Fruit & Nuts Harvesting

Advantages of Hand Harvest

- Accurate maturity and grade selection.
- Less damage to product.
- Allows multiple harvest.
- Easy to increase harvest rate - just hire more pickers.

Strawberry Maturity Selection & Field Pack

Less product damage?
Strawberry picker damage

Machine Harvest Advantages

- Less costly, but high capital costs.
- 24 hr harvest possible.
- Less labor management problems.
- Higher wages for workers.
- Stabilizes work force size.

Machine Harvested Fresh Market Crops

- Underground vegetables:
  - Potatoes, sweet potato, garlic, bulb onions, carrots, turnip, rutabaga, beets, etc.
- Vegetables:
  - Fresh cut spinach, lettuces, etc.
  - Some cabbage, sweet corn, green beans
- Tree nuts and peanuts
- Cranberries

Machine Harvesters for Processed Fruits & Vegetables

- Tree crops
  - Sour cherries, prune, coffee.
  - Some peaches, olives, juice oranges.
- Vine & bush crops
  - Blueberries, raspberries, cranberries.
- Vegetable crops
  - Peas, beans, corn, pickling cucumbers, tomatoes, peppers, celery, beans, sweet corn, cabbage.
Harvest aid - ca 1900

- Detachment
- Fruit handling
- Worker position

Tree Fruit Hand Harvest

Harvesting

Bucket Operation
**Pears**

1960 worker positioner & fruit handling system

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**Pears**

2005 worker positioner & fruit handling

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**Citrus - Worker Positioner**

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**Citrus Research Board System**

Scout

Picker
Shake-catch harvest

FMC-Mechanical Harvester

FMC: Tree to Conveyor

Kilby Mechanical Harvester
Pistachio nuts require more careful handling due to their higher water content at harvest than other tree nuts.
Shaker Blight

Is this practical for dried figs?

Dry Fig Harvest

Vine & Small Tree Harvesters

Olives

Grapes

Canopy Management