MANAGING CHALLENGES ON SOYA BEAN CLAIMS

Loss Prevention Webinar – 27 February 2025 – Capt. Shajed Khan

MANAGING CHALLENGES ON SOYA BEAN CLAIMS

Speakers

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Introduction

- Exporters: Brazil, USA, Argentina
- Importers: China, EU

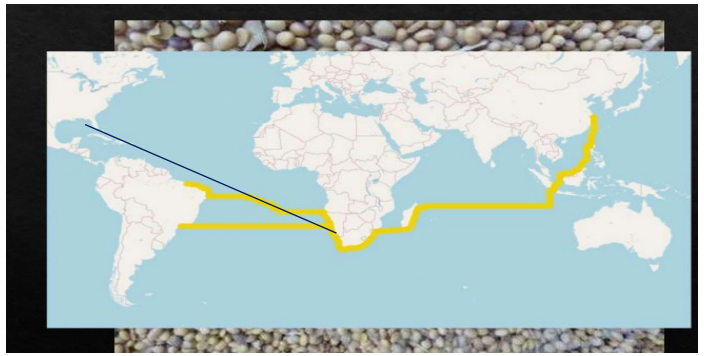
Main challenge:

- Long voyage 5-8 weeks
- Parameter in load port might vary in discharge port

Key issues:

- Mouldy cargo, heat damaged cargo, contamination

APPROXIMATE ALLOWABLE STORAGE TIME FOR SOYBEANS						
MOISTURE CONTENT (%)	GRAIN TEMPERATURE (F)					
	30	40	50	60	70	80
	APPROXIMATE ALLOWABLE STORAGE TIME (DAYS)					
11	300+	300+	300+	300+	200	140
12	300+	300+	300+	240	125	70
13	300+	300+	230	120	70	40
14	300+	280	130	75	45	20
15	300+	200	90	50	30	15
16	300+	140	70	35	20	10
17	300+	90	50	25	14	7
19	190	60	30	15	8	3



