

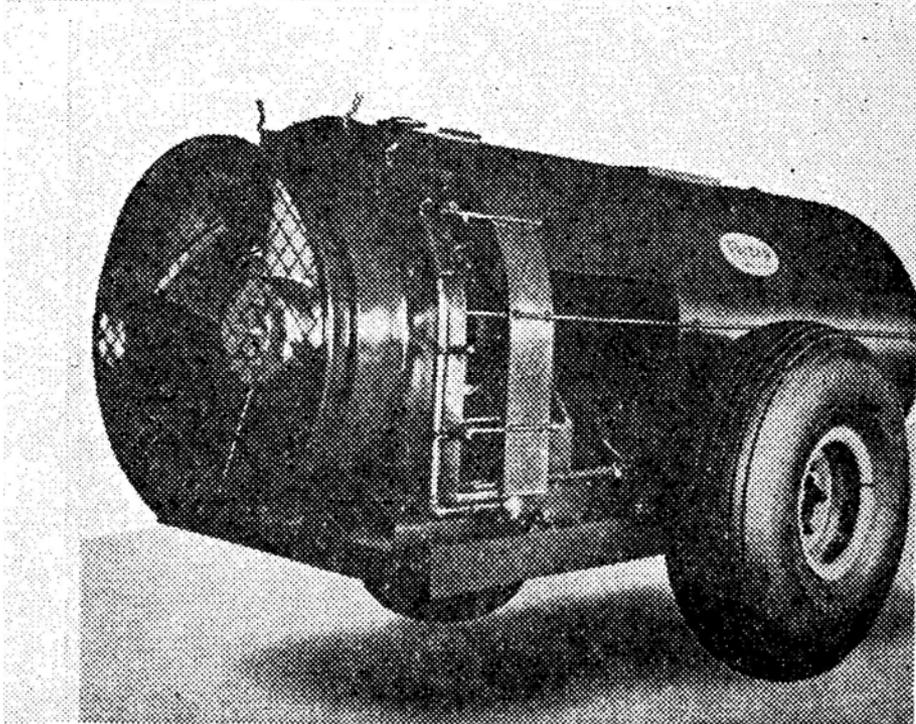
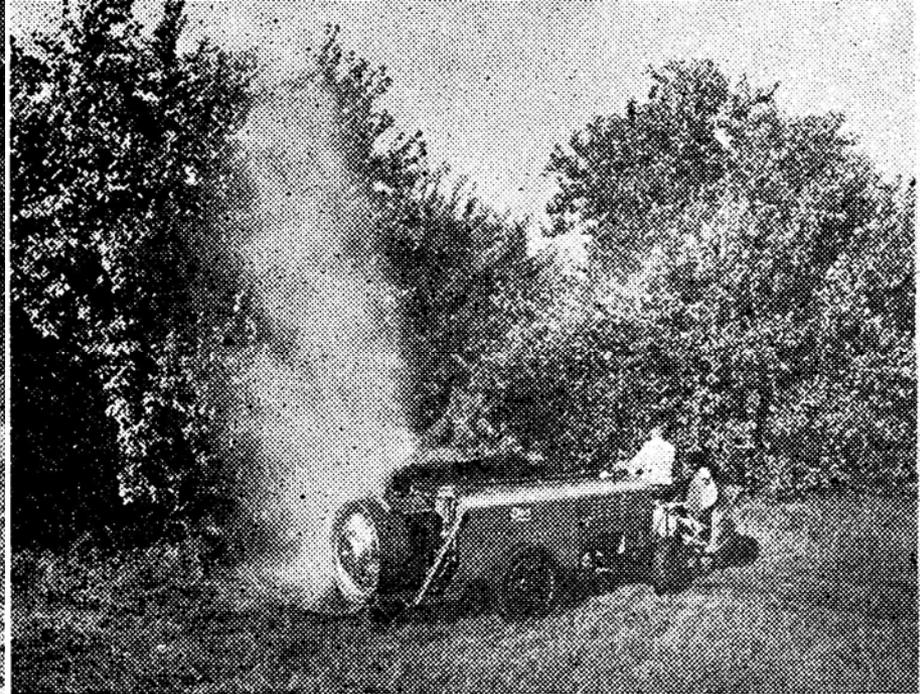
