COFFEE STORAGE PROJECT

How should I store my coffee???

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Rene Urrecheaga
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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

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

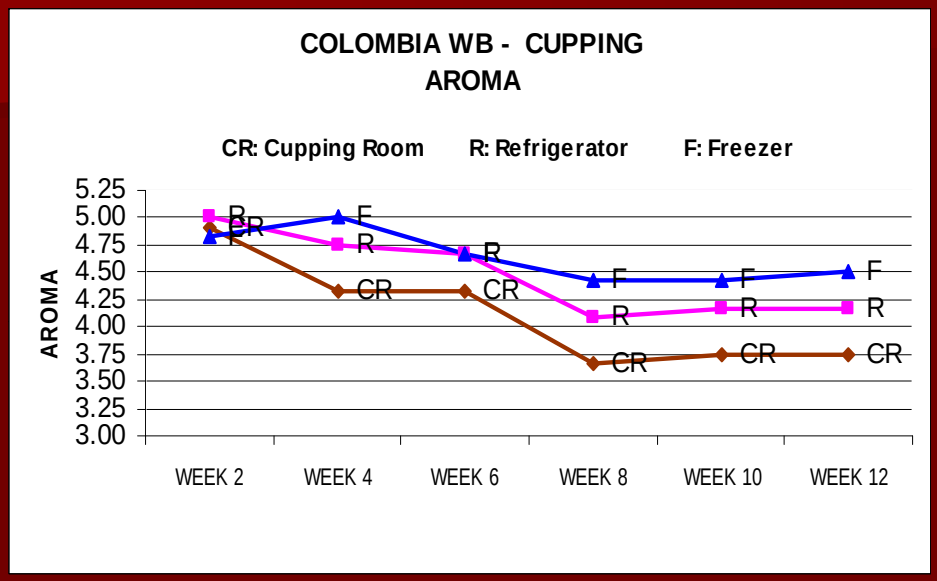
Every Two Weeks	Every Four Weeks
Regular cupping	Brewing
Moisture	Color

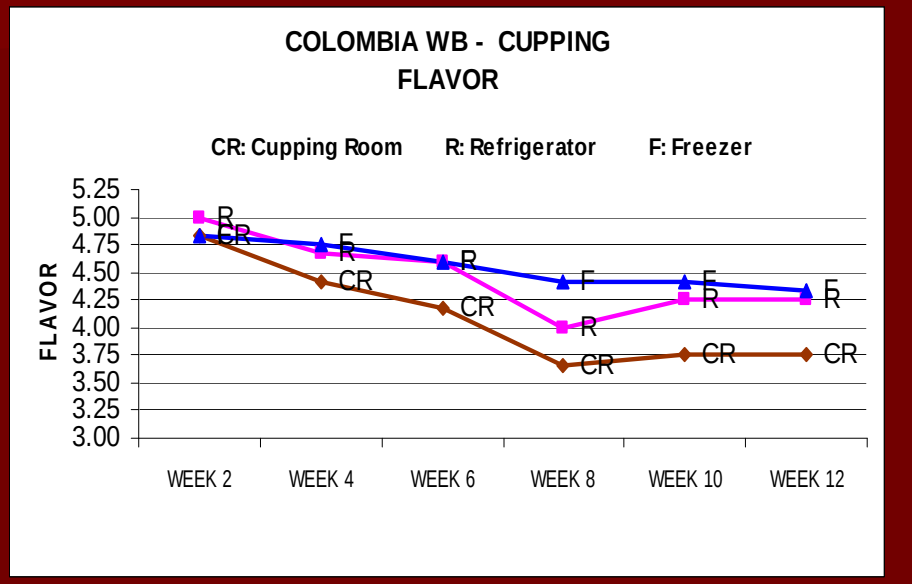
4. The samples were cupped and tasted in blind against fresh samples by 3 Cuppers (Michael Gaviña, Dora Jaramillo & Rene Urrecheaga) during 12 weeks.

