

# 2009 Potato Certification & Foundation Seed & Plant Materials Advisory Committee

Thursday, January 29, 2009 at 9:15 AM-12:15 PM  
Embassy Suites Hotel – Washington Square, Tigard, OR

## AGENDA

A. **WELCOME & INTRODUCTIONS** – Rob Lane

B. **PRESENTING THE [2008 MINUTES](#)**

C. **PROPOSALS REQUIRING COMMITTEE ACTION**

*Background Info (Pg)*

1. Powdery Scab Reporting - multiple tubers to report (Harvest Insp & WGO) \_\_\_\_\_ 2
2. WGO Off-Types – multiple tubers to report for large lots \_\_\_\_\_ 2
3. Modified Land History - ‘Volunteers’ Allowed \_\_\_\_\_ 3
4. Linking of Chemical Injury Found in Field to WGO \_\_\_\_\_ 3
5. Grower Representation on the PCFSPMAC \_\_\_\_\_ 4
6. Maximum Mosaic Values Allowed in WGO for Certification \_\_\_\_\_ 6
7. Printing of Winter Grow-out Results Booklet \_\_\_\_\_ 6
8. Winter Grow-Out Sample Size – using 400 tuber ‘standard’ sample \_\_\_\_\_ 6

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

Winter Grow-out Report

Revisit the concept of ‘Latent Varieties’ in regards to PVY (see WERA notes)

Appeals granted in 2008 review (WGO-ELISA issues, MLH, others?)

Potato Directory – new format in 2008

Erwinia now called Pectobacterium

Proposed ‘Recommendations’ to be added to the Necrotic Virus Management Plan

Replacement of Steve James on Committee by Brian Charlton

E. **UPDATES**

Oregon Department of Agriculture (MOU, Potato Cyst Nematode)

(ODA)

Oregon Foundation Potato Seed Project

Solomon Yilma

OSU & Crops Science

Russ Karow/Dan Curry

Oregon Seed Certification Service

Dennis Lundeen, Dan Curry

F. **OTHER BUSINESS**

G. **ELECTION OF OFFICERS**

H. **ADJOURN**

*(1-22B-09)*

## BACKGROUND SECTION

### **1. Powdery Scab Reporting - multiple tubers to report (Harvest Insp & WGO)**

**Background:** The presence of **Powdery Scab** observed during the Harvest Inspections affect the grade of the seed regardless of the number observed, be it a single tuber or be widely scattered in the lot. If Powdery Scab is found the class is not affected, i.e., “G2” class of seed would still be classed as G2 seed, but the following statement would appear on the Final Certificate:  
"POWDERY SCAB PRESENT - BUYER MUST BE NOTIFIED - this lot will no longer be eligible for blue tags (US #1 Seed Grade), but is eligible for yellow tags (contract grade)" (see Potato Seed Certification Standards, page 17). Some have felt that the application of this rule to finds of a single tuber is too strict and wish to modify the practice such that very low levels of PS+ tubers would not be so scored against the grower. The official US #1 Seed grade does have some tolerance for presence of Powdery Scab found on the tubers.

**Proposal:** Add to the following wording to end of Section XVI.-D of the Potato Seed Certification Standards, (page 17):

“A single tuber found in a sample of 400 or more will not be scored against the lot.”

**Considerations:** One complication in modifying this rule is that, unlike field inspections, there is no ‘count’ during a Harvest Inspection, thus a percent infection level is not established. Under this provision, once a suspected Powdery Scab tuber is found in a lot, the inspector would need to count (or estimate) an additional 400 randomly selected tubers that are examined for Powdery Scab. The tubers selected should be from various portion of the lot, not in a single windrow. If no more Powdery Scab is found in the 400+ tubers, the original sample can be considered aberrant and not scored. All tubers of a Winter Grow-out lot are inspected for PS.

### **2. WGO Off-Types – multiple tubers to report for large lots**

**Background:** The presence of a single ‘off type’ or ‘other variety’ in a Winter Grow-Out (WGO) lot is currently scored and reported on the final report regardless of lot size. This practice does not give allowances for errors on the part of growers or WGO staff that might have resulted in a misplaced tuber. This practice also tends to raise concerns on the part of the buyer when very low ‘off-type’ scores are found on a final report (i.e. 1 plant in 1,200 or 0.08%) when no actual concern may be merited.