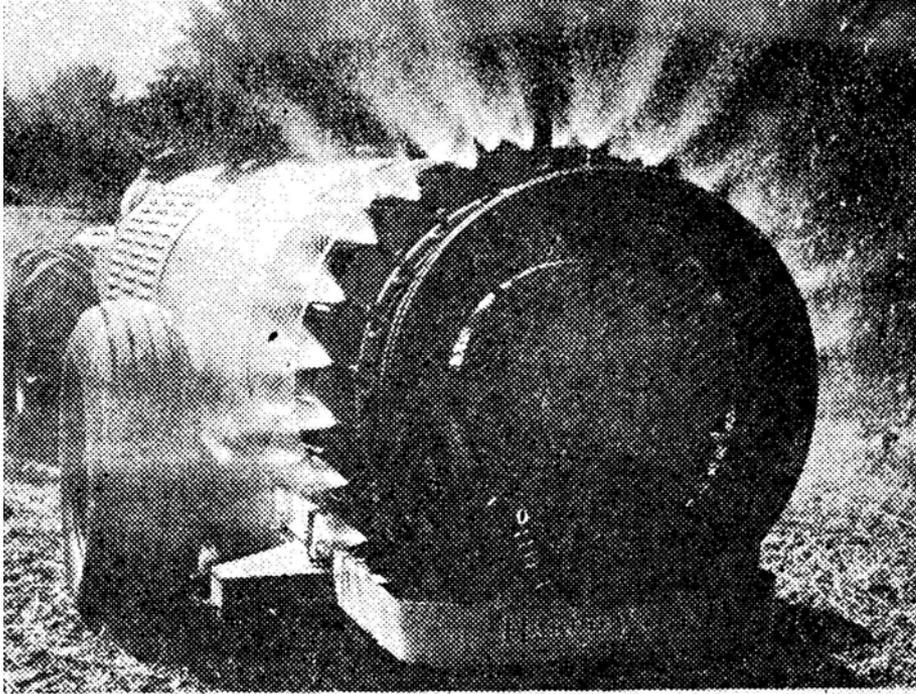
Airblast Sprayer Calibration

