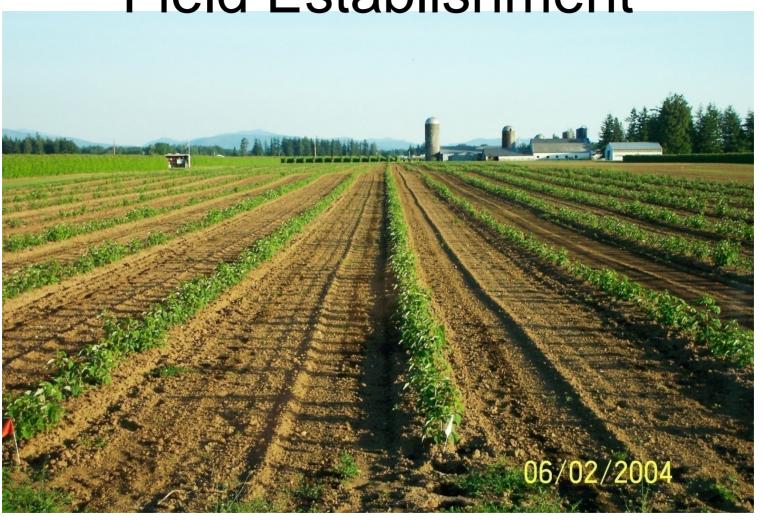


Presented by Randy Honcoop Grower

Washington Red Raspberry Commission

Field Establishment











Need: Improved application technology/machinery for agrochemicals



Pollination



Question: Can mechanization be utilized in place of insecticides to remove insect contaminants from fruit harvested by machine?

Harvest





Early 70's Harvesters



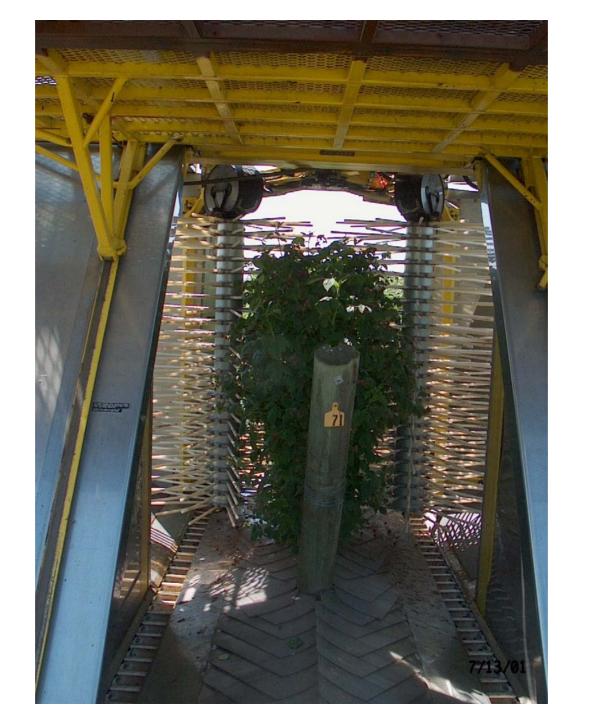














Self-propelled Self-leveling Auto-steer guidance system

- ■1 acre per hour per harvester
- ■Each row is picked every 2-3 days over a 35 day harvest season.
- ■1 harvester per 20-30 acres
- ■Estimated retrieval rate of fruit grown is 80 85%
- Need to boost retrieval rate by more thorough, yet selective picking action, as well as minimizing drop losses by catching system.





Processing





Need: Reduce labor requirement for inspection, grading

Inspection Line



Cold Storage



Before pruning



After pruning & tying





The solution to this production challenge will require at least 3 different areas working together:

- Genetics cultivar traits
- Changing cultural practices trellis systems
- Mechanization robotics, sensors

Current Practices:

- Each floricane must be cut out by hand
- •Inferior primocanes cut out by hand
- Remaining primocanes are bundled & tied with twine to the trellis wire

Need: reduce costs and need for labor in pruning & tying practices



Current Challenges



Reduce Labor Needs & Costs:
Pruning & Tying
Processing

Increase Efficiency:
Harvester Technology
Fruit Retrieval
Contaminant
Reduction
Sprayer Technology