING will be made and pro-rated in accordance with the cost involved. No seed potato sample shall be tested unless accompanied by the required fee as prescribed by the Director of Agriculture.

Section 4. SHIPPING POINT INSPECTION FEES will be the same as those set up by the Division of Horticulture for the shipment of commercial potatoes.

Regulation 5. LAND REQUIREMENTS

Section 1. Where foundation or certified seed potatoes of different varieties are being produced on the same farm a distinct margin of separation must mark the different fields in order to prevent mixture at harvesting.

Section 2. A potato field entered for certification must not have been planted on land that produced commercial potatoes of any variety or seed potatoes of a different variety the previous year.

Section 3. Land which has grown Iris bulbs or which is otherwise infested with nematode, will not be eligible to produce certified seed potatoes.

Regulation 6. ISOLATION REQUIREMENTS

Section 1. Fields intended for certification must be isolated from fields planted to produce commercial potatoes or fields carrying more than the tolerance of tuber borne diseases by at least 300 feet.

Part of a field failing to pass inspection shall cause rejection of the entire field.

Regulation 7. HANDLING OF CROP TO PASS INSPECTION

Section 1. Constant roguing of diseased and off-type plants is necessary from the time the plants are of proper size to give expression to diseases until their decline late in the season.

Section 2. The only acceptable method of roguing is to remove the entire plant, including the seedpiece and newly formed tubers. The rogued plants must be carried off the field in a bag or other container to prevent further spread of disease.

Section 3. Excessive weeds, which prevent proper inspection of the field will be cause for rejection.

Regulation 8. FIELD INSPECTIONS

Section 1. Fields will be subjected to three inspections, the first at about 6-8 weeks after planting.

Section 2. Additional inspections will be made when deemed necessary by the inspector.

Section 3. The inspector will traverse the field sufficiently to accurately evaluate the factors to be considered.

Regulation 9. FIELD STANDARDS

Section 1. The unit of certification will be the entire field standing at the time of inspection.

Section 2. SPECIAL REQUIREMENTS: Field inspection tolerances:

VIRUS DISEASES	Foundation		Certified	
	1st	2nd & 3rd	1st	2nd & 3rd
Total Virus diseases	1/3%	1/4%	3%	2%
Virus diseases seriously affecting yields	1/3%	trace*	1%**	1%**
*Trace is 0.1% or less				
**Tuber borne or current season				
rugose mosaic or leaf roll each	1/3%	....	....	....
OTHER DISEASES				
Blackleg	1/2%	1/3%	2%	1%
Wilts	1%	1%	2%	2%
Others	1/2%	3/4%	1%	1%
Total including above singly or in combination	2%	2%	5%	4%
Bacterial Ring Rot	0%	0%	0%	0%
Late Blight-Fields damaged by late blight to the extent where a proper inspection cannot be made will be considered disqualified.				
OTHER FACTORS				
Variety mixture	0%	0%	1/3%	trace

Section 3. Fields not meeting field tolerance requirements at the first inspection will be withheld from certification until a greenhouse test is made.

Section 4. Fields not meeting field tolerance requirements at the second or third inspection will be rejected.

Regulation 10. SAMPLING FOR TESTING, TEST PLOTS

Section 1. The Certifying Agency will set up two sets of test plots each year; One planted in the spring, in the open, and made up of planting stock used for certification, and the second made up of the crop produced on fields entered for certification and planted in the greenhouse.

Section 2. Before May 1, growers are required to furnish the Certifying Agency with a sample of the stock to be planted for certification as a representation in the spring test plots. This sample will consist of 310 tubers of Single Drop grade.

Section 3. Before November 15, at the grower's option, he may furnish the Certifying Agency with a representative sample for greenhouse testing. A sample will consist of 310 tubers from each Certified lot of 20 acres or less, or 620 tubers from each lot of over 20 acres.

Those lots must be represented in the greenhouse to be eligible for replanting for certification in the State of Washington.

Section 4. Before the word "Foundation" may be placed on official certified tags, the lot must have passed the required tolerances in field and in greenhouse test. The ratings will be given on official publication lists.