**Franz Niederholzer, Farm Advisor
Tehama Prune Day
February 29, 2008**



**University of California
Cooperative Extension**

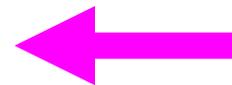
**Agriculture & Natural Resources
Central Valley Region**



Photos from

Modern Fruit Science, 2nd Ed.

1961



by Norm Childers

Actual sprayer maintenance issues observed in the field (outside of Tehama County).

Sulfur clogged filter. ↓



↑
Broken pressure gauge
(Sprayer pump not running.)

Don't measure with a laser, mark with chalk, and cut with a dull axe.



Effective, responsible pest management requires accurate pesticide delivery.



Calibrate/set up
to match the
spray delivery to
the target
orchard.



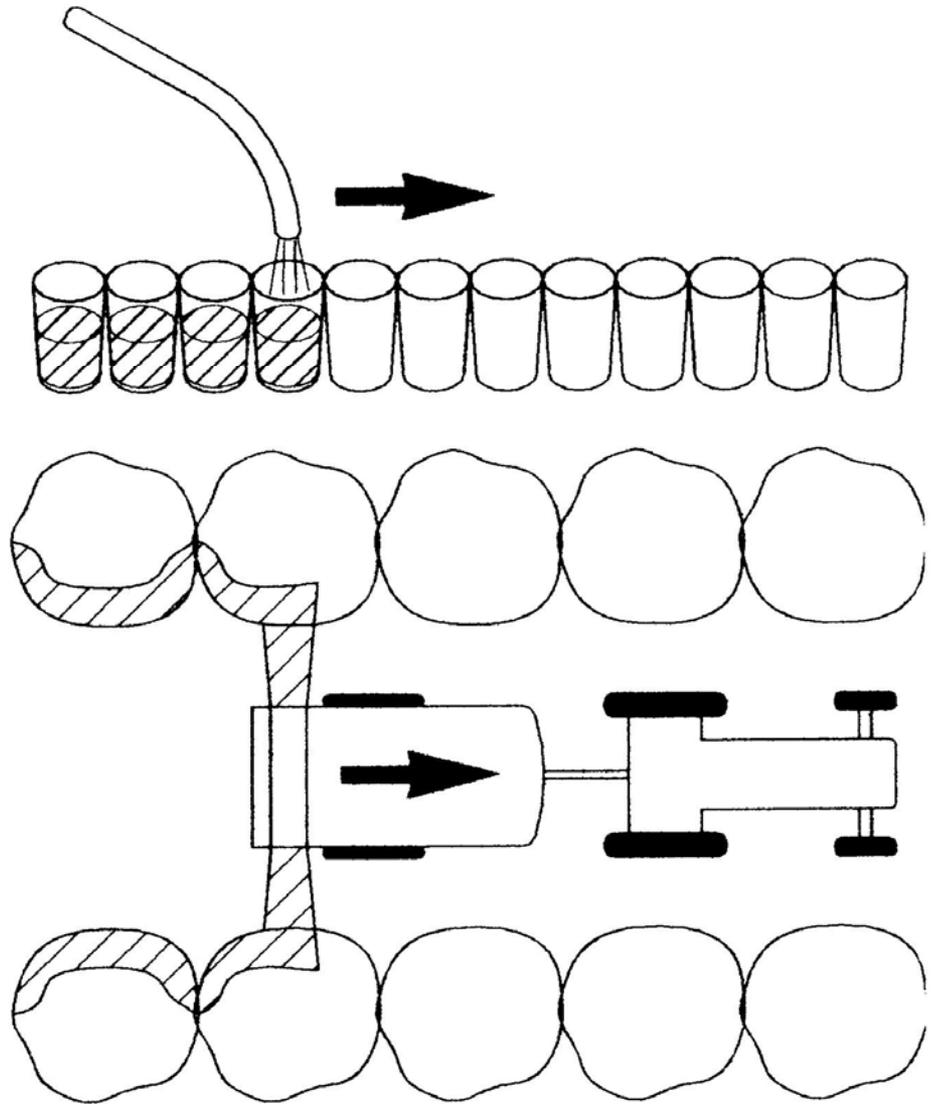
Deliver the right amount of pesticide per acre.



How fast are you going to drive?



Ground speed directly affects air movement.



Measure tractor speed.



Determine swath width and calculate area sprayed.



Calculate desired spray output in GPM.

