

APPLICATION and TIMING

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USDA does NOT recommend

- Specific names, products given for informational purposes

Asymptotic Function

It will require more effort/cost\$
to go from 1% damage to 0.5%
than it does to go from
2% to 1% damage

Timing and NOW generation time

Pattern of Damage

Application: Water reduction using
organosilicone adjuvants, Coverage dropoff

The Number 1 NOW challenge looks at you in
the mirror each morning

HUMAN FACTOR



Pistachios are Not

Almonds

500 DD Development

≈3 Weeks

1700 DD

2200 DD

2700 DD



3200 DD



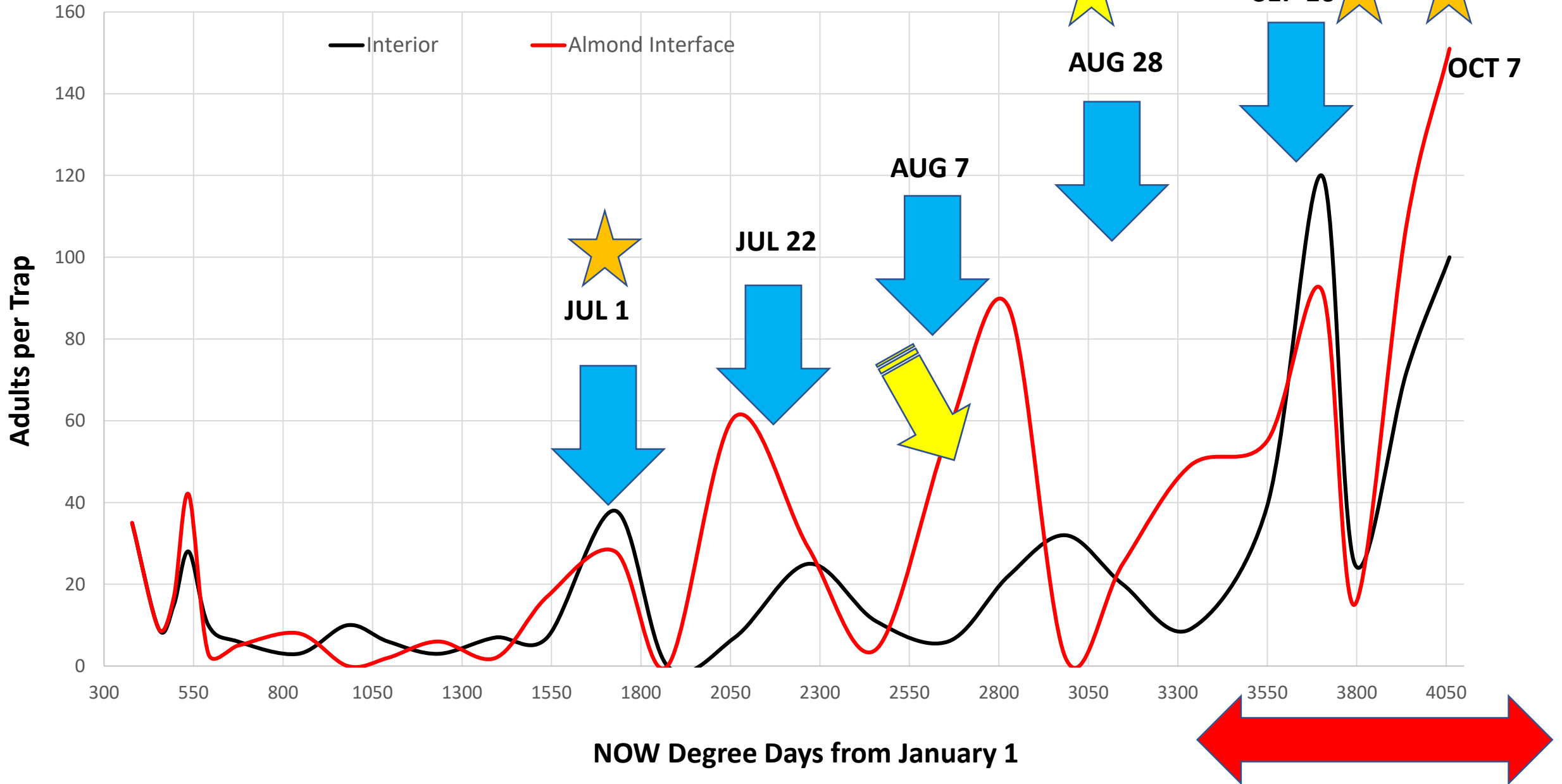
3700 DD



4200 DD



Madera County 2022



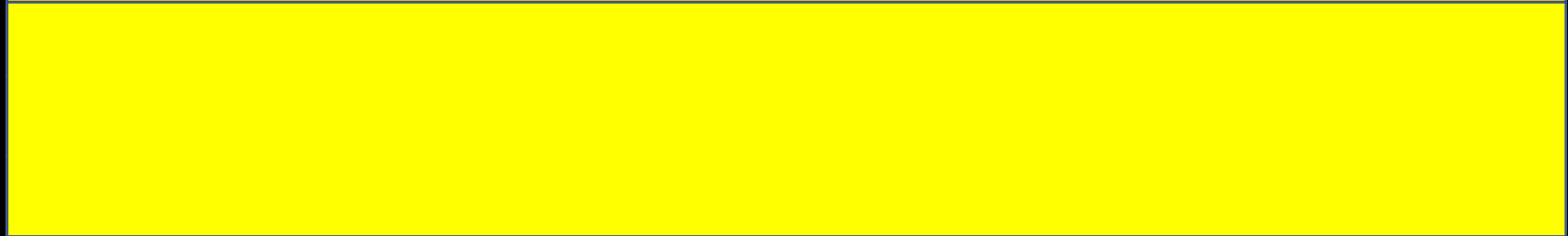
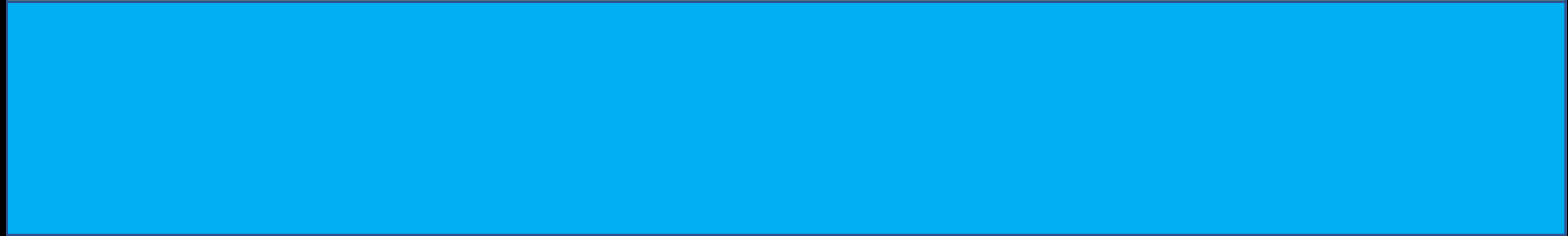
What are we trying to protect with sprays?

- Damage Pattern in Pistachios

Assume 16,500 Filled Nuts

- Unstain+Light Stain : 75.00%
- Dark Stain: 1.55%
- Adhering Hull: 0.87%
- Shell Damage: 0.21%

