

Prune orchard of the future....

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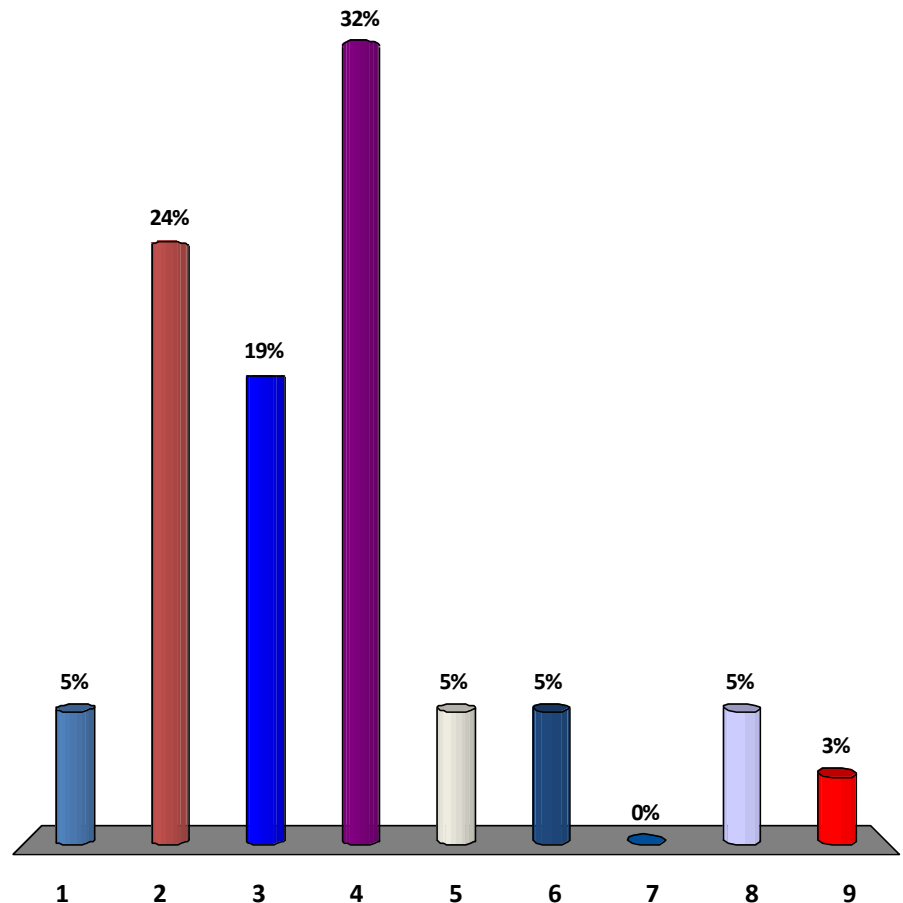
@Hwy20Orchardoc

 **University of California**

Agriculture and Natural Resources

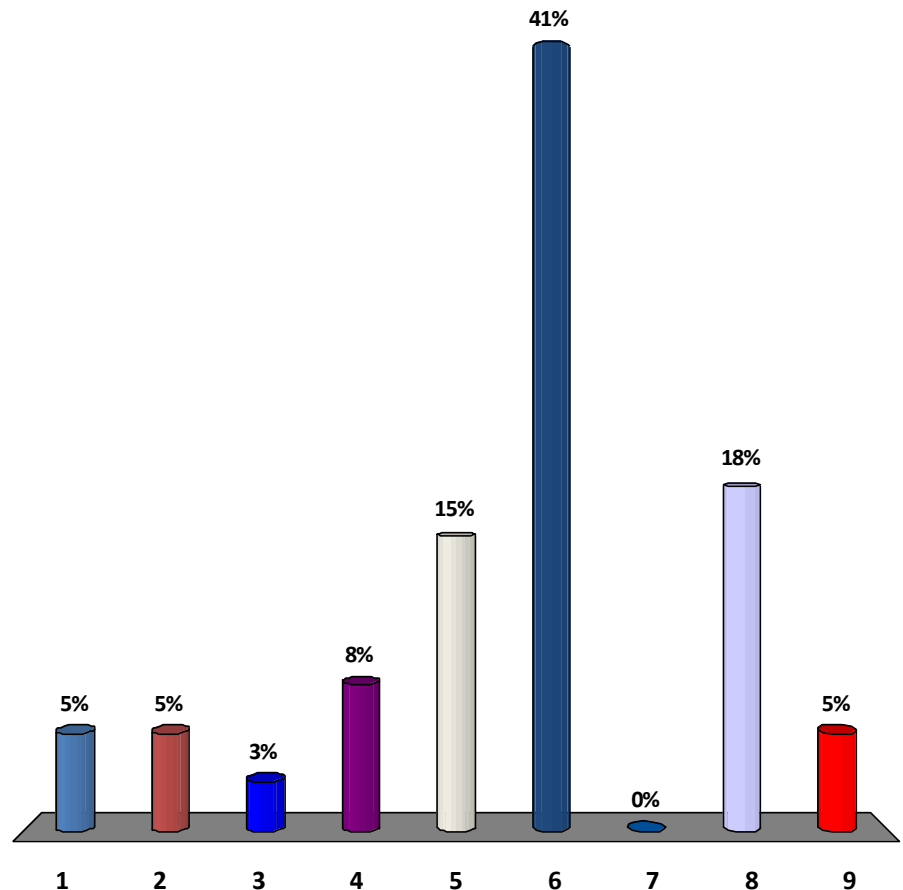
What target cropload/size would you try for in the “Perfect Prune Orchard”

