

Berry Industry Overview



Presented by Randy Honcoop
Grower
Washington Red Raspberry
Commission

Field Establishment



06/02/2004





06/10/2003





04/05/2007

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





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

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 Challenges



Reduce Labor Needs & Costs:
Pruning & Tying
Processing

Increase Efficiency:
Harvester Technology
Fruit Retrieval
Contaminant
Reduction
Sprayer Technology