Category	Percent	Pounds
Percent Split		
Normal	78.0	12,870
Outbreak	82.0	13,530



222 lbs plus loss of Bonus

Double the Loss

222 becomes 444 lbs

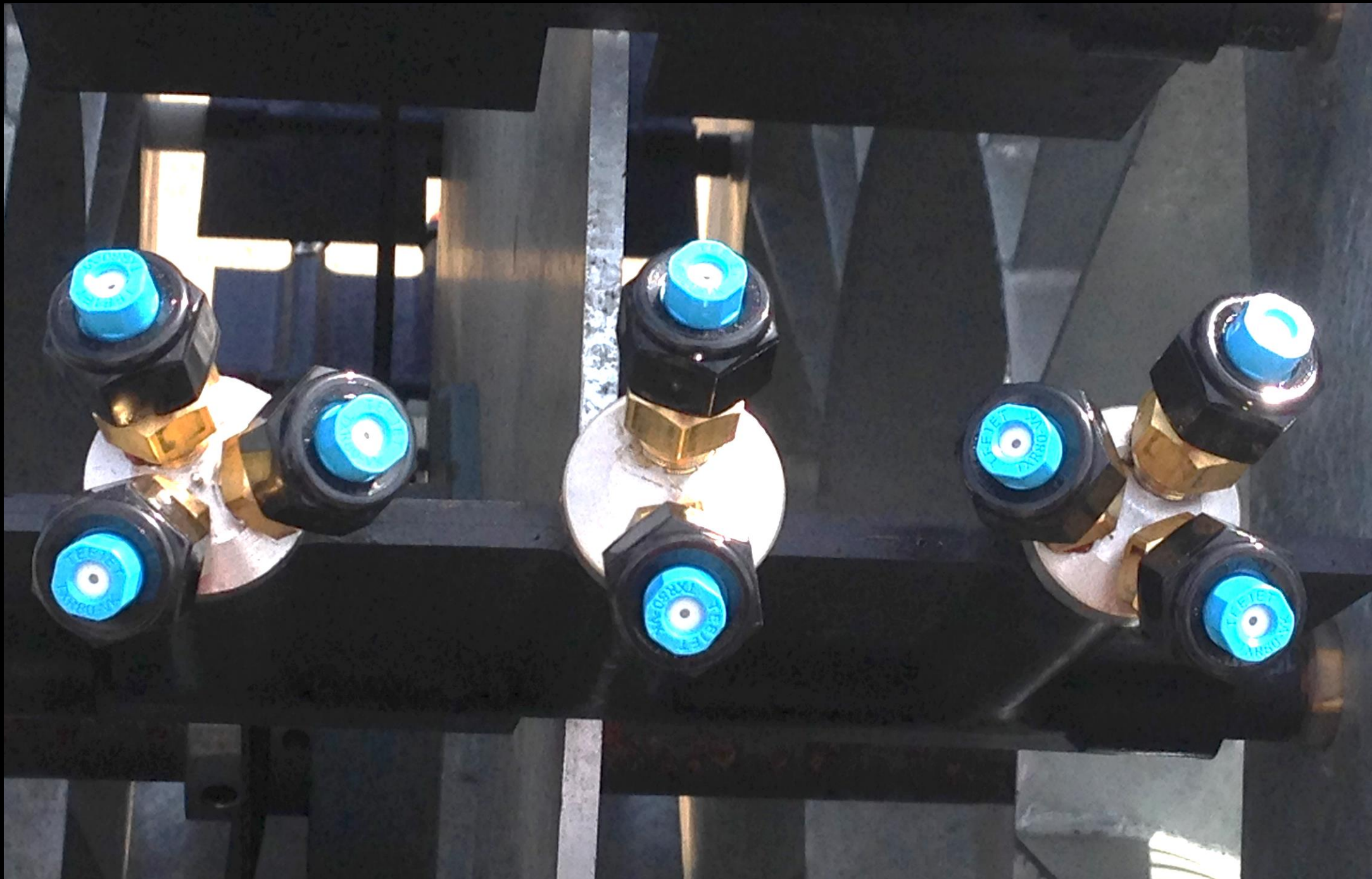
- Does not account for fungal contamination: Load rejection
- An immediate processor problem, longer term grower issue as bonus adjusted to account for increased processor costs