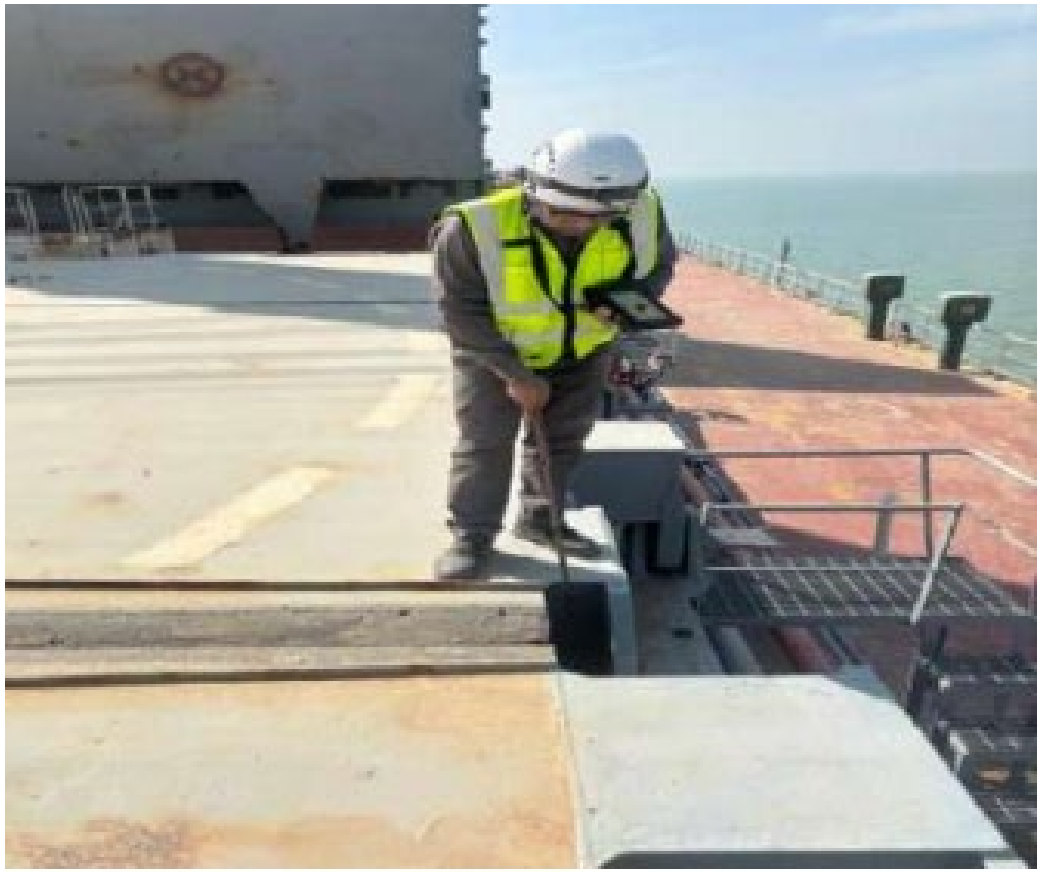
Moldy cargo

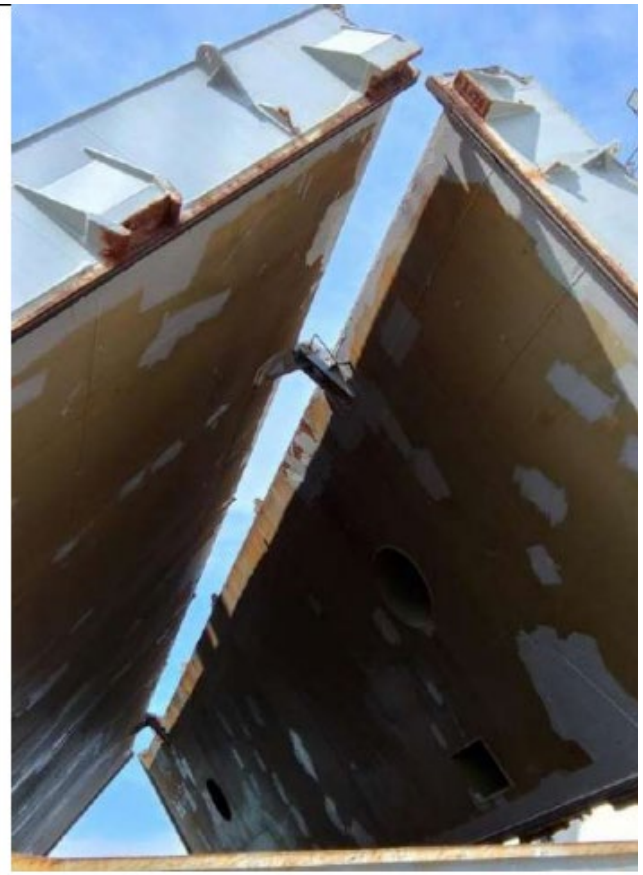
Precaution

Is the ship ready?

- Are the holds weathertight?
- Maintenance : Manufacturer guidance?
- Bilge system tested?
- Ventilation system working?
- Documents to prove

UST test





Ballast system tested

Bilge suction test

Preloading preparations
Instruction from the charterers

- Hold cleanliness – standard
- Usually required to be *"…free from insects, odour, residue of previous*
- *Cargoes, loose rust / scale / paint flakes"*

Preloading preparations

Instruction from the charterers

- Fumigation required or not
- If fumigation required when to start the ventilation
- Is cargo sensitive to temperature
- Any other instruction
- Chief engineer should be informed

- Plan is vital: How to record and what data

Loading

- Monitor cargo
- Surveyor’s role
- Collect sample
- Record, weather temperature and moisture
- Issue LOP
- Bill of lading – Club advice

In transit

- Monitor cargo
- Ventilation when required
- Record

Discharge port

- Monitor cargo
- Surveyor guidance prepared
- LOP
- Record

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Shipment of Soya Bean Cargoes South America to China

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FOOD AND AGRICULTURAL COMMODITIES

