2008 Potato Certification & Foundation Seed & Plant Materials Advisory Committee

Thursday, January 31, 2008 @ 9:15 AM-12:15 PM, Double Tree Lloyd Center, Portland, OR

AGENDA

A. **WELCOME & INTRODUCTIONS** – Scott Cheyne

B. **PRESENTING THE 2007 MINUTES**

C. **PROPOSALS REQUIRING COMMITTEE ACTION** *Background Info*

D. **UPDATES & ISSUES FOR GENERAL DISCUSSION**

F. **OTHER BUSINESS**

G. **ELECTION OF OFFICERS**

H. **ADJOURN**

** - these items may be discussed more fully in the preceding seed grower's meeting

(1-25-2008)

Background Section

Isolation of 'commercial seeds'

Background: The Potato Standards indicate that G3-class producing fields require 300 foot separation from "commercial" fields (See Part XI, Part D, below).

XI. FIELD MANAGEMENT - D. Isolation

Classification of seed being produced	Isolation Required
Pre-Nuclear	Approved Greenhouse or Laboratory
Nuclear-Generation 1	Location of field should be approved by Seed Certification office
Generation 2 & 3	300 feet from commercial potatoes
Generation 4 & 5	Distinct separation from commercial

The isolation requirement against 'commercial' has been difficult to determine by OSCS largely because the true meaning of the term "commercial" is rather vague. In previous years, OSCS has allowed 'uncertified' ('commercial'?) lots of the grower's own certified seed to be planted adjacent a G3 producing seed lots to fill out a circle. At times 'commercial' lots planted with certified G2 seed that were found to be ineligible for recertification in Oregon (generally for PHT issues) have been planted within or alongside G3 lots without isolation issues being brought up. Some growers have planted a field with a G2 source lot but removed the borders from the certified portion of the field to reduce the 'border effect' on their certified portion, thus making the borders 'commercial' and potentially causing a isolation violation under strict interpretation of the existing rules (see Figure 1 for examples of these situations). Are these cases truly 'commercial' lots as noted on the isolation table? Most, if not all, growers would agree that at least some of these practices are acceptable near G2/3 class seed lots.

Proposal: Clarification from the Committee as to what is intended by the term 'commercial' in reference to isolation requirements, and how it is to be enforced.
1. What constitutes a 'commercial' field as used in the table in the Standards?
2. What exceptions to the 300 foot isolation for uncertified fields are acceptable?

North American Health Certificates – to be require with field application

Background: The typical certification tag attached to a seed lot from another state often contains insufficient information to ascertain the eligibility of the lot for re-certification. Frequently the status of post-harvest testing is unclear, at times the eligible class is either not indicated or not easily interpreted in regards to comparable Oregon class. In some cases the certification lot numbers and grower of origin are lacking. The lack of this information accompanying the potato application necessitates OSCS staff spending a great deal of time trying to track it down, and may leave the grower not knowing for months if the lot they planted is even eligible for recertification in Oregon, and/or at what class.

Proposal: The North American Health Certificate, which was designed by the PAA Certification Section, was created to help answer these questions in a clear and complete manner on a single page (Example attached). Many states (including Idaho, ND, MI, WI, MN, WA) require this document to be attached to all seed potato applications not originating in-state. OSCS is proposing that Oregon do likewise in order to save valuable time tracking down this information & helping the grower know in

advance the status and condition of their lot. Making this document a requirement, may also help the grower obtain this valuable information from the seed source prior to planting.

Addition of 'new" varieties to required PVY testing list (OSCS)

Background: Varieties that are potentially "latent" (symptomless) for PVY are often not identified until they reach production as certified lines. Often this condition is discovered when PVY testing results differ radically from visual inspection results in the field. The inability to identify this trait in such lines may put a grower's early generation block in danger.