5. The results were evaluated as follows:

COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

REGULAR CUPPING

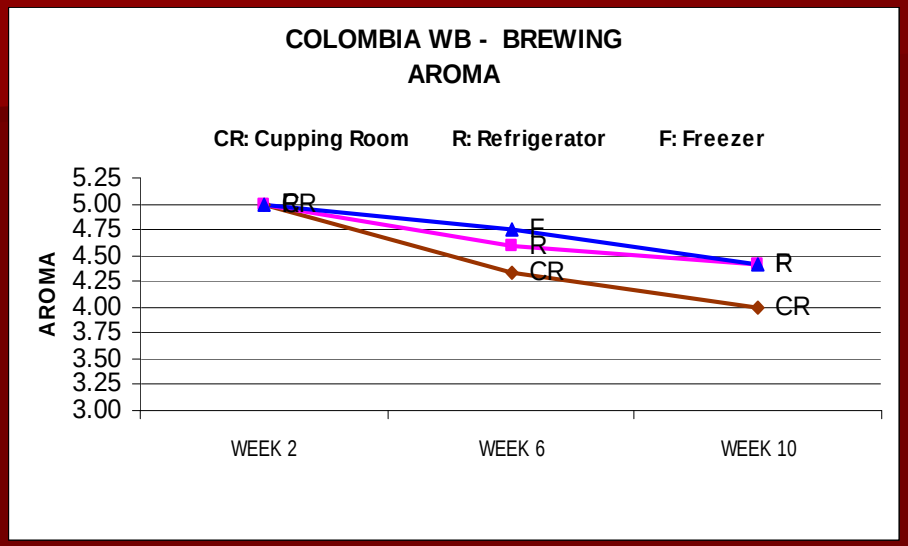


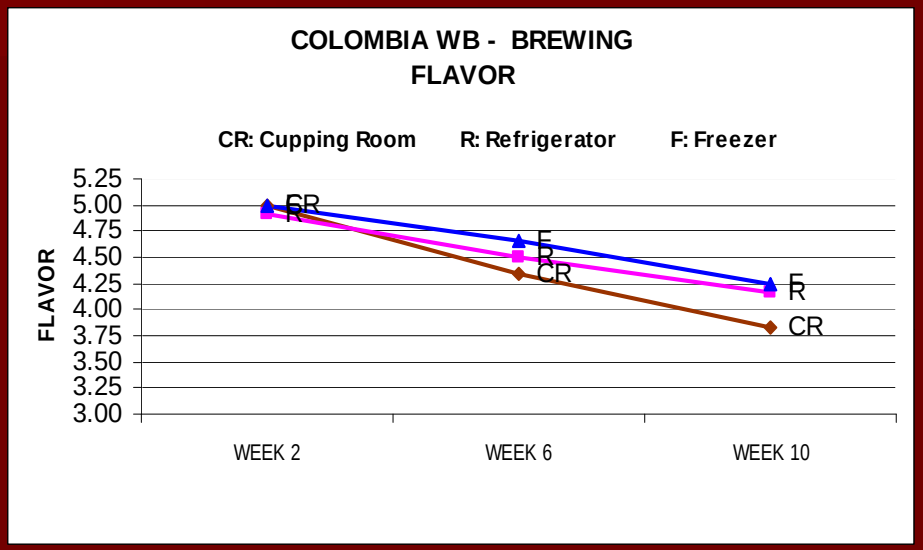


- Week 2: Aroma and flavor decreased 5% for the three ambients.
- Week 4-6: Aroma and flavor were affected more in the room temperature samples (20%) than refrigerator and freezer samples (5%)
- Week 8-12: Aroma and flavor were decreased:
  - 25% for the room temperature samples
  - 20% for refrigerator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

COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

BREWING

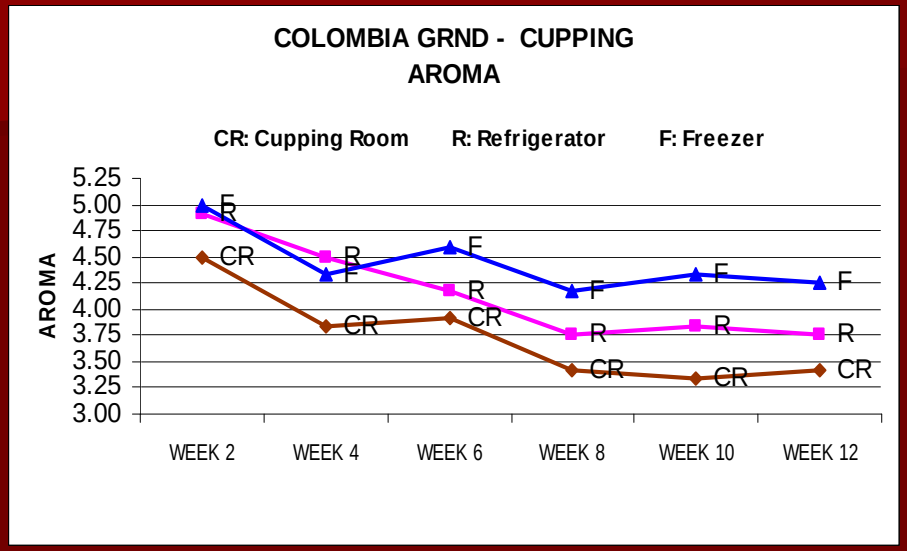


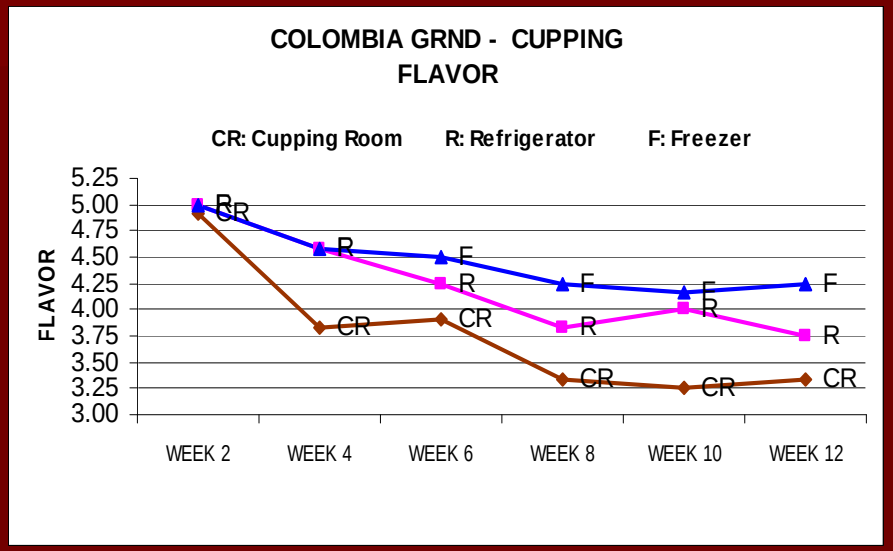


- Week 2: No changes were perceived in aroma and flavor for the three ambients.
- Week 6: Aroma and flavor were affected more in the room temperature samples (15%) than refrigerator and freezer samples (5%)
- Week 10: Aroma and flavor were decreased:
  - 22% for the room temperature samples
  - 15% for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

COLOMBIA GROUND COFFEE - SENSORY EVALUATION

REGULAR CUPPING

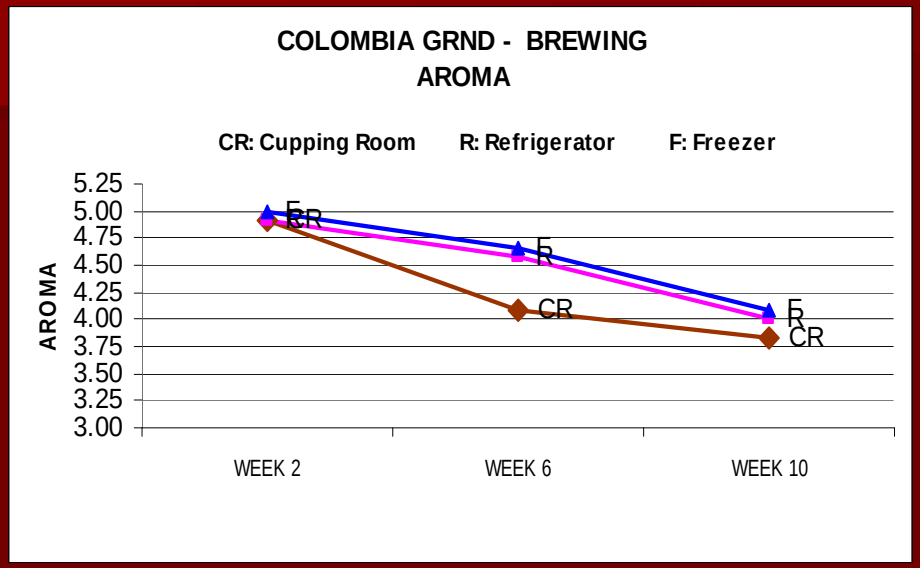


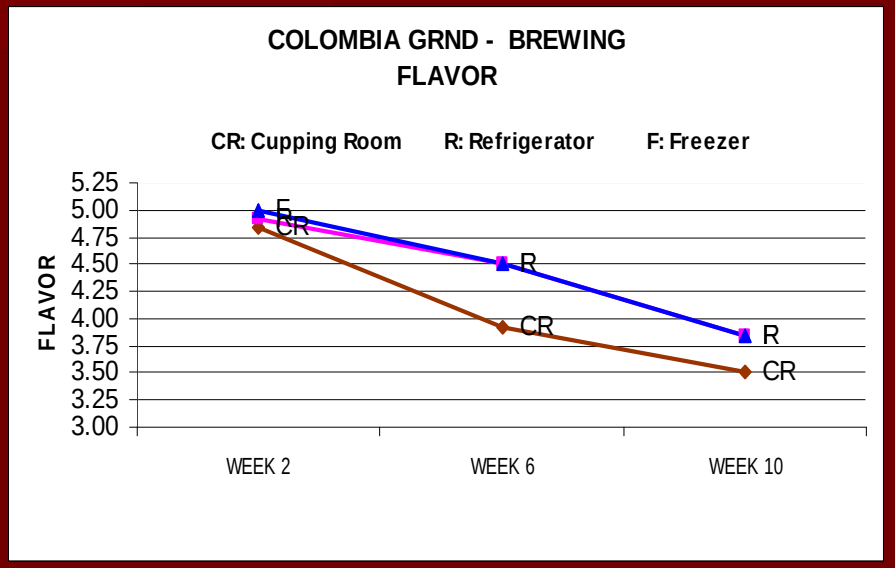


- Week 2: Aroma was decreased 5% for room temperature samples. No significant changes in flavor for the three ambients.
- Week 4-6: Aroma and flavor were affected more in the room temperature samples (25%) than freezer and refrigerator samples (10-15%)
- Week 8-12: Aroma and flavor were decreased:
 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

