Oregon Update

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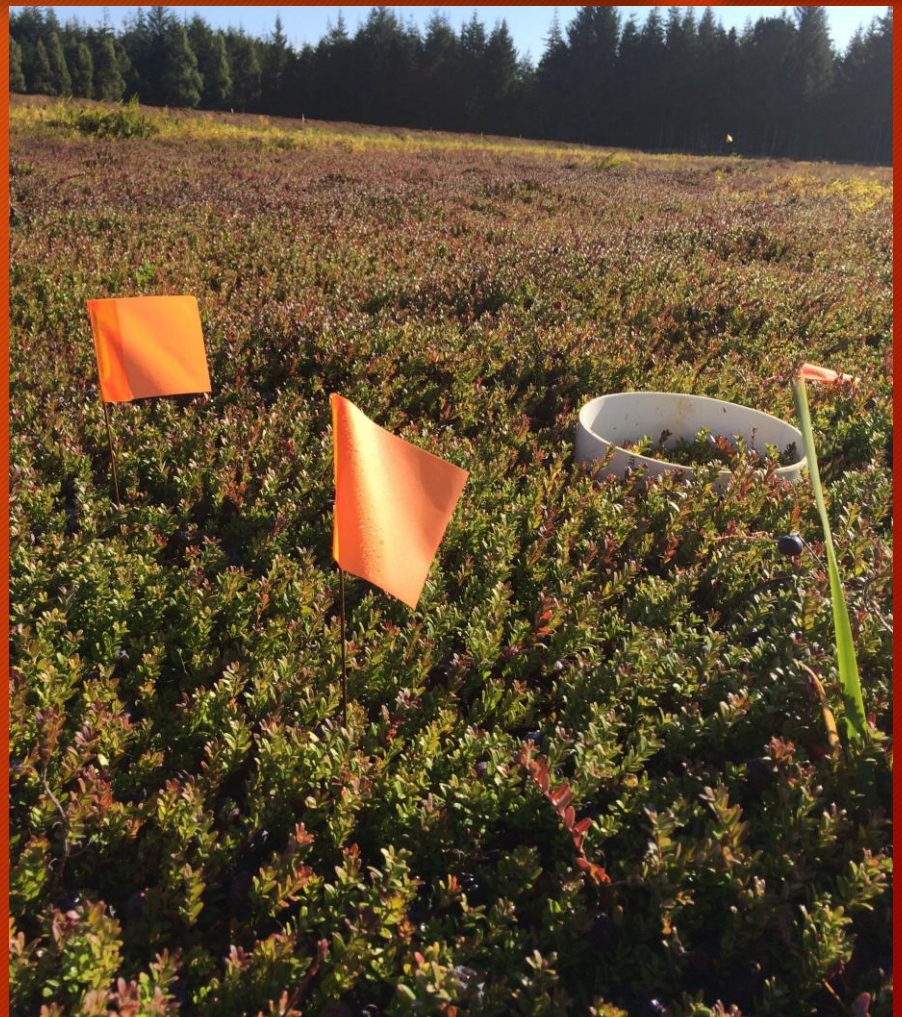
OSU Extension Service
January 25, 2018

- Fruit development study
- What happened to the scale insects?
- How about the variety trials? Because THEY’re still there.
- SLN information.
- Upcoming happenings
- A little tidbit on aquatic herbicides

Fruit Development Study

- Started in 2016
- Questions about color and fruit size
- Coordinated with Ocean Spray in OR and WA
- Stevens and Pilgrim
- Continued into 2017 …and …



