

Sucker Management

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What are suckers?

- Juvenile shoots arising from adventitious buds on roots
- Can be solely at the crown
- Can be at some distance from the crown, usually along shallow roots

Suckers vs. Watersprouts

- Suckers arise from crown and/or roots
- Watersprouts grow in upper portions of trees
 - Usually where large pruning cuts were made
 - Branches position flat



What causes suckers?

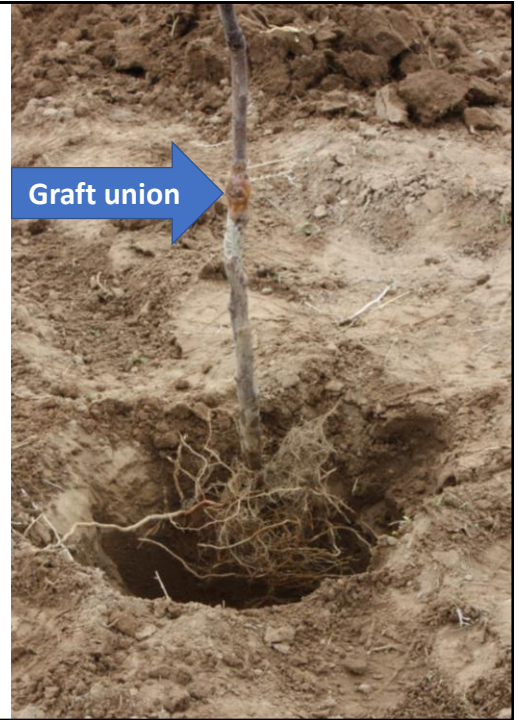
- Genetics!
 - M.7 is prolific
 - M.9 sometimes
- Injury to the roots
 - Mechanical, cold

Problems with suckers

- Unsightly
- Interfere with mowing, pruning, harvest
- Infection point for fire blight
- Potential infection point for Woolly Apple Aphid
- Interferes with weed management
- Management costs money

What to do?

- Avoid planting M.7 ☺
- High bud trees → deeper planting
 - Don't overdo this strategy
- Remove suckers mechanically
- Remove suckers chemically
- Burn suckers



Mechanical removal

- Remove when pruning
- Mow

Chemical 'removal'

- 1% NAA
 - Does provide some control
 - Short lived
- Paraquat
 - Provides excellent control, also post-emergent weed control

2019 Test

- Kaysville IPM block: Goldens/M.7
- Cut all suckers in early spring with hedge shears
- Five treatments x 4 timings
 - Water
 - Paraquat
 - NAA 1%
 - Urea ammonium nitrate (UAN 32)
 - Flame