COLOMBIA GROUND COFFEE - SENSORY EVALUATION

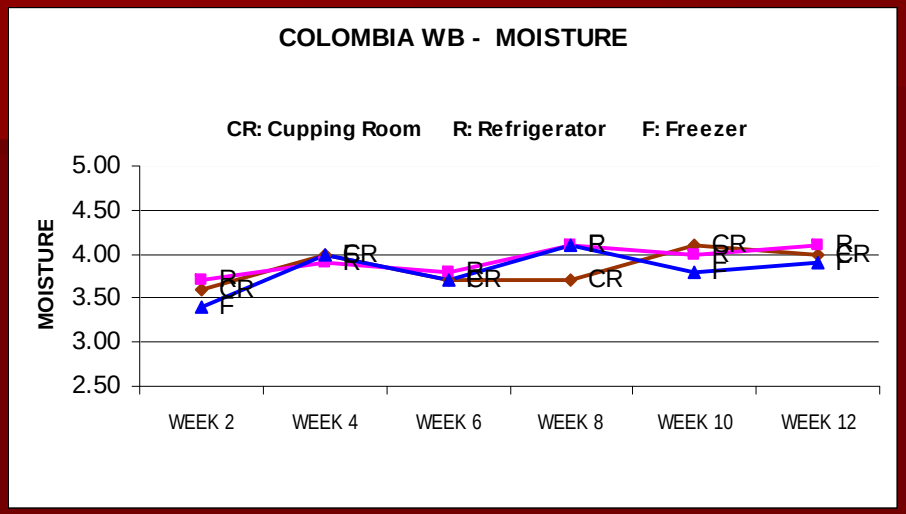
BREWING

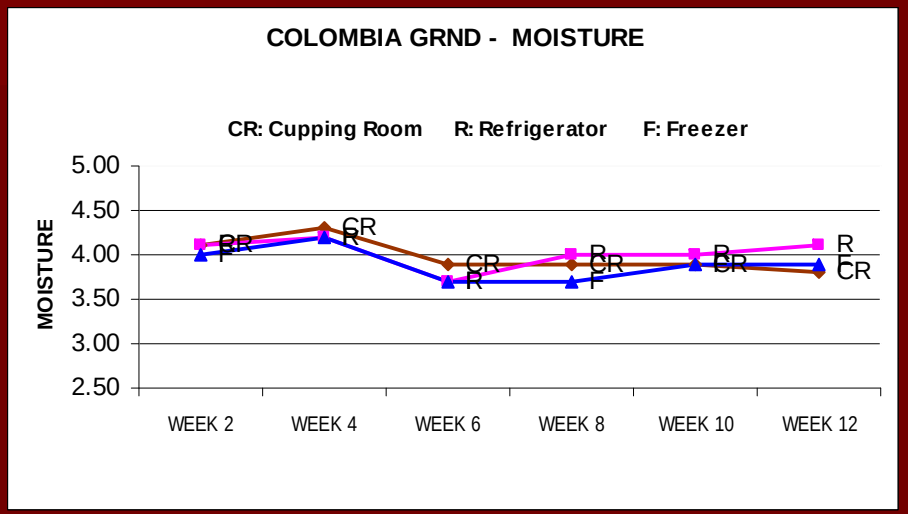




- Week 2: No significant changes for aroma and flavor for the three ambients.
- Week 6: Aroma and flavor were affected more in the room temperature samples (20%) than freezer and refrigerator samples (10%)
- Week 10: Aroma and flavor were decreased:
  - 30% for the room temperature samples (steal taste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

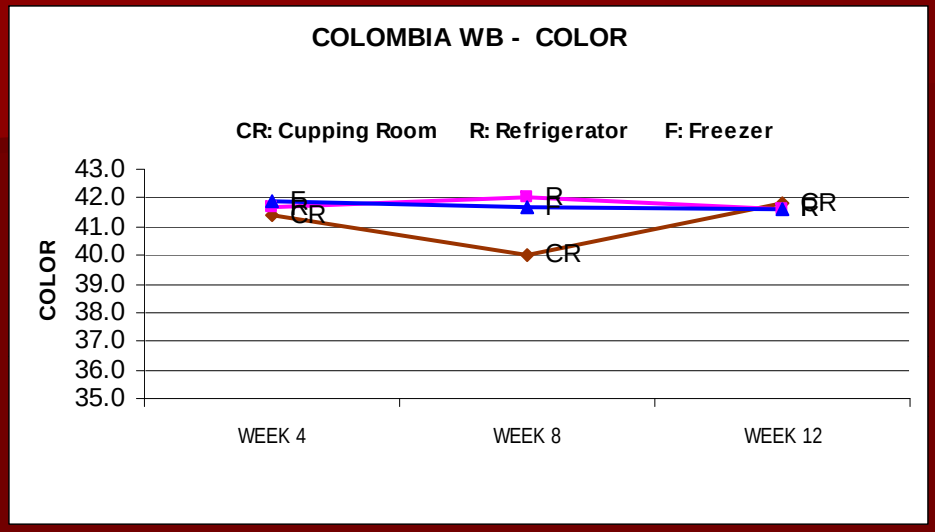
COLOMBIA WHOLE BEAN AND GROUND COFFEE MOISTURE

