To Glean or Not to Glean

Updates on Citrus Mechanical Harvesting Research

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Polk County CES, Bartow

Fritz Roka

UF-IFAS / SWFREC

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Take-Home Points

- Cost ($/bx) to glean > to hand pick.
- Glean IFF Del-in price sufficient.
- Separate gleaning cost from MH cost.

Glean > Hand-pick

Cost ($/bx) = pick + roadside

Hand crew:

10 bx/hr * $0.80/bx = $8.00/hr

Glean crew:

5 bx/hr * $1.60/bx = $8.00/hr

Glean Cost, *f*(MH Recovery)

Yield: 500 bx, Worker: $8/hr

MH Recovery	Remain Boxes	Worker Productivity	Harvest Piece Rate
%	Bx/ac	Bx/hr	$/bx
80	100	7	$1.14
90	50	5	$1.60
95	25	3	$2.67

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Glean IFF:
Cost < Del-In Price

Example: ($1/ps, 5.75 ps/bx)

Fruit value @ plant: = $5.75 /bx

- Haul charge = $0.75 /bx

Pre-glean value = $5.00 /bx

Pick < $2.50 /bx

Roadside < $2.50 /bx

"Net" Cost of MH

- Gleaning costs
- And/or value of abandoned fruit

Harvest with Gleaning

90% MH @ $1.15 /bx

10% Glean @ $3.00 /bx

$1.15 (.90) + $3.00 (.10) = **$1.335** /bx

What is equivalent cost to Hand harvest?

Value of Abandoned Fruit

Value @ plant	$5.75 /bx
- Haul charge	$0.75 /bx
- Pick & Roadside	$1.60 /bx
On-tree value	$3.40 /bx

$1.15 (.90) + $3.40 (.10) = **$1.375** /bx

Summary Comments

- Higher the MH recovery,
  - lower the gleaner productivity,
  - higher the cost to glean.
- Separate gleaning from MH costs.
- Glean only if cost < del-in price.
- Check out website:

  http://www.citrustool.ifas.ufl.edu/main.php