

SURVEY REPORT

IMPORTER	:	JORCORP S.A.
CARGO DESCRIPTION	:	GREEN FRESH BANANAS CAVENDISH VARIETY, FIRST QUALITY.
VESSEL	:	CMA CGM MARCO POLO
PORT OF LOADING	:	GUAYAQUIL - POSORJA
ATTENDED INSPECTORS/CODE	:	CISS GROUP Stone Wang
SCOPE OF INSPECTION	:	CLIENT INSTRUCTIONS
COMMENCED INSPECTION	:	19.11.2024
COMPLETED INSPECTION	:	19.11.2024



Inspection summary:

On Nov 19, 2024,

Our inspector attends at Yingkang storage, Dalian, China where the merchandise was stored at cooling warehouse

1 As per Client's instruction the following container should be checked: inspection:

1. CGMU5232418: But as per inspector's observation – Container was not at warehouse. We, CISS GROUP PTE., as independent Surveyor, could not confirm that below mentioned cargo was transported in container CGMU5232418 and reserve all rights of our Client against any Claims according this cargo.

Temperature Thermograph

DATA LOG

File Created At: 13-Nov-24 09:49:40



Device Information

Device Code : LogEt 1 Fresh
Serial Number : EML244111230
Mode Code : TLCC0A389

Probe Type : Temperature(internal)
Firmware Version : V2.5

Trip Information

Trip Id : 0000001
Description : Temperature recording.

Mark Event

N/A

Configuration Information

Start Mode : Manual
Start Delay : 00H 30M 00S
Time Base : UTC +00:00

Log Interval : 00H 12M 00S
Stop Mode : Manual + Software

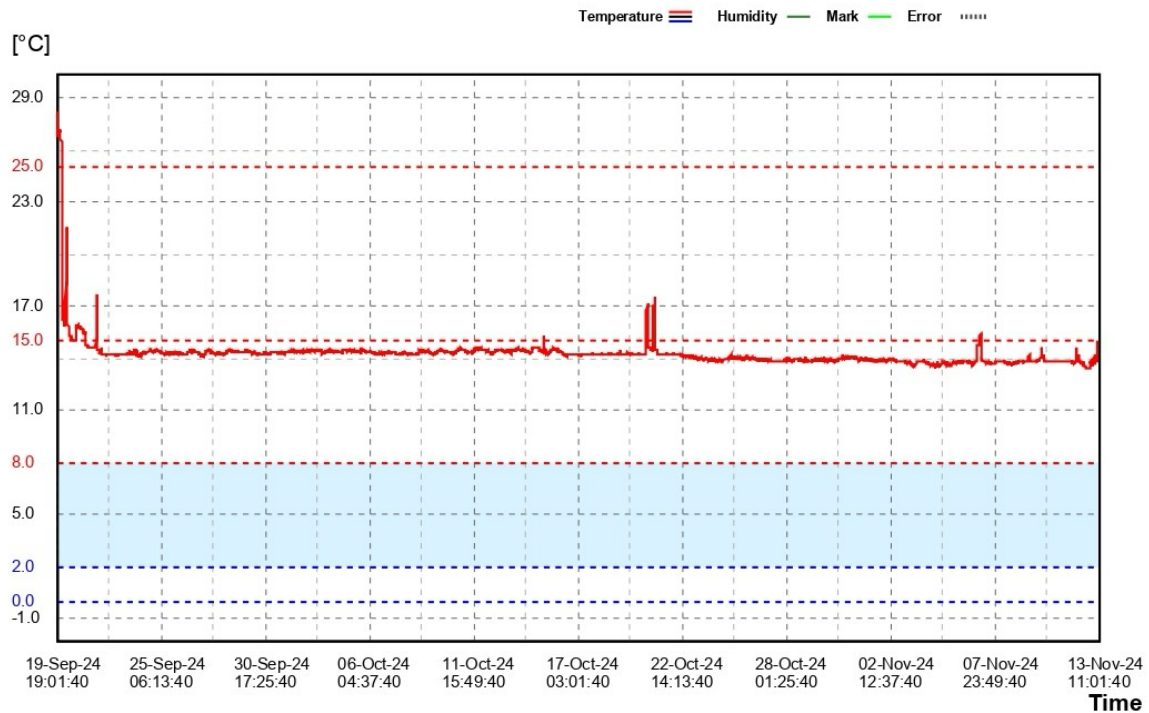
Alarm Zone	Allow Time	Alarm Type	Total Time	Violations	Status
H3: over 25.0 °C	00D 00H 30M 00S	Sin	00D 06H 00M 00S	1	Alarm
H2: over 15.0 °C	00D 00H 30M 00S	Sin	01D 23H 24M 00S	9	Alarm
H1: over 8.0 °C	00D 00H 30M 00S	Sin	54D 14H 48M 00S	1	Alarm
Ideal Region	unlimited		00D 00H 00M 00S		
L1: below 2.0 °C	00D 00H 30M 00S	Sin	00D 00H 00M 00S	0	OK
L2: below 0.0 °C	00D 00H 30M 00S	Sin	00D 00H 00M 00S	0	OK