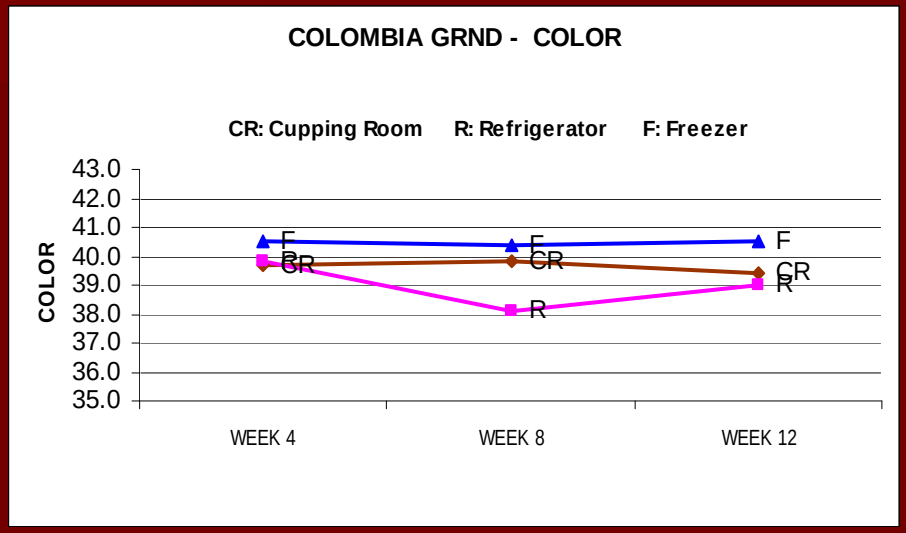




- Moisture increase over the time for whole bean samples (0.4%)
- No significant changes for ground samples (0.1-0.2%)

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:

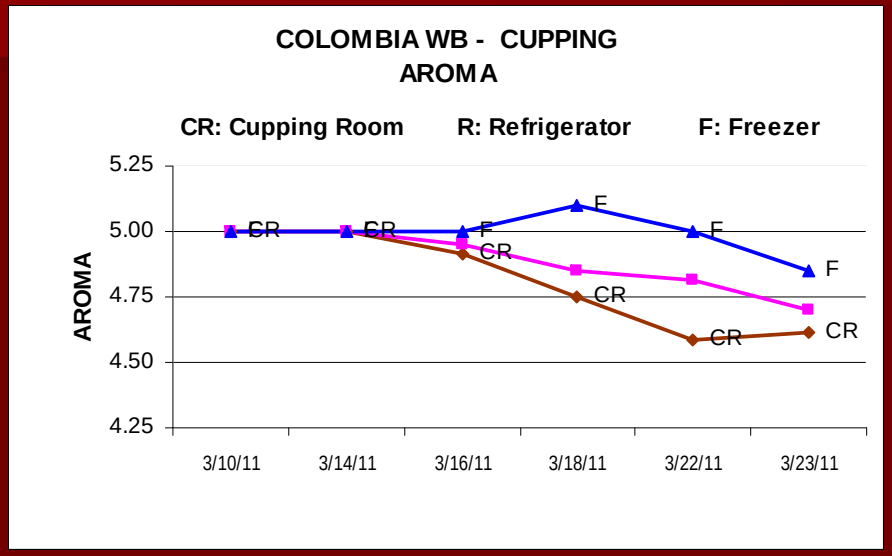
Everyday	Beg – Med – End
Regular cupping	Brewing
Moisture	

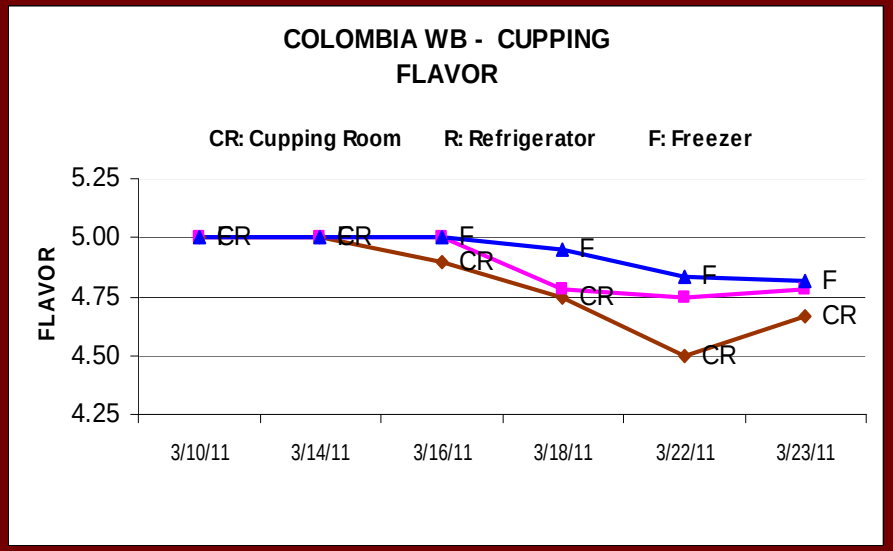
- The samples were cupped in blind against fresh samples by 3 Cuppers (Dora Jaramillo, Rene Urrecheaga & James Mendoza)

