



STDF - CABI - ICCO PROJECT- TRAINING OF MASTER FACILITATORS
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Cocoa: Critical Points in the Supply Chain Where Food Safety can be Improved

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Summary

- Food safety and high quality should be a priority for all, not just the regulators
- Urgent need to inform stakeholders along the cocoa supply chain about the importance of food safety issues
- Maximise the production of high quality, safe cocoa in the region

Good Quality Cocoa

FAO/WHO 1969 – Codex Committee on Cocoa Products and Chocolate:

“(a) Fermented, thoroughly dry, free from smoky beans, free from abnormal or foreign odours and free from any evidence of adulteration. (b) Reasonably uniform in size, reasonably free from broken beans, fragments and pieces of shell, and be virtually free from foreign matter”

Includes: production, harvesting, post harvest handling, storage and shipping - all steps along the supply chain

Constraints to Export

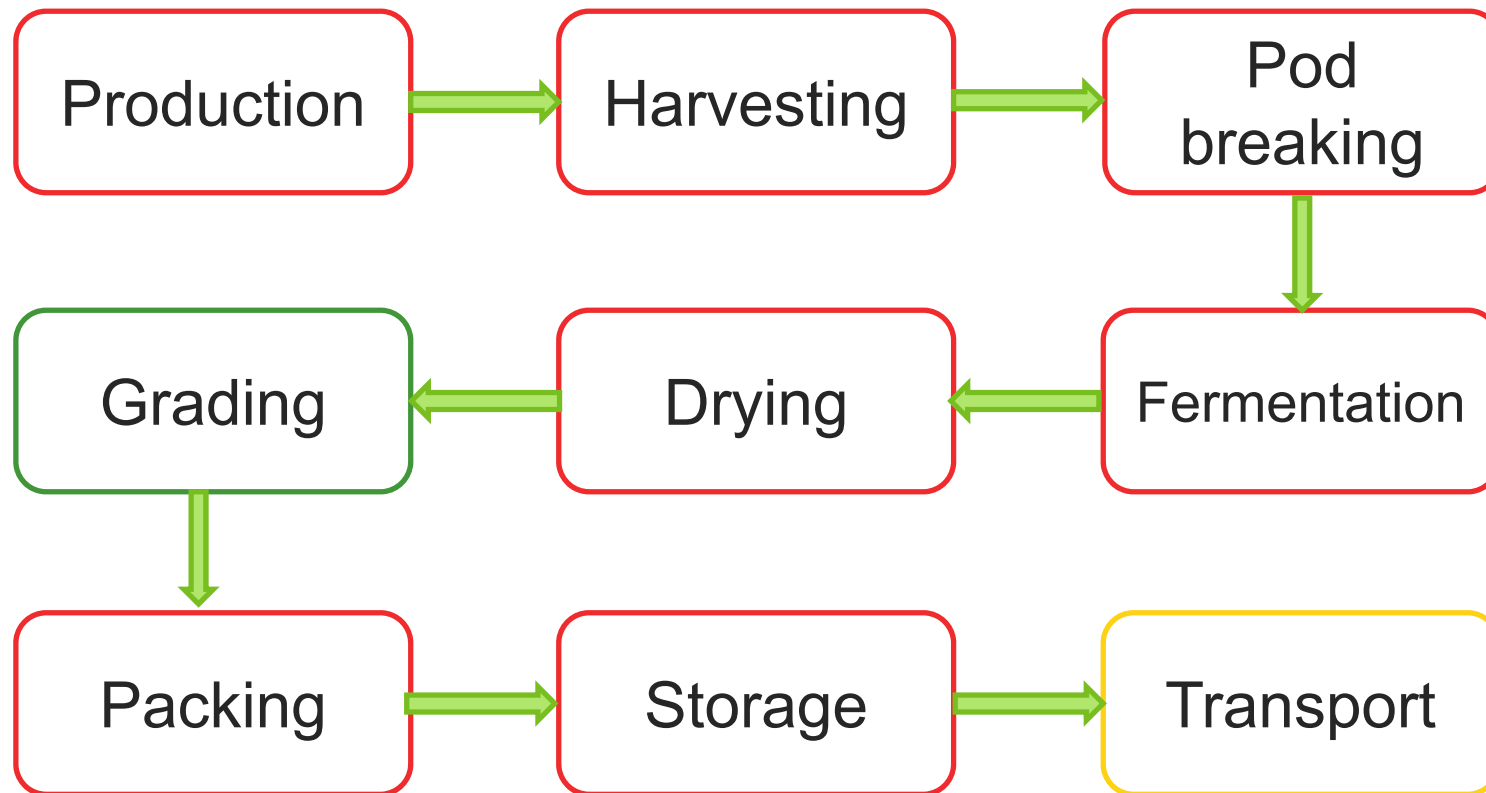


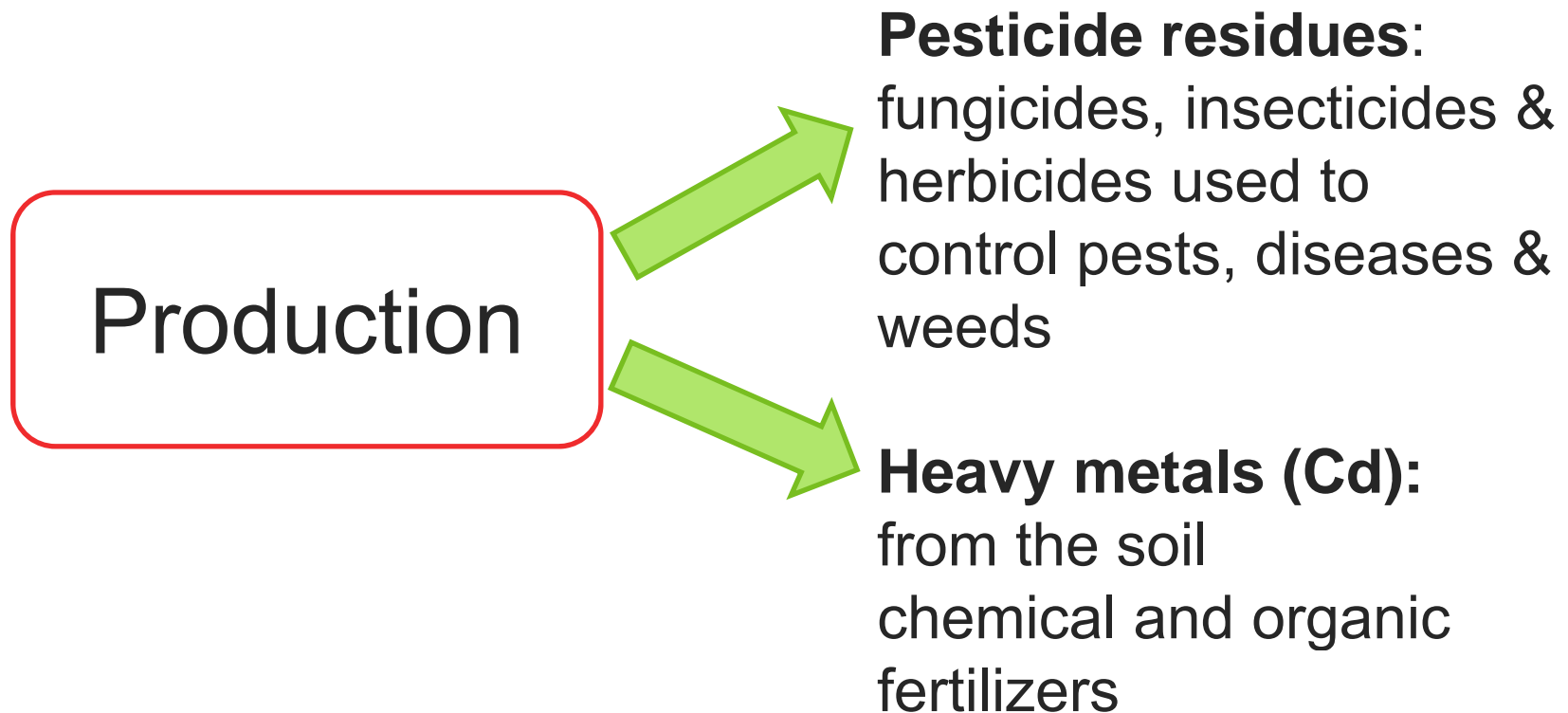
Food Safety and SPS Issues

Main contaminants associated with cocoa:

- Pesticide Residues
- Heavy Metals
- Ochratoxin A (OTA)
- Polycyclic Aromatic Hydrocarbons (PAH)
- Mineral Oil

Cocoa Supply Chain





Harvesting



OTA:

Damaging the pods during harvest

Discard damaged and diseased pods

Remove beans from the pod as soon as possible

Do not store pods for longer than 1 week before breaking

Pod
breaking



Pesticide residues:

From the husk of the pod can contaminate beans if the PHI has not been followed or if other crops or weeds on the farm have been sprayed