Section 5. When a field has been rejected for virus diseases, the grower may, at his option submit a sample five times larger than a regular sample but not to exceed 1500 tubers for greenhouse testing. If this sample meets greenhouse tolerances, the crop will then be



eligible for tagging as certified seed potatoes, but not eligible for recertification in the State of Washington, except as provided under "EXCEPTIONS" in Section 1 of Planting Stock requirements.

This sample is to be selected by a representative of the State Department of Agriculture during harvest, if found free of Bacterial Ring Rot.

Section 6. Stock not represented in the spring test plots must pass greenhouse test requirements before being eligible for tagging and shipping as certified seed potatoes.

Regulation 11. TEST PLOT TOLERANCES

Section 1. Virus Diseases:	Foundation	Certified
Total virus diseases	1½%	5%
Virus diseases seriously affecting yields	½%	2%

Section 2. Other Diseases:		
Blackleg	1%	2%
Wilts	1%	3%
Others	½%	1%
Total including above singly or in combination	2%	4%
Bacterial Ring Rot	0%	0%

Regulation 12. TUBER INSPECTION-DISEASES AND GRADES

Section 1. The U.S. Standards for potatoes shall be the official guide for applying and interpreting all definitions and terms used in the Washington certified seed grades below.

Certified seed potatoes when offered for sale must be:

1. Stored so as to maintain vitality of seed.
2. Placed in new sacks when tagging is requested.
3. Graded according to seed potato grade rules.
4. Identified with the official Washington tag which MUST show the grower's name and lot number.

Section 2. Disease:	Foundation	Certified
1. Bacterial Ring Rot, Powdery Scab, Blackwart, Tuber Moth, Nematode	0%	0%
2. Net Necroses-associated with Leafroll	¼%	1%
3. Wilts	1%	3%
4. Rhizoctonia	Infection sufficient to seriously affect the general appearance of the lot shall disqualify.	
5. Scab (deep pitted)	1%	3%
	General infection of light scab affecting 10% or more of the tubers by weight will disqualify.	
6. New diseases	Any lot showing symptoms new to Washington may be disqualified or may have certification delayed until a plot trial can be made.	

Section 3. Condition: Any lot of potatoes may be denied certification if a condition develops which seriously and adversely affects the seed value.

Section 4. Variety mixture:	0%	¼%
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Section 5. Grades

- a. Washington No. 1 Certified Seed Potatoes (Blue Tag Stock)

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shall consist of potatoes of one variety which are not badly misshapen (1), free from recognizable spindle tuber, deep scab, freezing injury, and soft rot or wet breakdown (2), and from damage (3), caused by dirt (3a), or other foreign matter (3a), second growth (3b), growth cracks (3c), cuts sprouting (3d), shriveling (3e), dry rot, surface scab (3f), rhizoctonia (3g), other diseases, stem end discoloration (3h), insects, mechanical or other means.

The size of Washington No. 1 Certified Seed Potatoes shall be between two and fourteen ounces in weight. (see tolerances)

b. Washington No. 2 Certified Seed Potatoes (Red Tag Stock) shall consist of potatoes of one variety which are free from recognizable spindle tuber, freezing injury, soft rot, late blight and from serious damage caused by dirt or other foreign matter (4a), second growth (4b), growth cracks, cuts (4c), shriveling (4d), scab (4e), dry rot, disease, insects or mechanical or other means.

The size of Washington No. 2 Certified Seed Potatoes shall be between two and eighteen ounces in weight. (see tolerances)

c. Washington Single Drop Certified Seed Potatoes (White Tag Stock) shall consist of potatoes which meet all requirements of Washington No. 2 Certified Seed Grade except the size shall be from one to three ounces in weight.

d. Washington Buff Certified Seed Potatoes (Buff Tag Stock) shall consist of potatoes of one variety which are free from recognizable spindle tuber, freezing injury, soft rot, late blight and from serious damage caused by dirt or other foreign matter or dry rot.

The size of Washington Buff Certified Seed Potatoes is not regulated except as to agreement between buyer and seller.

Section 6. Tolerances: In order to allow for variations other than size, and internal discoloration, incident to proper grading and handling, not more than a total of 6 percent of the potatoes in any lot may fail to meet the requirements of the grade. But, not more than 1 percent shall be allowed for potatoes affected by late blight, and including not more than 1 percent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition not more than 5 percent of the potatoes may be damaged by internal discoloration, or more than 3% may be below the minimum sizes or more than 6% above the maximum sizes specified in the grades.

