

# COFFEE STORAGE PROJECT

How should I store my coffee???

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# COFFEE STORAGE PROJECT

- Objective:

Define the best place to storage ground and whole bean coffee using an airtight container.

- Hypothesis:

Is the freezer the best place to storage coffee using an airtight container?

- Methodology:

The following steps were taken in order to get accurate results.

# COFFEE STORAGE PROJECT

1. The samples below were taken from the packaging lines and stored in airtight containers:

- DFFR Colombia Sup WB 6 Bags (72 oz)
- DFFR Colombia Sup. Grnd 6 Bags (72 oz)
- DFFR French Roast WB 8 Bags (80 oz)
- DF French Roast Grnd 8 Cans (80 oz)
- DFFR Vanilla Nut WB 6 Bags (72 oz)
- DF Vanilla Nut Grnd 6 Cans (72 oz)

2. Samples were stored in three different ambients:

- Freezer "F"
- Refrigerator "R"
- Room temperature (cupping room) "CR"

# COFFEE STORAGE PROJECT



# COFFEE STORAGE PROJECT

3. Sensory (Aroma and Flavor) and Physical tests were performed for each sample:

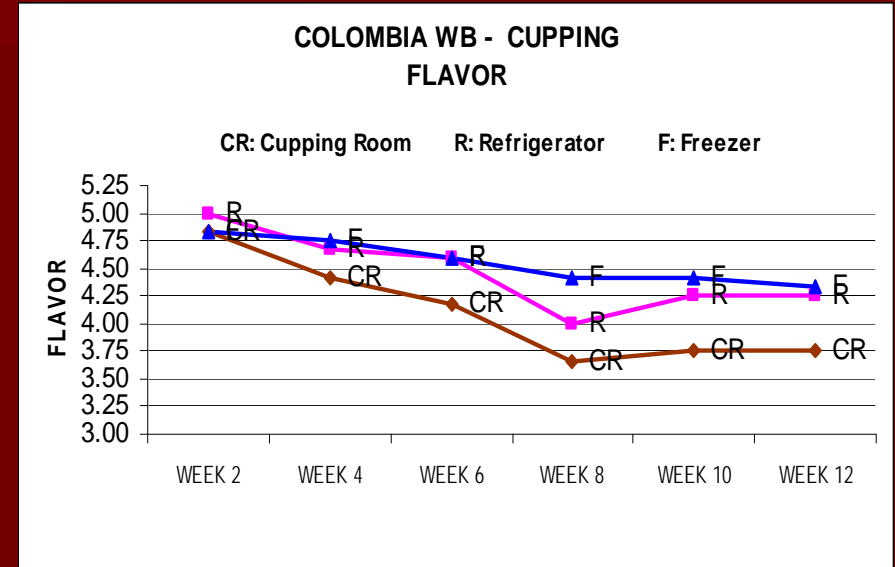
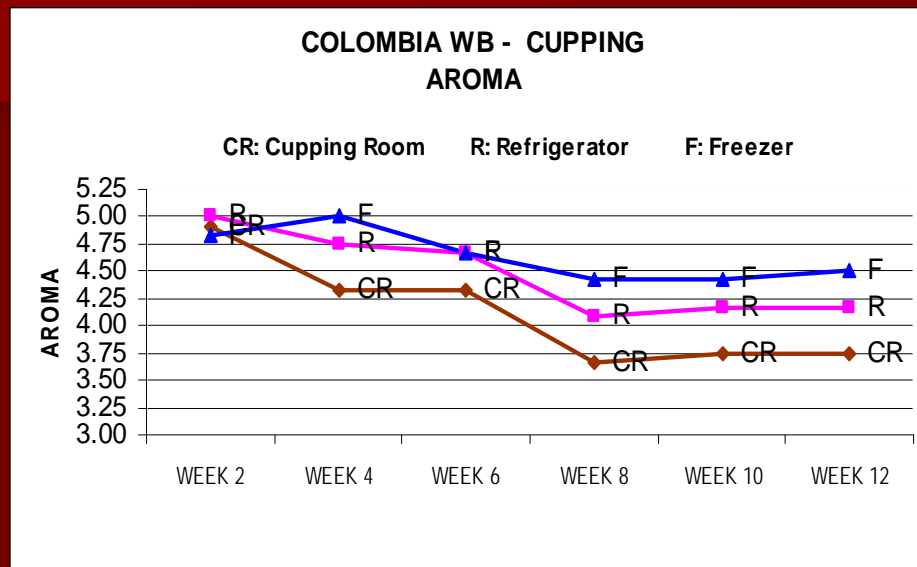
Every Two Weeks	Every Four Weeks
Regular cupping	Brewing
Moisture	Color

4. The samples were cupped and tasted in blind against fresh samples by 3 Cuppers (Michael Gaviña, Dora Jaramillo & Rene Urrecheaga) during 12 weeks.