1. 3 dry tons/a; 60 count
2. 4 dry tons/a; 60 count
3. 5 dry tons/a; 60 count
4. 6 dry tons/a; 60 count
5. 4 dry tons/a; 70 count
6. 5 dry tons/a; 70 count
7. 6 dry tons/a; 70 count
8. 7 dry tons/a; 80 count
9. Other



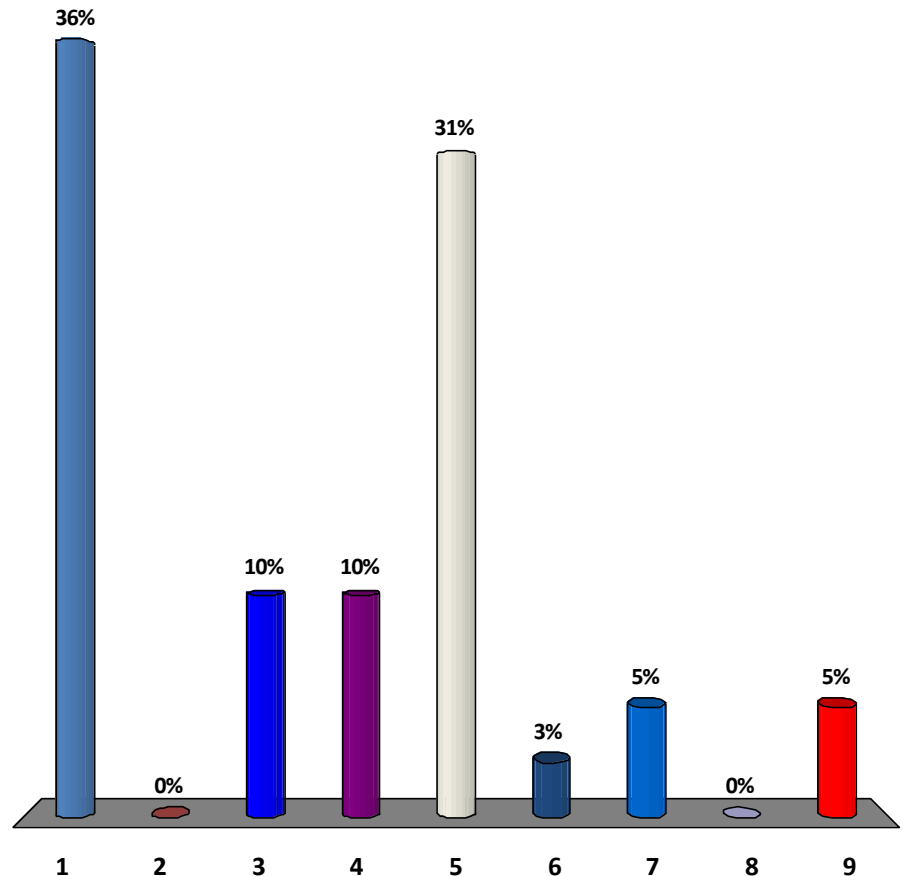
What spacing would you use in prune planting?

1. 20' x 20'
2. 20' x 18'
3. 20' x 16'
4. 20' x 14'
5. 18' x 16'
6. 18' x 14'
7. 16' x 16'
8. 16' x 14'
9. Other