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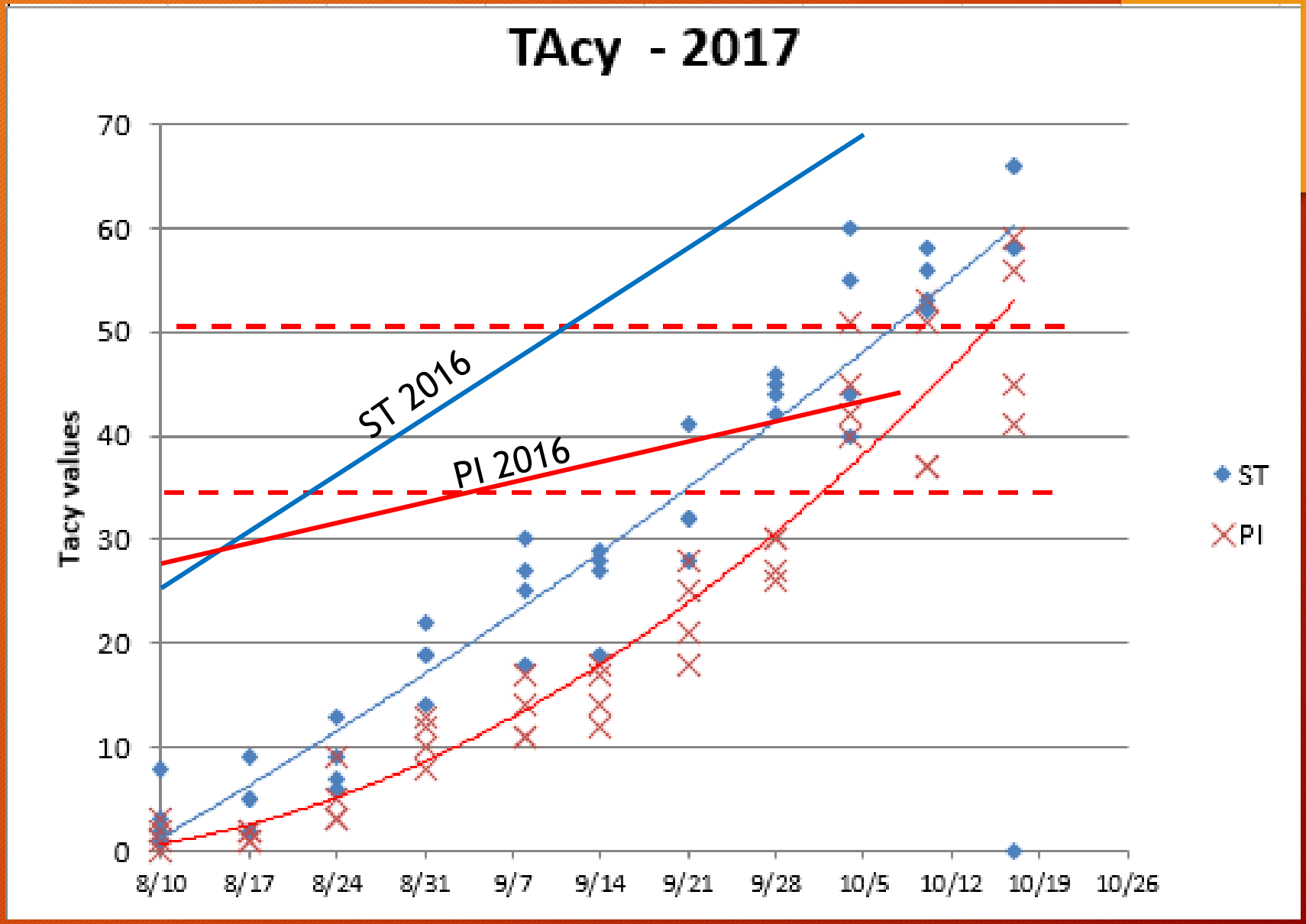
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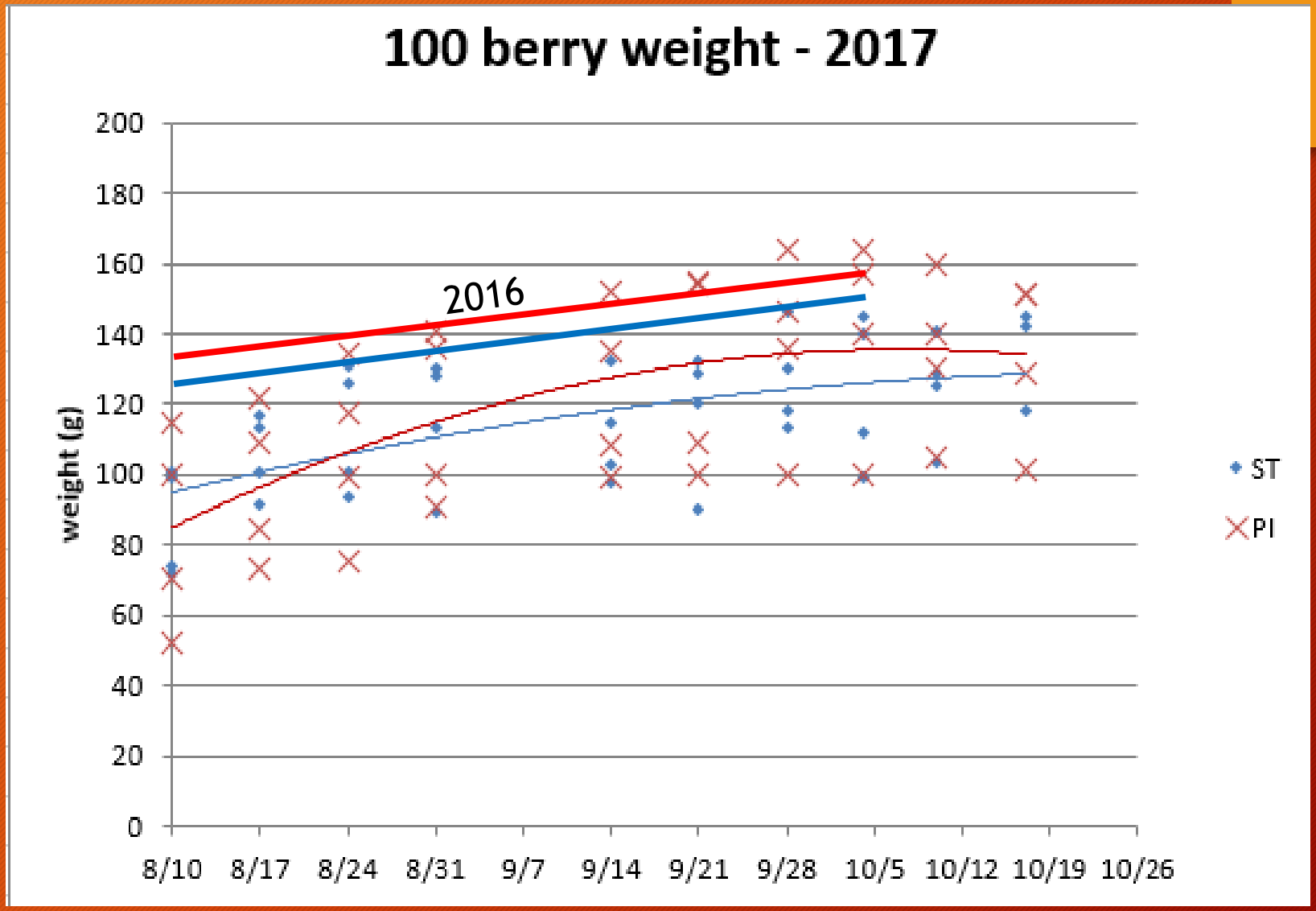
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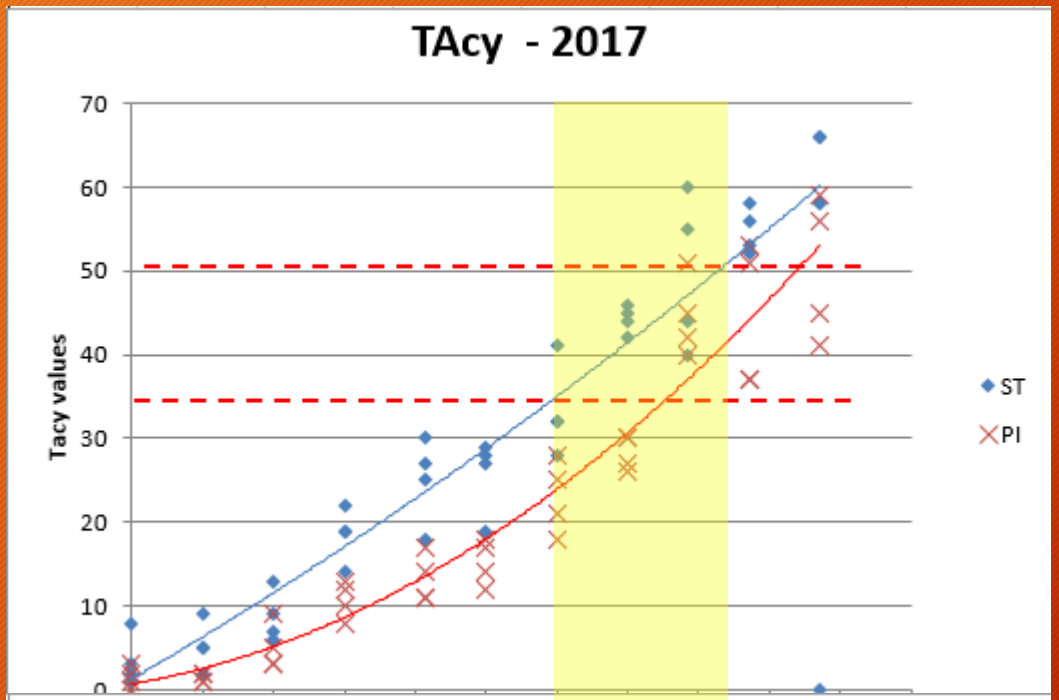
