



Mango Agribusiness Research Program

Opportunities and strategies to improve biosecurity, market access and trade for selected mango markets

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Information
Markets
Biosecurity
Quality



Overview

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- ▶ Introduction
 - ▶ Definitions
 - ▶ Market access process
 - ▶ Protocols
 - ▶ Regulators
 - ▶ Official market entry
 - ▶ Conclusion

Introduction

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- ▶ The overall aim of this SRA is to identify opportunities and strategies to improve biosecurity, market access and trade for selected mango markets through a better understanding of knowledge and stakeholder gaps.
 - ▶ Identify opportunities and strategies to improve biosecurity, market access and trade for selected mango markets through a better understanding of knowledge and stakeholder gaps
 - ▶ Examine and document the current import protocols and informal trade channels for the markets of mainland China (Shanghai);
 - ▶ Understand technical issues and barriers for both countries;
 - ▶ Document issues and opportunities (core group/country level)

Definitions

Biosecurity

- ▶ A set of measures to protect a country or area within a country from exotic pests, diseases and weeds

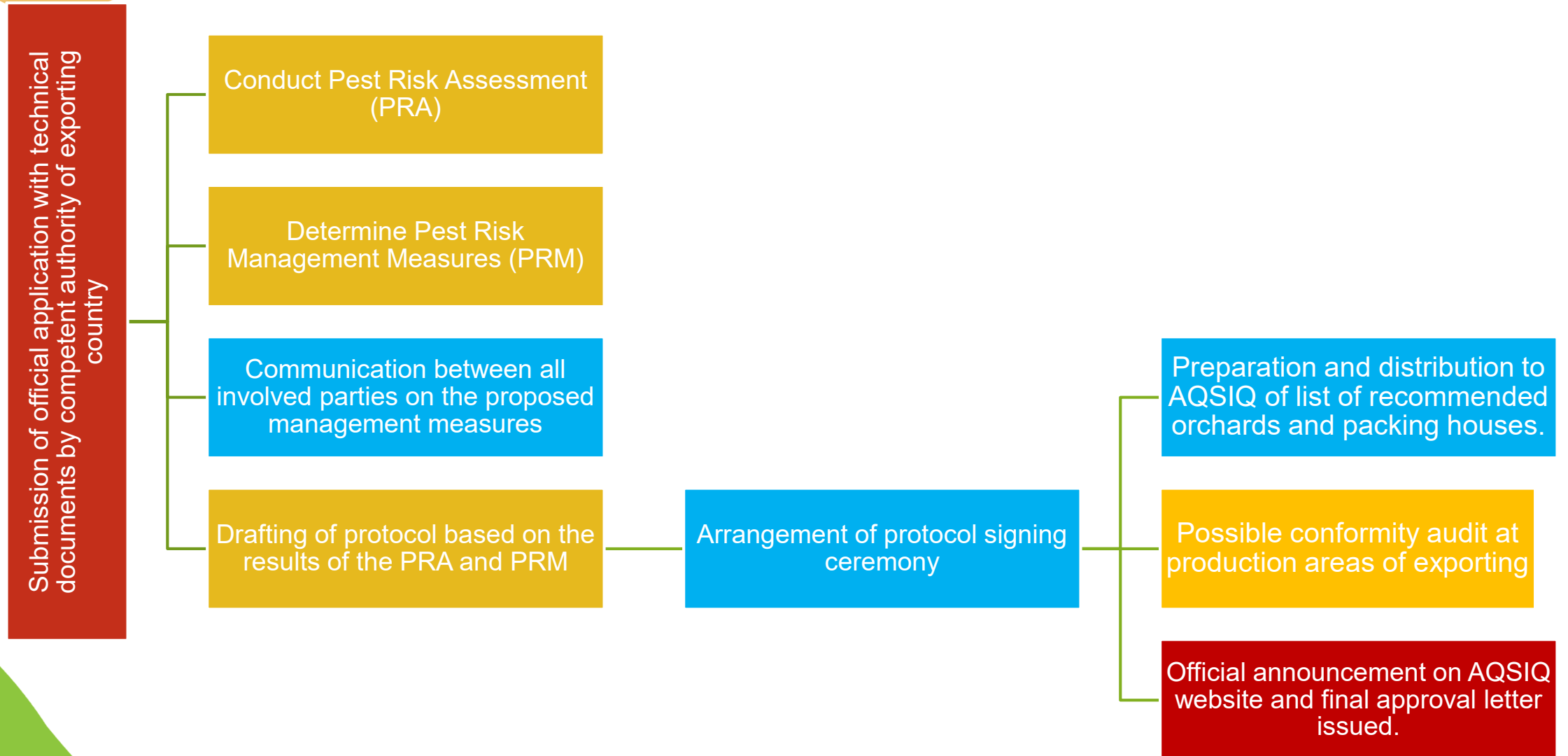
Non phytosanitary market

- ▶ No specific import conditions required to manage pests or diseases e.g. Singapore, Hong Kong

Phytosanitary market

- ▶ A market where specific import conditions are applied to manage pests and diseases of quarantine concern. Specific import conditions and requirements are often outlined within a market access protocol e.g. China, Australia, NZ, US.