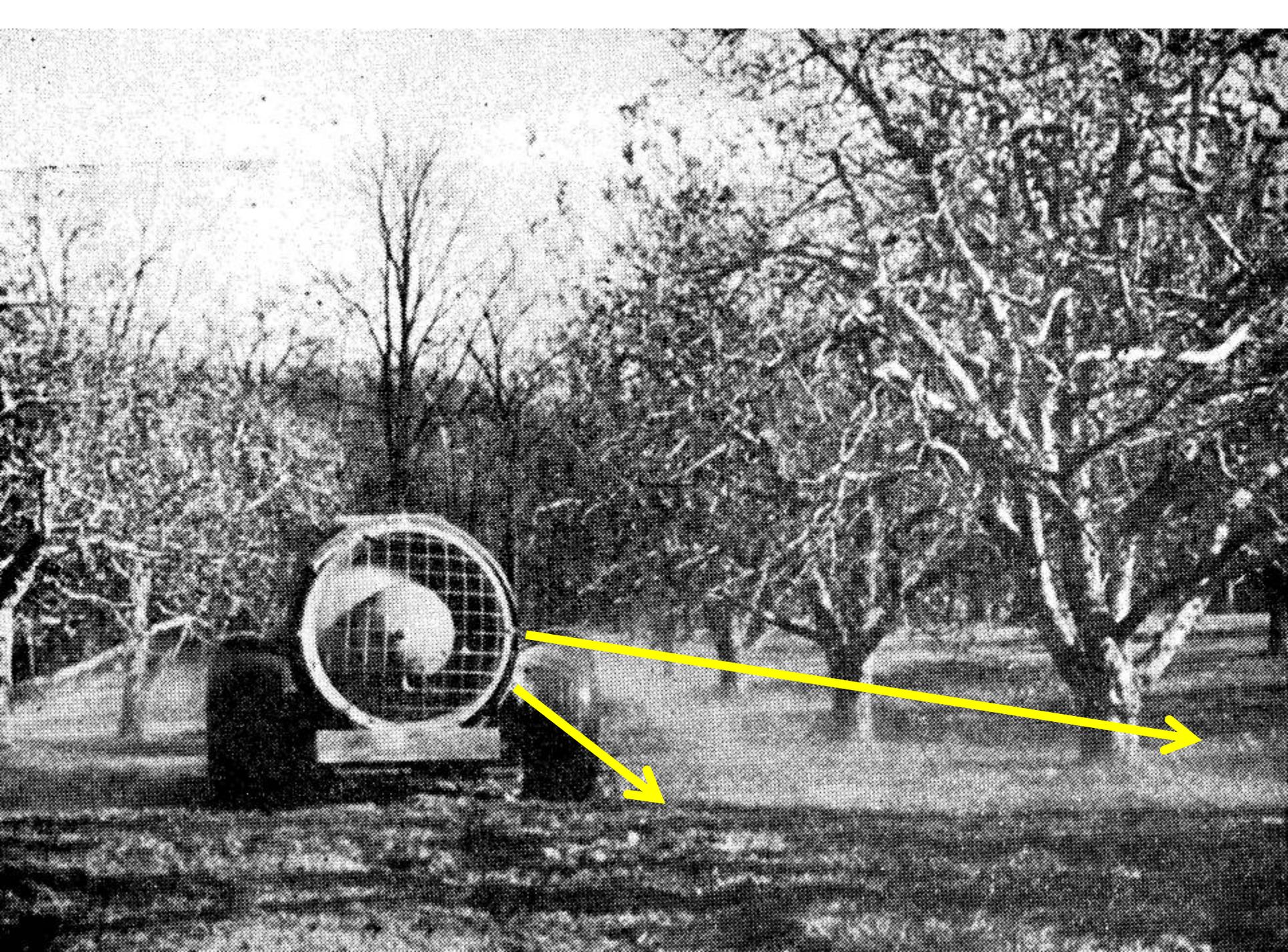
Ground speed: **2 MPH**

Row spacing: **18' x 18'**

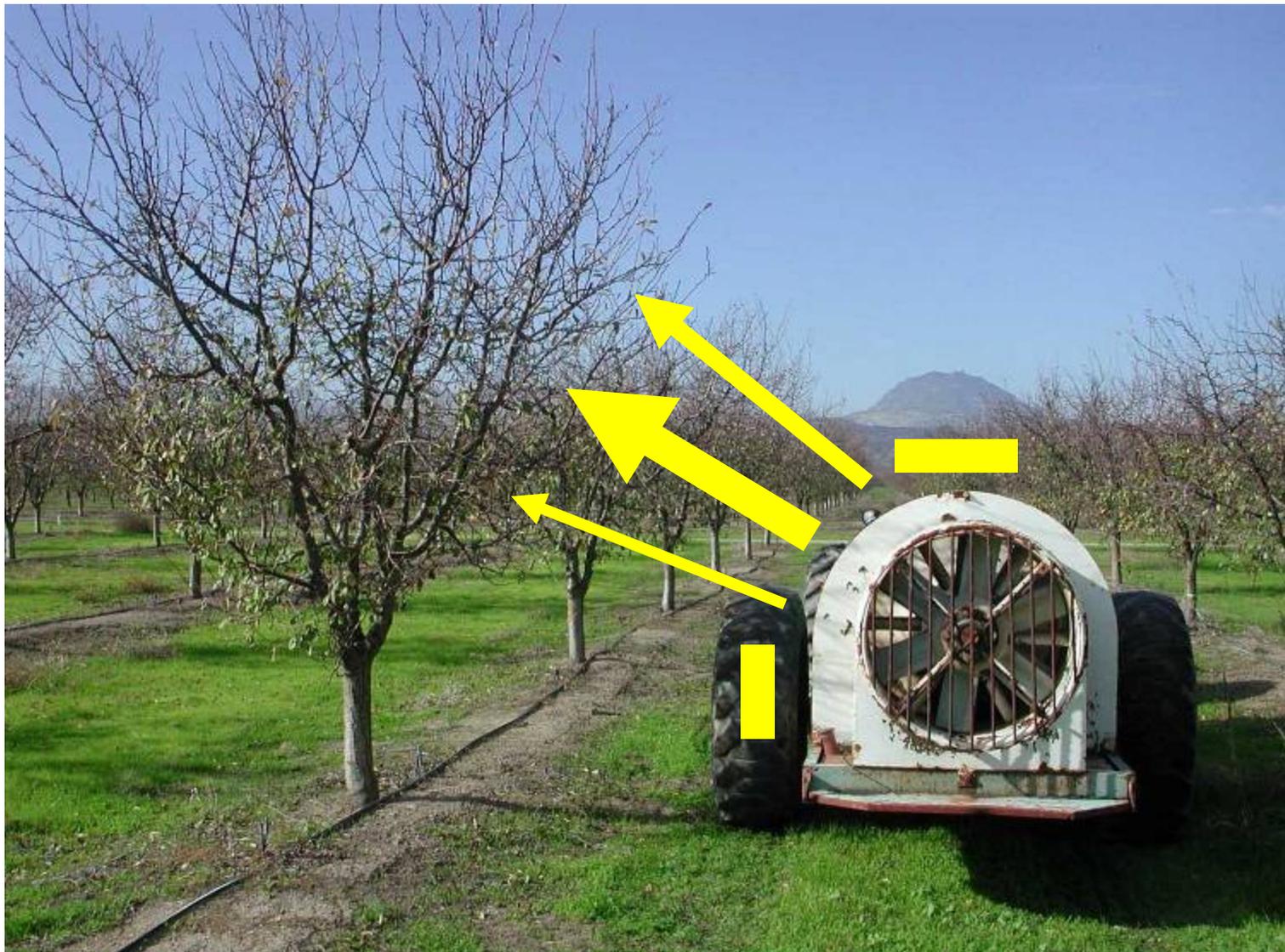
Select desired GPA: **100**

Calculate GPM needed to deliver GPA in that orchard.

Example: **3.6 GPM (per side)**



Target the tree.



Take the sprayer out to the orchard(s) to be sprayed.



ConeJet Disc-Core Type Spray Nozzles

Orifice Discs
Ceramic Sizes Available: DCER-1 through DCER-8, DCER-10.



Cores
Ceramic Sizes Available: DC13-CER, DC23-CER, DC25-CER, DC31-CER, DC33-CER, DC35-CER, DC46-CER, DC48-CER, DC56-CER.



How to order:
To order orifice disc only, specify disc no., material.

- Examples:
DCER-2 - Ceramic
D2 - Hardened Stainless Steel
DE-2 - Stainless Steel
DVP-2 - Polymer

To order core only, specify core no., material.

- Examples:
DC13-CER - Ceramic
DC13-HSS - Hardened Stainless Steel
DC13-AL - Aluminum
DC13 - Brass
DC13-NY - Nylon

Color-coding applies to polymer only.



Full Cone Spray Pattern
Produced by
Cores #31, 33,
35, & 56

Typical Assembly with Ceramic Disc and Core



*Use DVS223-NY gasket when 4514-NY nylon slotted strainer is not used.

26278-1-NYR
Quick TeeJet® Cap
For ceramic disc
and core.
See page 3 for
ordering information.