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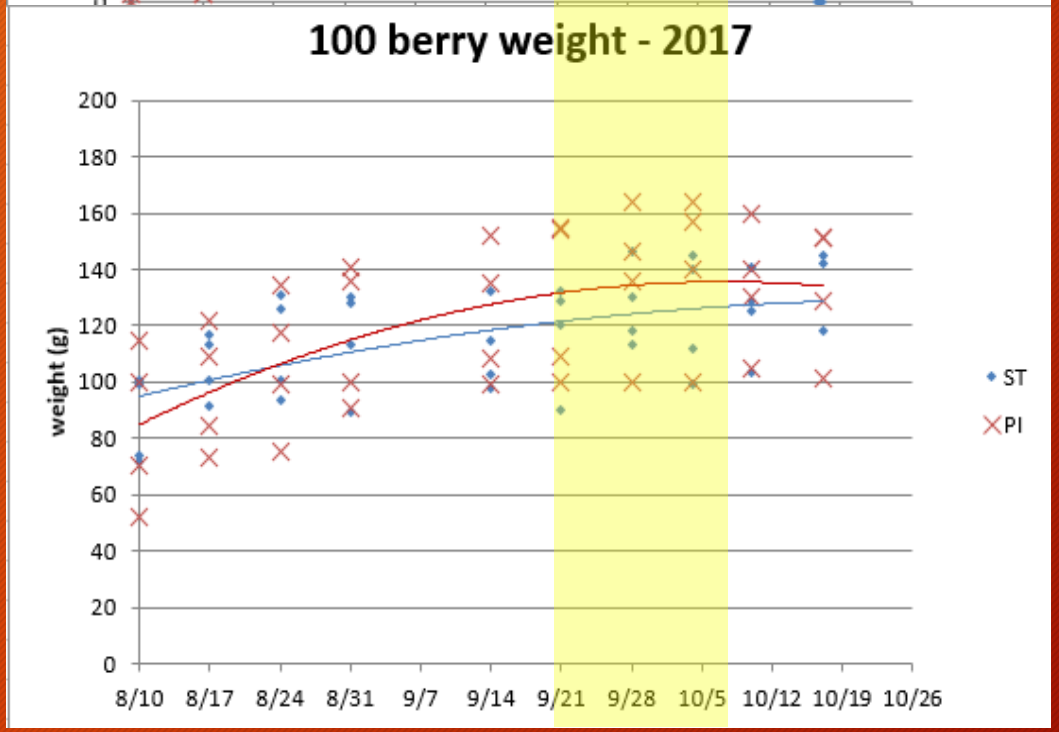
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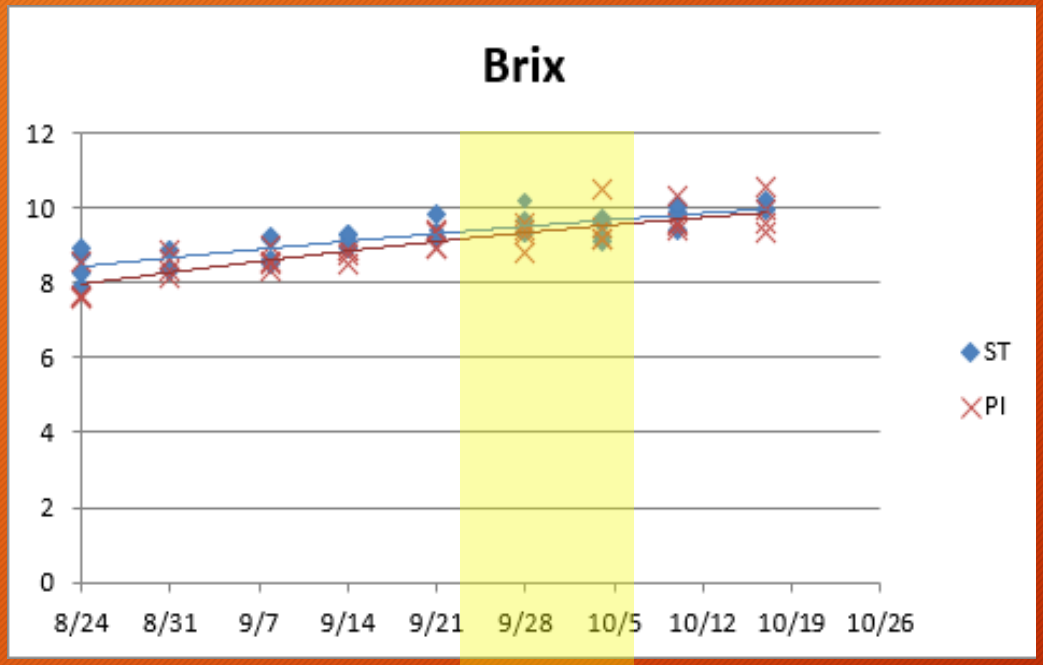
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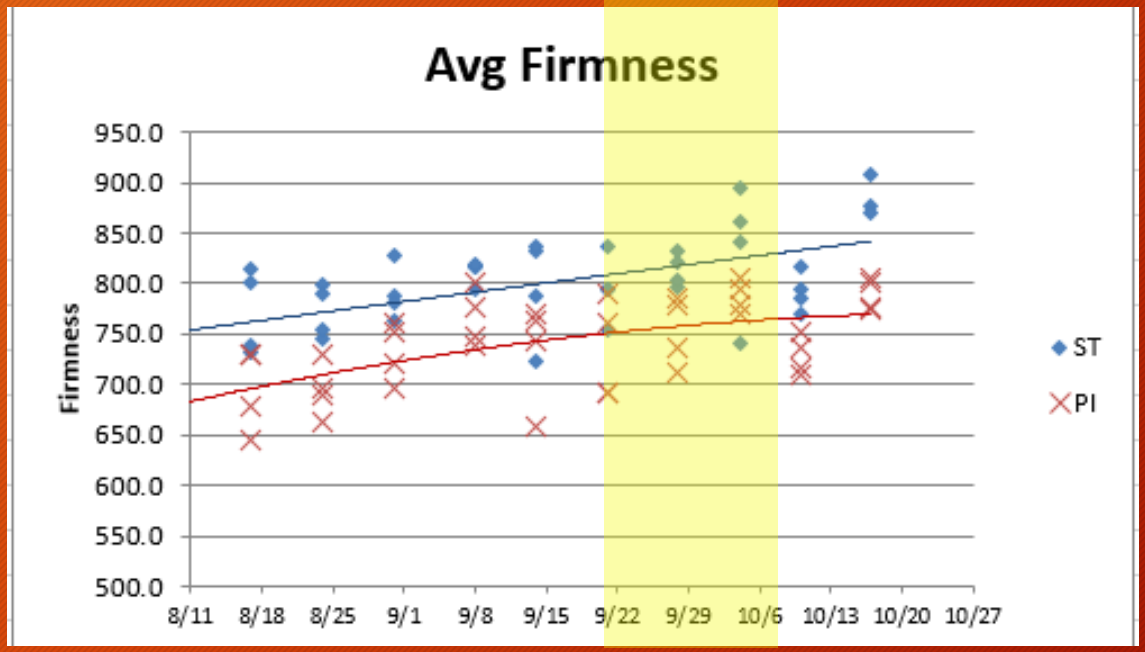
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ST
PI