Logging Summary

Highest : 28.3 °C
Lowest : 13.4 °C
Average : 14.3 °C
MKT : 14.3 °C
Alarm At(Te) : 19-Sep-24 19:37:40

Start Time : 19-Sep-24 19:01:40
Stop Time : 13-Nov-24 09:49:40(manual)
Elapsed Time : 54D 14H 48M 00S
Data Points : 6555



- The thermograph recordings began on September 19th and continued until November 13th. The temperature initially began at 28.3°C and gradually decreased to approximately 14.3°C by September 22nd.
- The recorded average temperature of 14.3°C.
- There were noticeable temperature breakdowns on October 20th (14.7°C to 17.2°C) and November 7th (14.9°C to 15.5°C). These breakdowns could have had a minor impact on the bananas, potentially affecting their ripening or storage conditions.



CONTAINER: CGMU5232418

CONTAINER NO. CGMU5232418										
	BOX1	BOX2	BOX3	BOX4	BOX5	BOX6	BOX7	BOX8	BOX9	BOX10
GROSS WEIGHT	15.69	15.75	15.69	15.75	15.15	16.01	15.72	15.95	16.06	16.23
FROSTBITE	1	1	1	0	1	1	1	1	1	1
MATURATION	INITIAL	INITIAL	INITIAL	INITIAL	INITIAL	INITIAL	INITIAL	INITIAL	INITIAL	INITIAL

- The gross box weight average is 15.80 kg.
- The temperature average is more than 14°C.
- Visual inspection revealed that the bananas are in the initial stage of ripening and are completely green, showing no signs of yellowing.
- The peel examination test result is 9 out of 10 units damaged. (Total opened 10 boxes and one figure per box were checked, found 9pcs shown dark mark (possible frostbite**))
- Temperature at warehouse - 13.8°C.

We notice the following:

1. 1540 boxes are stored in the cold room warehouse.
2. Overall check of all boxes condition was roughly performed from above the "window" of the boxes. All bananas were confirmed to be green (without yellow coloration), indicating that the stage of ripeness was "initial" (completely green).
3. Peel examination test was conducted. The result showed 9 out of 10 units damaged. Total open 10 boxes and 9 boxes show this issue (1 unit per box)**.
4. Additionally, the internal condition of the bananas under the peel was assessed. These observations confirm that the internal quality of the bananas remains unaffected despite the external peel issues.
5. The bananas were unloaded from the refrigerated container prior to our arrival, and we were not present during the unloading process. As a result, we cannot confirm with certainty that the specific boxes of bananas inspected by us originated from this particular container.
6. Gross weight: 15.15kgs-16.23kgs.
8. The importer did not tell the date of cargo arrived, discharged and stored at the cold room warehouse.

****PEEL EXAMINATION TEST:**

To provide deeper insight, inspectors conducted a supplementary test by peeling 1 banana per each of the selected box. This test was carried out to ensure there were no hidden signs of damage, that might not have been visible during the surface examination.



- Result of testing: The inner side of the peel displayed an abnormal dark and black coloration along the skin fibers. (No bad smell)
- Importers identified the issue as frostbite. However, on-site conditions made it challenging to conclusively differentiate between frostbite and a banana-related disease.
- Based on the observed characteristics, the issue was preliminarily categorized as frostbite.

While the bananas appeared green externally, detailed testing revealed abnormalities in the peel's internal color, suggesting frostbite as a likely cause. These findings are based on initial on-site observations and are subject to further validation.

INTERNAL CONDITION OF THE BANANAS

Additionally, the internal condition of the bananas under the peel was assessed. The findings indicated:

Color: White

Texture: Normal hardness, not soft

Smell: No bad smell detected

Condition: No signs of rot

These observations confirm that the internal quality of the bananas remains unaffected despite the external peel issues.

Condition Assessment of Green Bananas:

The bananas exhibit multiple visible signs of damage and potential physiological or pathological disorders.