HC
8g
PH
CL
25

Hollow Cone Type Spray Tips

Strainer	Disc	Core	GPA	GPM																
				10	20	30	40	50	60	80	100	120	150							
D1	DC21	031*	031*	---	---	028	069	078	088	---	113	120	132	---	---	---	---	---	---	---
D1.5	DC21	038*	038*	---	---	067	067	075	088	098	---	117	124	137	---	---	---	---	---	---
D2	DC21	041*	041*	---	---	075	085	090	101	112	---	130	138	150	---	---	---	---	---	---
D3	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D4	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D5	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D6	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D7	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D8	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D9	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D10	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D11	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D12	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
D13	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
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D15	DC21	063*	063*	---	---	070	090	111	127	148	---	170	180	200	---	---	---	---	---	---
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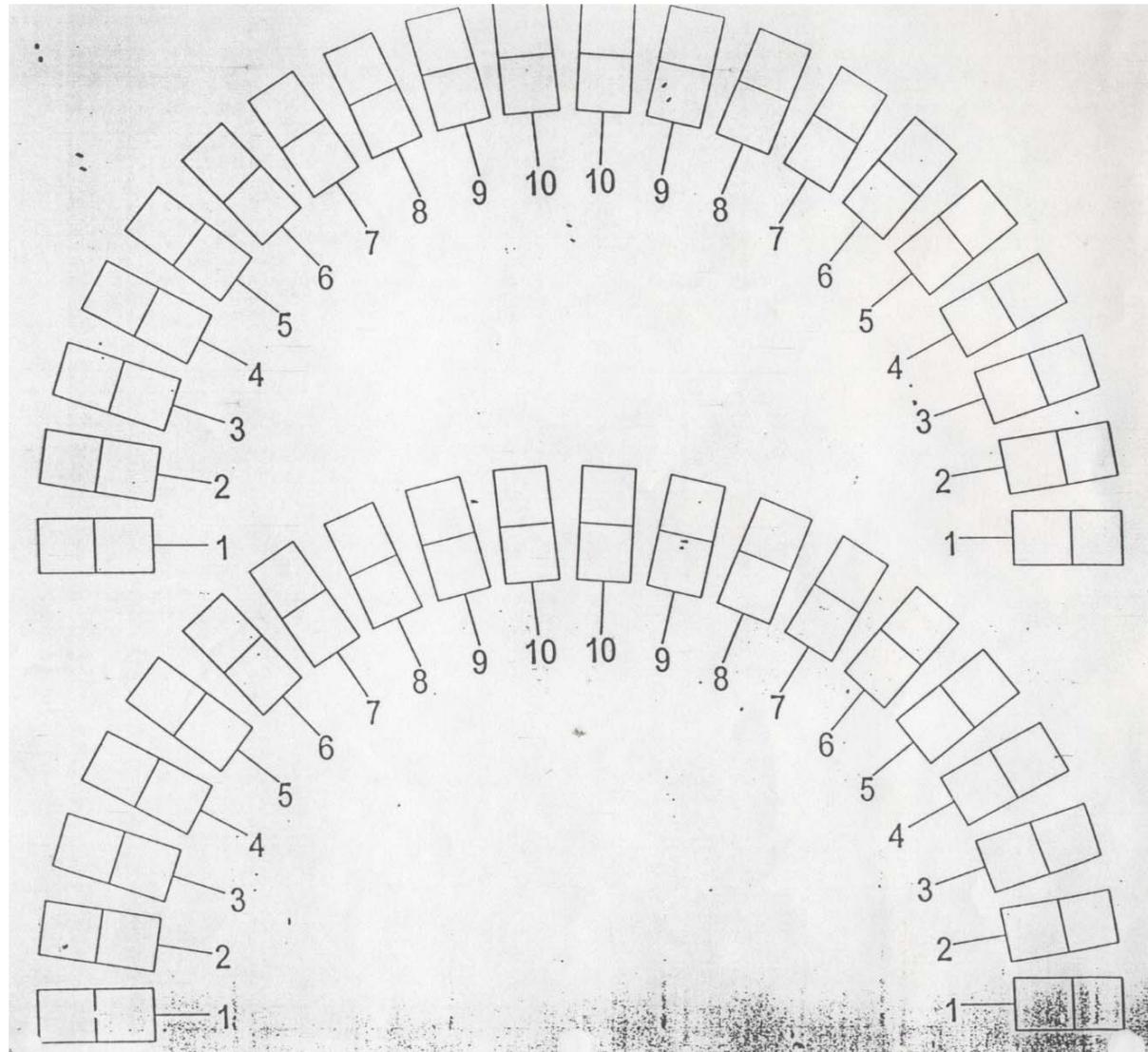
Ground check



