# Economics of Hand and Mechanical Harvest of New "Crispy" Flesh Cultivars from Florida 

## 2011 Blueberry Educational Session, Savannah, GA

 7 Jan 2011Kim Morgan, Jim Olmstead, Jeff Williamson, Gerard Krewer, Fumi Takeda, Dan MacLean, Rob Shewfelt, Charlie Li, Anish Malladi \& Paul Lyrene

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## 2010 FIELD TRIALS - PROBLEM?!



## Effect of Harvest Type on Percent Packout on Three Harvest Dates

$\square$ FARTHING ■ MEADOWLARK ■ SWEETCRISP


Effect of Harvest Type on the Yield of Three Cultivars by harvest Date

## ■ FARTHING

■ MEADOWLARK
■ SWEETCRISP


# NASS Shipping point prices, Central \& North FL, by container type, April 29 - May 25, 2010 



## 2010 FIELD TRIAL - ASSUMPTIONS

$>$ Actual field harvest weights under commercial conditions for three crispy cultivars
$>$ Hand-picked all trial bushes first time, then hand versus machine for 2, 3 and $4^{\text {th }}$ trials
$>$ Harvest costs $\$ 0.72 / \mathrm{lb}$ hand-pick or $\$ 0.18 / \mathrm{lb}$ custom mechanical harvest
$>$ Net return (\$/bush) = (yield kg/bush pack-out \% price $\$ / \mathrm{kg}$ ) - (yield kg/bush \$/kg harvest costs)

NOTE: ONLY LABOR/MACHINE COSTS included in harvest costs, need to subtract your production costs to arrive at actual net return!

Net return(\$/bush), by Variety, by harvest type, by harvest trial, flat of 12-1 PINT CUPS WITH LIDS


## 2010 FIELD TRIAL - WHAT IFS?!

## COMMERCIAL YIELDS (LBS/ACRE)

| 2,000 | 4,000 | 6,000 | 8,000 | 10,000 | 12,000 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| (1500 BUSHES/ACRE) |  |  |  |  |  |
| NET RETURNS/ACRE (MACHINE COSTS ONLY) |  |  |  |  |  |
| \$/Ib MACHINE | (M2.61/LB FOR 1 PINT CONTAINERS |  |  |  |  |


| $\mathbf{\$ 0 . 1 0}$ | $\$ 5,020$ | $\$ 10,040$ | $\$ 15,060$ | $\$ 20,080$ | $\$ 25,100$ | $\$ 30,120$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{\$ 0 . 1 4}$ | $\$ 4,940$ | $\$ 9,880$ | $\$ 14,820$ | $\$ 19,760$ | $\$ 24,700$ | $\$ 29,640$ |
| $\mathbf{\$ 0 . 1 8}$ | $\$ 4,860$ | $\$ 9,720$ | $\$ 14,580$ | $\$ 19,440$ | $\$ 24,300$ | $\$ 29,160$ |
| $\mathbf{\$ 0 . 2 2}$ | $\$ 4,780$ | $\$ 9,560$ | $\$ 14,340$ | $\$ 19,120$ | $\$ 23,900$ | $\$ 28,680$ |
| $\mathbf{\$ 0 . 2 6}$ | $\$ 4,700$ | $\$ 9,400$ | $\$ 14,100$ | $\$ 18,800$ | $\$ 23,500$ | $\$ 28,200$ |
| $\$ 0.30$ | $\$ 4,620$ | $\$ 9,240$ | $\$ 13,860$ | $\$ 18,480$ | $\$ 23,100$ | $\$ 27,720$ |

## 2010 FIELD TRIAL - WHAT IFS?!

## COMMERCIAL YIELDS (LBS/ACRE)

| 2,000 | 4,000 | $\mathbf{6 , 0 0 0}$ | $\mathbf{8 , 0 0 0}$ | $\mathbf{1 0 , 0 0 0}$ | $\mathbf{1 2 , 0 0 0}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | (1500 BUSHES/ACRE) |  |  |  |