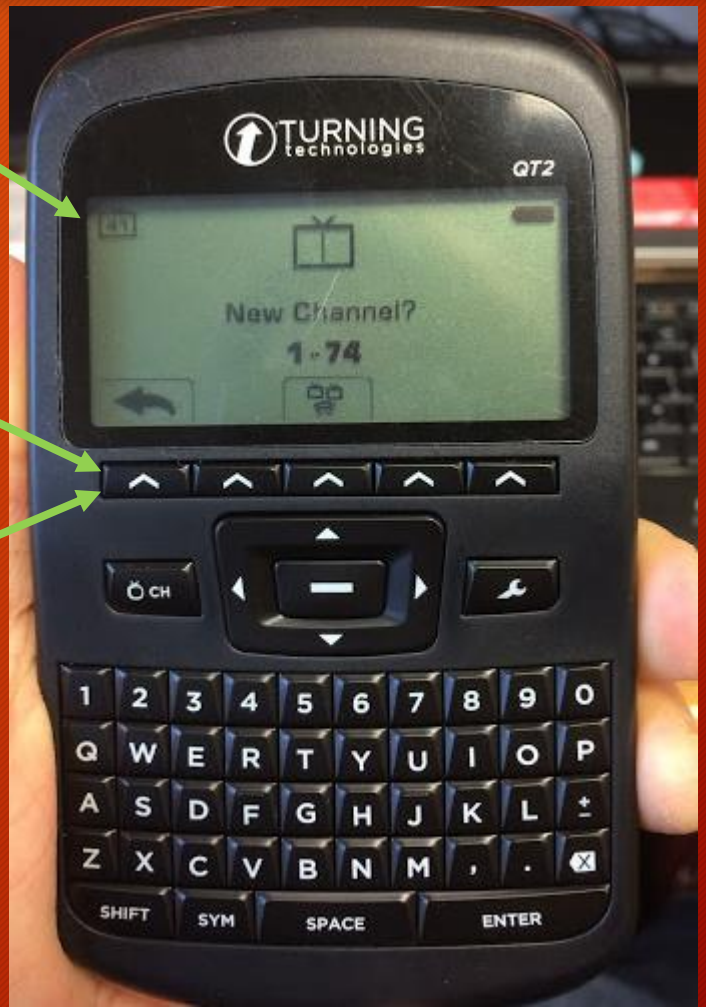
Fruit Development Study

- Weekly email reports
- Lab time
- Personnel time

- What will be most help?

Clickers

- 41 should be here
- If it IS, click here
- If it's NOT, enter 41 and click here

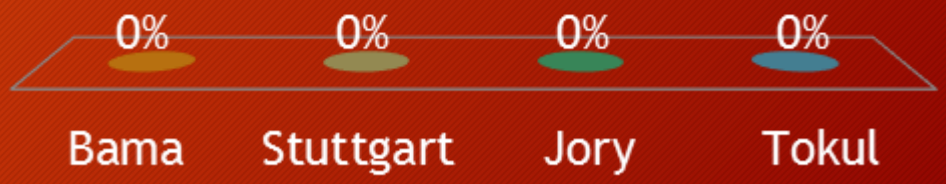


Warm up question: How many states in the USA?

A. 50
B. 52
C. 48
D. 37

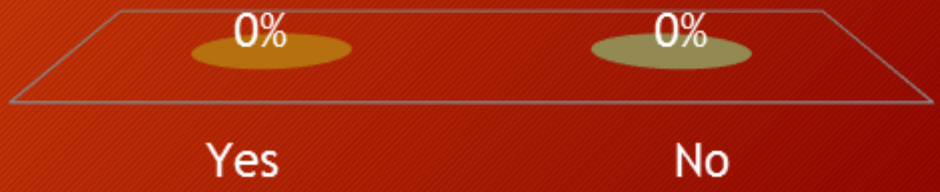
What is Oregon's state soil?

A. Bama
B. Stuttgart
C. Jory
D. Tokul

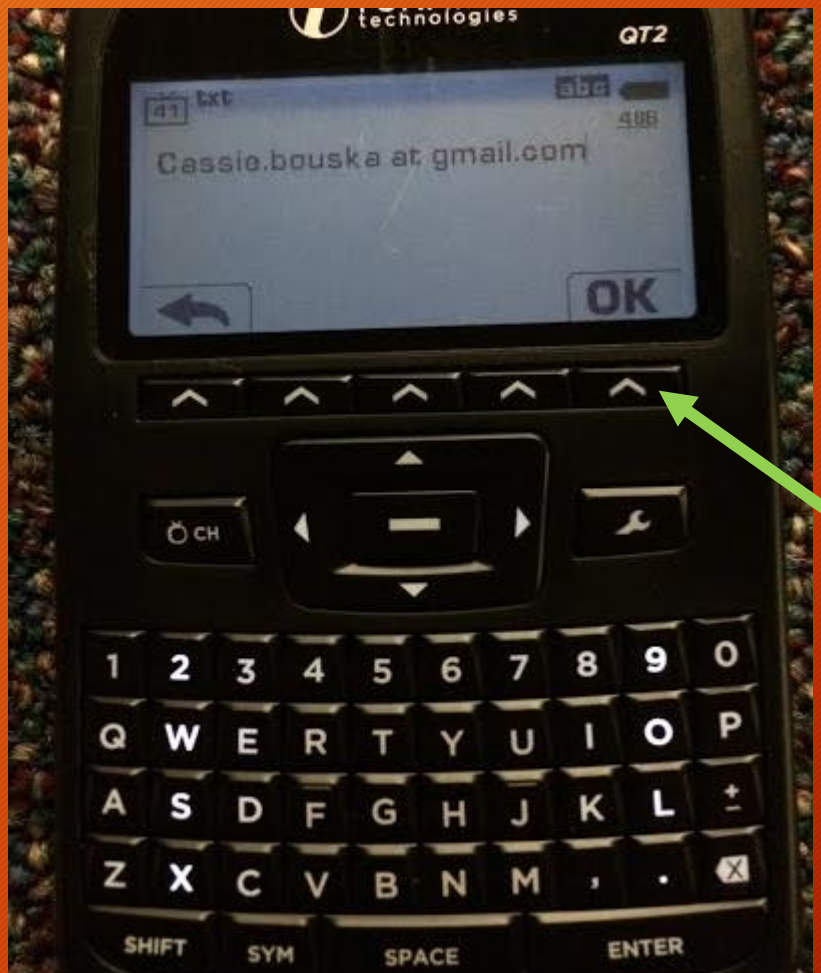


Did you receive fruit development emails this fall?

A. Yes
B. No



If you didn't receive fruit development emails and would like to, type in your email address now.