June 10th 2019



Water



UAN



NAA



Paraquat

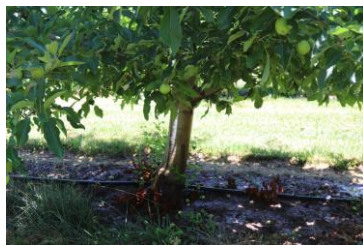


Fire

July 1st 2019



Water



UAN



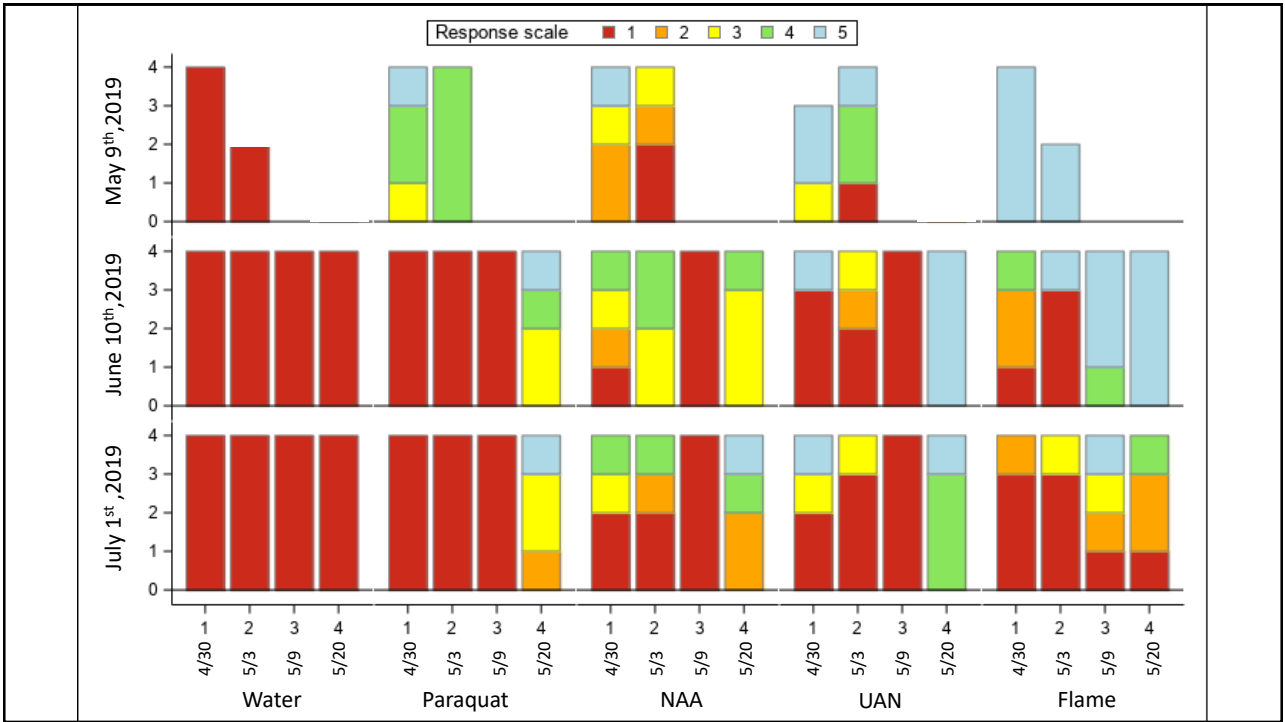
NAA



Paraquat



Fire



Take home messages

- All treatments provided some control
- None of the treatments lasted close to season long
- Later treatment is better than early treatment

Cautions

- Paraquat is very toxic to humans
- UAN adds a small amount of N

Questions?