OIL, GAS & CHEMICALS

METALS & MINERALS

FIRE & EXPLOSION

FORENSIC DATA ANALYSIS & IT

MARINE & PORTS

RISK, SAFETY & ENVIRONMENTAL

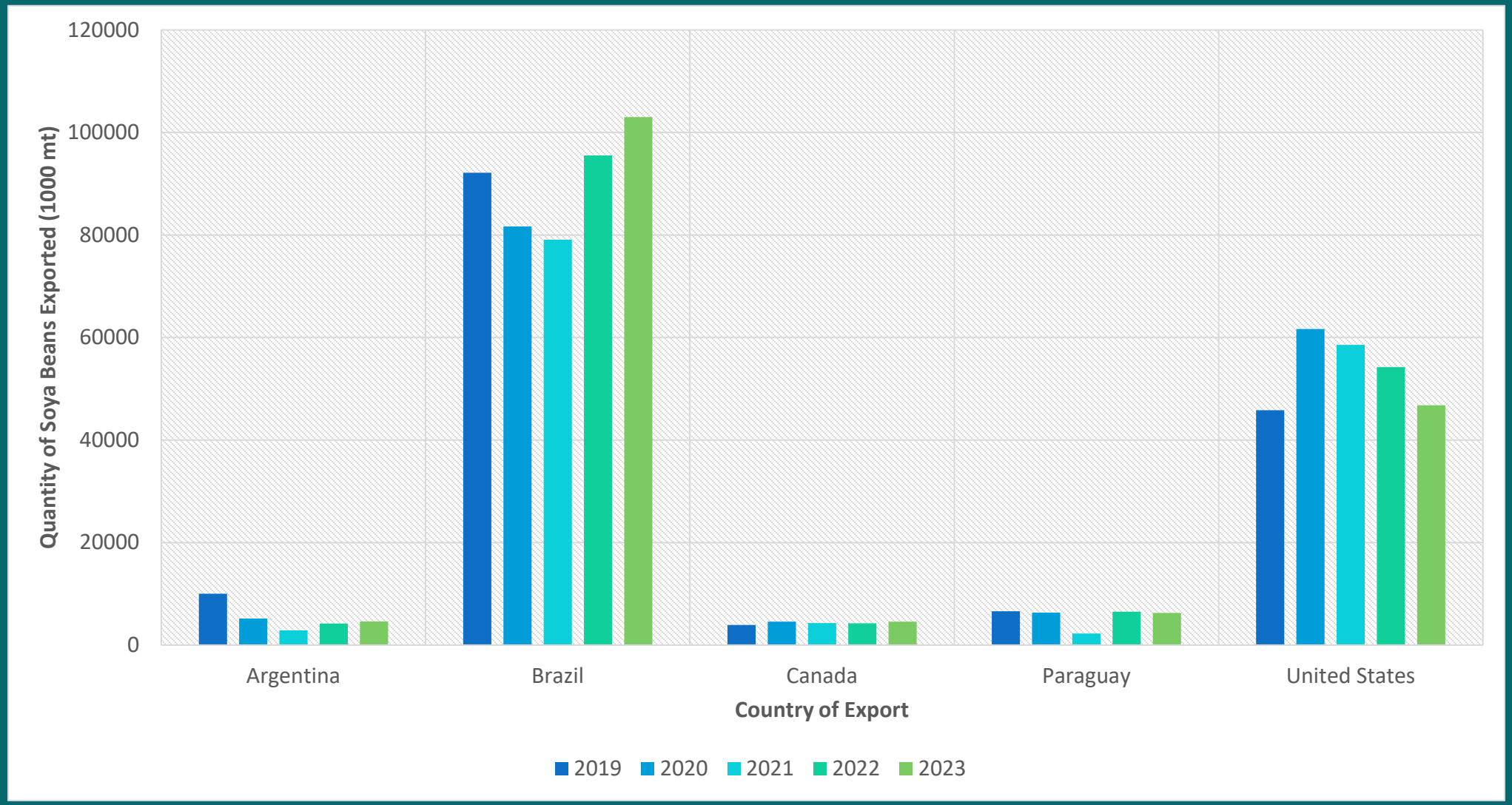
Soya Beans

- **Glycine max**
- **Classified as an oilseed**
- **18 – 20 % oil content**

Harvesting and Drying

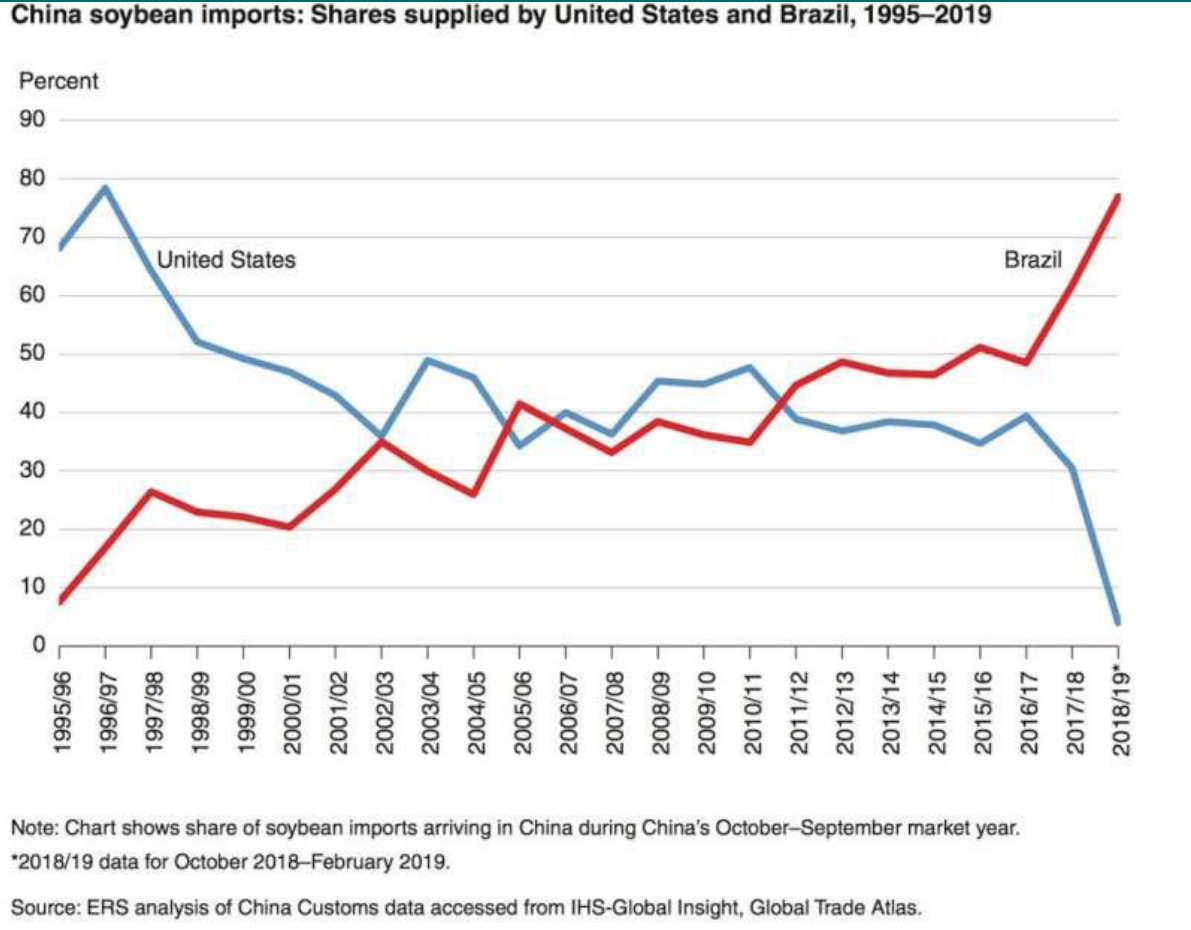
- **Harvested at 14 – 16 % moisture content.**
- **Lower moisture contents: Broken beans and field losses.**
- **Maximum drying temperature is 55 °C.**
- **Estimated max. safe storage moisture content: <13 %**