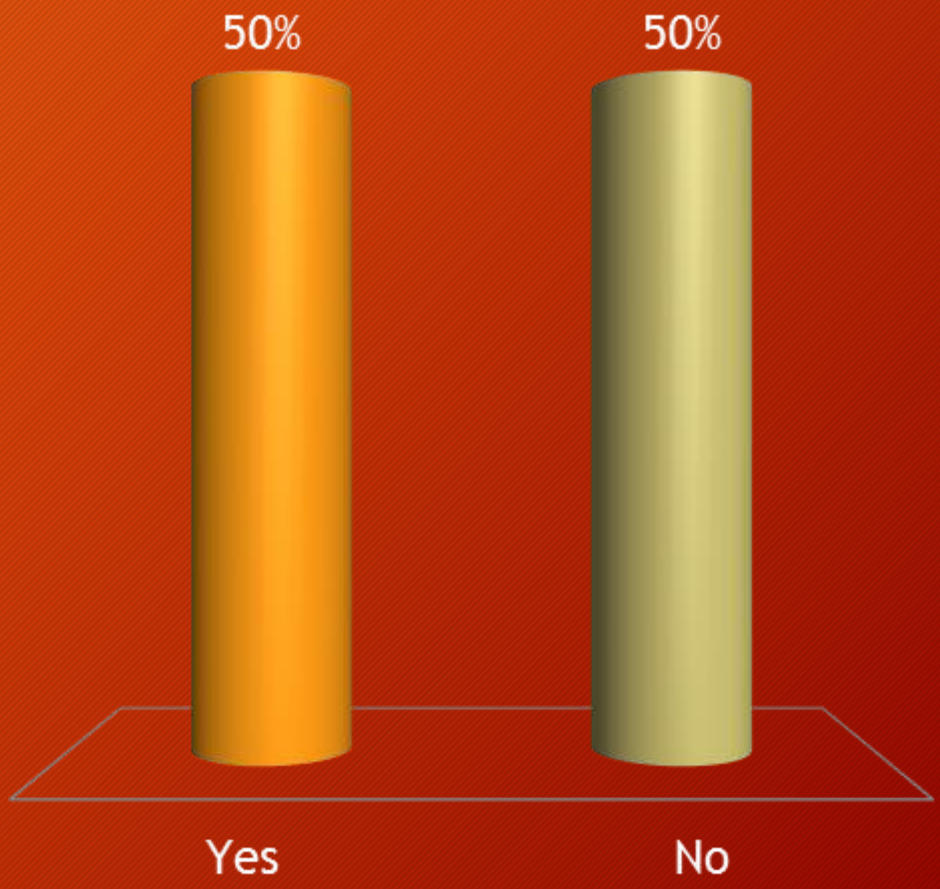


There's no @ key type "at"

After you've entered your email address press "OK"

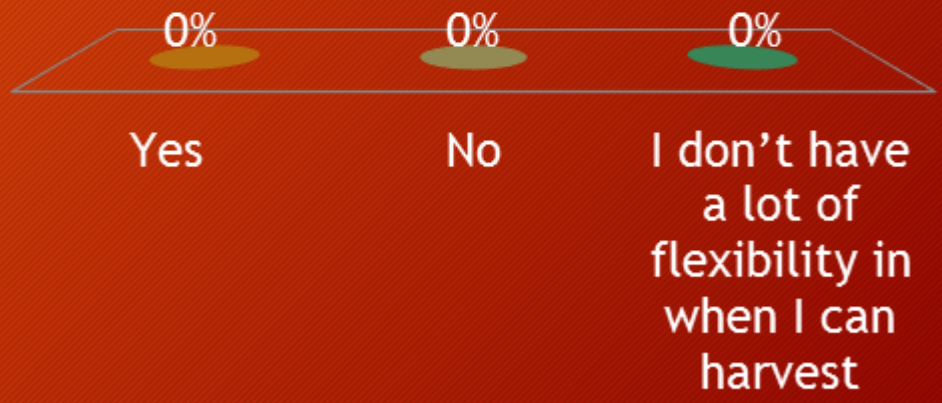
For those who received fruit development data: Was it helpful to you?

A. Yes
B. No



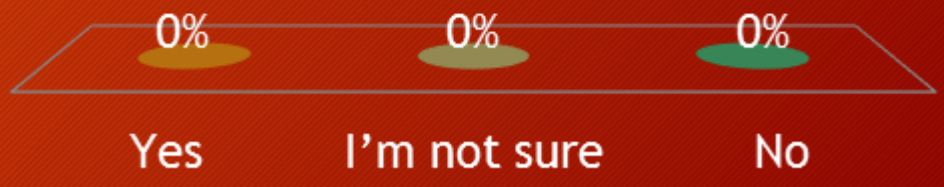
Did you use the fruit development study to plan harvest dates?

A. Yes
B. No
C. I don’t have a lot of flexibility in when I can harvest



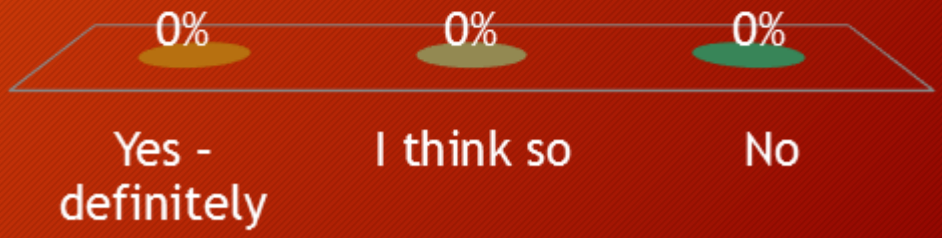
Do you think it increased the value of your harvest?

A. Yes
B. I’m not sure
C. No



Would you be able to estimate any increases (or decreases) in profit due to an adjusted harvest date?

A. Yes – definitely
B. I think so
C. No



Would you like the fruit development study to continue?

