



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 phenomenon 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?

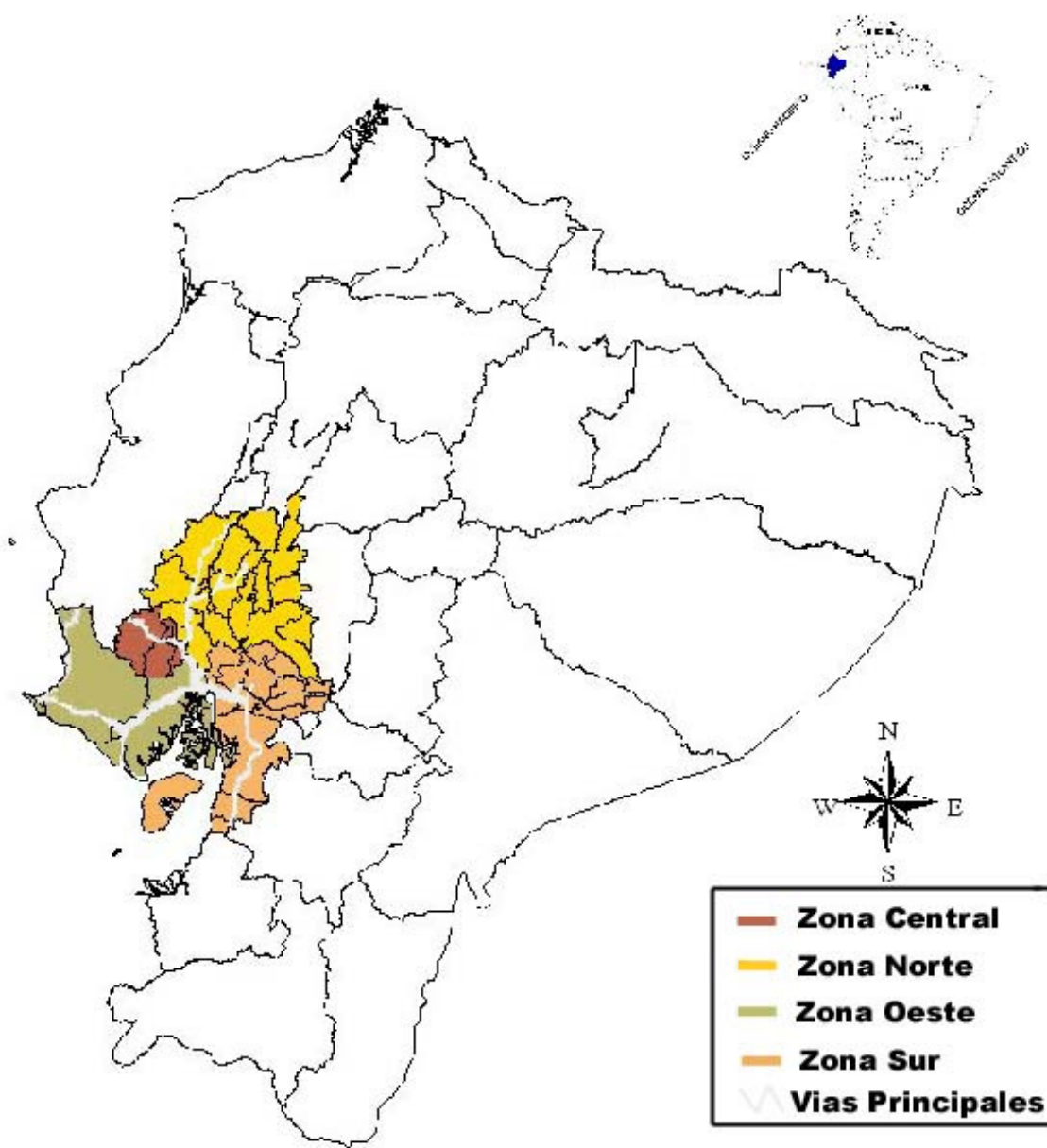
- Ecuador has 6,500.00 ha. Of mangoes registered for exportation;
- Exporting varieties: Tommy Atkins, Kent, Keitt, Ataulfo, Haden, Springfield;
- 65% of this area is Tommy Atkins (4,200.00 ha aprox.);
- 15% of this area is Kent (975 ha. Aprox.);