- 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

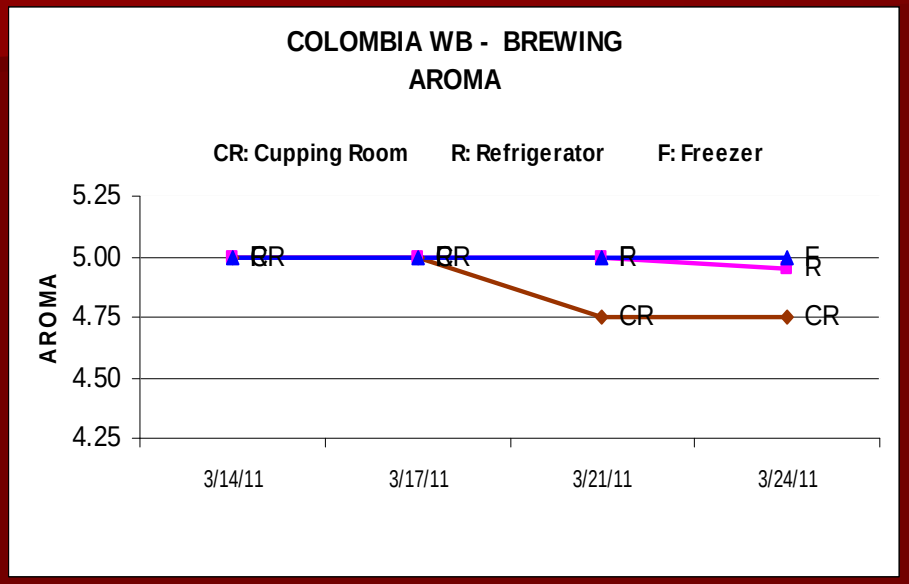


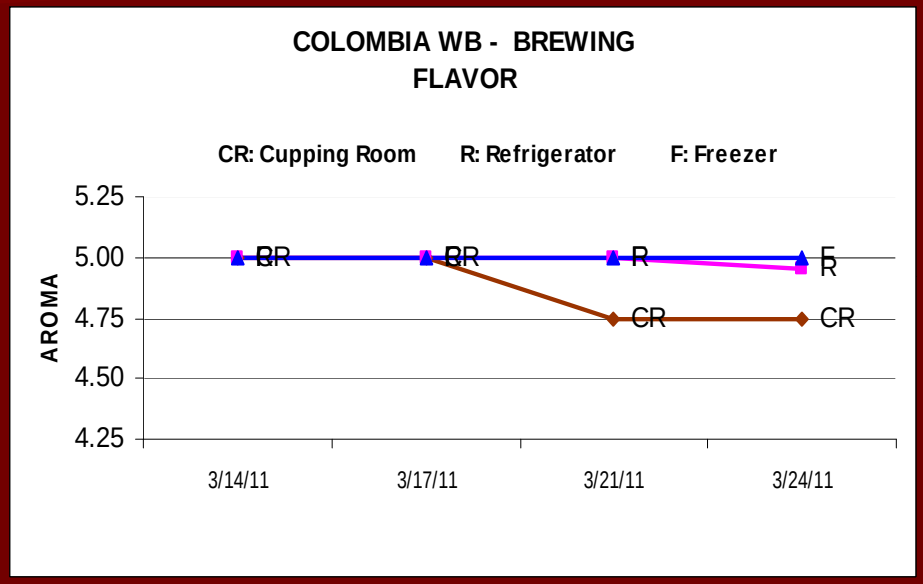


- Week 2: Aroma and flavor decreased slightly for the three ambient and more significant in the room temperature sample.