Market Access Process China



Protocols Defined

What are market access protocols?

- ▶ Set of procedures and specific requirements that will ensure the exported produce is free of pest or diseases of quarantine concern to the importing country.
- ▶ Negotiated through bilateral negotiations between the 2 countries
- ▶ Must be based on science.
- ▶ Mangoes
 - ▶ fruit fly
 - ▶ weevil, pulp and seed
 - ▶ disease bacterial black spot



Protocols Operational

- ▶ Orchards
 - ▶ Pest and disease status, registration, monitoring for compliance.
- ▶ Processing and Packaging
 - ▶ Clean packaging material and specified processes for packing. Specific labelling requirements
- ▶ Treatment Requirements and Inspection
 - ▶ Treatment to manage quarantine pests (VHT and others). Inspection to ensure product is free of specified pests and disease of quarantine concern
- ▶ Phytosanitary Certification
 - ▶ Issuing of certification to assure importing country that the specific protocol has been followed and the product is free of pests and disease of quarantine concern
- ▶ Port of Entry Inspection
 - ▶ CIQ, a branch of AQSIQ, shall conduct inspections and examine relevant certificates and markings as the mangoes for export to China arrive at the ports of entry in China.
- ▶ Acceptation or rejection of consignment.



Protocols

Vapour Heat treatment

- ▶ In the process fruit enters at normal temperature and is treated with saturated water vapour of higher temperatures thereby greatly improving treatment efficiency, as condensation increases the surface area treated.
- ▶ 47 degrees Celsius or above - 15 minutes or
46 degrees Celsius or above - 20 minutes.

Protocols

Hot water treatment

- ▶ Fruit is dipped into hot water measuring at least (46.1°C) to increase the pulp (interior of the fruit) temperature, and the length of time in the water is determined by the cultivar type and size of the fruit.
- ▶ The hot water needs to include a chlorine sanitiser.





Regulators Overseeing Chinese imports

AQSIQ

- ▶ National quality, metrology, entry-exit health quarantine, food safety
- ▶ Processed applications for market entry

CIQ

- ▶ Operates under AQSIQ
- ▶ Quality standards
- ▶ Entry/exit- port inspection agents

CIQA

- ▶ China entry-exit inspection and Quarantine Association Bridge between government and private sector

GACC

- ▶ Customs



Official market entry

Approved market entry: China

- ▶ Australia – vapour heat treatment, hot water, systems approach
- ▶ Pakistan – hot water
- ▶ Peru – hot water
- ▶ Vietnam – no protocol
- ▶ Myanmar – no protocol
- ▶ Philippines – vapour heat treatment, area freedom
- ▶ Thailand – vapour heat treatment
- ▶ Ecuador – hot water
- ▶ India – hot water
- ▶ Taiwan – no protocol

As at February 2019



Official market entry Trade flows into China

- ▶ Direct imports: Shanghai, Tianjin, Guangzhou and Fujian
- ▶ Cross border imports: Vietnam, Myanmar
- ▶ Informal trade: mostly via Hong Kong, Shenzhen and cross-border
- ▶ This trade has reduced in recent years as it is becoming increasingly more difficult with authorities cracking down more frequently and severely. In addition with the import tariffs becoming lower there is less cost incentive.



Characteristics of Chinese partners

▶ Importers

- ▶ Networks & relationships with distributors and governing bodies able to navigate China's complex system of distribution
- ▶ Handle import processes manage stock and inventory
- ▶ Can act as exclusive partners for foreign exporters

▶ Retailers

- ▶ Advanced distribution and networks, established cold chains work with exporters on instore marketing
- ▶ Direct import sourcing removes the need for middle men

▶ E-commerce

- ▶ Smaller import volumes generally sourced via distributors or direct importing
- ▶ Operates in major cities established cold chain infrastructure
- ▶ Functions independent of distributors, wholesale markets and retailers



Issues facing Chinese importers

- ▶ Competition with informal trade fruit
- ▶ Greater risk is now being experienced with the informal trade, still perceived as being cheaper but potentially more quality issues
- ▶ Additional costs associated with direct imports
- ▶ Can only import through Tier 1 cities
- ▶ Historically release of consignments experienced delays, however the introduction of one-stop regulatory service by government set up in special zones such as Xijiao markets is reported to have expedited the inspection/customs process to 6 to 48 hours.
- ▶ Limited supply due to availability of businesses with treatment plants.