Proposal: To require PVY testing at Nuclear and G1 level for all varieties for which there is little or no experience to demonstrate reliability of PVY expression. OSCS would maintain a list of lines for which reliable expression for PVY (mosaic) is known to occur, all new varieties or 'experimentals' not on this list would have to be PVY tested at the Nuclear and G1 class. The experience of other state agencies working with this line would be taken into consideration in generating the 'exempt from PVY testing' list.

Specific change: Under Part XIII – A (page 15) add the following to sentence 3

> "Nuclear* and Generation 1 lots of PVY or PLRV symptomless varieties (see B & C below) **or varieties of unknown symptom expression**, must be tested for PVY or PLRV."

Considerations: This change would primarily apply to new 'experimental' varieties for which symptom expression data for PVY infection is not available. The experience of other Certification Agencies of Variety Development personnel could be considered to remove a new variety from the 'must test' list.

Minituber inspections – reducing to a single inspection (OFPSP)

Background: The current Oregon Potato Standards (Part VI-E.) require that at least two inspections of the micropropagation facilities be conducted for the production Pre-nuclear class material, as is required for all field-produced material. Because the propagation material used to plant a minituber or transplant lots comes directly from intensively tested tissue culture material, there is little chance that any visually detectable 'seed-borne' disease would be present at the time of a early first inspections (as could be the case with field-produced martial). Other abnormalities like genetic off types are more reliably detected during an inspection closer to full maturity.

Proposal: To only require a single inspection of pre-nuclear material, within one month of kill down.

Specific change: Change the Potato Standards (Part VI-E, page 11) as follows:

> E. **Inspections**: Upon receipt of the application, a certification agency will make at least ~~two~~ ***one*** inspection~~s~~ of the micropropagation facilities (includes laboratory and/or greenhouse increase) ***within one month of kill down***.

Considerations: US Exports Standards for Seed Potato require that such material receive at least two inspections (under general provisions for all classes) meaning that material so inspected could be exported directly. However, these same standards require that 5% of the planted material be lab tested (Oregon only requires 1%, minimum 20 plants) so Oregon does not meet the US Export Standards for Pre-nuclear seed class anyway. Most (if not all) other states require 2 field inspections for all classes of seed (no deviation for greenhouse produced material). Early inspections sometimes find problems with GH structural integrity, and/or disease & aphids, without a early

inspection these may go unnoticed and increase the risk of spreading to adjacent initially unaffected lots.

Winter Growout Sample Size – using 400 tuber 'standard' sample (OSCS)

Background: The current requirement for minimum tuber requirements for the WGO of lots over 0.5 acres is "220 tubers + 20 tubers per acre". Most states use some variation on a standard sample size of 400 tubers (see "2007 Post Harvest Testing Survey – page 2, attached). Adopting some type of standard 400 tuber sample size would not only bring Oregon more in line with other states, but also reduce potential errors in sample selection, sample handling and planting in the GH, and aid in WGO sampling for PVY (if required).

Proposal: Change the Oregon WGO samples size to be a multiple of a 400 standard tuber size (above 10 acres) as shown on Figure 2. Under this proposal the number of tubers required below 11 acres would be the same formula as currently required, but from 11-30 acres would require single 400 tuber sample, from 31-50 acres would require a two 400 tuber samples, 51-70 acres = 3 samples, 71-90 acres = 4 samples, and 91 and above = 5 samples.

Considerations: The current fee structure is based on field size, under this system it would need to be based on sample number, or fraction there of. Using the current fees structure, each 400 tuber sample would cost $134.75 (based an 11 acre sample charge). This change in fee structure would have to be approved by the University Feed Committee, thus implementation of a 400 unit sample program may be delayed until committee approval of the fee.

Updates & Discussion Items

Change in Directory Format

Background: The current 8 by 4" format of the Seed Directory is difficult to work with due to the small size available for text on each page resulting in very small font size, limited room for information, and is prone to printing errors. In addition the non-standard paper size limits printing options to a commercial printer (OSCS can't print on a 8x8" paper size) and results in considerable extra time on the part of OSCS staff to fit the required information into this tight format.