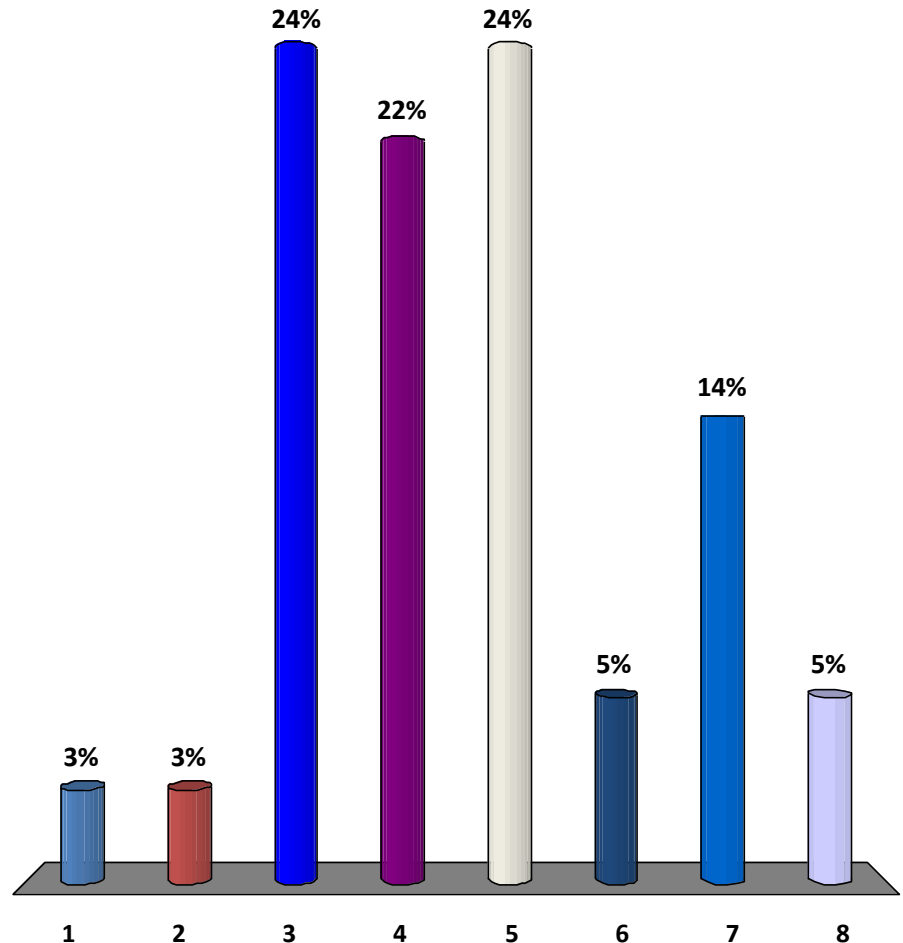
What rootstock would you plant for your next prune planting?

1. Myro 29C
2. Myro seedling
3. M2624
4. M40
5. Krymsk 86
6. Lovell peach
7. Viking
8. Citation
9. Other



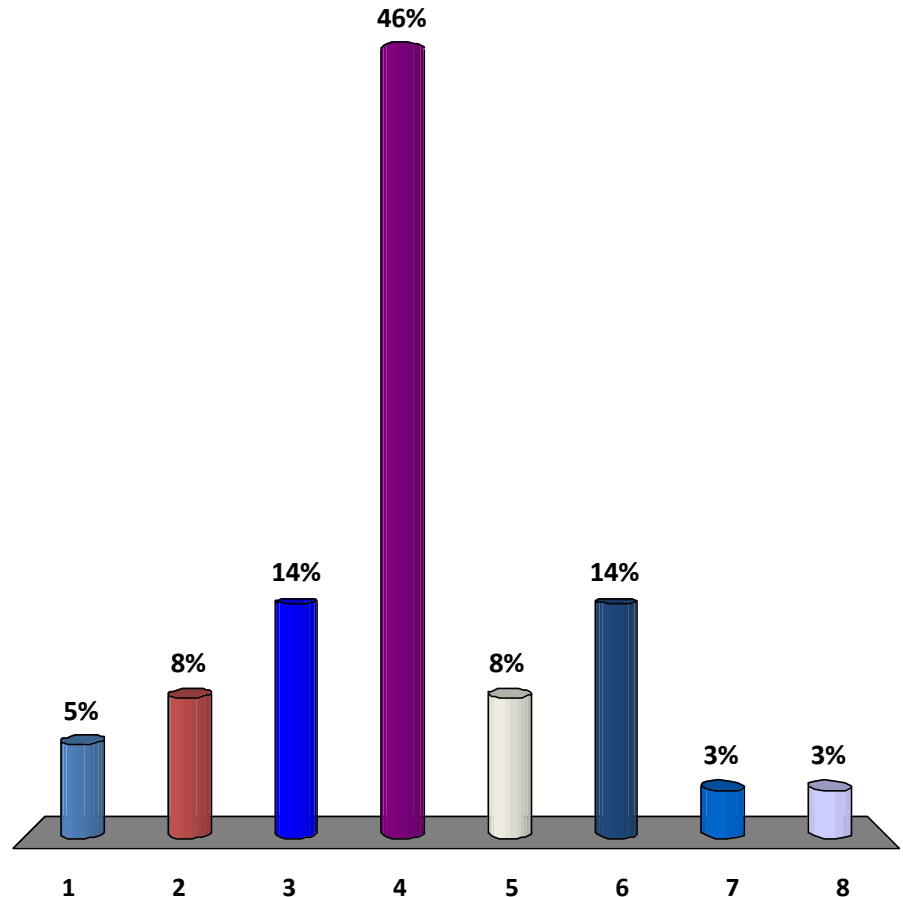
What's the biggest obstacle to planting prunes in 2018?