Global Soya Bean Exports



Source: USDA

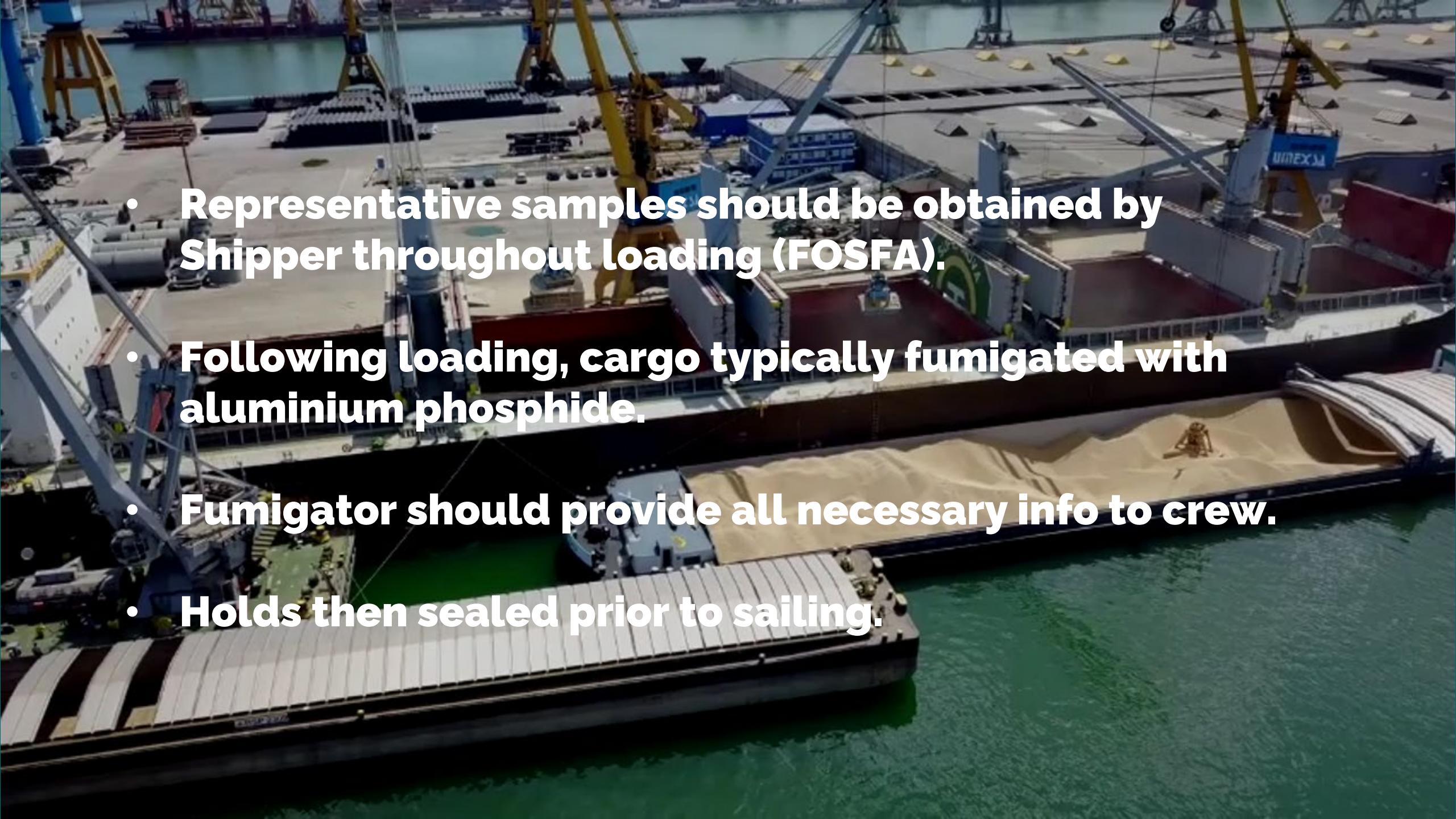
Why is Brazil so Important?



PARAMETERS	Brazil (ANEC)	China (GB)
Oil content	18.5 %	≥ 20.0 to ≥ 22.0 %
Moisture content	14 %	≤ 13.0 %
Foreign matter	2 %	≤ 1.0 %
Damaged beans	8 %	≤ 4 to ≤ 12 %

https://farmpolicynews.illinois.edu/2019/06/ers-report-interdependence-of-china-united-states-and-brazil-in-soybean-trade/

- Brazilian terminals highly specialised for soya beans.
- Often “one-way”.
- Loading by pipe is fast.
  - Useful for avoiding bad weather etc
  - But leaves little opportunity to monitor the cargo as it is loaded.
- Loading from barges may increase risk of wetting.
- Crew should monitor loading + keep records.



- Representative samples should be obtained by Shipper throughout loading (FOSFA).
- Following loading, cargo typically fumigated with aluminium phosphide.
- Fumigator should provide all necessary info to crew.
- Holds then sealed prior to sailing.