Based on the performed inspection and visual evidence, the following observations and deductions can be made:

1. **Manual Opening:**
 - The bananas were manually opened, resulting in uneven tearing and partial detachment of the peel, particularly near the stem and along the midsection.
 2. **Frost Damage (Likely Cause):**
 - The surface discoloration, accompanied by softening and water-soaked appearance in some areas, suggests the bananas may have been exposed to freezing or near-freezing temperatures during storage or transportation.
- As shown in data log there is no freezing occur during transportation**
- Freezing temperatures can disrupt the cell structure of the fruit, leading to localized tissue damage, as evidenced by the darkened, shriveled patches on the peel and potential softening of the pulp underneath.



3. Possible Infection Indicators:

- The black streaks and spots observed on the peel could indicate the onset of fungal or bacterial infection, such as *Colletotrichum musae* (associated with anthracnose) or bacterial soft rot.
- However, the infection appears secondary, likely facilitated by the compromised peel integrity and frost-induced weakening of the tissue.

4. Internal Tissue Condition:

- Exposed pulp shows signs of early discoloration and drying, which is consistent with cellular breakdown caused by frost damage and subsequent oxidation upon exposure to air.

Recommendations for Investigation and Mitigation:

- **Confirm Frost Damage:** Review the temperature logs in the storage room from the supply chain warehouse to identify potential deviations from the optimal storage range for bananas (13–15°C).
- **Pathological Testing:** Conduct a microbiological analysis of the affected areas to confirm or rule out fungal or bacterial infections.
- **Storage Adjustments:** Prevent exposure to freezing temperatures by optimizing cold chain protocols.

This analysis combines the physical damage observed, the likely frost-related symptoms, and potential infections that could arise under such conditions.

It is recommended deeper research into specific pathogens.

****Remark: These data are based only on the boxes and samples opened during the visual inspection.***

Inspection Statement:

The inspection was conducted at the buyer's warehouse. The bananas were unloaded from the refrigerated container prior to our arrival, and we were not present during the unloading process. As a result, we cannot confirm with certainty that the specific boxes of bananas inspected by us originated from this particular container.

Based on the recorded DataLog readings, the temperature during transportation remained within the recommended range, and the possibility of the bananas freezing during transit can be excluded.



Photos



Overall view of the boxes



Weighing of the boxes



Checking boxes weight





Cargo stored in the warehouse



Warehouse cool room temperature



The temperature shown 13.8°C.



Initial maturation





Initial maturation



Initial maturation





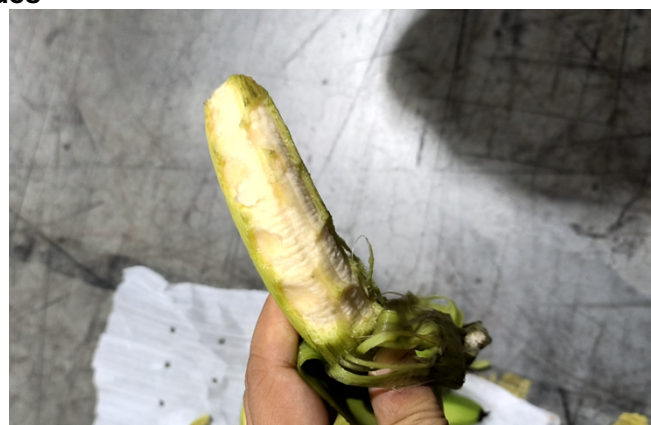
Peel issues



Peel issues



Peel issues



Internal condition



REMARK:

The statistics may not accurately reflect the actual situation for the whole quantity of cargo in containers since the data is based only on the boxes opened during the inspection.

REPORTING:

This survey was carried out to the best of our knowledge and ability and this report was issued without prejudice and for the benefit To Whom It May Concern.

The results of inspection are valid for the time and place of inspection only.

This inspection has been performed on the goods for which it was requested according to our professional standards and to the best of our knowledge on the date and at the place it was performed, within the scope of instructions received. This inspection does not release seller(s) and/or supplier(s) and/or shipper(s) and/or other parties involved from their respective contractual obligations and does not prejudice the buyer(s)/receiver(s)' right to claim, under applicable law and contract, compensation from seller(s)/supplier(s)/shipper(s) regarding any defects not detected during our inspection or occurring thereafter. This inspection is also subject to CISS GROUP Terms and Conditions of Business (<http://www.ciss-group.com>). Headings and titles in this certificate/report are for reference only and the findings contained herein prevail as stated.

Signed and dated
19.11.2024



**FOR AND ON BEHALF OF
CISS GROUP**