1. Inconsistent yield
2. Blow over risk
3. Prune price
4. Cost of production
5. Pruning cost
6. Bacterial canker
7. Wood decay
8. Other



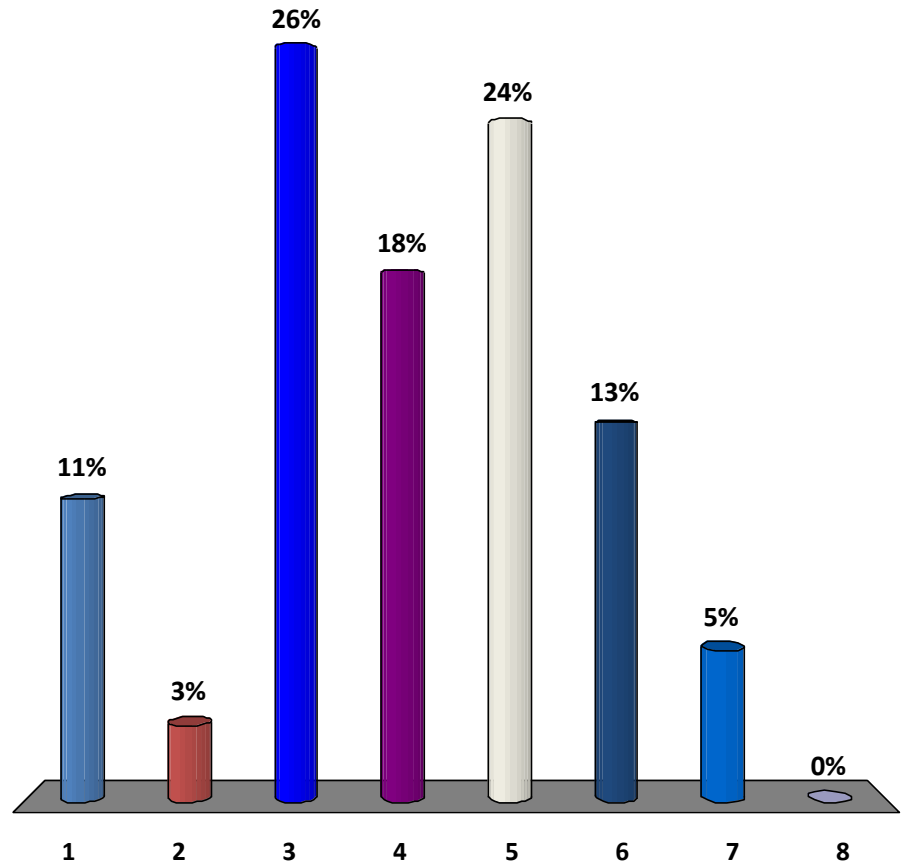
What's the 2nd biggest obstacle to planting prunes in 2018?

1. Inconsistent yield
2. Blow over risk
3. Prune price
4. Cost of production
5. Pruning cost
6. Bacterial canker
7. Wood decay
8. Other



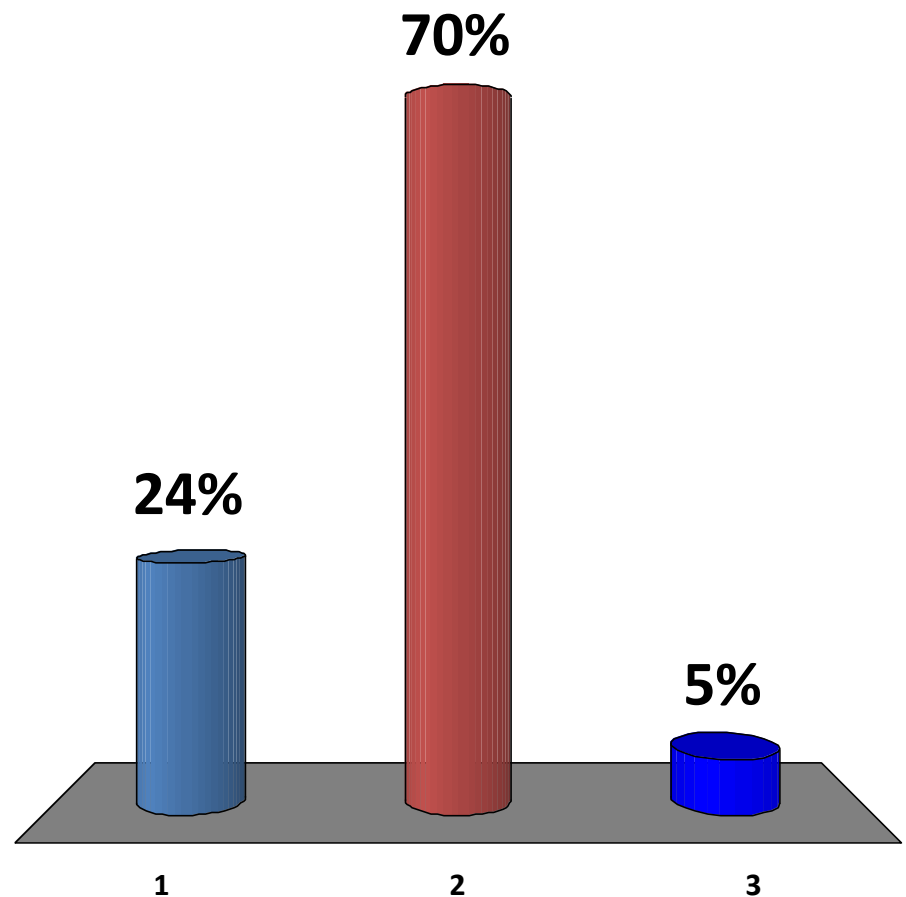
What's the 3rd biggest obstacle to planting prunes in 2018?