Section 7. The tolerances specified shall be placed on a container basis. However, any lot of seed potatoes shall be considered as meeting the requirements of the grade, if upon inspection, no sample from a single container in any lot is found to exceed the tolerances specified by more than double the amount allowed, provided that the entire lot shall average within the tolerances specified.

Section 8. All percentages shall be calculated on the basis of weight.

Regulation 13. DEFINITIONS OF TERMS

As used in these grades:

Section 1. "Not badly misshapen" means potatoes are not excessively pointed, or elongated, dumb-bell shaped, or otherwise illformed.

Section 2. "Soft rot or wet Breakdown" means any soft, mushy or leaky condition of the tissue, such as slimy soft rot, wet fusarium, or wet breakdown following freezing injury or sun scald.

Section 3. "Damage" means any injury or defect which materially affects the appearance or which materially injures the potato for seed

purposes. Any one of the following defects or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect shall be considered as damage:

- (a) Dirt or foreign matter which materially affects the general appearance of the lot; a potato having an appreciable amount of caked dirt shall also be considered as damaged.
- (b) Second growth which has developed to such an extent as to noticeably affect the appearance of the potato.
- (c) Growth cracks which are not shallow or not well healed.
- (d) Sprouting, when the sprouts are over 3/4 inch long on 10 percent of the tubers.
- (e) Shriveling, when the tuber is more than slightly shriveled.
- (f) Light scab which covers more than 10 percent of the surface of the potato in the aggregate, on 10 percent of the tubers.
- (g) Rhizoctonia which covers more than 5 percent of the surface of the potato in the aggregate, on 25 percent of the tubers.
- (h) Stem end discoloration which extends over 1/2 inch into the flesh of the potato.

Section 4. "Serious damage" means any injury or defect which seriously injures the appearance of the individual potato or the general appearance of the potatoes in the container, or which causes a loss of more than 10 percent of the total weight of the potato for seed purposes. Any one of the following defects or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect shall be considered as serious damage.

- (a) Dirt or foreign matter when the general appearance of the potatoes in the containers is seriously affected by tubers badly caked with dirt or other foreign matter which seriously affects the appearance of the potatoes.
- (b) Second growth when more than one well attached knob is over 10 percent of the total weight of the tuber, or when knob is broken.
- (c) Cuts and deep bruises which seriously affect the potato for seed purposes.
- (d) Shriveling when the potato is excessively shriveled, spongy, or flabby.
- (e) Surface scab which covers an area of more than 20 percent of the surface of the potato in the aggregate, on more than 25 percent of the tubers.

Regulation 14. FACTORS OF SANITATION

Section 1. The following sanitary precautions must be observed to prevent contamination with or the spread of bacterial ring rot and other diseases easily transmitted by equipment used.

- a. Digging equipment  
Clean and disinfect all diggers, pickup-buckets, and truck beds before harvest.
- b. Field sacks  
Use only sacks which are known not to have been in contact with commercial potatoes.
- c. Storage House  
Clean and disinfect thoroughly each year prior to bringing in the new crop from the field.  
Certified Seed Potatoes may be disqualified if stored in the same building with potatoes grown for commercial use.

d. Grading equipment

All grading facilities, including floor and loading platform, must be thoroughly sterilized each year. Grading of seed potatoes on a grader which is also used for commercial potatoes will disqualify the lot for further certification.

Section 2. Sources of Contamination in Handling Potatoes:

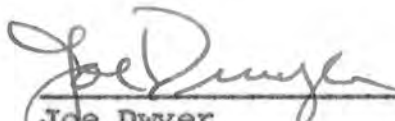
Borrowed field and grading equipment.

Wearing gloves and clothing that have been used in handling potatoes elsewhere.

Employees should wear new cotton gloves or disinfected rubber gloves when starting a new grading job.

Soil sticking to shoes.

Grading sheds should have facilities to disinfect the shoes of people entering the premises.

  
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Joe Dwyer  
Director of Agriculture  
State of Washington

Signed at Olympia, Washington  
May 9, 1960