Common Issues - Moisture

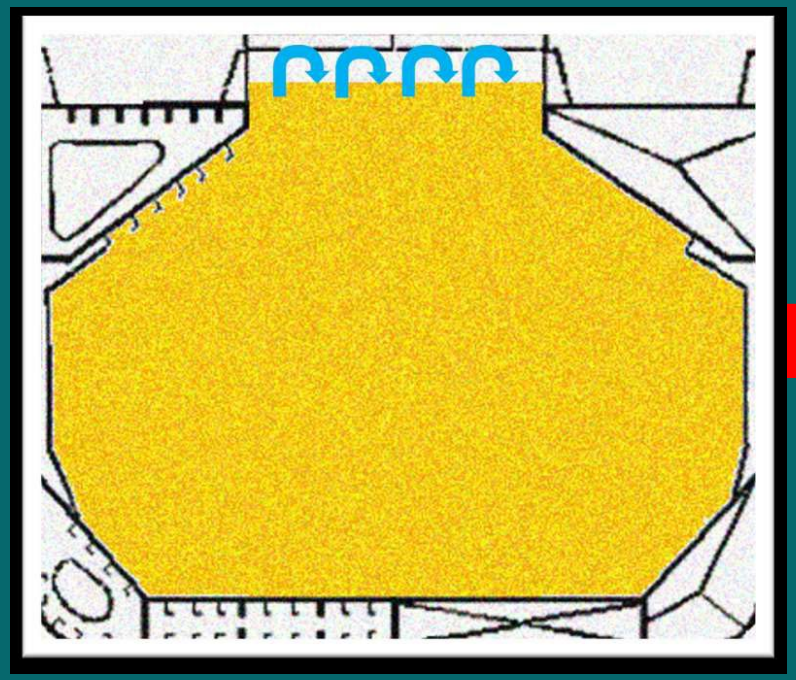
Causes

1. Condensation (ship's or cargo sweat)
2. Inherent moisture content
3. Water ingress (rain or seawater)

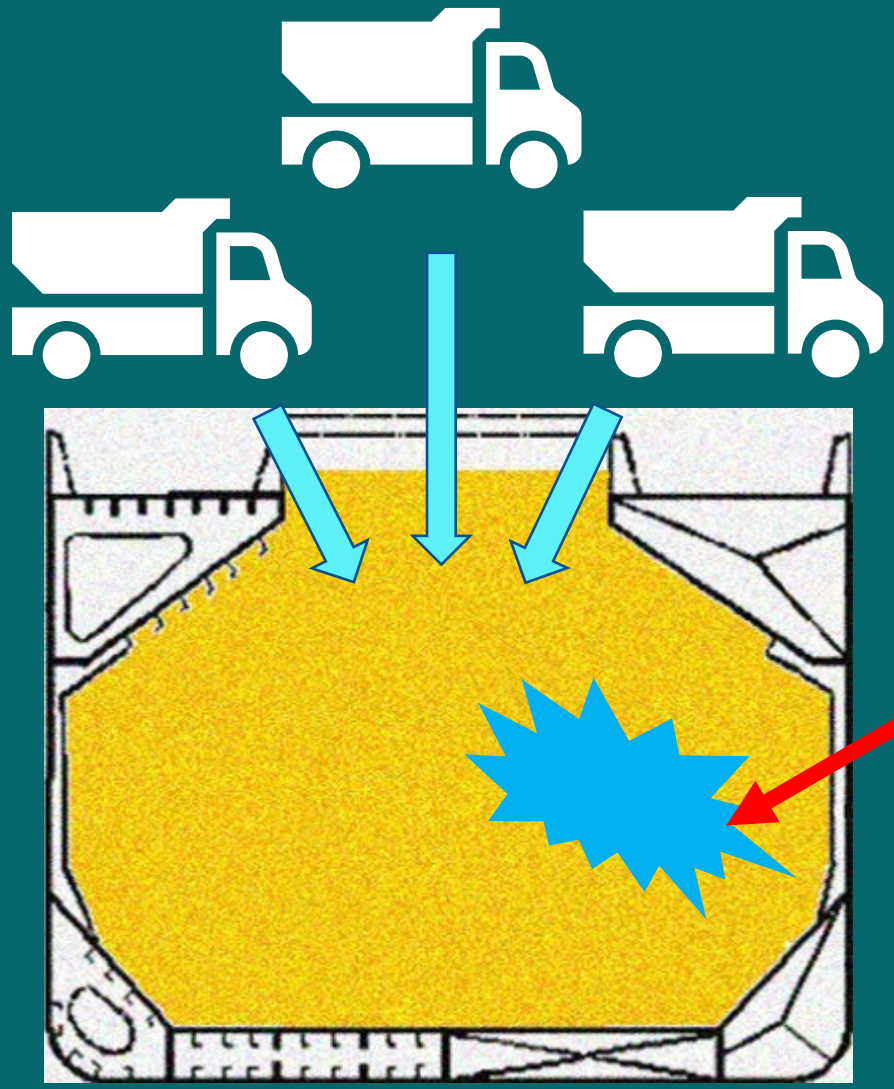
Effects

1. Biological instability or mould growth
2. Self-heating and discolouration

Common Issues - Ship's Sweat



Common Issues – Inherently High Moisture Content



Bulk cargoes are made up of multiple parcels of grain/oilseeds grown on different farms