1. Inconsistent yield
2. Blow over risk
3. Prune price
4. Cost of production
5. Pruning cost
6. Bacterial canker
7. Wood decay
8. Other



For your next prune planting, will you interplant an existing orchard or plant a new orchard.

1. Interplant
2. New orchard
3. Not planting prunes



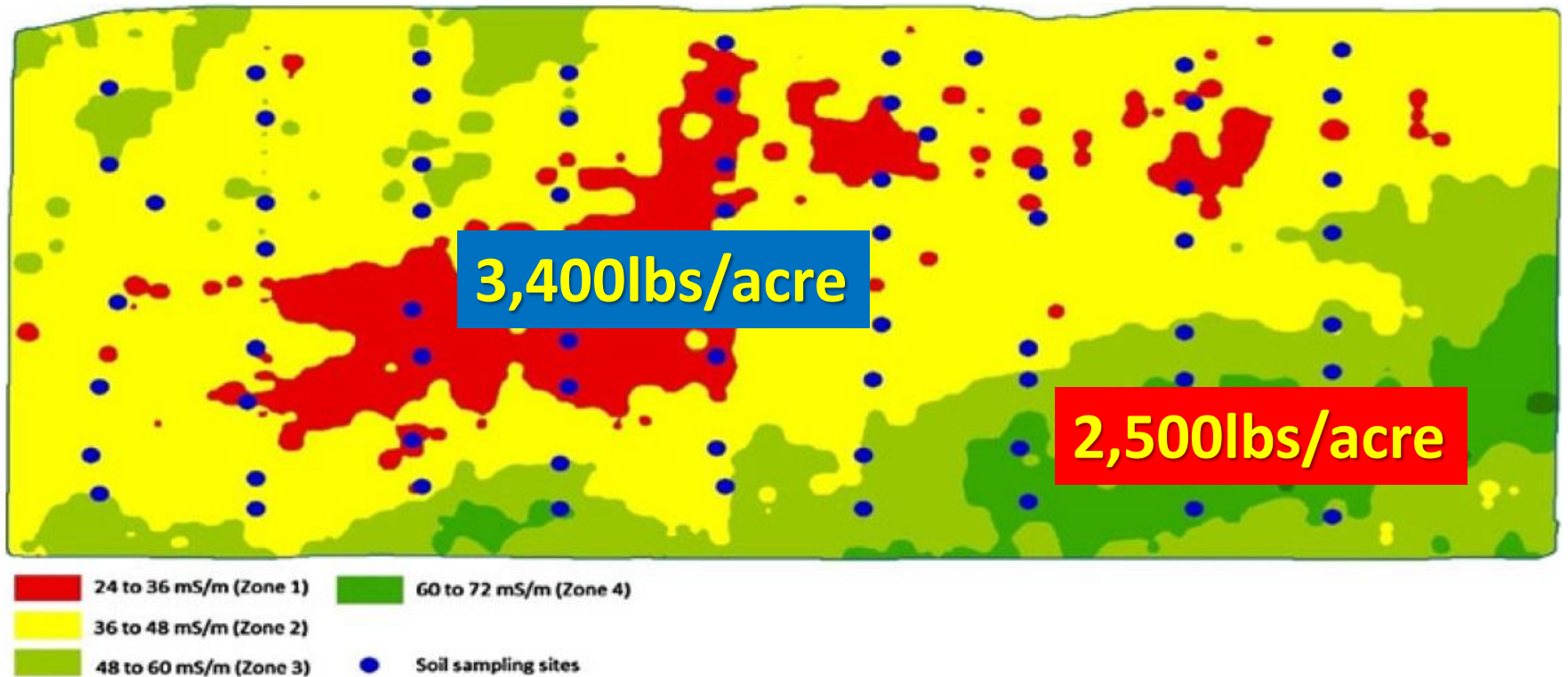
What will the prune orchard of the future look like?

- Site prep work?
- Tree spacing?
- Rootstock selection?
- Cropload management?

Soil variability can limit orchard productivity if considered at planting.