**Proposal:** Add the following footnote to “Variety mix” in the table “TOLERANCES - WINTER TEST” found in Section XIV. WINTER GREENHOUSE REQUIREMENTS of the Potato Standards (Page 16):

<sup>f</sup> – A tolerance of single variety mix or off-type found in lots of 400 or more tubers will allowed and not be scored against the grower.

**Considerations:** (1) Early generation lots are rarely at the 400 tuber level thus they would be not be affected by this rule. (2) OSCS staff felt that the ‘1 plant in 400+’ provision was preferable to a % tolerance for WGO procedural reasons.

### 3. Modified Land History - ‘Volunteers’ Allowed

**Background:** The Potato Standards Part X. CROP HISTORY (pg 13) has the following wording in relation to volunteers:

B. **Volunteers:** No volunteer potatoes will be permitted in any field, except where the previous crop of the same variety was of a higher generation than that being produced.

This wording would imply there is a *zero tolerance* for volunteers ‘in any field’ which runs counter to the field tolerances found for “Variety mixture/off type” show on the table “**TOLERANCES - FIELD/HARVEST INSPECTIONS**” (pg 14) that shows the following:

Factor	Generation								
	<u>PN<sup>b</sup></u>	<u>N<sup>b</sup></u>	<u>G1<sup>b</sup></u>	<u>G2</u>		<u>G3 &amp; 4</u>		<u>G5</u>	
Variety mixture/ off type	0.0	0.0	0.0	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>
				0.20	0.10	0.50	0.25	2.00	0.50

OSCS staff can not implement both of these ‘tolerances’ and request clarification from the Advisory Committee in regards to tolerances for variety mix & off types found during field inspections.

**Proposal:** Insert the italicized wording into Item B of Part X as follows:

B. **Volunteers:** No volunteer potatoes *in excess of those shown on the field tolerance table (pg 14)* will be permitted in any field, except where the previous crop of the same variety was of a higher generation than that being produced.

**Considerations:** This is what OSCS has been doing all along anyway, it just rectifies the contradictive elements in the Standards.

### 4. Linking of Chemical Injury Found in Field to WGO

**Background:** In 2008 the Potato Standards were amended to remove tolerances for ‘Chemical Damage’ from the Winter Grow-Out tolerance table. It was felt that the presence of such plants in the WGO did not accurately reflect upon the likely field performance of seed lot. Under the revised rules, growers would be notified of any plants showing chemical-like injury observed in the WGO, but such plants would not be scored against the grower or mentioned in the “Final Report”.

One issue that had not been resolved under this revision was how fields that showed greater than 3% chemical injury the *previous summer* would be treated in the WGO. The current Standards for chemical injury (Part XII-B-2, Page 14) reads:

2. Visible symptoms of chemical injury of any magnitude to the extent of 3% of the sample inspected in the field may result in the field being *withheld from certification pending test plot results*. A representative of the Certification office may sample fields held for winter test on grid basis before harvest. The samples will be tested in the greenhouse.

Furthermore the foot note for chemical injury found in the field tolerance table (pg 14) reads:

<sup>h</sup> Field withheld from certification pending Post-Harvest Test results where tolerances for chemical injury apply (see WINTER TEST TOLERANCES Table).

This statement results in a dilemma: with no tolerance for chemical injury now applicable to the WGO, the meaning of footnote “h” is unclear. The class/certification such fields is placed on ‘hold’ to assure that the chemical injury observed in the field is not still manifested in the seed tubers harvested from these lots. OSCS staff did not feel it was the committee’s intent in asking for these revisions to ignore obvious tuber-borne chemical injuries that could be linked to field injury the previous field season.

**Proposal:** (1) Define the maximum amount of chemical injury tolerated in such lots in the WGO. This may be a single tolerance for all classes (i.e. “maximum of 5%”) or may be progressive by class; (2) Add such verbiage to footnote “h” in the aforementioned “Field Tolerance Table” on page 14; (3) Decide that the impact of exceeding these tolerances are, i.e., outright rejection, limiting lot to contract grade only, limiting the lot to ‘Own-Use-Only’, or other restrictions.