Proposal: Break a tradition reaching back from 1971 and change the format of this booklet to a 5.5 x 8.5 inch format (1/2 standard paper size). This format would not only be much easier to work with, but would permit OSCS to print off extra copies as needed, thus allowing the initial print order to be reduced.

Several examples of Directories from other states in various formats will be presented. Discussion on Directory contents (what types of information to include) can also be discussed at this time.

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Change in Idaho Winter Test Policy – affect on Oregon program (if any)

Background: See Attachment "Change in Idaho Winter Test Policy" (page 5). PVY testing at ICIA (lab) cost $144 per group of 400 leaves bulked by 5 leaves each. That would be a total of $12,240 for the 85 WGO lots received in 2007. A sampling and shipping fee of about $40 per lot would have to be added (see Cost Estimation, Page 5 below). NOTE: the PVY-ELISA is in addition to the WGO, not as a replacement, however Idaho will be using the PVY-ELISA results to determine the % Mosaic in the lot using the same tolerances as used for a visual inspection.

Proposal: No specific proposal only suggest a discussion on how/if this change in PHT policy affect the Oregon program? Should Oregon consider similar action?

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Subject: Change in Idaho Winter Test Policy

TO: Seed Potato Certification Agencies in the US and Canada

FROM: Doug Boze (Idaho Crop Improvement Association), November 05, 2007

Please note the following change in winter test policy as determined by Idaho seed growers:

Idaho Crop Improvement Association Announces - Change In Winter Testing Procedure

At the certified seed potato grower's meeting held on October 25, 2007, Idaho growers approved a measure that will require ELISA testing for mosaic of all seed lots in the post-harvest test. All lots will be grown out under field conditions in California and 100% of the emerged plants will be leaf sampled and ELISA tested for mosaic. Visual row inspections will be conducted for all factors other than mosaic. This combination of visual inspection and ELISA testing will be the basis for determination of recertification eligibility for each lot.

THIS CHANGE ALSO AFFECTS RECERTIFICATION ELIGIBILITY OF LOTS IMPORTED INTO IDAHO FROM OTHER STATES AND PROVINCES.

To be eligible for recertification in Idaho, imported lots must have either been grown out and ELISA tested, **or** have had sprouted tubers ELISA tested. In either case, the maximum virus allowed to be eligible for recertification is: Potato Leafroll Virus: 0.8%; Mosaic: 2.0%

Please contact me if you have any questions. Doug Boze - Idaho Crop Improvement Association

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Winter Grow-Outs PVY Sampling - Cost estimates

The following was the results of sampling **3** 400 leaf lots in 2007. Lots had to be sampled on two dates to get 100 of emerged plants.

Activity	Labor (min)	Supplies ($)	Notes
Prep	20	1	Flagging sample plot area, marking bags, etc
1st sample	110	0.5	
2nd sample	14	0.5	All 400 plants in flagged area must be sampled, they all would not be ready on the 1st reading
Processing & shipment	5	73.57	3 lbs overnight = $40.27, 1lbs overnight = $33.30
Total (for three)	149		
Cost ($20/hr)	$50	$76	
Total cost (3 lots)		$125	
Cost per lot (sampling)	$42		
Lab fee per lot (2007)	$144		
Total cost per lot		**$186**	

Notes: (1) Due to nature of sampling and reading of lots, sampling had to be done by experienced inspectors who could distinguish mosaic plants because it is not possible to do the lot 'reading' separately from the sampling. (2) Possible efficiencies with more lots & experience

2007 PVY testing, each group of 400 cost $144.

Estimates for 2007 lots

Total lab cost for 85 lots grown in 2007 would be	$12,240.
Total cost (lab + sampling) for the 85 lots grown in 2007 would be	$15,810
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Handling of Heirloom & Expired Experimentals

I. **Heirloom Varieties**:

OSCS will now be defining "Heirloom Varieties" as those varieties for which OSCS has not been able to identify a living breeder/owner. "Heirloom Varieties" must still meet a basic variety description on file (color of tuber flesh & skin, tuber shape, flower color, any prominent haulm characteristics*1).