APPLICATION

Air-O-Fan multinozzles

GUSS autonomous sprayers

Fixed Wing Air Tractor-802A



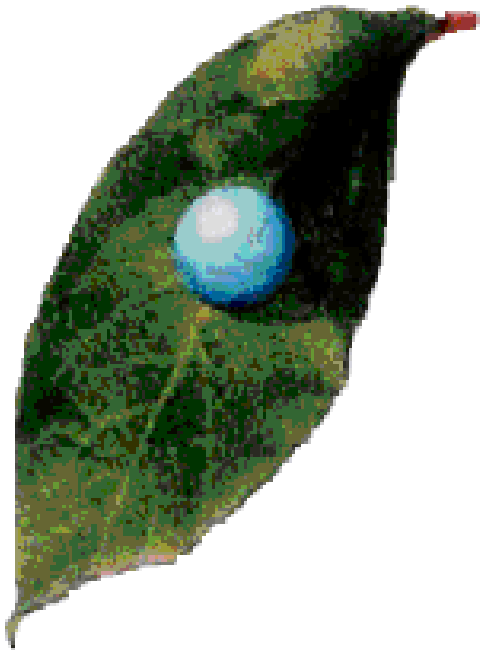
1. Droplet Size Matters

2. Adjuvant makes a difference

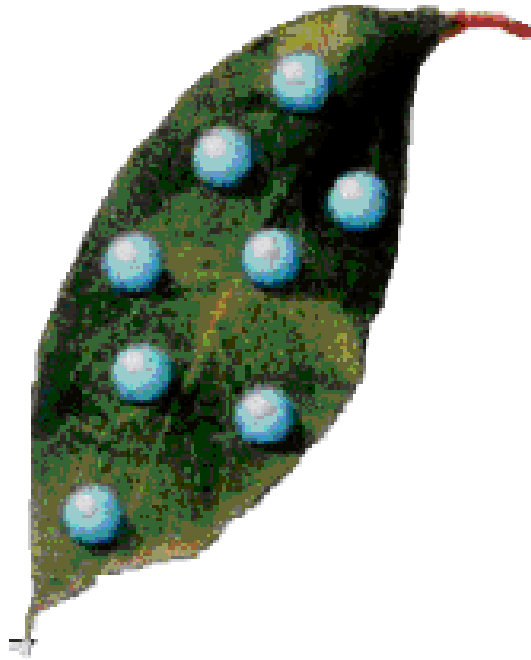
3. Spray Volume matters

depending on nozzle and
adjuvant choice

Droplet size and number



1 500 μm droplet



8 250 μm droplets



64 125 μm droplets

Same total volume contained in each combination

**Can I make 50 gpa work
with organosilicone
adjuvants?**

Not Quite

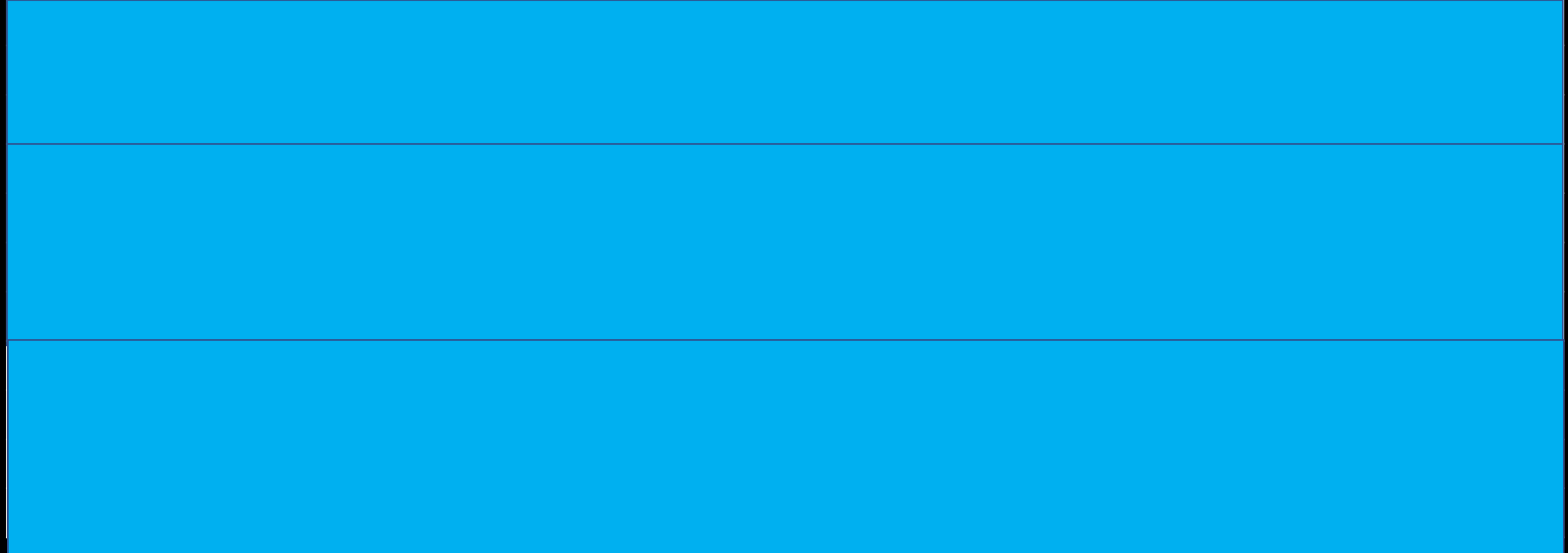
Diagnostic Height

12-14 ft

21 days control

Year 2020 Pistachio AiroFan PTO with Multinozzles. 100 gpa vs 50 GPA, Intrepid Edge 19 oz/ac

Treatment	Mortality	Reduction	Eggs
Control Day 4	52.5%		400
Cohere 100 gpa ground Day 4	90.3%	79.6%	350
Kinetic 50 gpa ground Day 4	92.3%	83.7%	400
Silwet 719 50 gpa ground Day 4	94.8%	89.0%	400