5. The results were evaluated as follows:

# COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

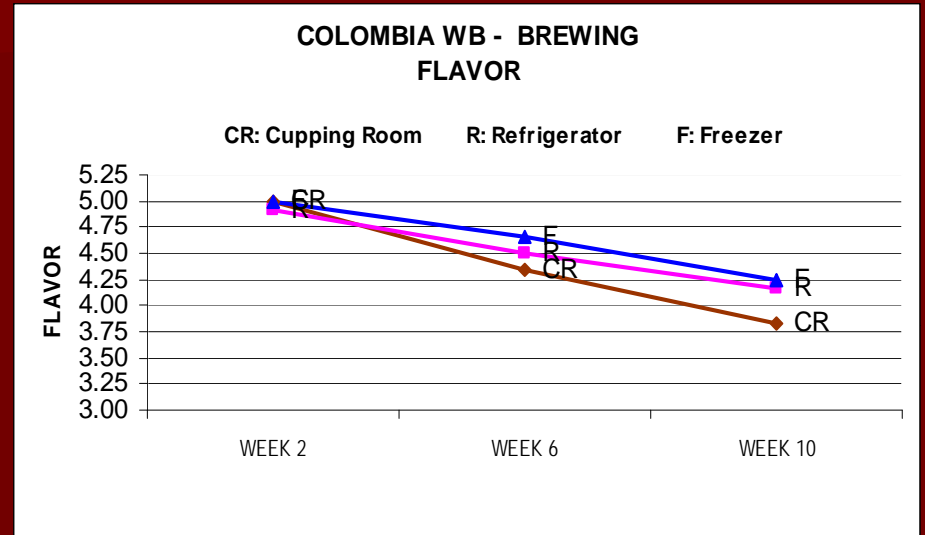
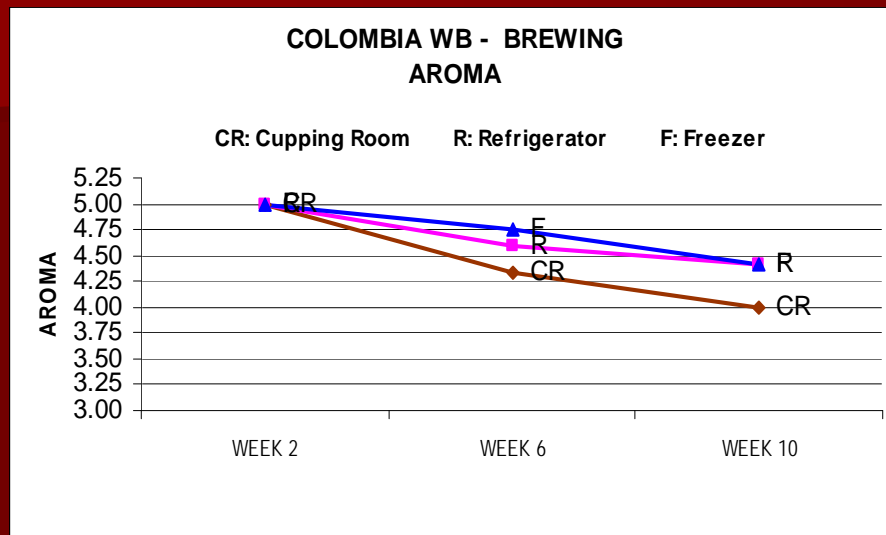
## REGULAR CUPPING



- Week 2: Aroma and flavor decreased 5% for the three ambients.
- Week 4-6: Aroma and flavor were affected more in the room temperature samples (20%) than refrigerator and freezer samples (5%)
- Week 8-12: Aroma and flavor were decreased:
  - 25% for the room temperature samples
  - 20% for refrigerator Samples
  - 10 % for freezer Samples

# COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

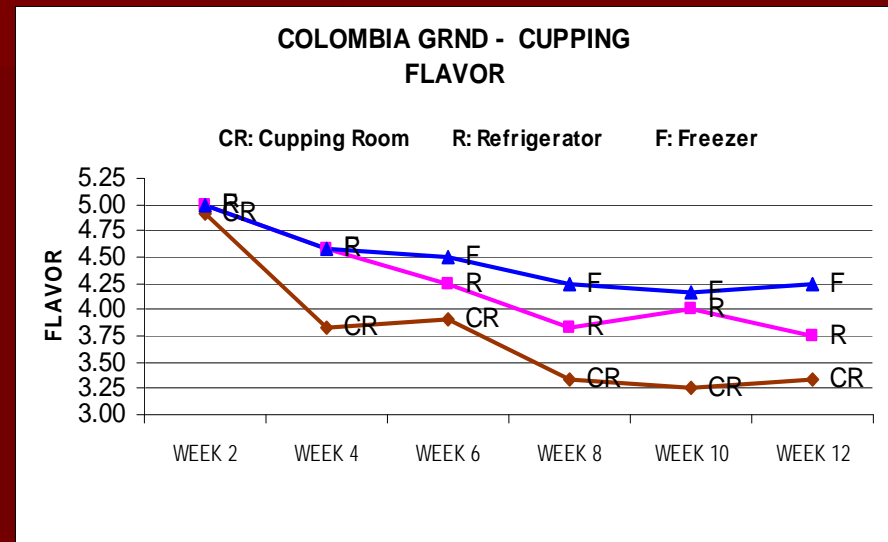
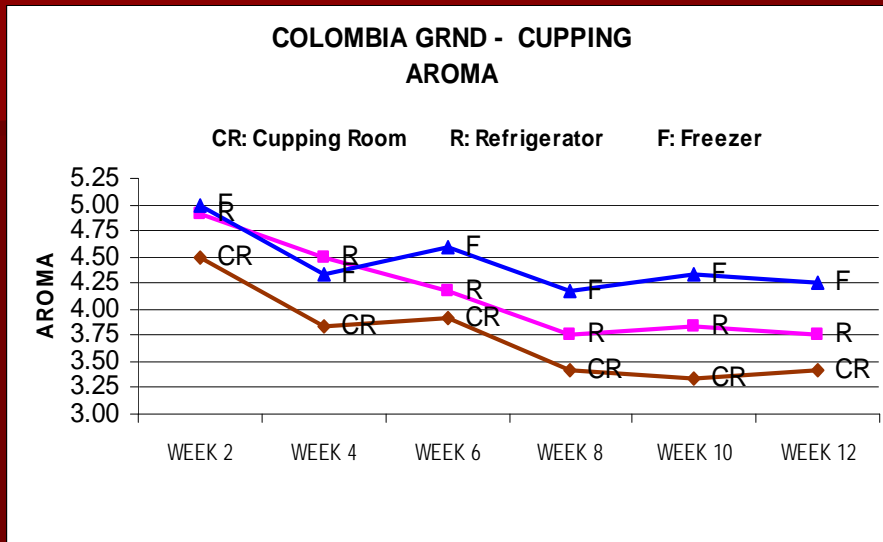
## BREWING