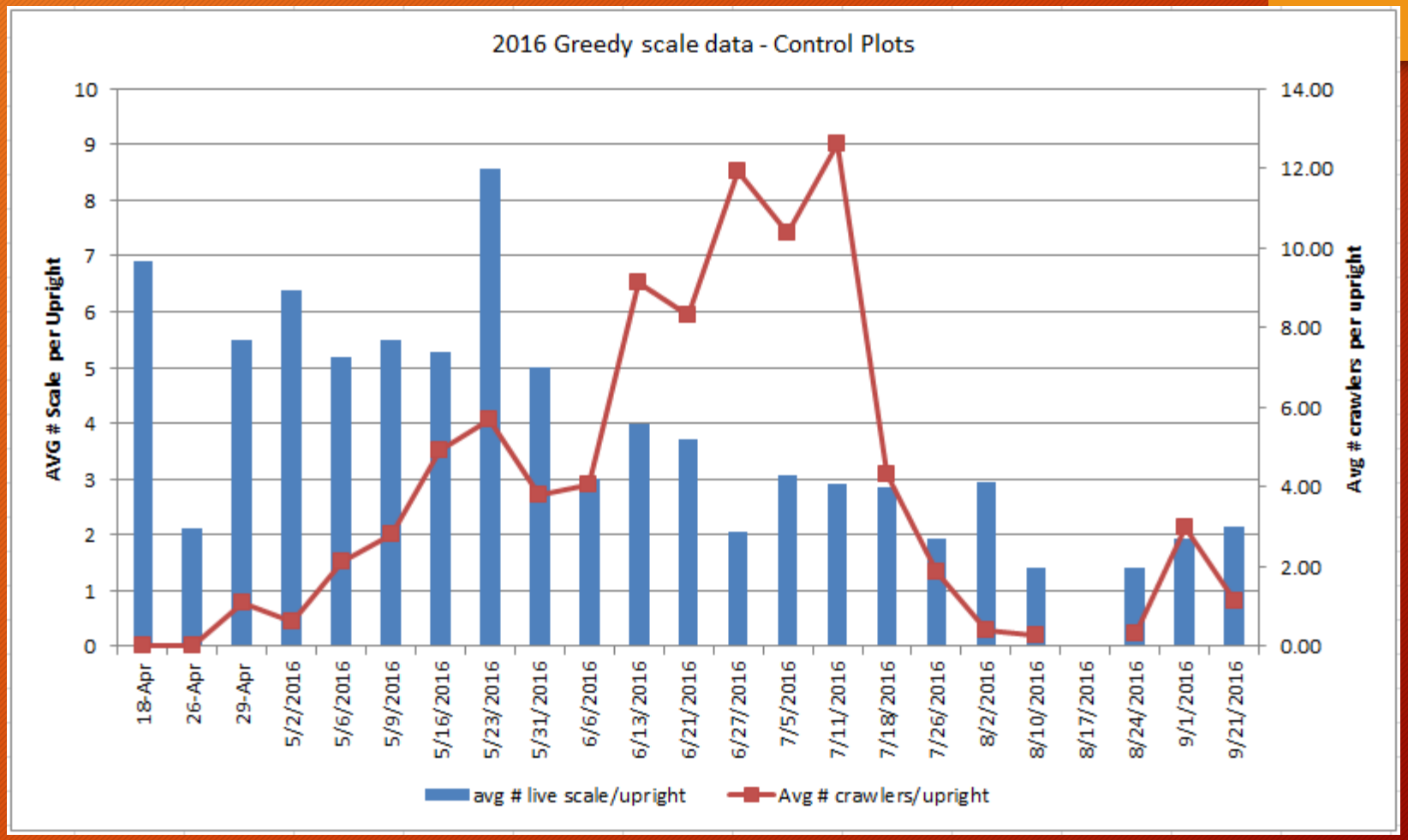
A. Definitely – it's an important management tool
B. Sure – if there's time and funds, but I'd be fine without it
C. No

If you would like your farm to be included in the study next year, please enter your name now.

After you've entered your name, click OK

Scale Insects

2016 Greedy Scale – Control plots



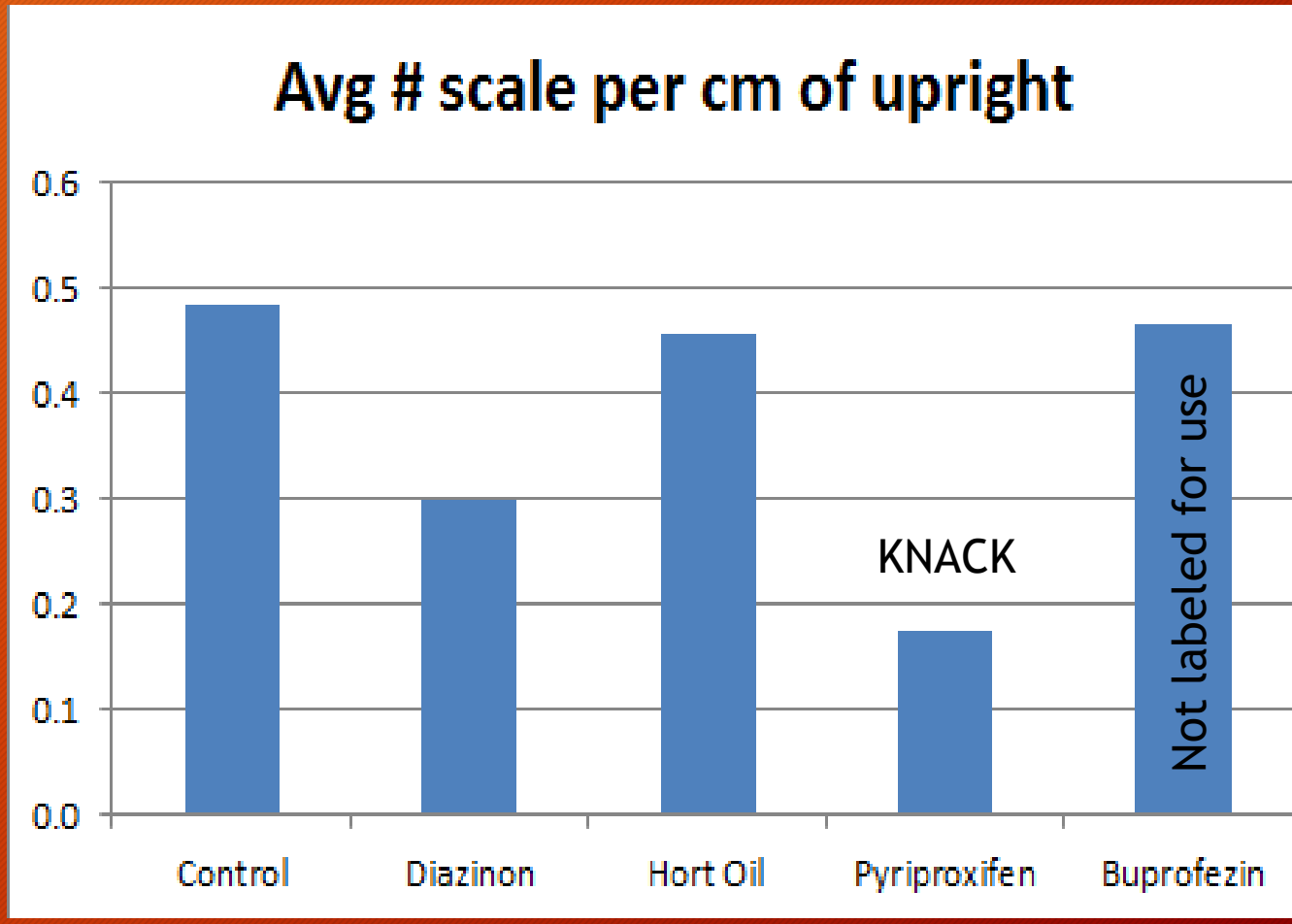
Greedy scale pesticide trial

- 2016 greedy scale hot spots ….
- Control (no treatment) …. DEAD
- Diazinon treatment …. DEAD
- Admire Pro (imidaclopyrid) … DEAD
- Other reported spots … DEAD

304
Control
305
Hort oil
405
control
302
Knack
209
Diaz.
204
Centaur
203
Hort oil
202
Knack
201
control
104
Knack
105
Centaur
102
Diaz.
103
Hort oil
301
Diaz
303
Centaur
401
Centaur
402
Diaz
403
Knack
404
Hort oil
Block 1
Block 2
Block 3
Block 4