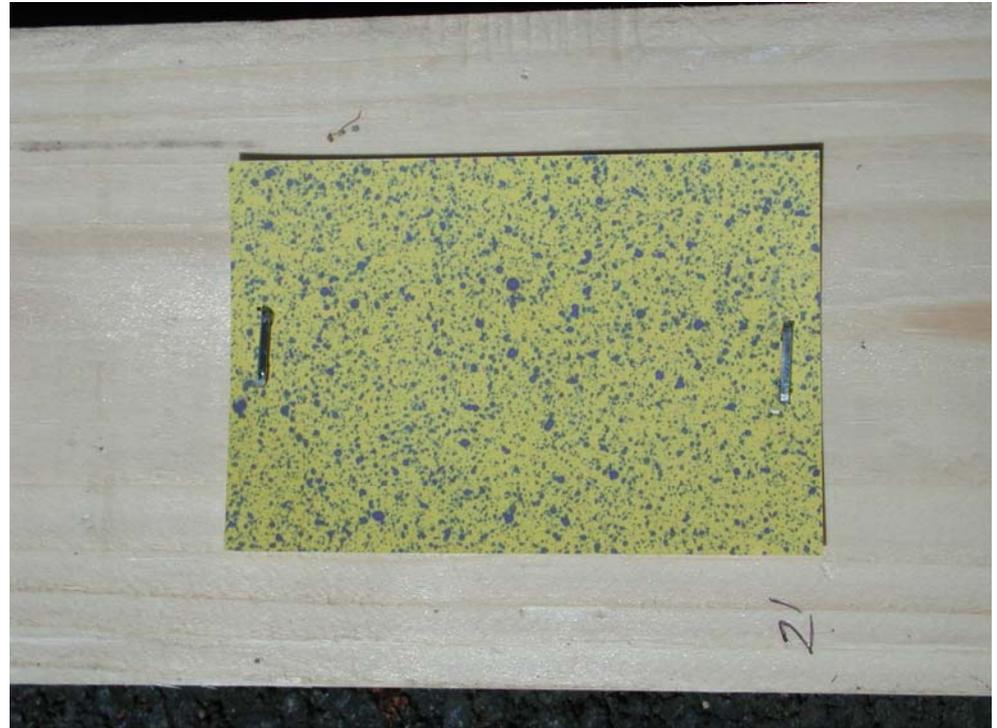
Measure how much was sprayed out.



Keep good records.



Check your coverage.



What is the target?





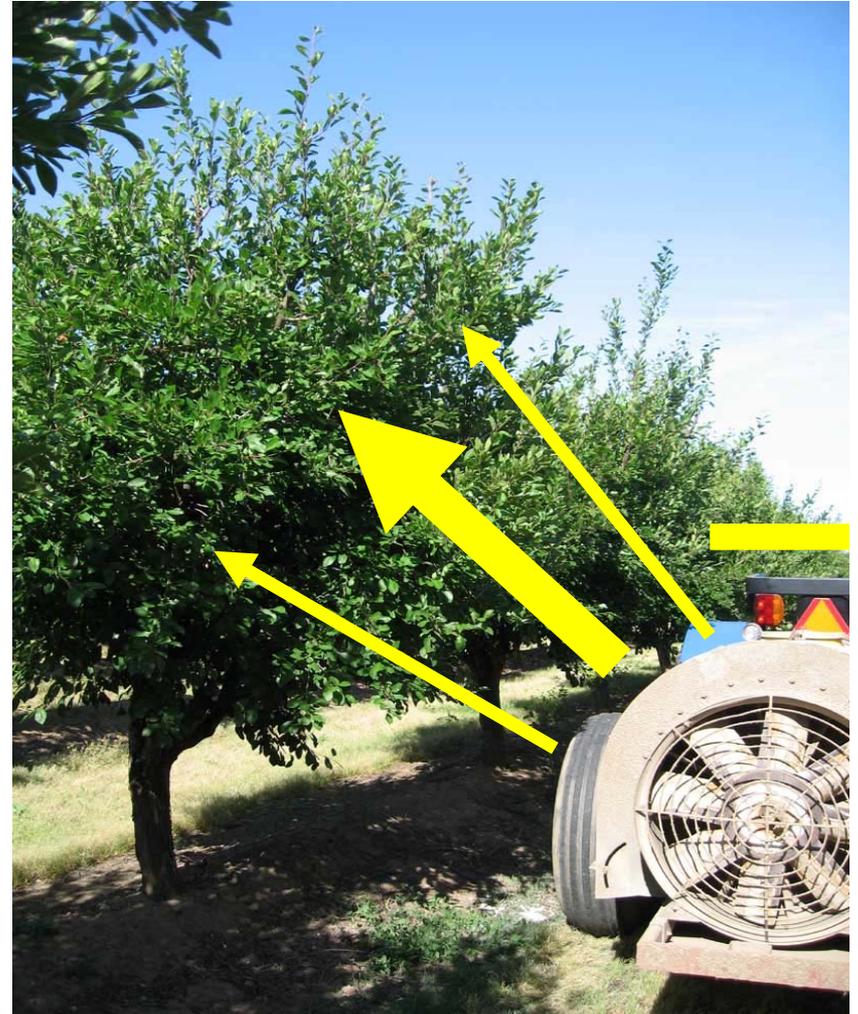
Not all adjuvants do the same job on the same target.



Calibrate the sprayer and target the spray to get the job done right.



Plus



It might be an old axe, but if it is sharp the job will get done.



Thank you