- Week 2: No changes were perceived in aroma and flavor for the three ambients.
- Week 6: Aroma and flavor were affected more in the room temperature samples (15%) than refrigerator and freezer samples (5%)
- Week 10: Aroma and flavor were decreased:
  - 22% for the room temperature samples
  - 15% for refrigerator and freezer samples

# COLOMBIA GROUND COFFEE - SENSORY EVALUATION

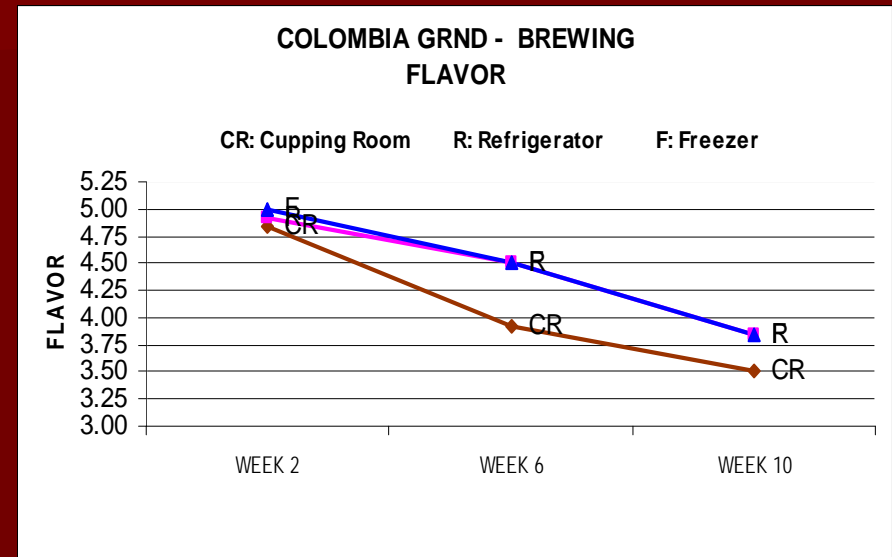
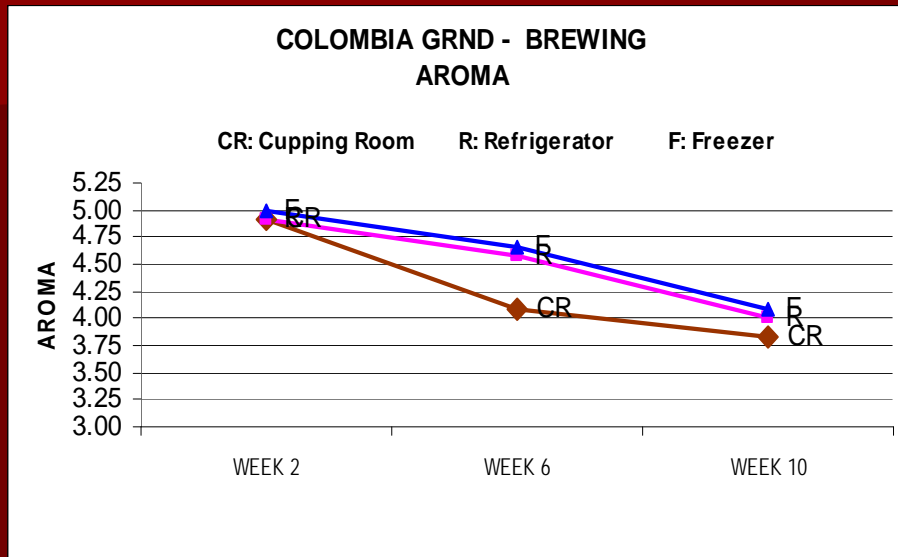
## REGULAR CUPPING