The OSCS Database will list the "Heirloom Varieties" under the 'Experimental' category (eligible for white tag only), but the database will then automatically bypass the search of 'approved growers list' for these varieties as is completed for other 'Experimental' varieties.

"Heirloom Varieties" will be listed in the Potato Certification Handbook separately from the other 'proprietary' Experimentals as "**Experimental – Heirloom Varieties**" .

Current varieties listed in the database that will have Heirloom designation are listed below:

All Blue	Butterfinger	Purple Viking
Amber	Cuzco	Quecha
Andes Gold	Butternut	Raspberry Fingerling
Andes Sun	French Fingerling	Red Gold
Austrian Crescent	German Butterball	Red Thumb
Banana	Hot Dog	Rose Finn Apple
Blossom	Lions Paw	Ruby Crescent
Blue Tomcat	Peanut	Russian Banana
Bonanza	Peruvian Cream	Yellow Finn
Burgundy	Purple Eyes	Yellow Pear

*1 Minimum Physical Description (from PAA List):

Flower color & flowering frequency; quantity of berry production

Vine type & plant height

Tuber shape, flesh color, skin color, skin type, and eye depth, and relative maturity date

II. **Expired Experimentals**:

OSCS will now begin the policy of expiring variety approval for Experimental Varieties that have not been in production for greater than 7 years. The OSCS General Handbook limits production of 'Experiment Lines' to three years (see Part IV-B item 3 on page 4) however, this rule has never been applied to potato varieties/lines because (1) production cycles of 7 years are possible (PN to G5); and (2) 'Heirloom' varieties (that fall under Experimentals) had no clear end date for production. In many cases these 'Experimental' varieties no longer exist. Should a grower desire to produce one of these expired 'Experimental' varieties in the future, an Experimental Variety Application will need to be completed and approved.

The specific ‘Experimentals’ removed from the list of eligible ‘Experimental’ varieties in 2008 include the following:

88.WR.33
88.WR.49
A74212-1 (Century Russet)
A7961-1 (Western Russet)
A82119-3
A83359-5R
A84420-5
AC83064-6 (Silverton Russet)
AD74548-5
AO84275-3
Bonanza
Cal-Ore
Dark Red Norland
LF-1000
Minnesota Russet
NDD840-1
NDO2904-7
NDO2438-7R
NDO2469-1R
Norgold-M Russet
Purple Viking
Red Gold
Rosa
Russet Burbank NewLeaf Plus
Super Red
SY-1
TND329-1
Yellow Pear

III. **Withdrawn Varieties**:

Variety application for the following varieties were never received by OSCS and the ‘Pending Approval’ status has reverted to “Variety Approval Expired’. Certified production of these varieties will require a new Variety Acceptance application be filed with OSCS.

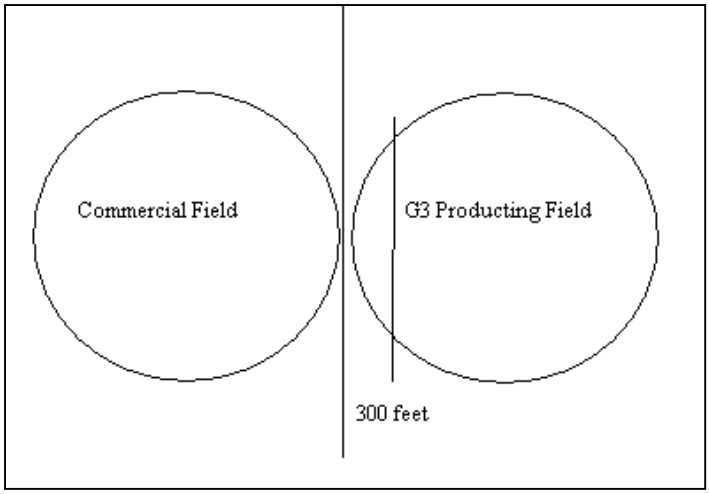
Butterfinger,, Ozette, Russian Blue , Purple Peruvian,