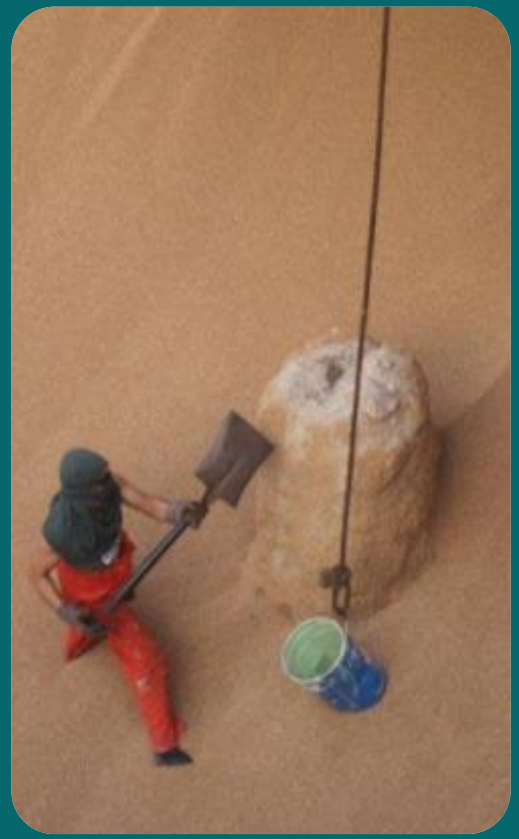
Parcel of grain/oilseeds loaded with a high moisture content

Equilibrium Relative Humidity > 70 %

=

Significant risk of mould growth

Common Issues - Water Ingress



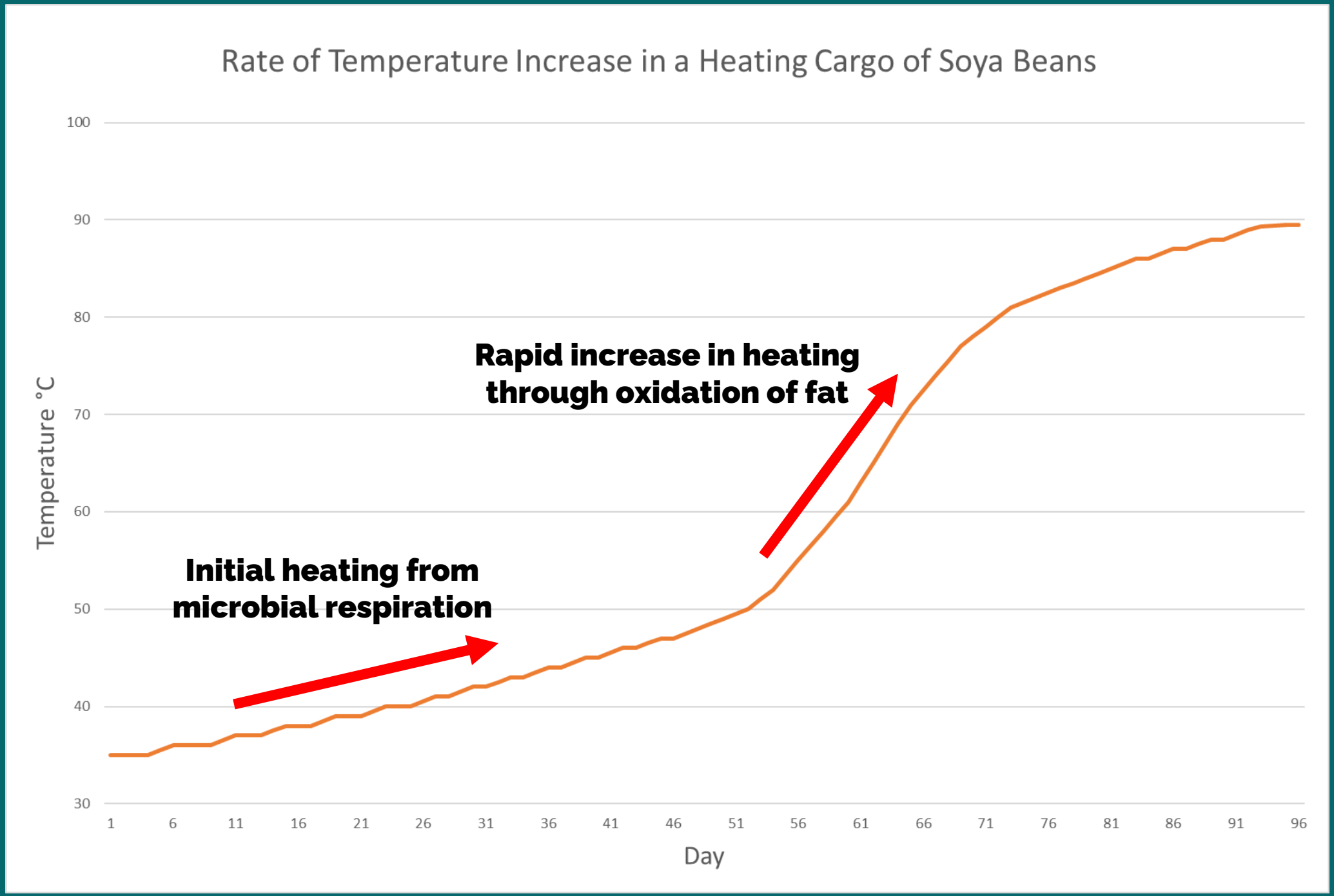
Common Issues - Heating

Causes

- Inherent moisture and oil content interaction
- External sources (fuel oil tanks, cargo hold lights, fumigation)