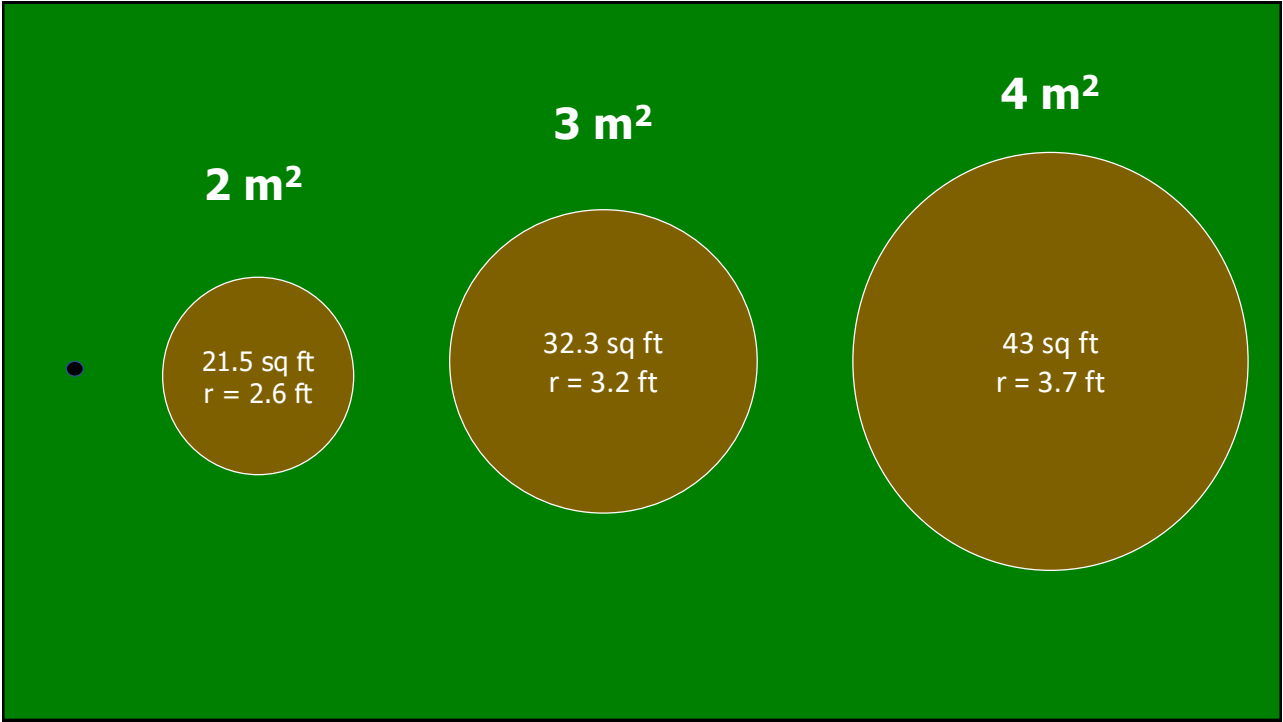
Area of weed control

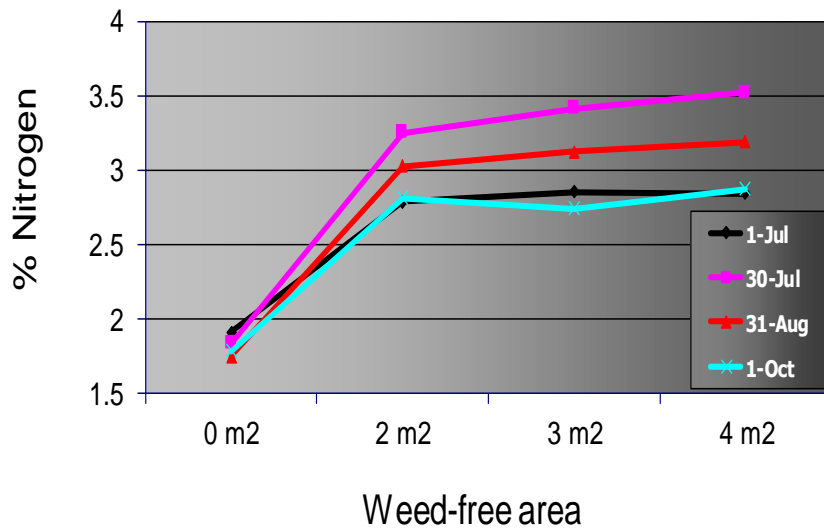
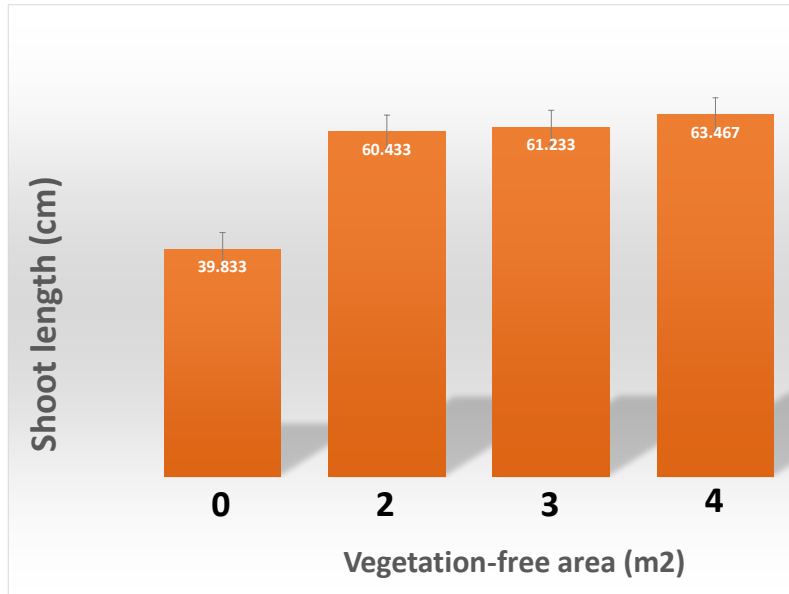
- How much weed free area is required?
- Two research papers answer the question:
 - Apple Ian Merwin, Cornell
 - Tart Cherry Al-Hinai & Roper, Wisconsin