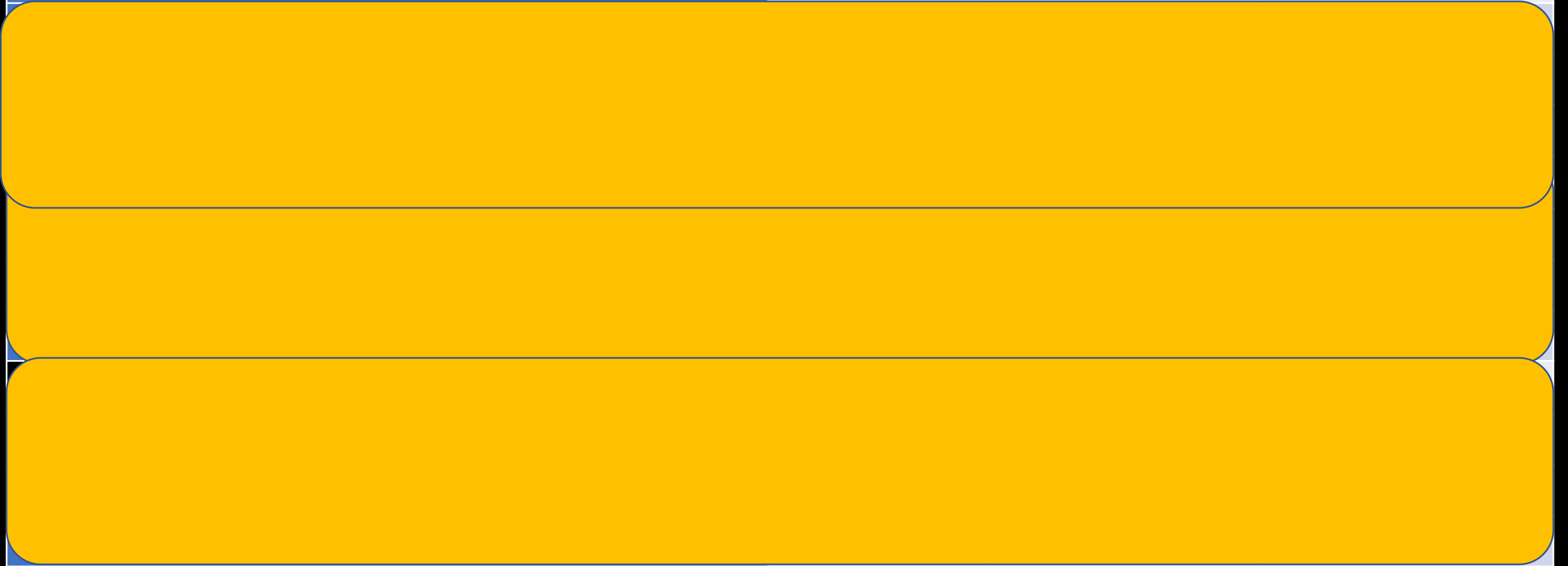


**NO, but what about
70-80 gpa?**

Thank you Agri-World

Pistachios 2021: Intrepid + Bifenture August

Treatment	Mortality	Reduction	Eggs
Control Day 7	56.2%		450
Cohere 100 gpa ground Day 7	97.6%	94.4%	450
Silwet EcoSpreader 80 gpa ground Day 7	96.0%	90.9%	600
Silwet 636 80 gpa ground Day 7	96.8%	92.8%	600



2022

Day	Insecticide	Percent Kill
5		
70 GPA	Altacor eVo Hook	95.4 (2,000)
70 GPA	Altacor eVo Ground	94.4 (2,000)
100 GPA	Intrepid + Bifenthrin Hook	97.9 (2,000)
100 GPA	Intrepid + Bifenthrin Ground	99.0 (2,000)
Day	Insecticide	Percent Kill
19		
70 GPA	Altacor eVo Hook	95.0 (2,000)
100 GPA	Intrepid + Bifenthrin Hook	98.5 (2,000)

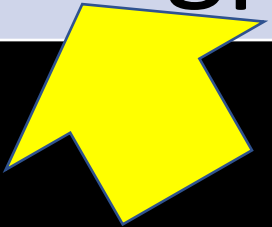
Kinetic is 70 gpa, 12 oz/100 gallons.

Standard is 100 gpa, Cohere at 16 oz/100 gallons.

GUSS sprayers, Fresno County AUG 20, Altacor+Besiege

Latron B-1956 4 oz/100 gallons

Treatment	Mortality	Reduction	Eggs
Control Day 10	48.8%		500
200 gpa ground Day 10	79.7%	60.4%	1,450
150 gpa ground Day 10	73.3%	47.9%	1,450



1. **Read the label**
2. Use **Maximum** insecticide rate
3. Ground speed is **2** MPH
4. Max of **5-7** days per application
5. Wrap the trees