OSCS also wishes to verify that the Committee would like to continue to the policy of making no mention of chemical injury symptoms found during the WGO on the final report (for any lot); Should these be at least mentioned but not scored against the grower?

**Considerations:** OSCS would recommend the same tolerance for ‘chemical injury’ be applied to all classes in-as-much as chemical injury, unlike tuber-borne disease presence, should not increase in affect with subsequent generations, thus it makes little difference if the affected lot is an early or late generation. In fact, the over all affect of chemical injury may be more injurious in a pre-commercial lot than in an early generation lot that will be increased for several more years as seed.

## **5. Grower Representation on the PCFSPMAC**

**Background:** Currently the Bi-Laws for the PCFSPMAC state that there are the following grower representatives:

### Article III. Membership

1. The Advisory Committee consists of thirteen voting members: eight growers of Certified seed potatoes; one commercial potato grower from Malheur County; one representative of the Oregon Potato Commission; one OSU researcher; one extension specialist; and one county agent. In addition, the Certification Program, and the Commodity Inspection Division, Oregon Department of Agriculture, shall be represented by one ex-officio member each. Other ex-officio members may be appointed as the Dean or the committee deem necessary.
2. Representatives of the committee shall be appointed from the following geographical areas by the organizations listed below:

Malheur Potato Growers Association (MPGA) – one who will be a commercial grower.

Klamath Potato Growers Association (KPGA) – three seed potato growers  
(includes Southern Lake County).

Central Oregon Potato Growers Association (COPGA) – three seed potato growers  
(includes Crook, Deschutes, Jefferson and Northern Lake County).

Blue Mountain Potato Growers Association (BMPGA) – two seed potato growers.

Oregon Potato Commission – one representative who must be a commercial potato grower.

In as much as seed acreage in Central Oregon has dropped in recent years, while acreage in Union County has increased, OSCS felt adjustments to the geographical representation may also warranted.

**Proposal:** Change the Bi-Laws Article III item two to read that either:

Option A: There are three seed grower representatives from KPGA, COPGA, and BMPGA; or

Option B: Reduce seed grower representatives from COPGA to two representatives, and increase those from BMPGA to three seed grower representatives; or

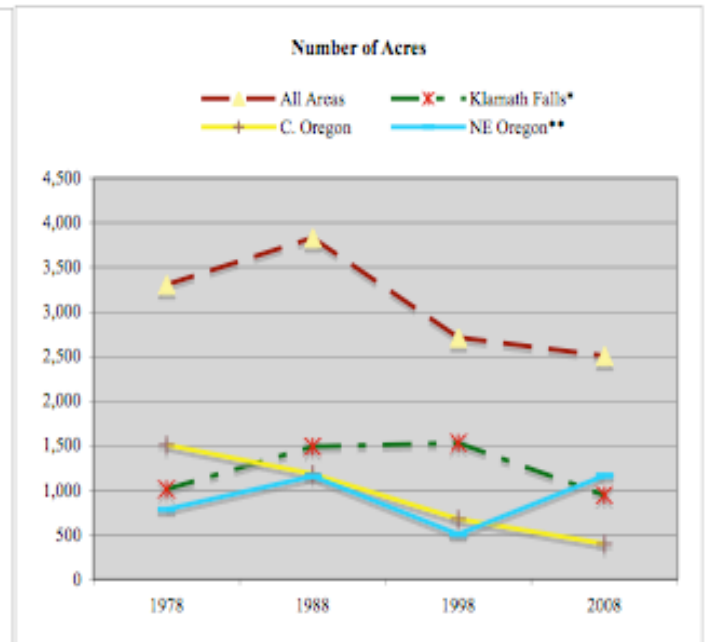
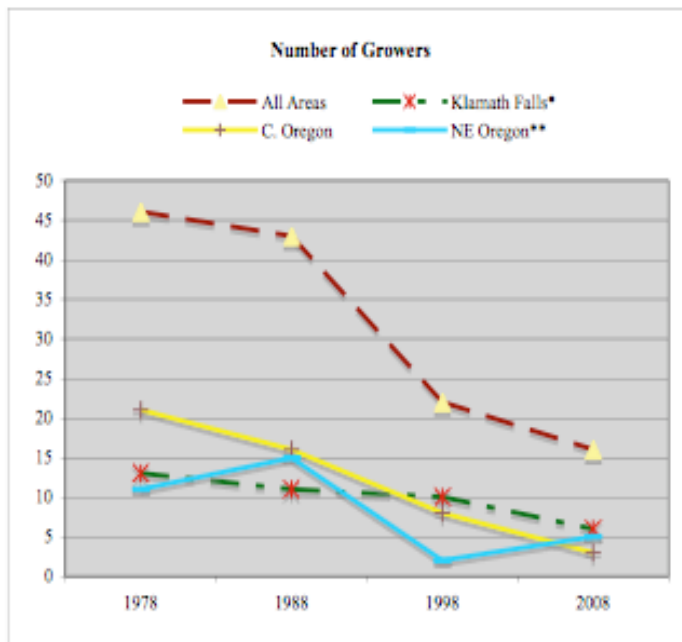
Option C: Have two representatives from all districts.