END OF AGENDA ITEM BACKGROUND SECTION

Figure 1 – Isolation Situations

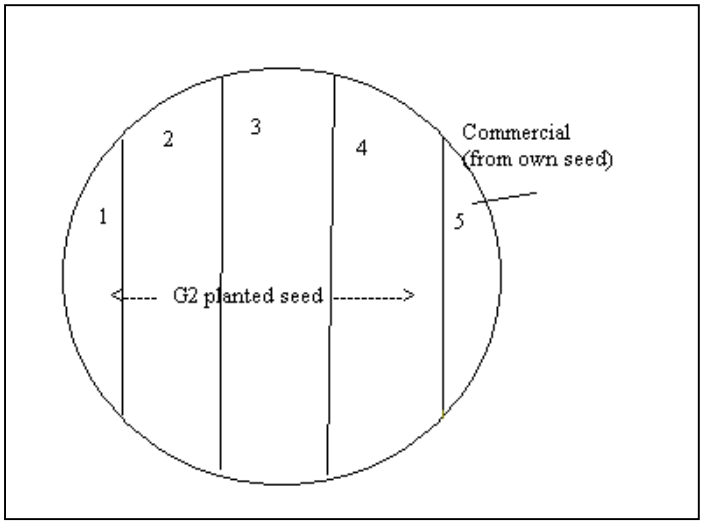
Classification of seed being produced	Isolation Required
Pre-Nuclear	Approved Greenhouse or Laboratory
Nuclear-Generation 1	Location of field should be approved by Seed Certification office
Generation 2 & 3	300 feet from commercial potatoes
Generation 4 & 5	Distinct separation from commercial

A. Adjacent Commercial Field



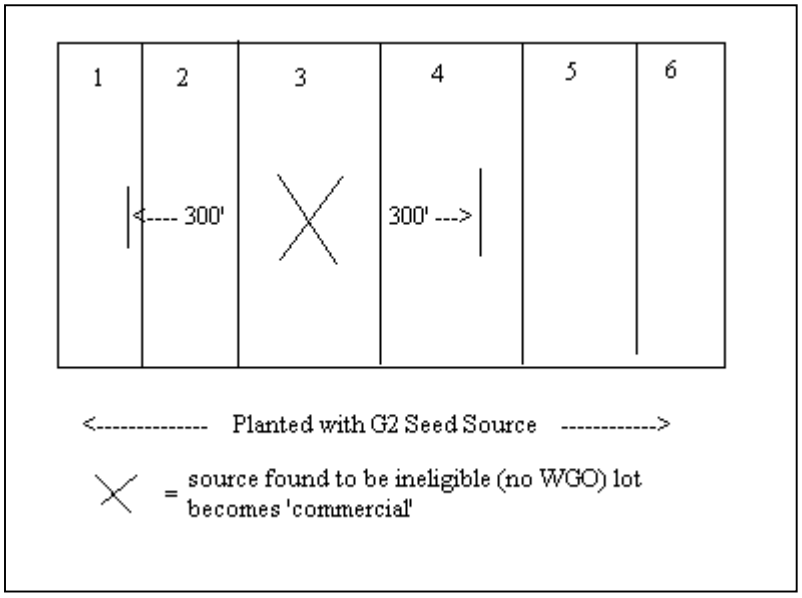
Options
1. Downgrade entire field to G4 production
2. Divide field into G4 and G3 parts
(Only possible if rows run parallel to adjacent field)