Effects

- Visual discolouration
- Degradation of oil quality
- Degradation of protein quality


Rate of Temperature Increase in a Heating Cargo of Soya Beans
Temperature °C
100
90
80
70
60
50
40
30
1
6
11
16
21
26
31
36
41
46
51
56
61
66
71
76
81
86
91
96
Day
Rapid increase in heating through oxidation of fat
Initial heating from microbial respiration

Loss Prevention

1. Vessel maintenance
2. Cargo monitoring
3. Ventilation
4. Records

1. Vessel Maintenance

- Hatch covers, drainage channels, pipes, tanks, ventilators etc.
- Hose or ultrasonic test before loading
- Fuel oil tank position and fuel oil monitoring

2. Cargo Monitoring

- Appoint local surveyor with experience
- Cargo temperature/moisture during loading
- Sampling according to FOSFA
- Visual condition of the cargo at loading
- Crew photographs

FOSFA INTERNATIONAL

3. Ventilation

- Ventilation rules: which one?
- Carriage instructions?
- Fumigation instructions?

Three Degree Rule	Dew Point Rule
Relies on knowing the cargo temperature at loading	Relies on measuring the headspace dew points in each hold

4. Records

- Pre-loading certificates (hose tests etc.)
- Ambient and cargo temperatures throughout voyage
- Detailed ventilation records
- Fuel oil temperature records
- Bilge soundings
- Weather and sea conditions
- Crew photographs

Temperature and Ventilation Log

Date	Time	Outside Air			Hold No.			Hold No.			Hold No.			Hold No.			Hold No.			Venting (Yes or No)	Sea Temp	General Remarks (if not possible to ventilate, state reasons)
		Wet Bulb	Dry Bulb	Dew Point	Wet Bulb	Dry Bulb	Dew Point	Wet Bulb	Dry Bulb	Dew Point	Wet Bulb	Dry Bulb	Dew Point	Wet Bulb	Dry Bulb	Dew Point	Wet Bulb	Dry Bulb	Dew Point			
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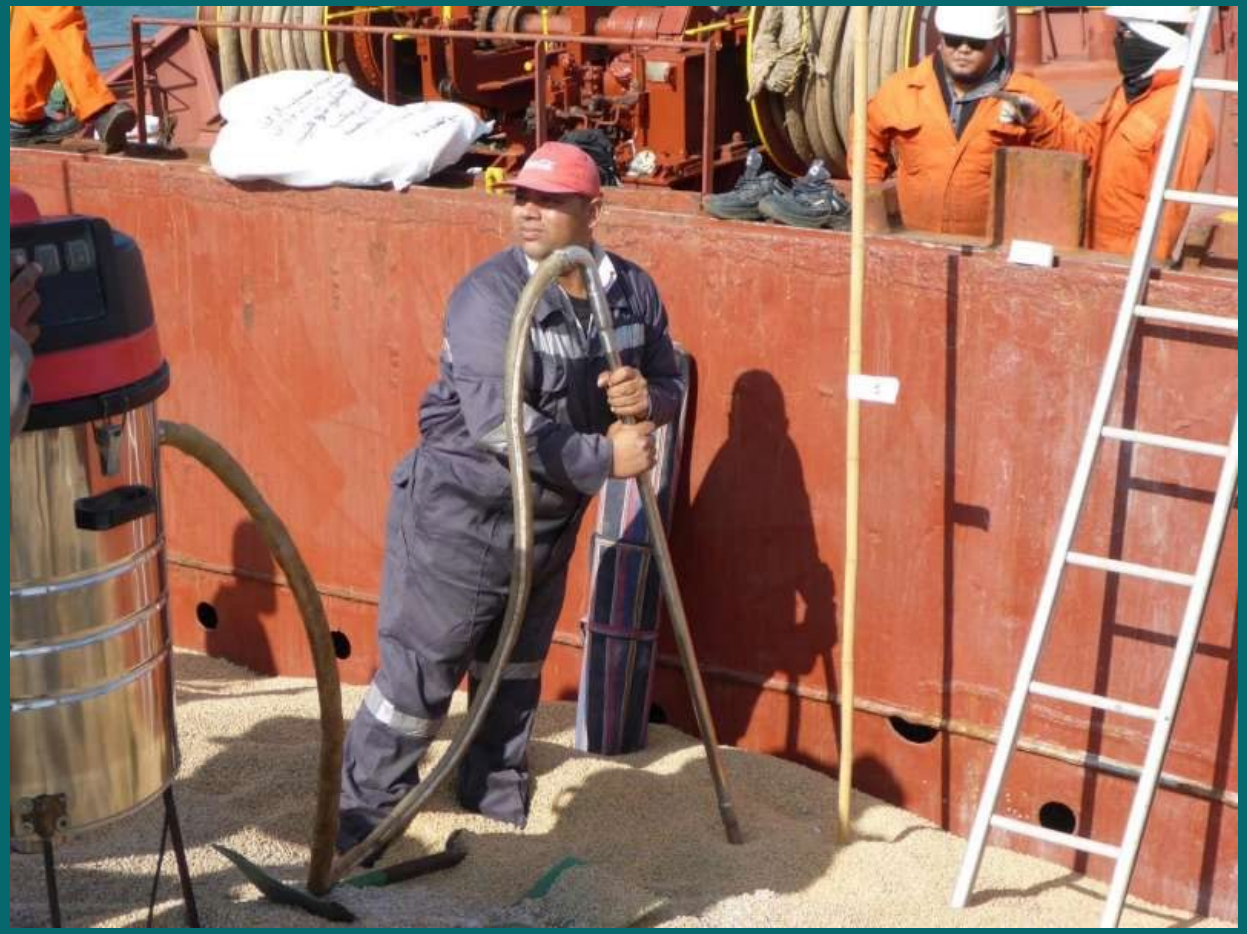
Average cargo temperature at loading:________°C