**Considerations:** In 2008, there are three seed farms in COPGA and four in the BMPGA areas. There is also a single seed grower in the MPGA, and eight in KPGA area (see table/graph below).

### 40 Year Comparison of Potato Seed Production in Oregon - Acres & Growers

Year	All Areas		Klamath Falls*		C. Oregon		NE Oregon**		OTHER***	
	Acres	Growers	Acres	Growers	Acres	Growers	Acres	Growers	Acres	Growers
1978	3,306	46	1,011	13	1,507	21	787	11	1	1
1988	3,826	43	1,489	11	1,180	16	1,156	15	1	2
1998	2,710	22	1,528	10	677	8	505	2	1	2
2008	2,507	16	946	6	397	3	1,164	5	1	1

\* - includes Lake County; \*\* - includes Malheur county; \*\*\* - minituber production



## **6. Maximum Mosaic Values Allowed in WGO for Certification**

**Background:** There is no maximum tolerance for mosaic in the Winter Grow-Out in Oregon. This means there is no limit to how much mosaic a lot can have and still be eligible for a blue tag. Lots known to have over 90% mosaic have been eligible for Oregon blue tags in the past (see [Table 1](#)). This policy tends to tarnish the value and meaning of certified seed coming from the Oregon program especially when these lots end up being grown-out in Hermiston or Washington seed lot trials. Many other states do have a maximum tolerance for mosaic to be eligible for certification (see [Table 2](#)).

**Proposal:** Place a maximum allowable mosaic for certified blue tag material in the WGO in Oregon.

**Considerations:** Idaho has eliminated its maximum tolerance from 15%, to Buyer-Seller agreements (like ours currently is). There was no consensus at the national meetings in December 2008 on what a ‘reasonable’ maximum tolerance for Certified class would/should be because it varies with years (i.e. if seed is limiting at 10% max for instance, the max would be changed to 15%).

## **7. Printing of Winter Grow-out Results Booklet**

**Background:** Many states print the results of the Winter Grow-Out in a booklet format; Oregon does not. Those publications generally show only those lots eligible for certification, or simply lots legible for re-certification. This tool might be helpful in Oregon, especially in light of our ‘no rejection in the WGO’ policy.

**Proposal:** Begin the publication of a “Lots Eligible for Recertification booklet” which would list only those lots that had passed the WGO with a class of G4 or less. WGO readings could be listed if desired. This publication would be sent to Oregon seed growers automatically and others upon request.