B. Filling out a Circle with 'own seed' from previous year (certified but not eligible for recertification)



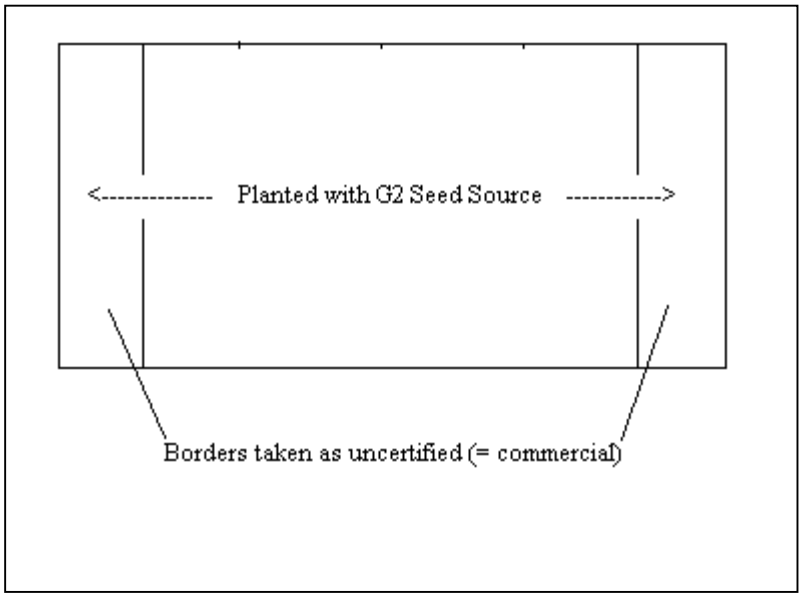
Options
1. Downgrade lot 4 to G4 production
2. Downgrade portion of lot 4 within 300' to G4 production.

C. Ineligible Seed Lot (becomes 'commercial')



Options
1. Downgrade lots 2 & 4 to G4 production
2. Downgrade all (or part) of lot 1 to G4 production.