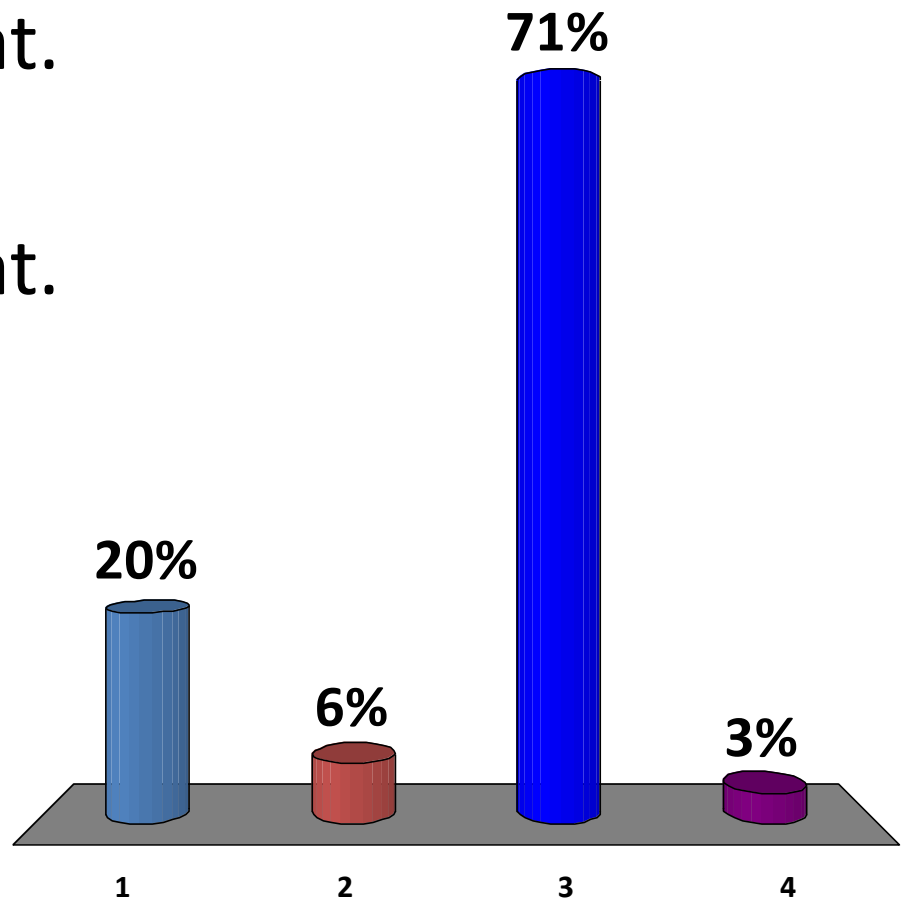


Even in small blocks, soil can vary & so influence overall production.

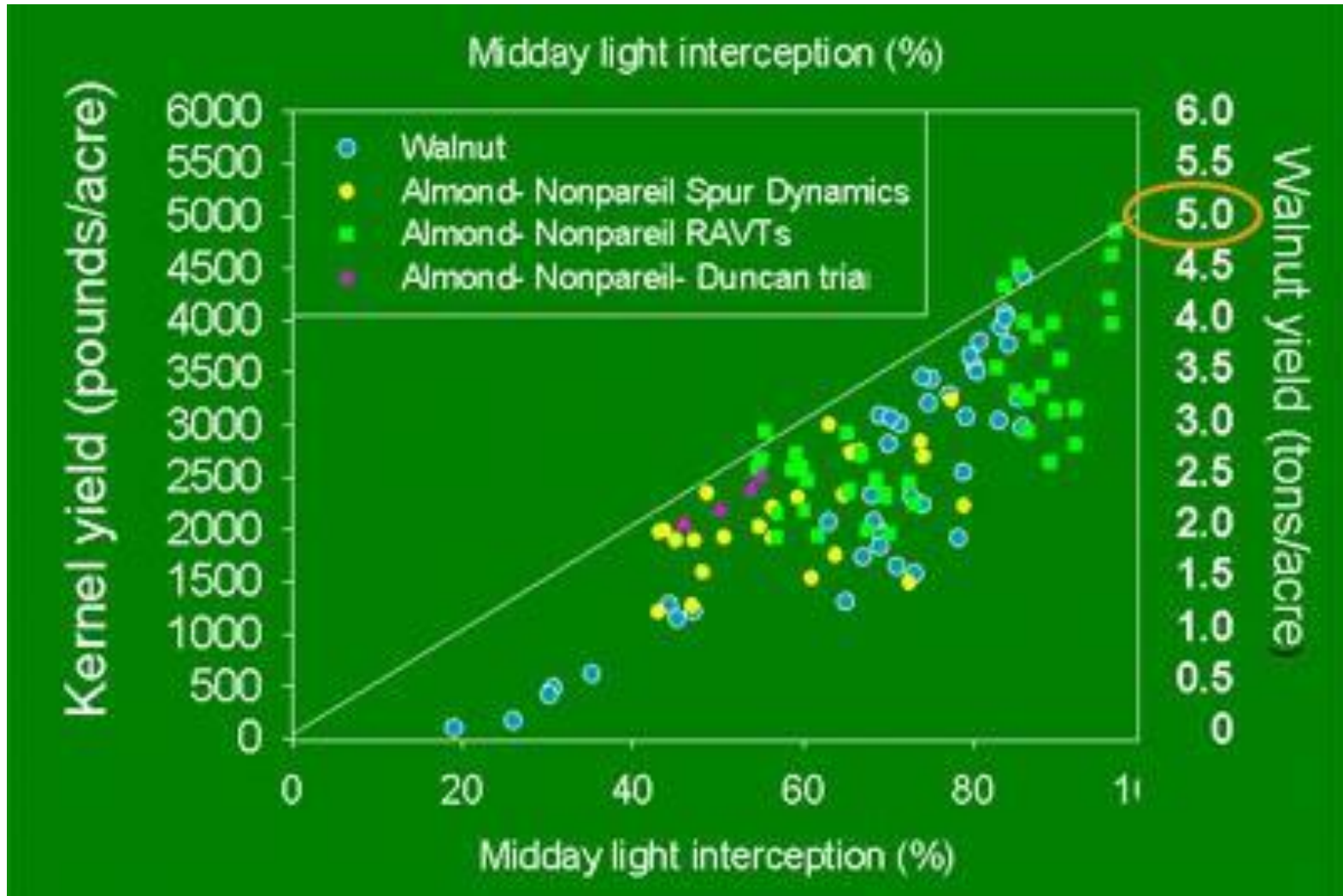


Would you consider soil mapping & matching spacing/irrigation to map?