- Week 2: Aroma was decreased 5% for room temperature samples. No significant changes in flavor for the three ambients.
- Week 4-6: Aroma and flavor were affected more in the room temperature samples (25%) than freezer and refrigerator samples (10-15%)
- Week 8-12: Aroma and flavor were decreased:
  - 35% for the room temperature samples (steal taste was identified)
  - 25% for refrigerator samples
  - 15% for Freezer samples

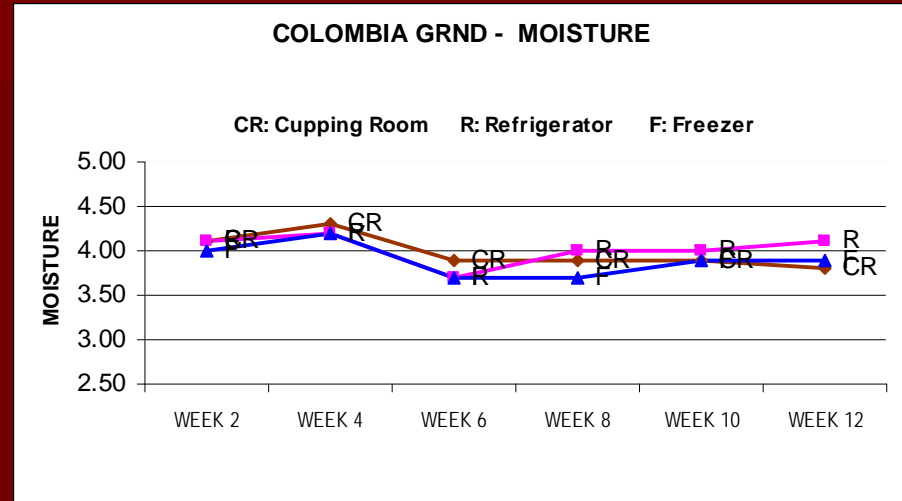
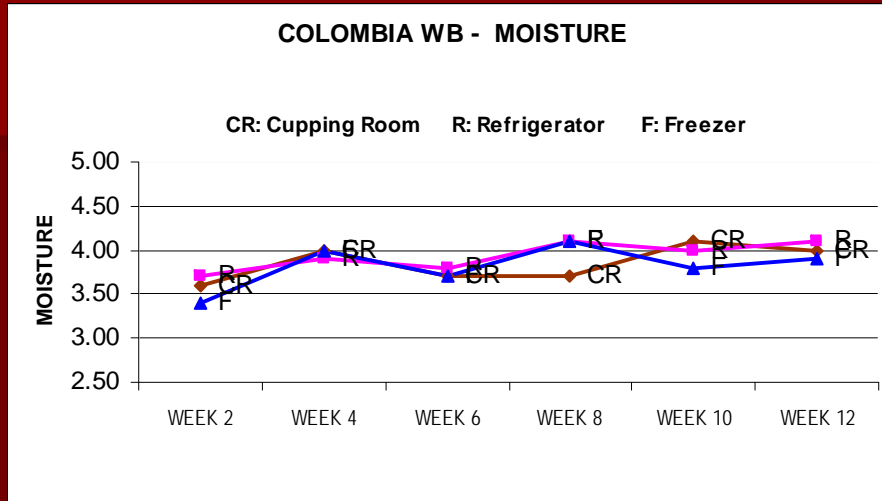
# COLOMBIA GROUND COFFEE - SENSORY EVALUATION