**Considerations:** Some examples from other states will be presented.

## **8. Winter Grow-Out Sample Size – using 400 tuber ‘standard’ sample**

**Background:** The current 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).

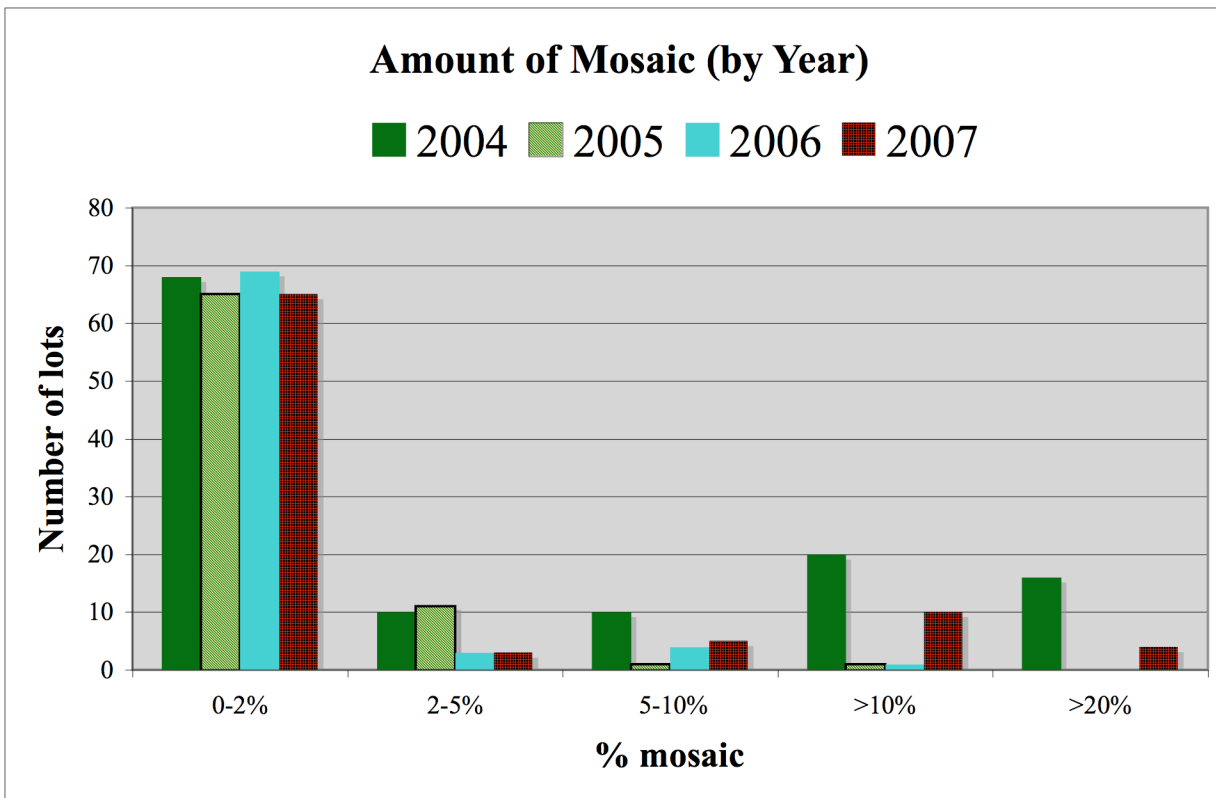
**Proposal:** Change the Oregon WGO samples size to be a multiple of a 400 standard tuber size (above 10 acres) as shown on [Figure 2](#). Under this proposal, the number of tubers required below 11 acres would be the same formula as currently required, with 11-30 acres requiring a single 400 tuber sample, 31-50 acres two 400 tuber samples, and any acreage over 50 acres requiring 3 samples 400 tuber 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 thereof. Using the current fee 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 Fee Committee, thus implementation of a 400 unit sample program may be delayed until committee approval of the fee.

Citation on the 400 tuber size: Lund, RE and MKC Sun. 1985. Sample size determination for seed potato certification. Am. Pot. J. (62) 347:353.