Main points

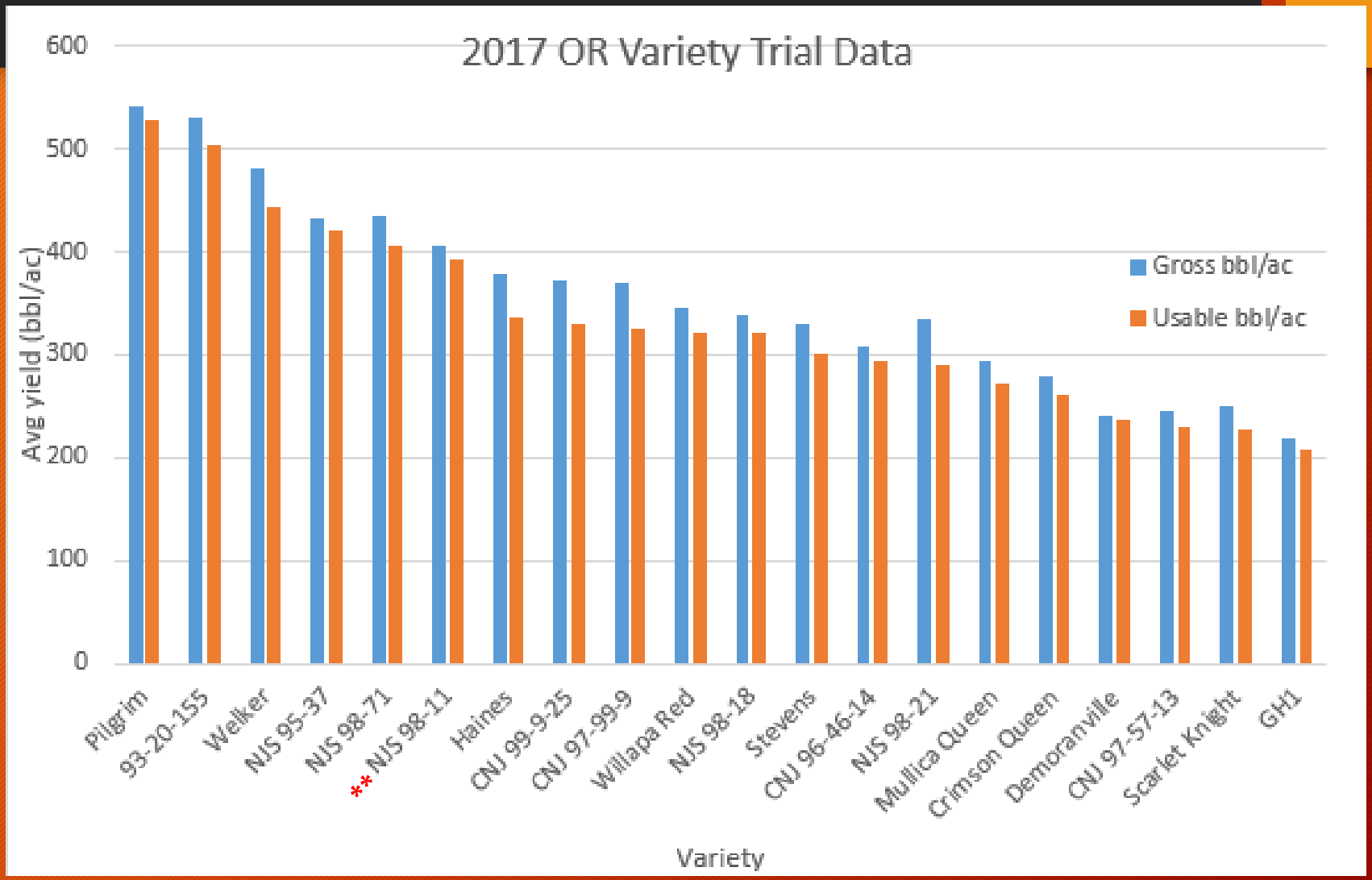
- Were able to get SOME info from trial, but nothing significant …
- No 100% answers why the problem went away.
  - Weather
  - Natural enemies
  - ???



Greedy scale bottom line

- Watch for it
- Don’t freak out about it
- … it SHOULD resolve itself.
- Maximize vine health

Variety Trials



Oregon SLNs

- Curio renewed – through 2019
- Admire Pro – through 2020
- Weedar 64 – through 2020
- Stinger – through 2022

You are required to have copies of the current SLN on hand

What's next?

- More fruit development
- Monitoring/survey program
  - Greedy & brown soft scale
  - Sparganothis fruit worm, tipworm
  - Lophidermium twig blight

Using aquatic herbicides

- Depending on how your irrigation source is set up, you might be required to have a Clean Water Act NPDES general permit.

- Questions:

Beth Moore
General Permits coordinator
Water Quality Permitting & Prog. Dev. (DEQ)
503-229-6402
Beth.Moore@state.or.us

Control of Some Common Aquatic Weeds with Herbicides

	Copper Complexes Copper Sulfate[a]	Hydrothol 191	Reward	2,4-D	Aquathol K or Super K	Glyphosate	Sonar	Habitat	Renovate 3	Stingeray[b]	Galleon SC	Tradewind	Clearcast	Clipper	GreenClean	GreenCleanPro, PAK 27
Algae																
cyanobacteria or potentially environmentally harmful algae (single cell)	x	x													x	x
filamentous and water net	x	x	x											x	x	x
Chara and Nitella	x	x														
Floating Weeds (not attached to bottom)																
Azolla			x			x				x	x	x	x			
duckweed			x				x			x	x	x		x		
watermeal			x				x	x		x	x			x		
Emersed Weeds (attached to bottom)																
watershield				x			x		x	x			x			
fragrant waterlily				x			x	x	x				x			
frogbit			x	x				x	x	x			x	x		
water pennywort			x					x			x	x	x	x		
flowering rush							x						x			
parrotfeather			x	x	x		x	x	x	x	x	x	x			
spikerush				x			x				x		x			
Submersed Weeds																
bladderwort			x		x		x						x			
coontail		x	x		x		x		x				x	x		

From PNW Weed Management Handbook http://pnwhandbooks.org/weed

Treatment of Aquatic Weeds

Aquatic weeds	Treatment	Rate	Comments
Floating			
algae	copper sulfate (pentahydrate)	1 to 2 ppmw	Toxicity to fish and algae increases with temperature but decreases with water alkalinity. For water with less than 50 ppm total alkalinity, do not use copper sulfate. For water above 50 ppm, determine the amount of copper to use by dividing total alkalinity (ppm) by 100. This equals the desired copper concentration in the water. Catfish are not very tolerant to copper. Always leave untreated aquatic areas for fish to move into.
	copper complex	0.67 to 0.75 gal/A foot water 1.25 to 1.5 gal/A foot water	Complexed forms of copper are more active in alkaline water than the sulfate. For water with less than 50 ppm alkalinity, catfish may be killed. Apply a surface spray. Apply when algae begin to grow and water temperature is above 60°F. Best results when applied on sunny days. Apply when total alkalinity is above 50 ppm
duckweed	diquat	1 gal/surface acre	Foliar spray or injection in nonflowing water. Do not apply diquat to muddy water. Apply to overall spry in 50 to 150 gallons of water plus 1 pint nonionic surfactant. Spray marginal areas to reduce reinfestation. Retreat if necessary.
Submerged			
elodea	diquat	2 gal/A	Inject or apply on surface of nonflowing water. Do not apply diquat to muddy water.
Eurasian watermilfoil	2,4-D amine	10 to 40 lb/A	Do not treat more than one-half lake or pond at one time to avoid oxygen depletion and fish kill. In large lakes leave 100-foot buffer strip. Do not treat within ½ mile of potable water intakes. Treat in spring when milfoil starts to grow. Spray on or inject under water.
	diquat	1 to 2.0 gal per surface acre	Distribute evenly over infested area. Inject or apply on surface of slow-flowing water. Do not apply diquat to muddy water.
	Endothall (Aquathol K	0.5 to 2.5 ppmw	Safer to fish than dimethyalkylamine salts. Spray or inject liquids under water. Apply granules evenly with cyclone seeder. Apply as soon as possible after weeds begin to