## NET RETURNS/ACRE (HANDPICK COSTS ONLY) @ \$2.61/LB FOR 1 PINT CONTAINERS

| $\mathbf{\$ 0 . 6 0}$ | $\$ 4,020$ | $\$ 8,040$ | $\$ 12,060$ | $\$ 16,080$ | $\$ 20,100$ | $\$ 24,120$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{\$ 0 . 6 5}$ | $\$ 3,920$ | $\$ 7,840$ | $\$ 11,760$ | $\$ 15,680$ | $\$ 19,600$ | $\$ 23,520$ |
| $\mathbf{\$ 0 . 7 0}$ | $\$ 3,820$ | $\$ 7,640$ | $\$ 11,460$ | $\$ 15,280$ | $\$ 19,100$ | $\$ 22,920$ |
| $\mathbf{\$ 0 . 7 5}$ | $\$ 3,720$ | $\$ 7,440$ | $\$ 11,160$ | $\$ 14,880$ | $\$ 18,600$ | $\$ 22,320$ |
| $\mathbf{\$ 0 . 8 0}$ | $\$ 3,620$ | $\$ 7,240$ | $\$ 10,860$ | $\$ 14,480$ | $\$ 18,100$ | $\$ 21,720$ |
| $\$ \mathbf{\$ 0 . 8 5}$ | $\$ 3,520$ | $\$ 7,040$ | $\$ 10,560$ | $\$ 14,080$ | $\$ 17,600$ | $\$ 21,120$ |

## BLUEBERRY

## 2010 FRUIT AND NUT PLANNING BUDGETS

## www.agecon.msstate.edu/what/farm/

Mississippi State University<br>Department of Agricultural Economics

Budget Report 2010-02

## PROJECT LINKS

Marketing Opportunities \& Alternative Production Methods To Enhance Prosperity For Small-Medium Sized SE Blueberry Farms
> determine factors that influence blueberry consumption
> determine consumer willingness to pay a premium for organic blueberries

## CONSUMER FOCUS GROUPS

Consumer purchasing influencers:
EAT MORE?? - Try to grow my own; Indoor or patio plant; Bigger packages; Offer in-store samples; Place in prepackaged, pre-washed containers; Hand-select in-store
> DOES LABEL MATTER? - U.S. country of origin; Organic; Pesticide regulation; No additives or preservatives; Smaller labels (so THEY can assess fruit quality)
> "A BLUEBERRY IS..."- Willy Wonka; Juicy; Muffins; Fresh; Good for heart; Stain my teeth; Grandma's cobbler; Pancakes; Memories of picking

## PROJECT LINKS

## All about Blueberries eXtension Community of Practice

 Initiative Competitive Grant \# 2009-51181-06093 from the USDA National Institute of Food and Agriculture

## ALL ABOUT BLUEBERRIES CoP LAUNCHED!




## Dr. Hummel <br> SAT. @ 4 pm

All About Blueberries Community of Practice

The national blueberry resource team known as All About Blueberries began collaborative work to grow the Cooperative Extension System's best information to provide traditional and expanding clientele a source of reliable and up-to-date information on the best researched-based blueberry production knowledge combined with dietary and nutritional information.

## Who Are These Experts?

The All About Blueberries Community of Practice (CoP) is comprised of experts from across the southern United States including teaching and research faculty at land grant universities, county agents, blueberry producers, master gardeners, USDA-ARS officials, and others involved in the production and economic development of the blueberry industry. This Community of Practice will use novel, diverse educational methods to help increase blueberry production efficiency and correspondingly increase consumption of blueberries in the southeastern United States. Over time, this CoP will be expanded to include grower support materials for blueberry growers throughout the United States.

Contact our Topic Leader Experts

## What Can Be Found? <br> What Can Be Found?

## SURVEY SAYS.....



## FEBRUARY 2011!!!

# QUESTIONS? 

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