Sun drying

Pesticide residues:

Drift from fungicides, insecticides & herbicides can contaminate cocoa beans while its drying

Heavy metals:

From dust, smoke and exhaust fumes in the atmosphere

OTA:

Turn beans daily

Dry properly (below 7.5% moisture)

Don't mix beans at different stages of drying

Artificial
drying



PAH:
Smoke from burning
wood and petrol/diesel
contaminates the beans
- poorly maintained
driers

Fermentation



OTA:
Ferment for the correct
time, do not over ferment

Packing

Use appropriate material to pack the cocoa beans
These should be clean
made of an inert material

Issues have arisen in the past with **mineral oil** contamination from jute sacks

Storage



Pesticide residues:

Cocoa is often fumigated in storage to control insect pests

OTA:

If cocoa is not dried properly (under 7.5% moisture)

Transport



??????

Out of our control

Any substance present
in the vehicle used to
transport the cocoa

Summary table



Handling stage	Hazard	Source / cause
Production	Pesticide residues	Pesticides
	Heavy metals	Soil and fertilizers (chemical and manures)
Harvesting	OTA	Fungal infection through wounds in the pod
Sun drying	Pesticide residues	Drift
	Heavy metals	Atmosphere, smoke, exhaust fumes
	OTA	Moisture content no higher than 7.5%
Artificial drying	PAH	Beans coming in contact with smoke
Fermentation	OTA	Don't over ferment
Packing	Mineral oil	Contaminated packing material
Storage	Pesticide residues	Fumigants
	OTA	Beans not properly dried
Transport	????	????

спасибо
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