Management of Flowering and Harvesting of Mangoes in Ecuador and Nicaragua To Improve Quality and Competitiveness
ECUADOR STATISTICS

- ECUADOR has around 10,000.00 ha. With mango with exporting varieties.
- Around 2,000.00 ha were abandoned after The Niño fenomenum of 1998.
- Around 6,500.00 ha. Are still registered for exportation;
- 1,500.00 ha aprox. Are dedicated to local market (fresh cut, pulp and concentrates)
ECUADOR STATISTICS

• ECUADOR exporting season starts at the end of September and last until mid-end of January.
• Ecuador exported in 2006-2007 campaign 9´800,000.00 boxes of 4 Kg.
• This year the projection is 10’400,000.00 boxes.
• 75% of all exportations goes to the different US Markets;
• 15% of all exportations goes to Europe.
PROBLEMS IDENTIFICATION

• Flowering process depends a lot of cool climate conditions (among others);
• Because of this, flowering is very irregular in Ecuador;
• Producers harvest by market request or by “eye”, not because they know the fruit is ready.
PROPOSAL FOR SOLUTIONS

• Determinate the best time for harvesting mangoes var. Tommy Atkins for US and European Markets;

• Determinate the best time for harvesting mangoes var. Kent for US and European Markets;

• Test the use of vegetables hormones (cytokines – Auxins) to improve flowering process and fruiting in var. Tommy Atkins.
Why Tommy Atkins and Kent?

• Ecuador has 6,500.00 ha. Of mangoes registered for exportation;
• Exporting varieties: Tommy Atkins, Kent, Keitt, Ataulfo, Haden, Springfield;
• 65% of this area is Tommy Atkins (4,200.00 ha aprox.);
• 15% of this area is Kent (975 ha. Aprox.).
Why use vegetable hormones?

• Make the flowering process more even;
• Start flowering process sooner than now (exporting season is very short);
• Improve fruiting (fruits per panicle and size);
• Increase harvest efficiency (now 4 or 5 times per lot)
• Alternative to the use of Paclobutrazol.
Mapa de Zonas Mangueras

- Zona Central
- Zona Norte
- Zona Oeste
- Zona Sur
LABORATORY ANALYSIS

- Weight;
- Length, width;
- Soluble Solids (°Brix);
- Pulp Resistance;
- Acidity;
- Dry Matter.
- Color (Croma, luminosity) of skin and pulp.
FRUIT READY TO BE PLACED IN COOL CHAMBER TO SIMULATE TRANSPORTATION TO MARKETS.
ESCALA COLORIMETRICA DE MADUREZ, MANGO TOMMY ATKINS

90 Días  95 Días  100 Días  105 Días  110 Días  115 Días  120 Días  125 Días  130 Días

Testigo

ESCALA COLORIMETRICA DE MADUREZ, MANGO KENT

90 Días  95 Días  100 Días  105 Días  110 Días  115 Días  120 Días  125 Días  130 Días

Testigo