## BREWING



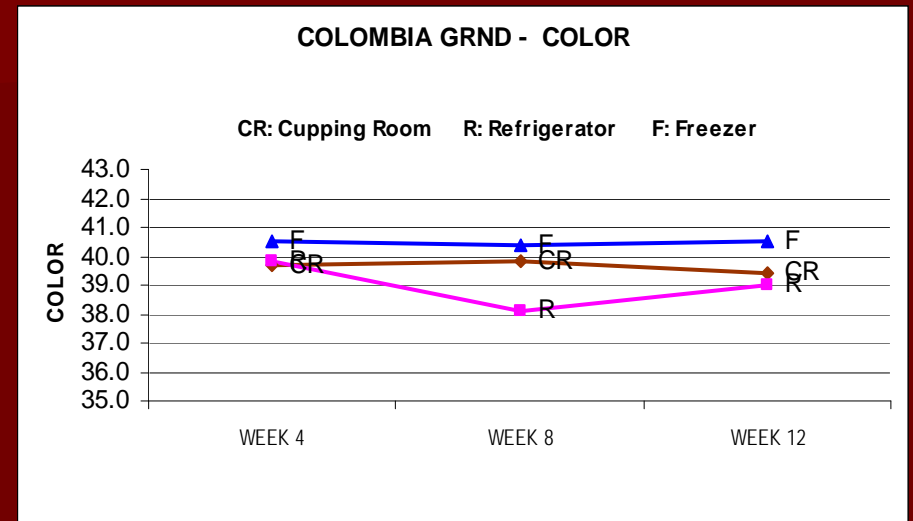
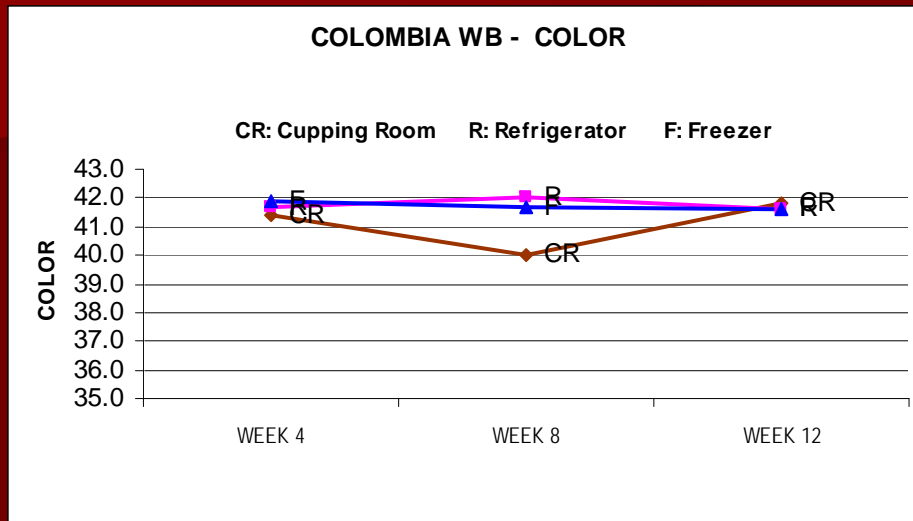
- Week 2: No significant changes for aroma and flavor for the three ambients.
- Week 6: Aroma and flavor were affected more in the room temperature samples (20%) than freezer and refrigerator samples (10%)
- Week 10: Aroma and flavor were decreased:
  - 30% for the room temperature samples (steal taste was identified)
  - 20% for refrigerator and Freezer samples

# COLOMBIA WHOLE BEAN AND GROUND COFFEE MOISTURE



- Moisture increase over the time for whole bean samples (0.4%)
- No significant changes for ground samples (0.1-0.2%)

# COLOMBIA WHOLE BEAN AND GROUND COFFEE COLOR



- No significant changes were noticed over the time for whole bean and ground samples.

## CONCLUSIONS

- Coffee can be stored in airtight container as follows:

	Room Temperature	Refrigerator and Freezer
Whole bean Coffee	no more than 4 weeks	No more than 6 weeks.
Ground Coffee	no more than 2 weeks	No more than 4 weeks.

- Once the airtight container is taken out of the freezer, must be put it back immediately to avoid the water melt.

# TWO WEEK TEST

## “Real Customer Consumption Time”

- The following samples were taken from the packaging lines and stored in airtight containers:
  - DFFR Colombia Sup WB 2 Bags (24 oz)
  - DFFR Colombia Sup. Grnd 2 Bags (24 oz)
  
- Samples were stored in three different ambients:
  - Freezer “F”
  - Refrigerator “R”
  - Room temperature (cupping room) “CR”

# TWO WEEKS TEST

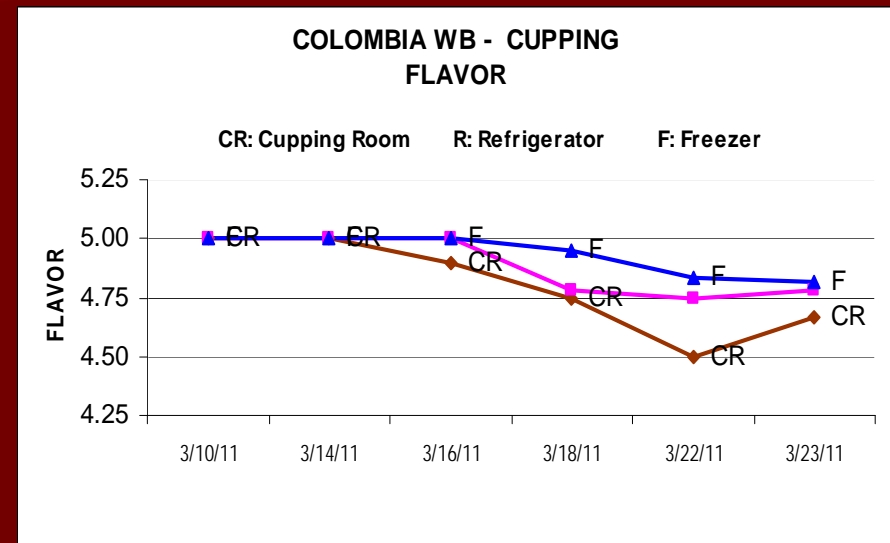
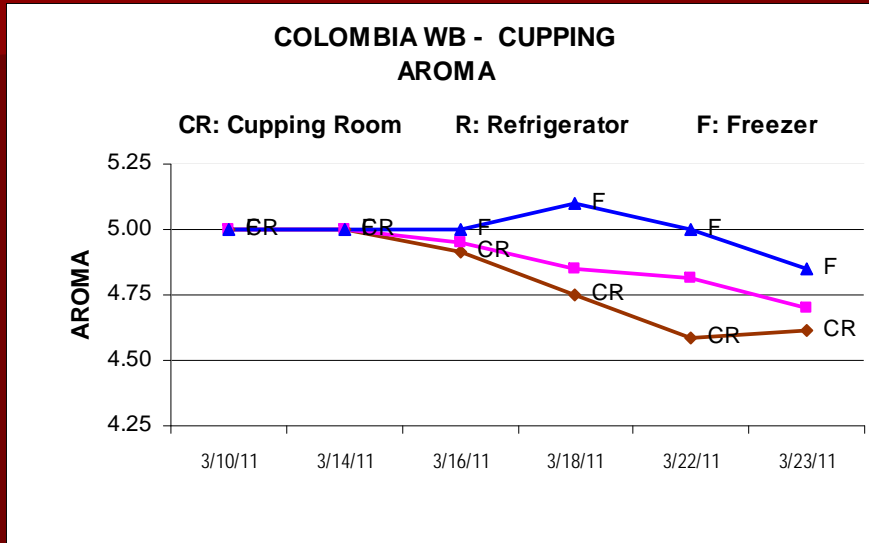
- Sensory and Physical tests were performed for each sample:

Everyday	Beg – Med – End
Regular cupping	Brewing
Moisture	

- The samples were cupped in blind against fresh samples by 3 Cuppers (Dora Jaramillo, Rene Urrecheaga & James Mendoza)
- The results were evaluated to define the best place to storage ground and whole bean coffee based on the regular customer consumption time.

# COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

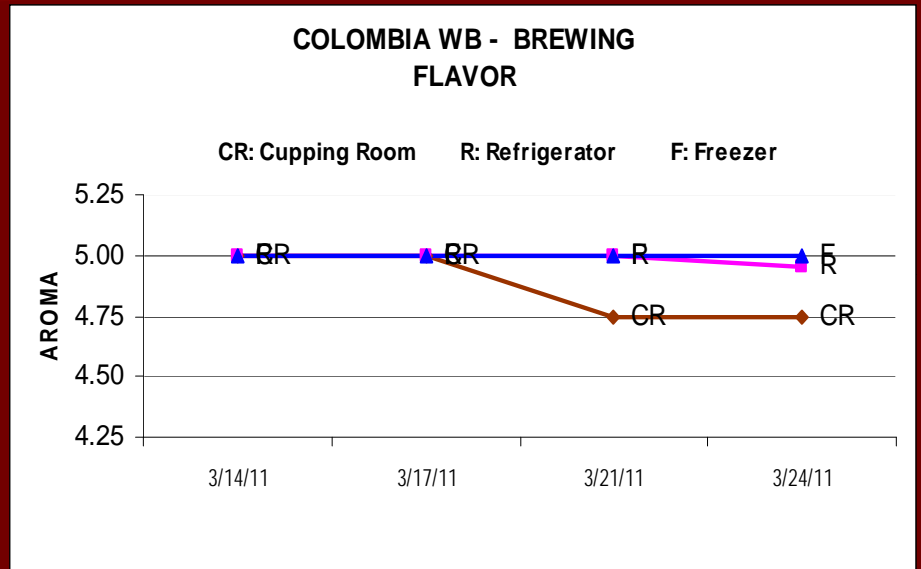
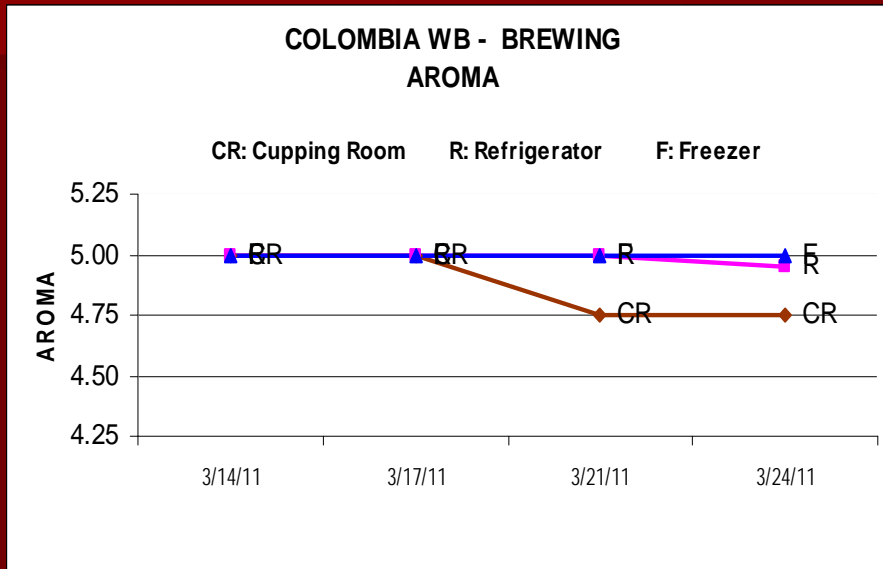
## REGULAR CUPPING – TWO WEEKS TEST



- Week 2: Aroma and flavor decreased slightly for the three ambient and more significant in the room temperature sample.

# COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

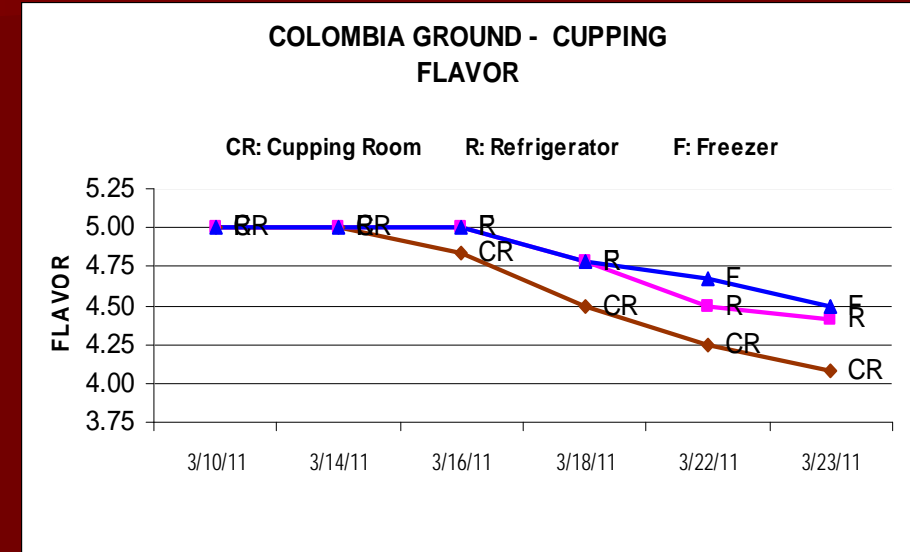
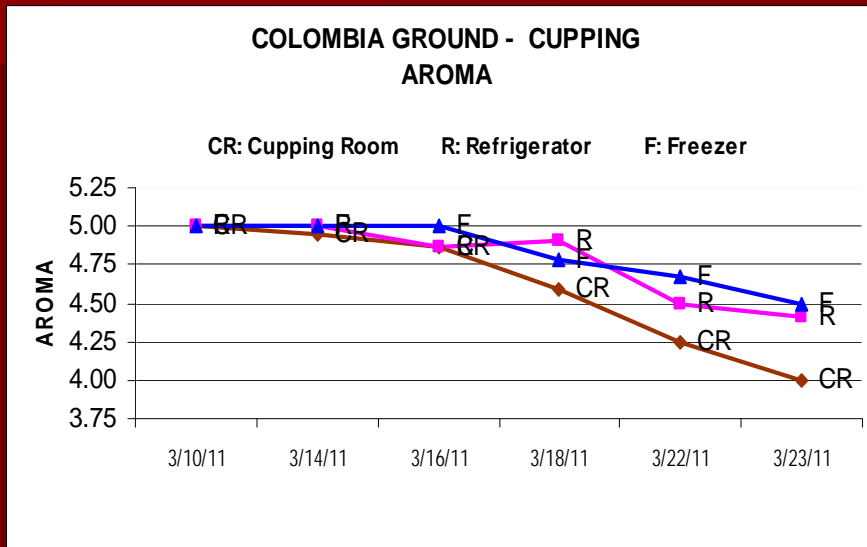
## BREWING – TWO WEEKS TEST



- Week 2: No changes in Aroma and flavor for freezer and refrigerator samples and slightly decreased for the room temperature sample.

# COLOMBIA GROUND COFFEE - SENSORY EVALUATION

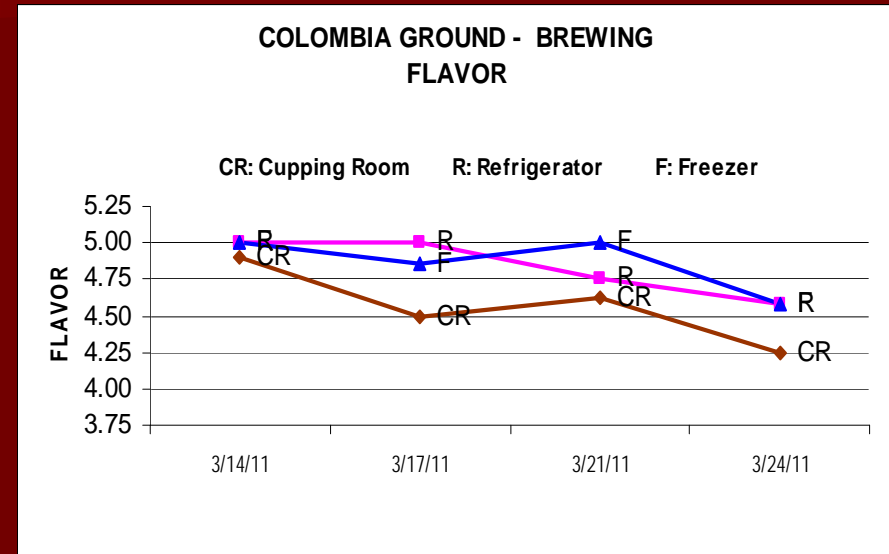
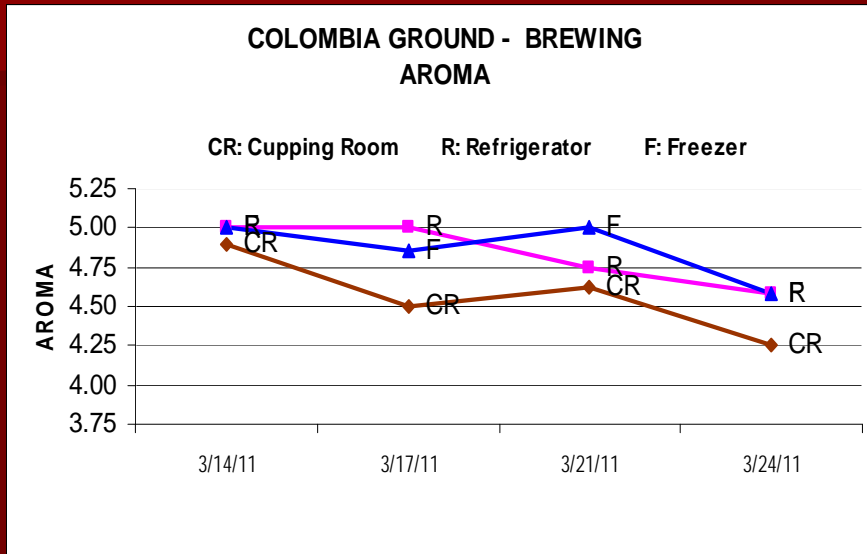
## REGULAR CUPPING – TWO WEEKS TEST