1. Have already done that.
Will do again.
2. Have already done that.
Won't do again.
3. Will consider
4. Won't consider.



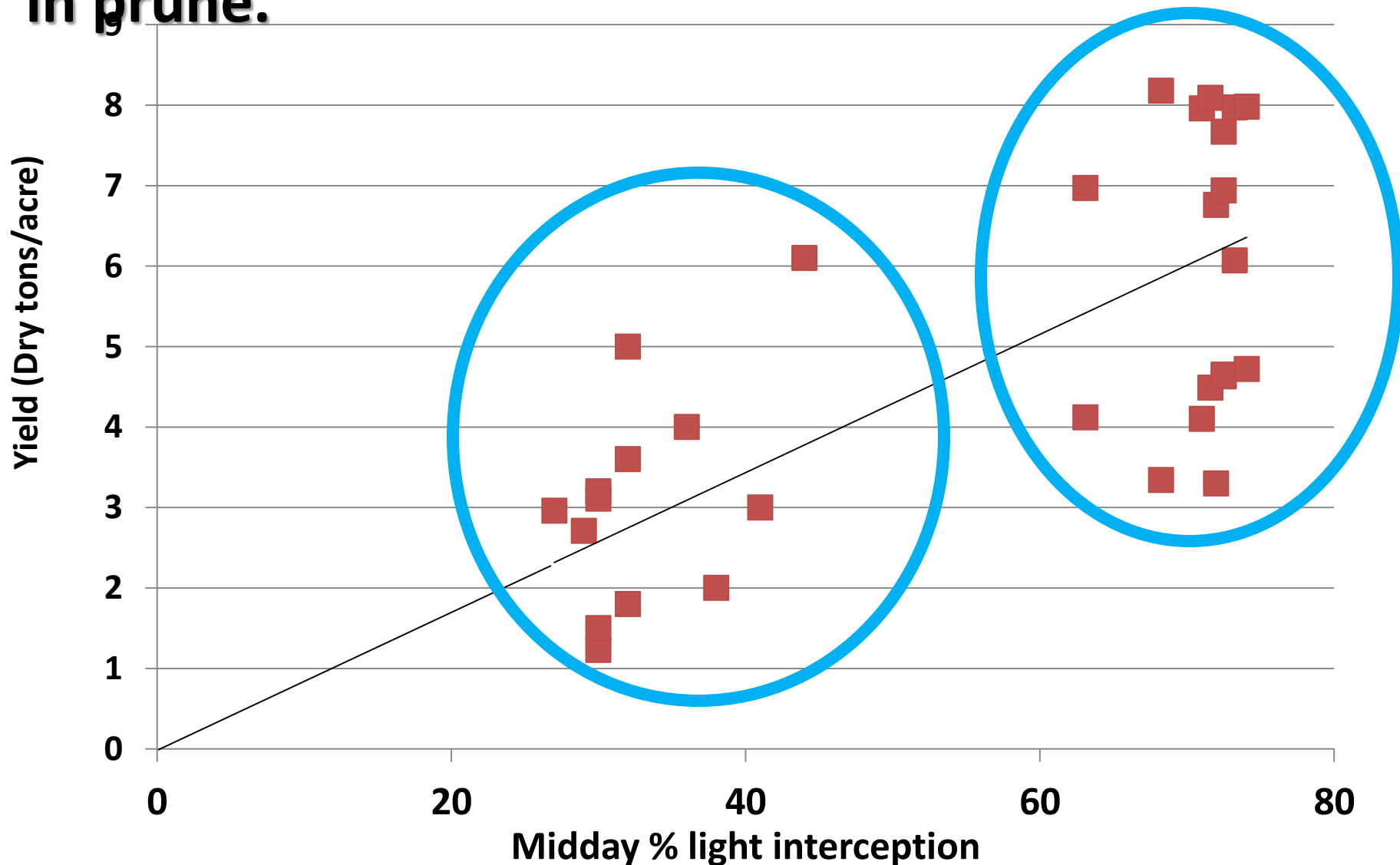
% Light interception sets the potential for nut production.



**A 1% increase in light interception
means 50 lbs. increase in almond crop
yield potential.**

1% = 50 lbs

A similar relationship between light interception and yield potential seems to exist in prune.





**20' x 16'; 136 trees/acre
30-35% light interception
3-3.5 dry ton/acre potential**

Data and images from E. Fichtner, UCCE Tulare Co.

Photo of the same orchard as last slide. Note the space between the fruit bin and the tree row (R).



