

Mechanical Thinning



The Bonner





Day of thinning (defoliation) and 2 months later





- String thinning bloom to desired crop level leads to more defoliation than most can stand
- Thinning bloom to 50% of desired clusters reduces defoliation to a tolerable level

Reduce hand bloom thinning by 50%



One person string trimming to 50% of clusters can cover 10X the trees as hand bloom thinners

One person with a string trimmer can double the speed of a hand bloom thinning crew of 10

The Case for String Thinners

- Hand blossom thinning allows for true precision cropping but requires one person per acre
- We have 125 acres to blossom thin
- Without string thinning I need 125 workers for 2 weeks
- We need 55 workers for the rest of the growing season including harvest
- An additional 70 H2a workers = \$105,000 in annual fees, \$500,000 in capital for housing, \$125,000 in capital for busses
- 70 workers require 3 additional supervisors

20+ Billion Times
1 apple/ 2 seconds



1939



2015



75 years of minor
innovation



The Scout





Huron Fruit Systems



Littau Harvester



Bandit Xpress Automated Ag Systems





ORSI group



Zucal and Pluk-O-Trak



Nighttime is the right time



Night Harvest



Harvest Assist

Removes ladders

Bin to the worker

Pick in bags

Right fruit in/ right fruit out



Global Challenge
Global Solution
Global Collaboration