- Week 2: Aroma and flavor decreased more significant than whole bean samples for the three ambient and more noticeable in the room temperature sample as well.

# COLOMBIA GROUND COFFEE - SENSORY EVALUATION

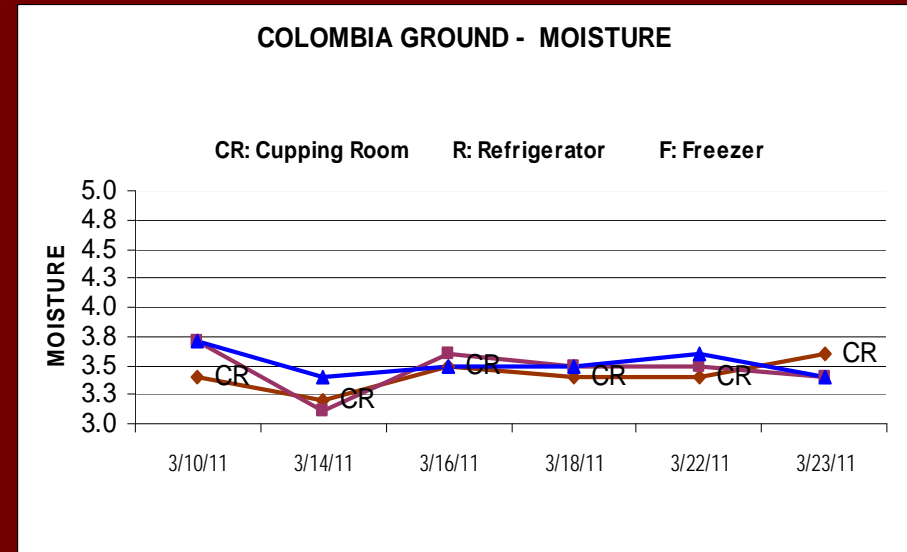
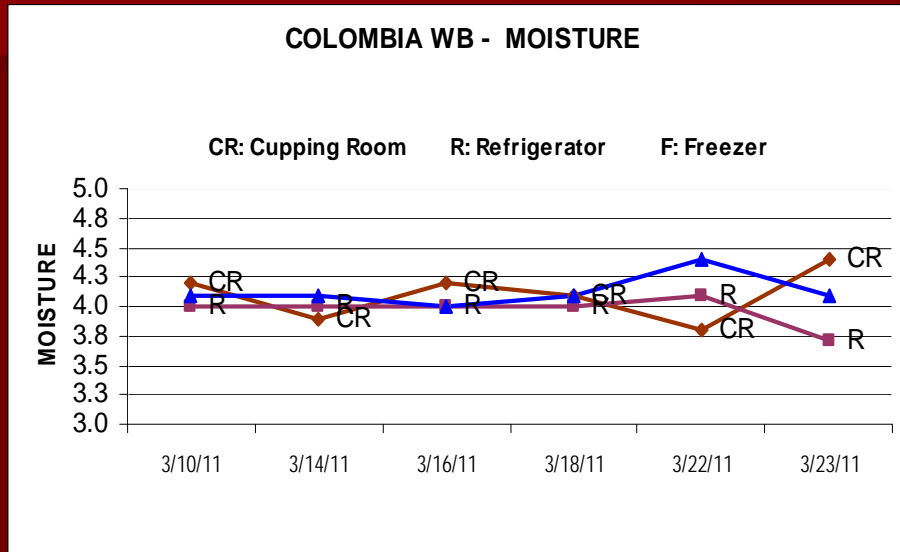
## BREWING – TWO WEEKS TEST



- Week 2: Aroma and flavor decreased more significant than whole bean samples for the three ambient and more noticeable in the room temperature sample as well.

# COLOMBIA WHOLE BEAN AND GROUND COFFEE

## MOISTURE



- No significant changes for both, whole bean and ground samples.

# If someone asks...

Freeze it!



Buy whole bean!



Questions?