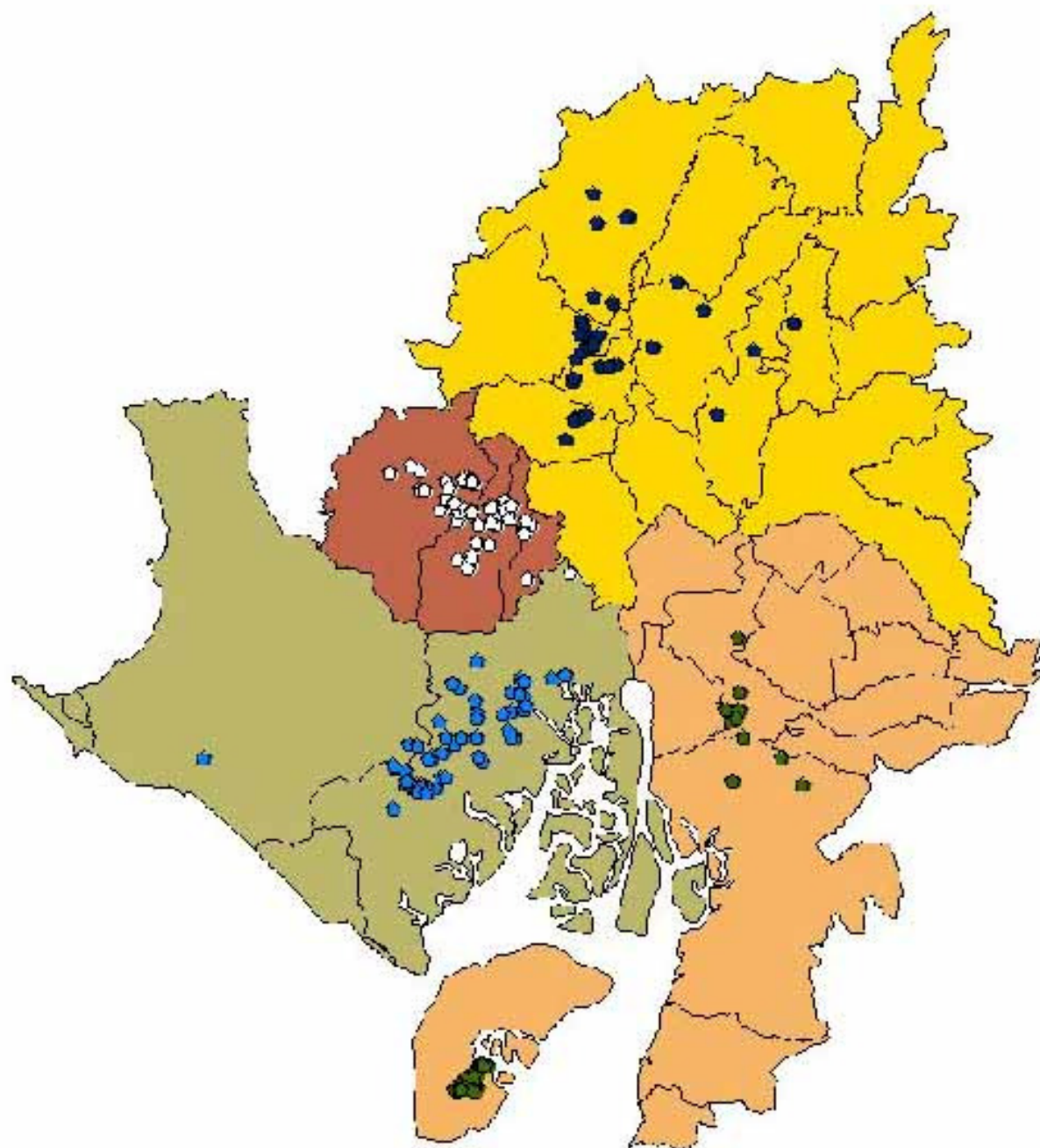
Why use vegetable hormones?

- 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.



FUNDACION MANGO DEL ECUADOR
PROGRAMA DE MONITOREO MOSCA DE LA FRUTA
Zonas Mangueras Ecuador