Cherry Treatments

- 0 m² Control: grass growing up to trunk
- 2 m²
- 3 m²
- 4 m²

- Kept weed free with glyphosate year-round

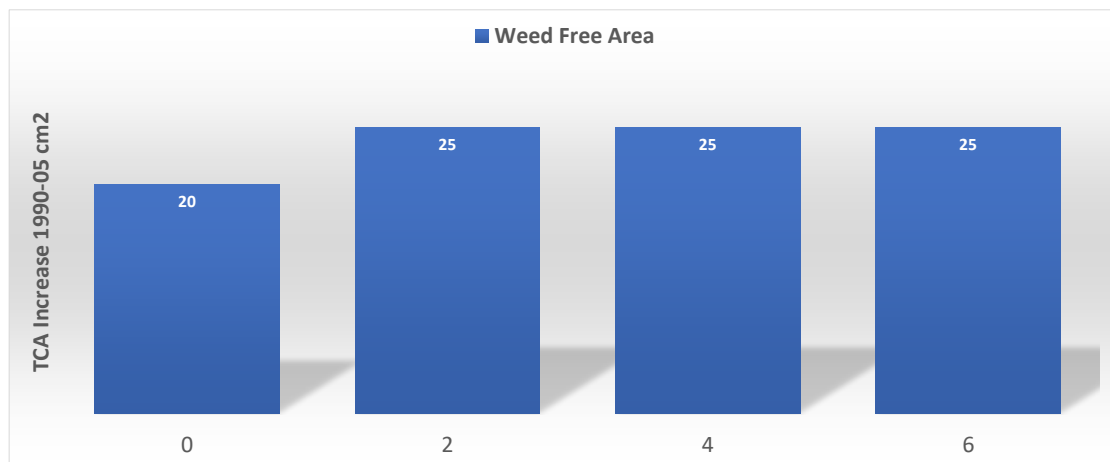




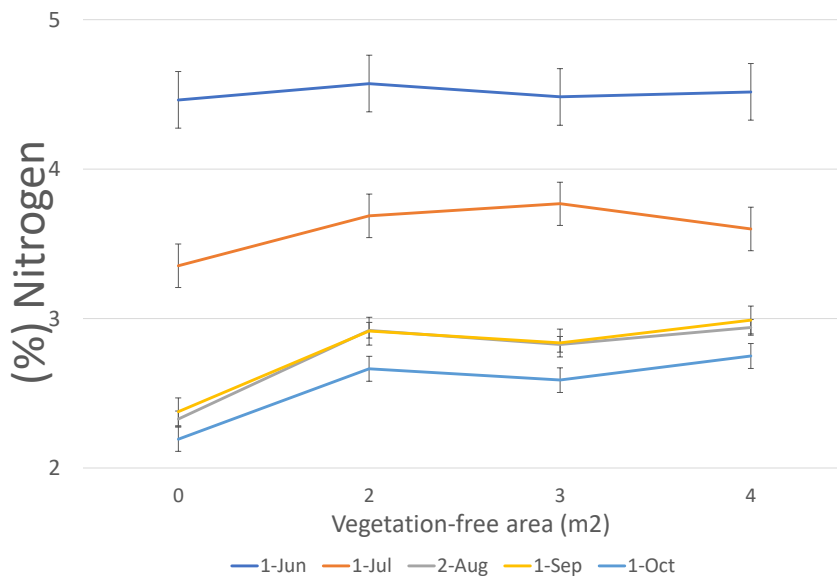
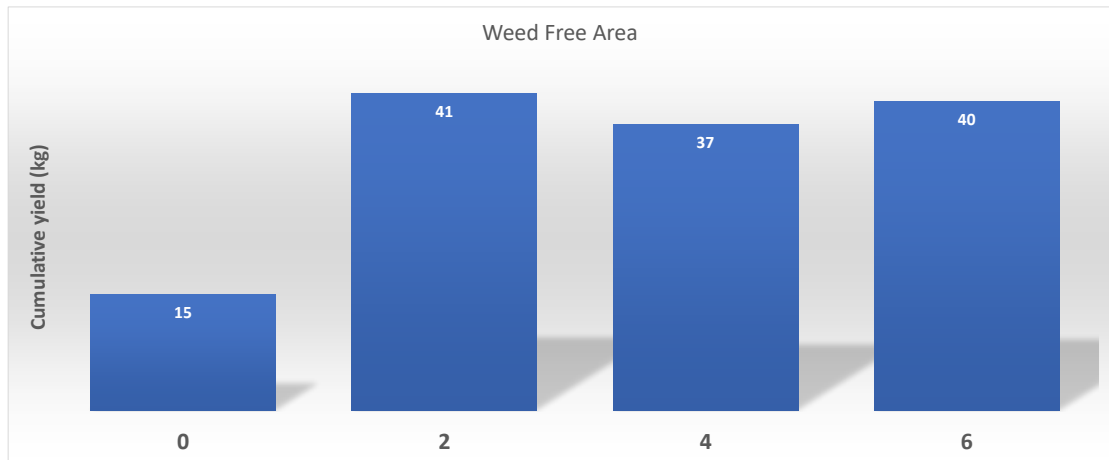
Apple Treatments

- 0 m² Grass growing up to trunk
- 2 m² r = 2.6 feet
- 4 m² r = 3.7 feet
- 6 m² r = 4.53 feet

Apple weed free area



Cumulative yield



Take home message

- Weed competition is real
 - Benefits from managing vegetation in tree row
- 2.5 – 3 foot/ side = 5-6 foot weed free zone is enough
- No improvement for ↑ weed control

Questions?