D. Plant part of field as "Commercial" (i.e. same seed source, not all field signed up for certification)



Options
1. Downgrade lot to G4 production ????
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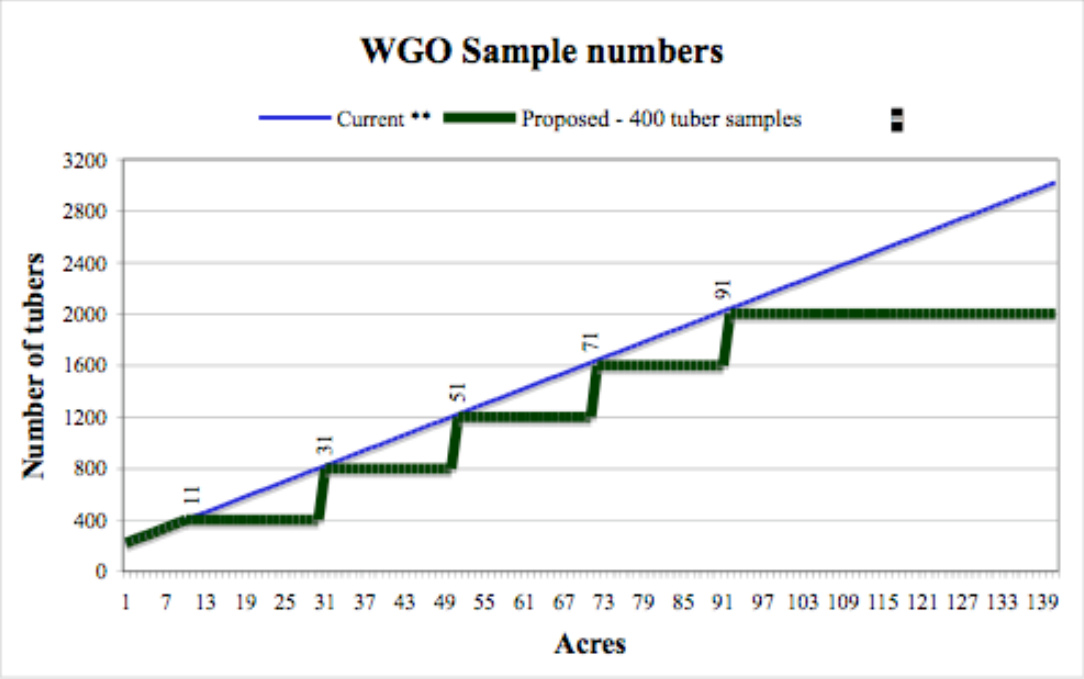
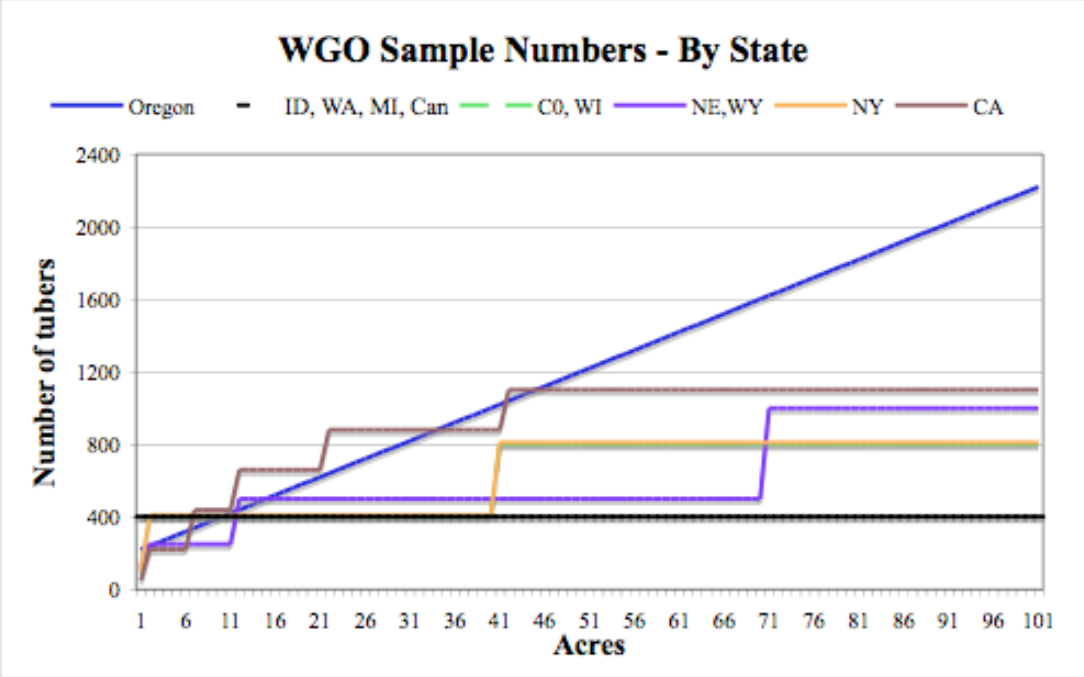

WGO Sample numbers
Current **
Proposed - 400 tuber samples
Number of tubers
3200
2800
2400
2000
1600
1200
800
400
0
11
31
51
71
91
1 7 13 19 25 31 37 43 49 55 61 67 73 79 85 91 97 103 109 115 121 127 133 139
Acres


WGO Sample Numbers - By State
Oregon
ID, WA, MI, Can
C0, WI
NE,WY
NY
CA
Number of tubers
2400
2000
1600
1200
800
400
0
1 6 11 16 21 26 31 36 41 46 51 56 61 66 71 76 81 86 91 96 101
Acres

