



Seed Potato Certification Update

Alaska Seed Growers Inc. Meeting
Mia Kirk, Alaska Division of Agriculture
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What was certified in 2018?

Crop Year (CY)	No. Certified Seed Potato Producers	Acres	Varieties	Lots
2018	16	42	101	317
2017	17	36	74	303
2016	16	46	76	264
2015	13	45	86	272
2014	13	32	116	315

Specialty Crop Block Grant (SCBG)

2016-2018

Certified Seed Potato Leaf Sampling Project (LSP)

- Project Purpose
- Approach
- Goals & Outcomes
- Lessons Learned



Project Purpose

- ▶ In response to 2014 disease outbreak, where **14%** of seed lots entered were rejected.
- ▶ Visual detections versus lab tested within certification?
- ▶ Necrotic strains of Potato Virus Y (PVY) are spreading and are not easily detected visually (latent) in some varieties.
- ▶ In 2014, Alaska grew **38%** latent varieties.
- ▶ Most states require some form of mandatory testing within certification.



Project Approach

- ▶ Latent varieties tested: Calwhite, French Fingerling, Rose Finn Apple, Russet Norkotah and Shepody
- ▶ AK developed lines: Delta Reds (22-1), AK Frostless, AK Red, Bush's Peanut, Denali, Fiesta (29-6), Haida, Iditared, Magic Molly, Magic Myrna (8-3)
- ▶ AK developed lines were tested due to the uncertainty of virus symptomology

* Leaf samples were collected at a 1% level or minimum of 10 leaves per lot

Crop Year (CY)	# Seed Growers	# Leaf Spls*	# Lots
2018	12	2,060	65
2017	13	1,950	72
2016	13	1,996	65

Goals & Outcomes

- ▶ Leaf samples were collected and tested for PVY, PLRV, PVX during first field inspection and results were provided to producer in time for second inspection
- ▶ Note: PVY and PLRV positive lots were not rejected, these lots were rogued.
- ▶ Note: Lots that are positive for PVX are only rejected if detected visually.

Crop Year (CY)	LSP Total # of lots positive	PVY	PLRV	PVX
2018	4	0	1	3
2017	8	1	3	4
2016	5	0	2	3
Total	17	1	6	10

Goals & Outcomes (cont.)

LSP

Crop Year (CY)	LSP Virus Detections	PVY variety Detected In LSP	Virus type Latent In field?	PVX latent Variety
2018	PVX, PLRV	NA	No	NA
2017	PVY , PLRV, PVX	French Fingerling	PVX	M. Molly Delta Reds
2016	PLRV, PVX	NA	PVX	Iditared M. Molly Delta Reds

Visual

Crop Year (CY)	Visual Det of PVY in field	Detected in LSP?	Variety
2018	1	No	Shepody
2017	1(2nd inspection)	Yes	French Fingerling
2016	0	NA	NA

Lessons Learned

- ▶ Lots are not being rejected for PVY
- ▶ PVY was symptomatic in French Fingerling & Shepody?
- ▶ Did the LSP test results influence the visual inspection?
- ▶ Testing protocols at 1% adequate?
- ▶ Are other factors influencing visual diagnostics?
- ▶ At this time, this project confirmed low incidence of PVY, PLRV and PVX.



2019- 2020 Cooperative Agriculture Pest Survey (CAPS)

- Phytoplasma Survey Witches Broom, and Purple Top
- In recent years, there has been an increase in detections
- Some phytoplasmas are not self-eliminating and will pass on to daughter tubers
- Obtain data for phytoplasmas in AK seed potato fields
- Suspect plants will be sampled and tested
- Outreach material will be generated
- Future work needed?



2018 PAA- NPC Meetings, Washington, DC

- ▶ US/ Canada report tight seed market in 2019
 - ▶ Transportation issues
 - ▶ Weather
 - ▶ Disease incidence noted
- ▶ Potato Mop Top Virus (PMTV)
- ▶ Virus reporting within Certification
 - ▶ Field inspection- varying spl sizes
 - ▶ Lab tested lots- 200/ 400 spl size
 - ▶ PHT field inspection- 200/ 400 spl size
- ▶ State National Harmonization Plan



Questions?

Thank you!

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