Mapa de Zonas
Mangueras

- Zona Central
- Zona Norte
- Zona Oeste
- Zona Sur



LENGTH MEASURE



WIDTH MEASURE



LABORATORY ANALISYS

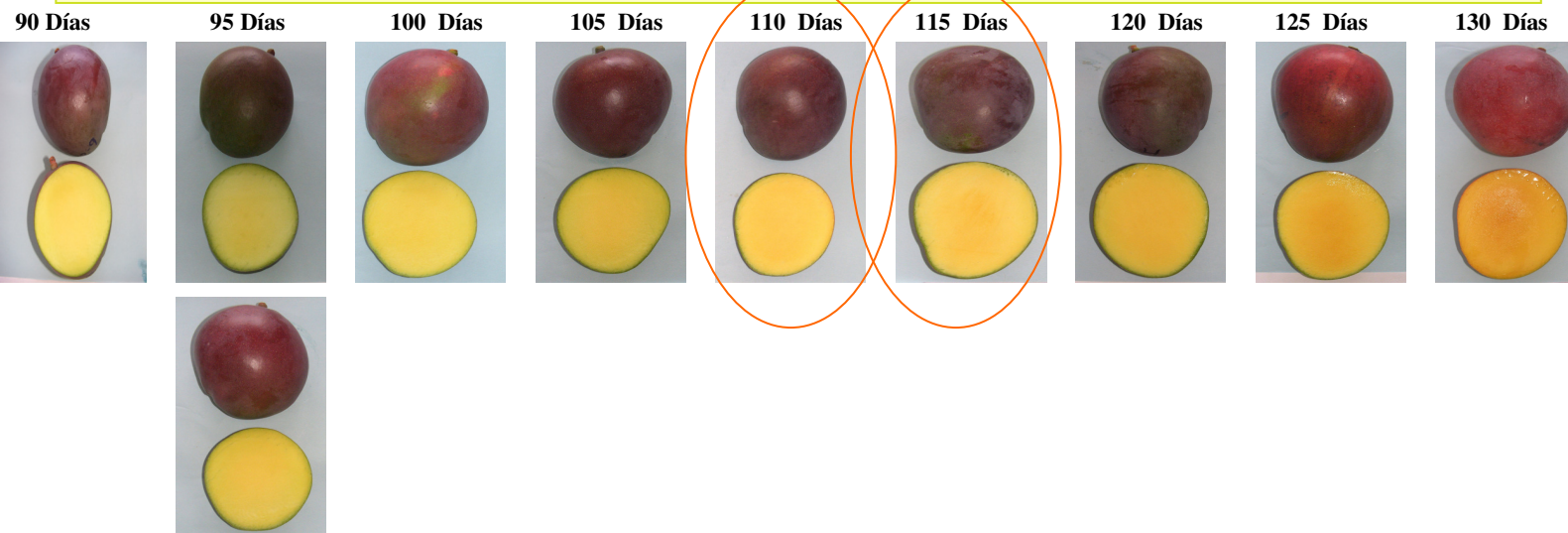
- **Weight;**
- **Length, width;**
- **Soluble Solids (°Brix);**
- **Pulp Resistance;**
- **Acidity;**
- **Dry Matter.**
- **Color (Croma, luminosity) of skin and pulp.**



**FRUIT READY TO BE
PLACED IN COOL
CHAMBER TO SIMULATE
TRANSPORTATION TO
MARKETS.**

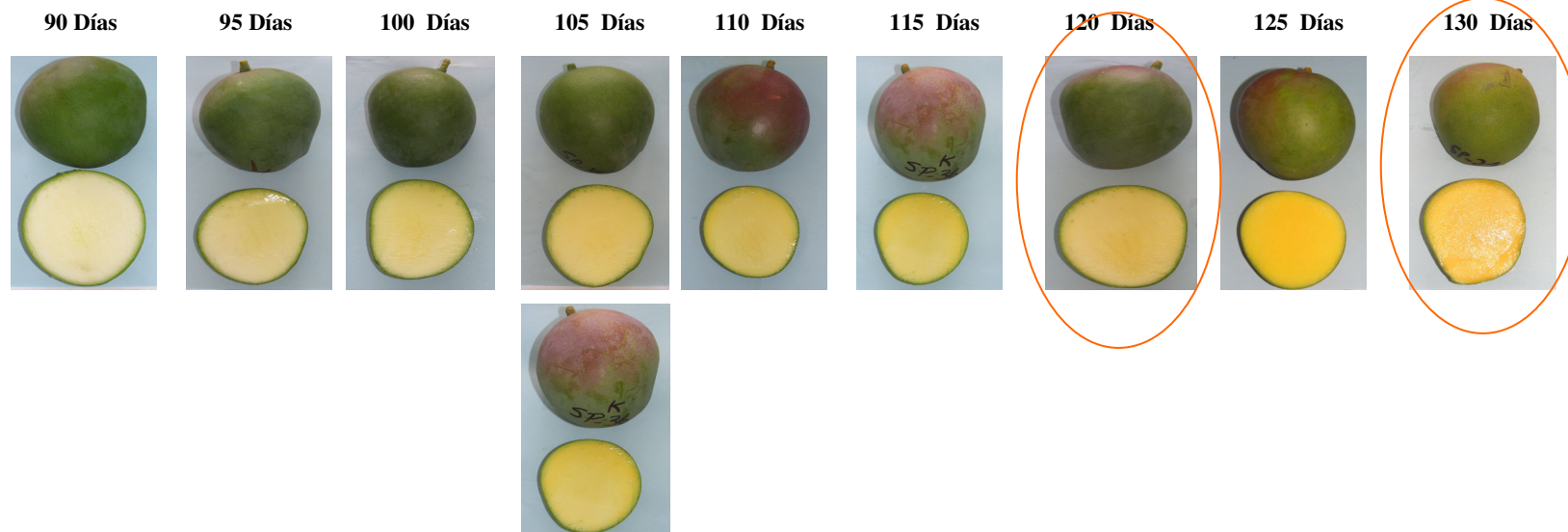


ESCALA COLORIMETRICA DE MADUREZ, MANGO TOMMY ATKINS



Testigo

ESCALA COLORIMETRICA DE MADUREZ, MANGO KENT



Testigo