2. How many samples for each lot?

Agency	FY1	FY2	FY3	FY4	FY5 +
AK	NA				
CA	All gen. (1 sample = 220 tubers). 1-5 acres=220 tubers; 6-10 acres=440 tubers; 11-20 acres=660; 21-40 acres=880; 41-80 acres=1100 tubers. **For lots less than 1 acre = 50 tubers**				
Canada	Lab test: 200 tubers OR Field test: 400 tubers. One sample/lot regardless of size.				
CO	25 tubers up to 1% of plant pop. of lot	100 tubers or 1% of plant pop of lot up to 400 tubers	1st 40 acres = 400 tubers; Exceeding 40 acres = 800 maximum		
ID	Nuc(FY1) 0.1 - 0.4 acres = 100 tubers, 0.5 - 0.9 acres = 200 tubers, 1 + acres = 400 tubers.	(FY 2 - 7) 400 tubers/lot.			
ME	Testing optional if lot not sold that yr	400 tubers/ 8 acres	400 tubers/15 acres		Foundation Class: 400 tubers/15 acres Certified Class: 400 tubers/40 acres
MI	1-40 a= 400 tuber sample; 0.5-0.9 a=200 tuber sample; <0.5 a=100 tuber sample. Smaller samples < 100 tubers at agency discretion for small lots.				
MN	200	400 / lots of 45m acres max. for G1 to Certified (FY1-FY7)			
MT	Contact office	1 sample/1-10 acres	1 sample/40 acres		
ND	<2 a=300 tubers; 2-80 a=600 tubers; >80 a=1200 tubers				
NE	< 2000 lbs, no sample, all other based on acreage				
NE/WY	0-1 a=125 tubers; 2-10 a=250 tubers; 11-70 a=500 tubers; 71+ a=1000 tubers				
NY	FY1, 2 (N1, N2): <0.5 acre = 25 tubers, 0.5 - 1.0 acre = 105 tubers, >1.0 acre = 410 tubers. FY3 (N3, G1) and greater: < 1.0 acre = 105 tubers, 1-40 acres = 410 tubers, >40 acres = 810 tubers.				
OR	220 tubers + 20 tubers per acre				
WA	400 tubers / lot. 4 tubers/ 100 cwt for lots < 1 acre				
WI	400 tuber sample/ 50 A: min 1 to max of 4 sample. G-series generation nomenclature begins when seed move off the State Farm.				

NORTH AMERICAN CERTIFIED SEED POTATO HEALTH CERTIFICATION - CROP YEAR 2007

	Grower	Importer
Name		
City, State		
Variety	Acres	Quantity Shipped / size

Lot Certification

Certification #

Seed Class/Gen.

Certifying State

Lot origination from tissue culture No Yes yes *2

Year micropropagated for planting *1

by *1

Production environment pedigree: Fill 1 column per production year, use different initials in Greenhouse and Field boxes for different farms (e.g. JSF for John Smith Farms); indicate a tuber-united lot with a "+" after farm initials; describe other footnotes in notes below.

2000	2001	2002	2003	2004	2005	2006	2007	Year of Production
					*1			Greenhouse (insect excluding) & sterile soil
					*1			Field Location (note special measures below)
					*1			Certification Lot No.
					*1			Certifying State

Number of Years produced in field soil

Summer Field Readings

Field inspections

1st	2nd	3rd	Final
		Less Than	
		Less Than	NA

%LEAF ROLL
%MOSAIC
%VARIETAL MIXTURE
%BLACKLEG
%VERT + %FUSARIUM + %EARLY BLIGHT

***Post harvest readings**

Location NA

FINAL

Sample ID (number)

Plant Count

ELISA TEST RESULTS FOR LATENT VIRUSES

%PVY NA %PVX NA

Other Diseases	Not known to occur in growers area.	No. of years since last found on this growers farm, or NONE ON RECORD if free >10 years.	Not found this year during normal certification field inspections.
Bacterial Ring Rot		none	X
Late Blight		none	X

Notes:

To be eligible for recertification in Oregon, all seed lots must pass a post-harvest winter grow-out evaluation at a class of G4 or better.
WTE = lots that are winter test exempt (any lot 750 lbs or less that has been virus tested in the field). NA = not applicable
*1 - OSCS has no record for this material prior to year indicated, contact source state/province for more information
*2 - Material not of Oregon origin (initially) are assumed have originated from tissue culture unless denoted otherwise by state of origin.

The above information is accurate to the best of our knowledge:

(Seed Certification Specilist)	24-Mar-03
Program official / title	Date
Oregon State University Seed Certification Service	541-737-4513
Agency	Telephone
	541-737-2624
	FAX