Treated Water Use Restrictions (Numbers of Days)

Trade Name	Common Name	Human			Animal	Irrigation		
		Drinking	Swimming	Fish Consumption	Drinking	Turf	Forage	Food Crops
Aquathol K	Endothall[a]	7-25	1	0	7-25	0	7-25	7-25
Aquathol Super K	Endothall[a]	7	1	0	7	0	7	7
Various	Copper Complexes	0	0	0	0	0	0	0
	Copper Sulfate[a]	0	0	0	0	0	0	0
Aqua-Kleen, DMA 4 IVM, Navigate	2,4-D	21[b]	--	--	0	21[c]	21[c]	21[c,d]
Habitat	Imazapyr[a]	2	0	0	0	120[d]	120[d]	120[d]
Hydrothol 191, Teton	Endothall	7-25	1	0	7-25	7-25	7-25	7-25
Renovate 3	Triclopyr	_[f]	0	0	0[g]	0[h]	120[h]	120[h]
Reward, Weedtrine-D	Diquat	1-3	0	0	1	1-3	5	5
Rodeo, AquaPro	Glyphosate	0	0	0	0	0	0	0
Sonar (Sonar AS, Sonar ARP, Sonar PR, Sonar QR)	Fluridone[a]	0	0	0	0	30[i]	30[i]	30[h]
Stingray	Carfentrazone ethyl	1[k]	0	0	1[k]	14[k]	14[k]	14[k]
GreenClean	Sodium percarbonate	no	0	0	no	0	0	0
GreenCleanPro, PAK 27, Phycomycon SPC	Sodium percarbonate peroxyhydrate[a]	0	0	0	0	0	0	0
Magnacide H	Acrolein[a]	no	no	no	no	See label		
Clipper	Flumioxazin	0	0	no	0	0-3	0	5
petroleum distillate	Xylene[a]	no	no	no	no	See label		
Clearcast	Imazamox	[l]	0	0	0	See label		

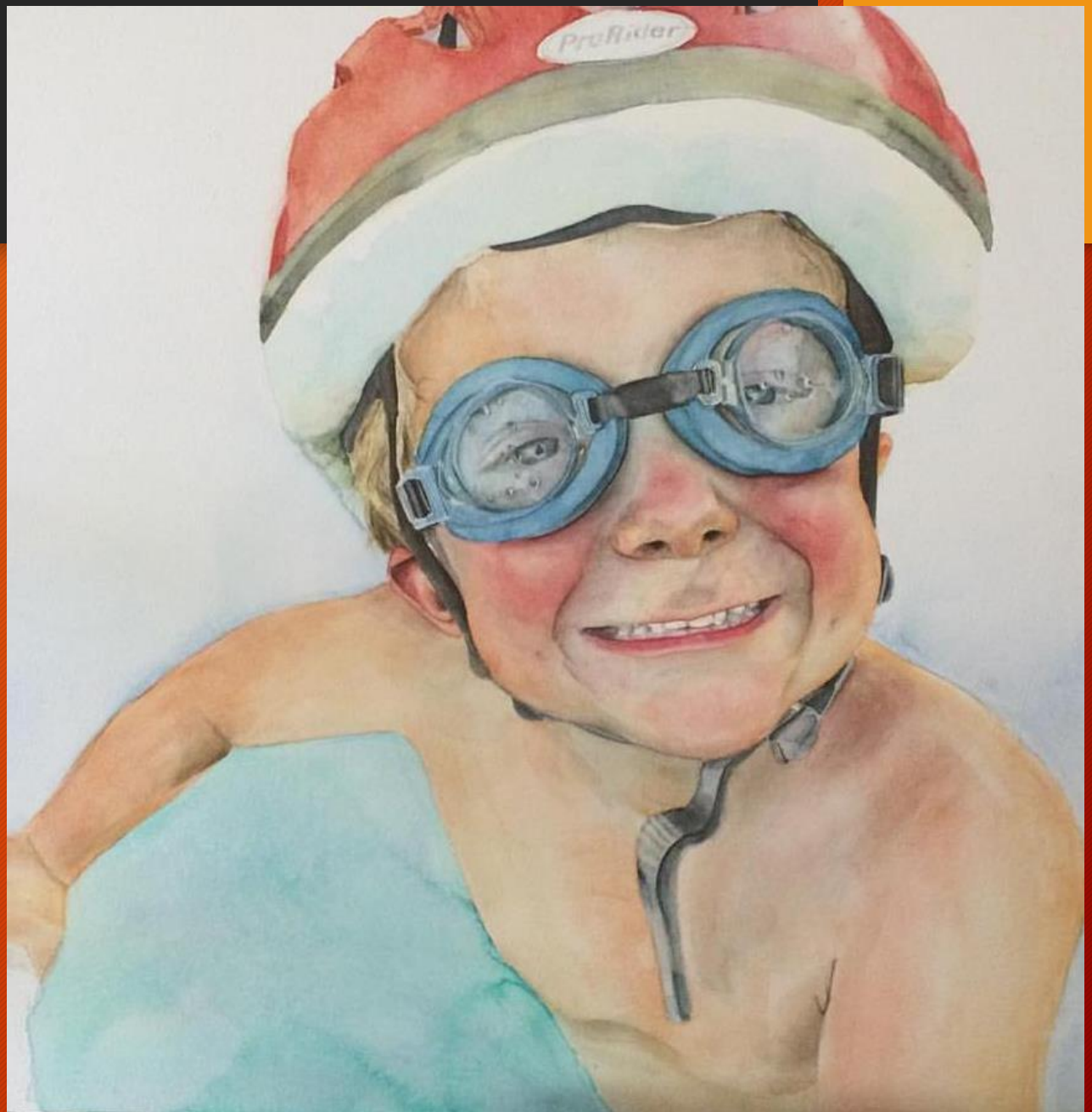
Aquatic Herbicides

- READ THE LABEL!

- Some products require you to maintain a certain concentration in water for a long time (60+days)
  - Fluridone (Sonar)

- Be aware of ODA and DEQ permit requirements, and know whether you need one

Questions?



Please pass your clickers to the aisle