Master________________________________ Chief Officer________________________________

In the Event of Damage

- Establish the pattern of damage
- Collect contemporaneous evidence
- Determine the extent of damage
- Sample representatively



Sampling

- FOSFA during loading / discharge
  - Provides greater representation of the cargo
- ISO 24333:2009 when static
- Spot sampling

Representation of cargo heterogeneity

Sample Analysis

- Load port grading
  - Brazilian (MAPA)
- Disport grading
  - Chinese (GB)

- Heat-damaged beans
- Mouldy beans
- Foreign matter
- Broken beans
- Split beans

- Biochemical analysis

- Moisture
- Oil
- Protein
- Protein solubility
- Free Fatty Acids

Mitigation of Loss

Summary

- Soya beans are a widely traded commodity
- Brazil to China is the most common voyage route
- Cargo temperature and moisture content are important when assessing the biological stability of a cargo
- Moisture, water ingress, and self-heating are common causes of soya bean claims
- Longer voyages typically increase the likelihood of problems occurring
- If damaged, evidence collection and sampling are key
- Political and commercial situation may affect claim frequency

Thank you for your attention!

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Soya bean Cargo Claims

Beatrice Cameli

Overview

- Type of claims
- What to do when notified of a claim
- How to assess the claim
- Anti-suit injunctions
- Differences under English law and Chinese law
- ICA
- Conclusion

Types of claims

Most frequent from Brazil to China

- Discoloration
- Self-heating
- Time

What to do when notified of a claim?

1. Claim for loss and damage to cargo notified by local receivers / subrogated cargo insurer
2. Notify the P&I Club:
   a) Appointment of local correspondents and surveyor to assist with cargo segregation and storage
   b) Consider appointment of an expert

What to do when notified of a claim?

3. Collect all evidence /cargo documents
   - Cargo samples at loading
   - Preloading survey report
   - Moisture certificate or certificate of quality at shipment
   - Stowage plan
   - Ventilation records
4. Deal with any security requests as necessary (LOU or Bank Guarantee)

How to assess the claim

- Establish which law applies
- Bill of lading –incorporates terms of the head voyage charter including Law & Arbitration clause which in most cases will be English law;
- Only concerned with assessing merits under English law;

However:

- In practice local receivers will bring claim in local Chinese court which will apply Chinese law

- Suddenly dealing with claim
  1. Under Chinese law
  2. From Chinese receiver
  3. In local home court

What can you do?

Anti-suit injunctions

- Used to restrain a party from commencing or continuing foreign court proceedings, where these are (or would be) brought in breach of an English law and arbitration agreement
- unless there is a “strong reason” not to do so (for e.g. delay)

However:

- Often ignored by Chinese cargo owners and insurers
- AASIs

English law vs Chinese law

ENGLISH LAW

- Hague or Hague-Visby Rules incorporated into the bill of lading
- Receivers alleging breach of Article III r2 – the carriers' duty to "properly and carefully load, handle, stow, carry, keep, care for and discharge" the cargo.
- Inherent vice defence

Volcafe v. CSAV [2018] UKSC 61

Where cargo suffers damage during voyage, the burden is on carrier to disprove causative negligence before they can rely on the inherent vice exception (Hague Rules, Article IV Rule 2(m)).

To succeed Carrier must prove:

1. Not in breach of Article III r2 and damage occurred anyway
2. The loss was inevitable

Keeping good ship's records at loading and during voyage is paramount

CHINESE LAW

- The English law and London arbitration clause in CP is not accepted by Chinese court or Carrier submitted to Chinese law and jurisdiction when agreeing to issue security
- China not signatory to HR / HVR
- Chinese courts will require the carrier to explain why the cargo has been damaged
- Chinese Maritime Code Art. 51 'inherent vice' defence – higher burden of proof.
- But Chinese court reluctant to decide in favour of carrier

ICA

- If case of inherent vice
- If time charter incorporates ICA 1996 or later version, the carrier can seek apportionment under
- Clause 8(d) – “All other cargo claims whatsoever (including claims for delay to cargo): 50% Charterers 50% Owners unless there is clear and irrefutable evidence that the claim arose out of the act or neglect of one or the other (including their servants or sub-contractors) in which case that party shall then bear 100% of the claim
- The Yangtze Xing Hua [2017] EWCA Civ 2107 – 100% to Charterers
- London arbitration 10/22 – 50/50 apportionment applied

Conclusion

- When a claim is received, notify the Club
- Key is to collect all evidence
- Secure early release of the vessel – beware of choice of law in LOU!
- Review the claim and where possible avoid Chinese proceedings
- Seek early settlement depending on relevant law and expert advice
- How to prevent claims?

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Q&R Code

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