**Table 1 - Potato WGO Lots of G5 with Excessive Mosaic**

Number of lots with %mosaic indicated						
Year	0-2%	2-5%	5-10%	>10%	>20%	max %
2004	68	10	10	20	16	98.4
2005	65	11	1	1	0	10.5
2006	69	3	4	1	0	10.4
2007	65	3	5	10	4	35.7



**Table 2 - Maximum Mosaic Allowed for Certification (by State)**

State	Mosaic allowed	State	Mosaic allowed
California	PHT-NR, BSA *	Montana	??
Canada	PHT - NR **	Nebraska & WY*3	8%
Colorado	10%	New York	5%
Idaho	BSA *	North Dakota	(0.5%) PHT-NR ***
Maine	5%	Oregon	BSA *,
Michigan	5%	Washington	BSA, PHT-NR
Minnesota	PHT-NR	Wisconsin	5%

\* - BSA = Buyer Seller agreement (I.e. no maximum tolerance for mosaic to certify)

\*\* - PHT-NR = Post Harvest test not required for Certification

\*\*\* - "Determined by Commissioner"

**Figure 3**

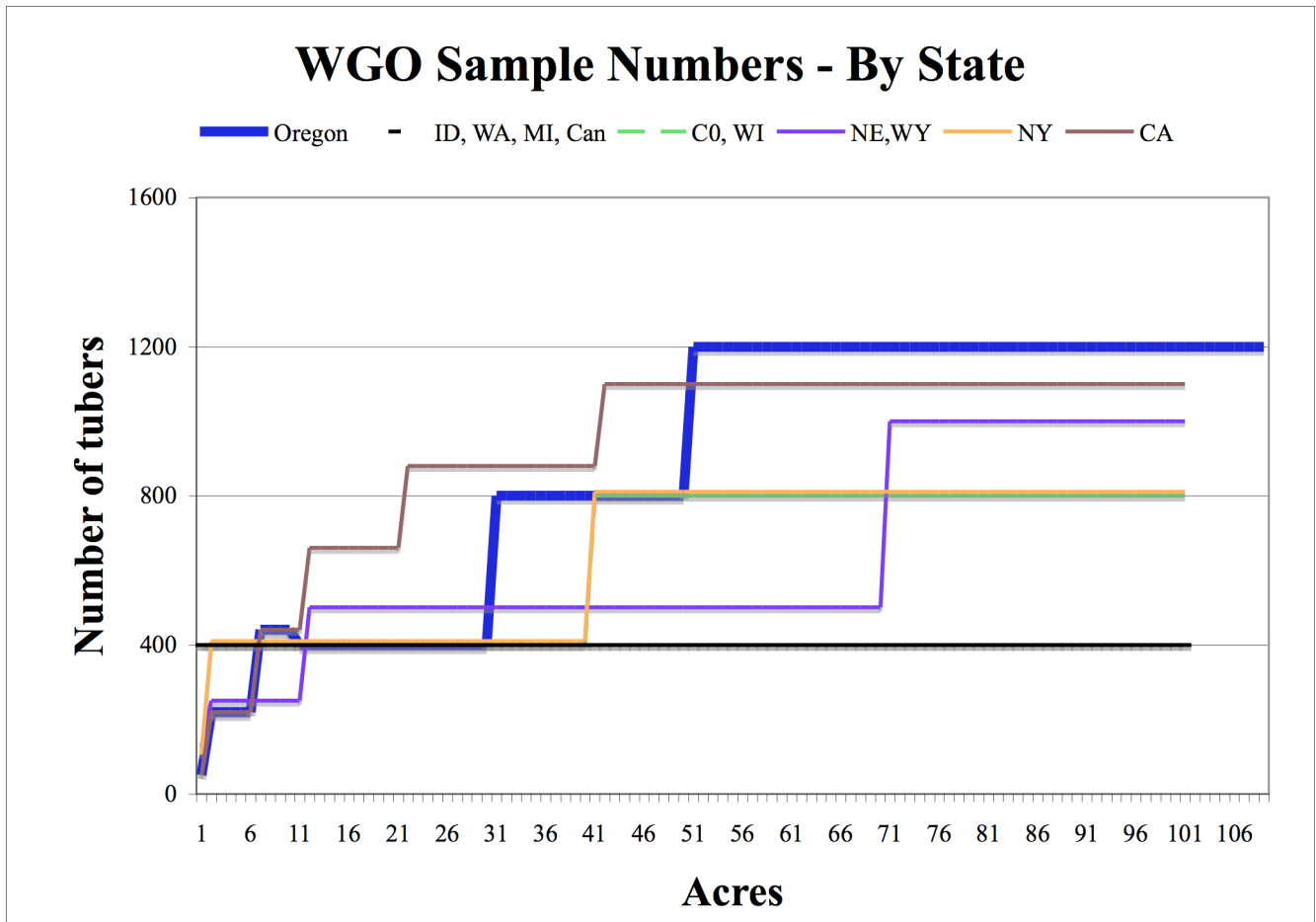
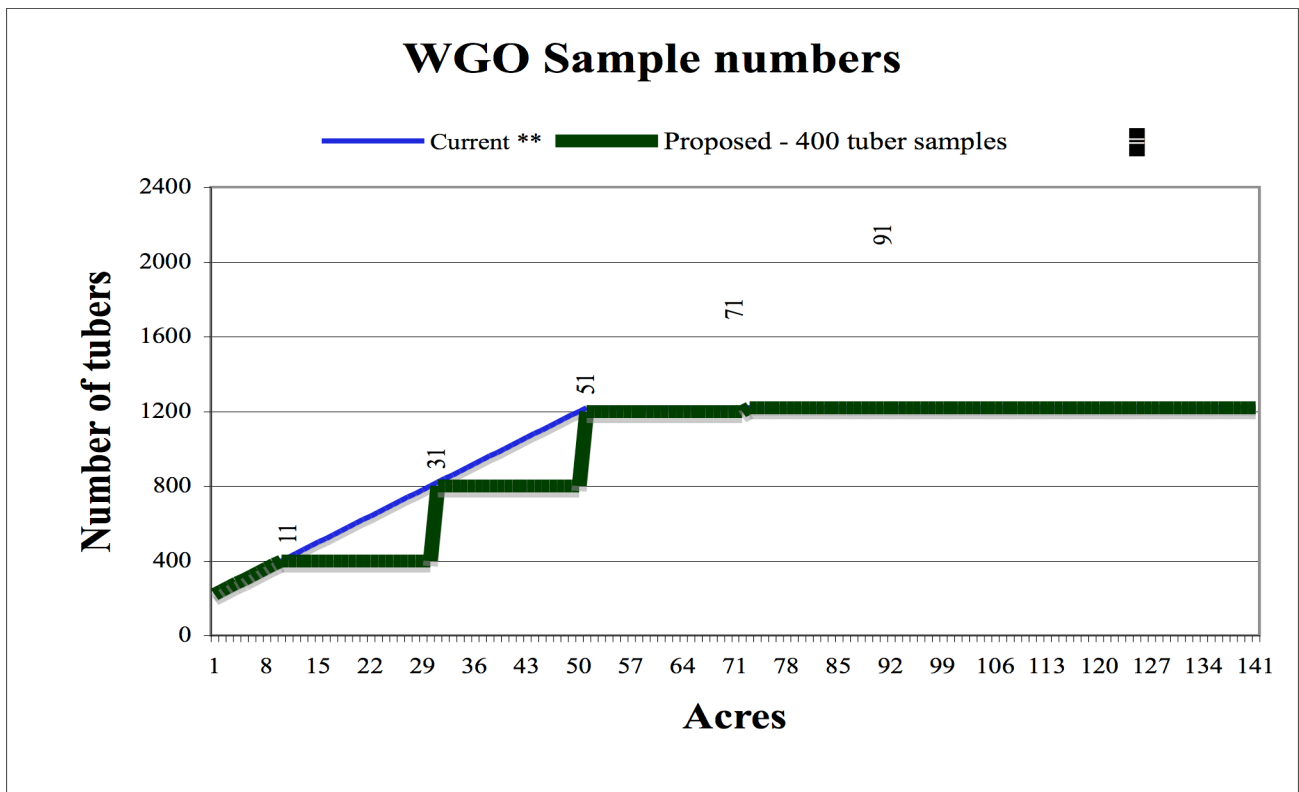




Table 3

## 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. <b>For lots less than 1 acre = 50 tubers</b>				
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	1 <sup>st</sup> 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.				