Photo of the same orchard as last slide. Note the space to the right of the fruit bin and the tree row.



**17' x 14'; 183 trees/acre
70% light interception
4-6 dry tons/acre (60 ct)**





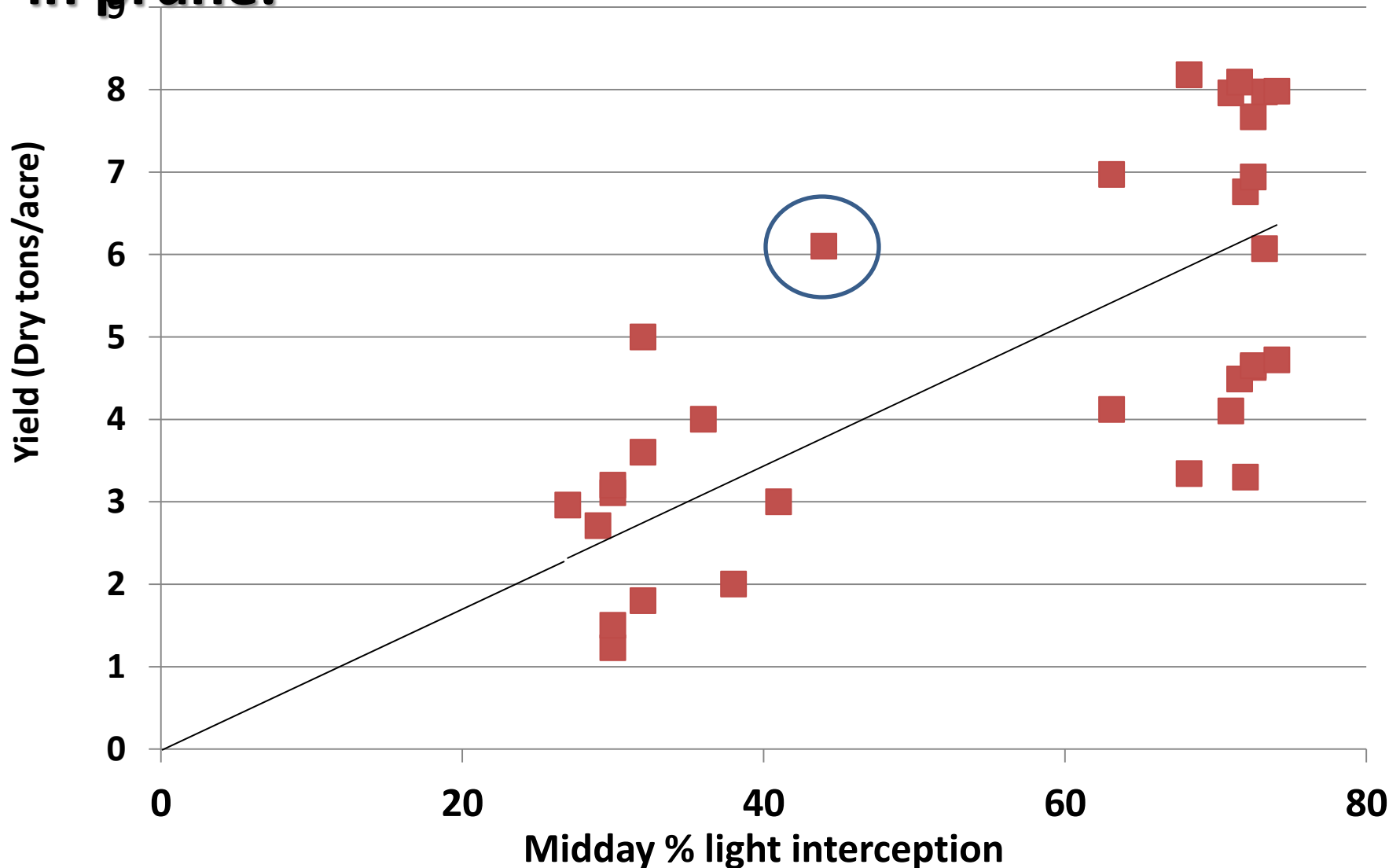
70% light interception

2006	3-5 ton/acre	45 ct
2007	7-8 ton/acre	70 ct
2008	4-6 ton/acre	50 ct
2009	5.5-7 ton/acre	65 ct

An orchard with rows of trees and a central path. The ground is covered with dry, yellowish-brown grass or straw. The trees are green and leafy. The path is a dirt road running through the center of the orchard.

44%
6 tons/a

A similar relationship between light interception and yield potential seems to exist in prune.



The formula for high yielding orchards has been known for many years.

Trial	7 th leaf	8 th leaf	9 th leaf
Dormant Ladders & loppers	7.95 (96)	5.53 (61)	9.18 (78)
Summer mech pruning	7.94 (92)	4.40 (70)	8.06 (89)
Dormant mech pruning	8.03 (92)	4.74 (74)	6.65 (87)

Thinning is a key part of consistent production of large fruit.



What will the prune orchard of the future look like?

- Site prep work?
- Tree spacing?
- Rootstock selection?
- Cropload management?

Questions?