COLOMBIA WHOLE BEAN COFFEE - SENSORY EVALUATION

BREWING – TWO WEEKS TEST

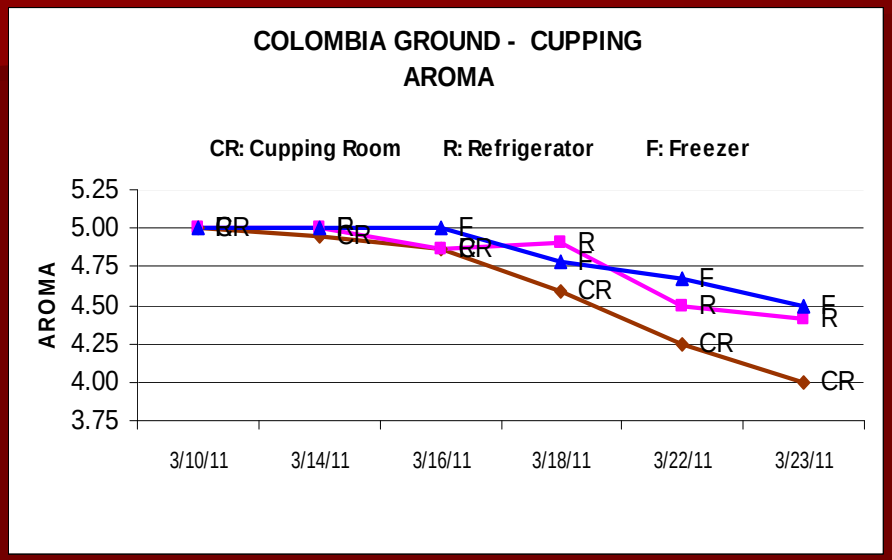


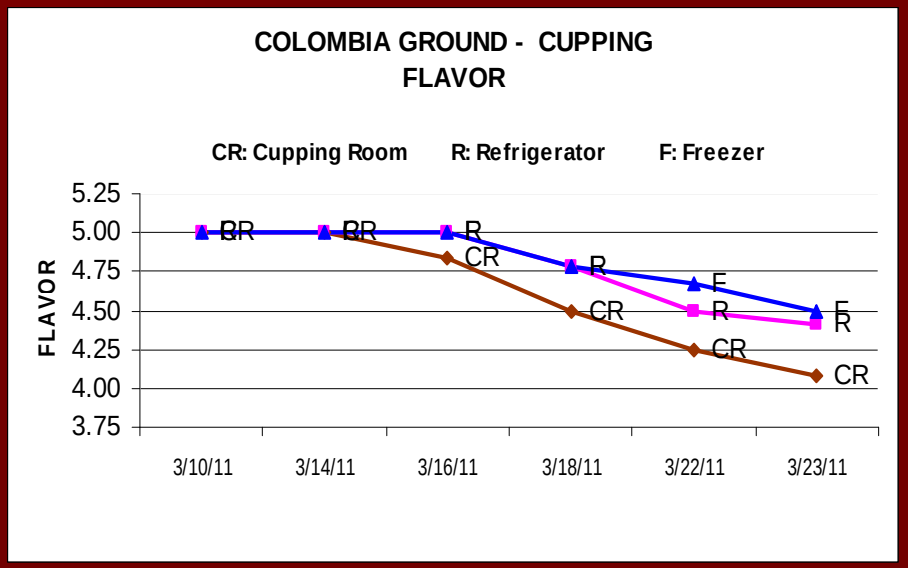


- Week 2: No changes in Aroma and flavor for freezer and refrigerator samples and slightly decreased for the room temperature sample.

COLOMBIA GROUND COFFEE - SENSORY EVALUATION

REGULAR CUPPING – TWO WEEKS TEST

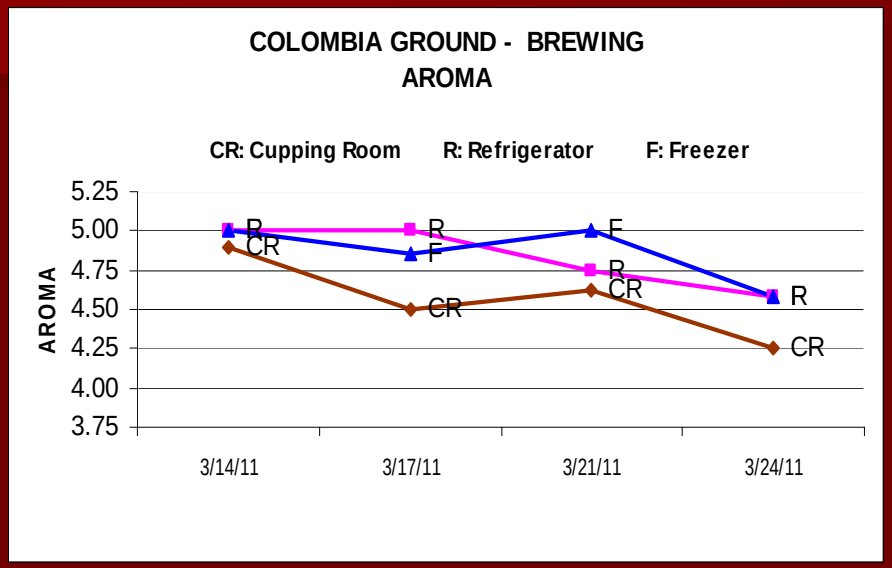


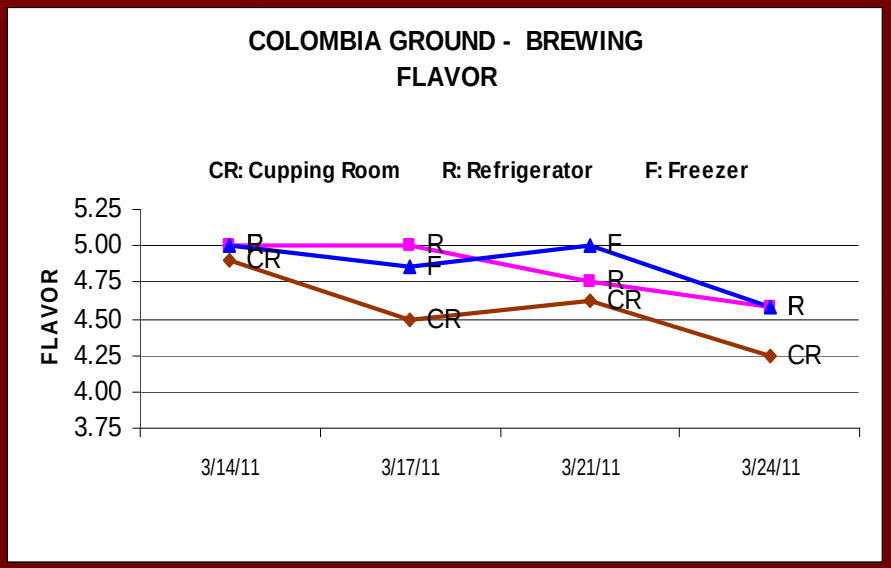


- Week 2: Aroma and flavor decreased more significant than whole bean samples for the three ambient and more noticeable in the room temperature sample as well.

COLOMBIA GROUND COFFEE - SENSORY EVALUATION

BREWING – TWO WEEKS TEST

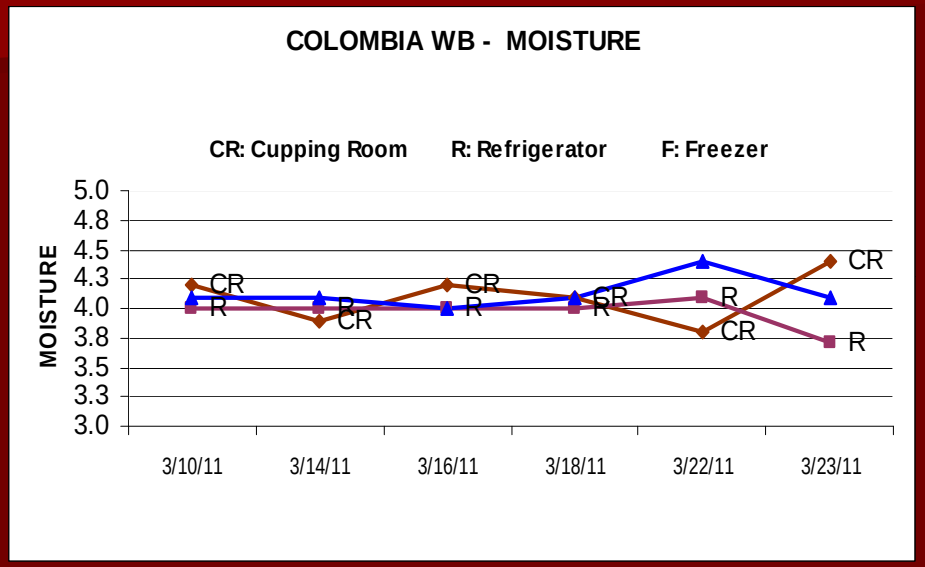


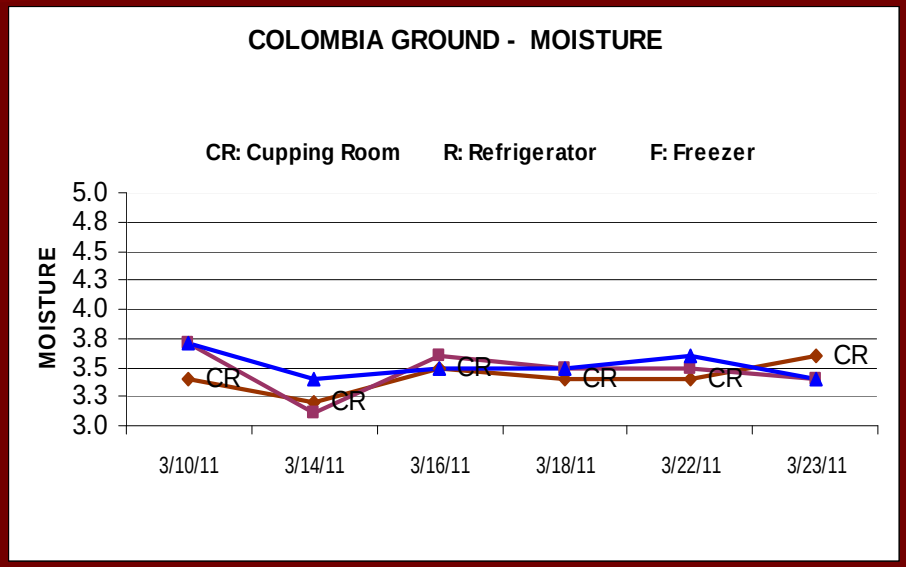


- Week 2: Aroma and flavor decreased more significant than whole bean samples for the three ambient and more noticeable in the room temperature sample as well.

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?