Issues facing Chinese retailers

- ▶ Large retailers need to source through official channels
- ▶ Supply can be limited due to lack of treatment facilities in exporting country
- ▶ Delays in consignments being released
- ▶ Protocol treatments accelerating the ripening process
- ▶ Perception that treated fruit is not as fresh (*not all retailers indicate this*)
- ▶ Additional costs associated with fruit that has gone through protocol treatments
- ▶ Directly imported goods premium supermarkets within FTZ are now able to import direct from abroad.



Issues facing Chinese e-commerce business

- ▶ Lack of infrastructure for handling fruit
- ▶ Ability to source fruit direct from farms (including from export countries)
- ▶ Report quick quarantine/customs clearance as little as 3 hours
- ▶ Fruit ripening not such an issue
- ▶ Able to directly source small consignments which are not subjected to same quarantine regulations.

Residue in China

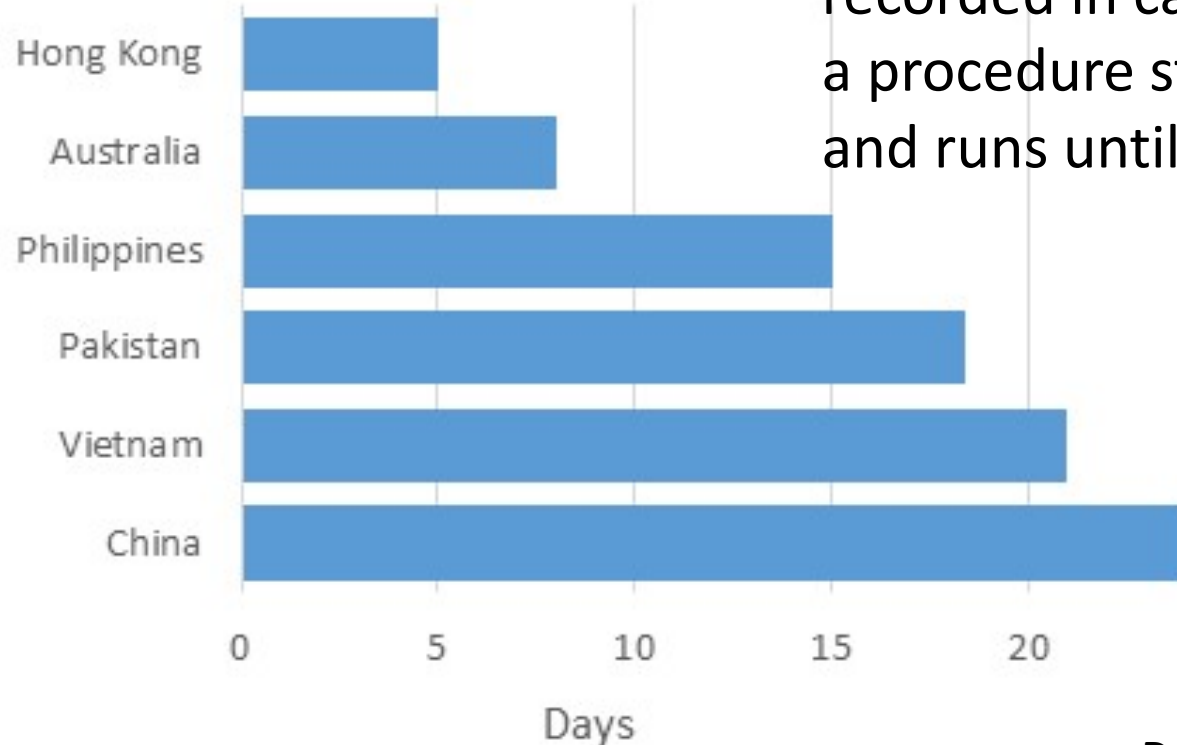
Chemical	Type	MRL (mg/kg)
Difenoconazole	Fungicide	1.00
Pyraclostrobin	Herbicide	0.05
Profenofos	Pesticide	0.20
Mancozeb	Fungicide	2.00
Carbendazim	Fungicide	0.50
		0.05
Paclobutrazol	Plant Growth Regulator	
Spirotetramat	Pesticide	0.30*
Cyhalothrin	Pesticide	0.20
Lambda-cyhalothrin	Pesticide	0.20
Cypermethrin	Pesticide	0.70
Beta-cypermethrin	Pesticide	0.70
Prochloraz	Fungicide	2.00
		2.00
Prochloraz-manganese chloride complex	Fungicide	
Cyprodinil	Fungicide	2.00
Azoxystrobin	Fungicide	1.00
Thiabendazole	Fungicide	5.00
Tebuconazole	Fungicide	0.05
Deltamethrin	Pesticide	0.05
		2.00
Ethephon	Plant Growth Regulator	

Table 3 Mainland China mango chemical residue levels (USDA, 2017)

*Limit is temporary

Time for imports

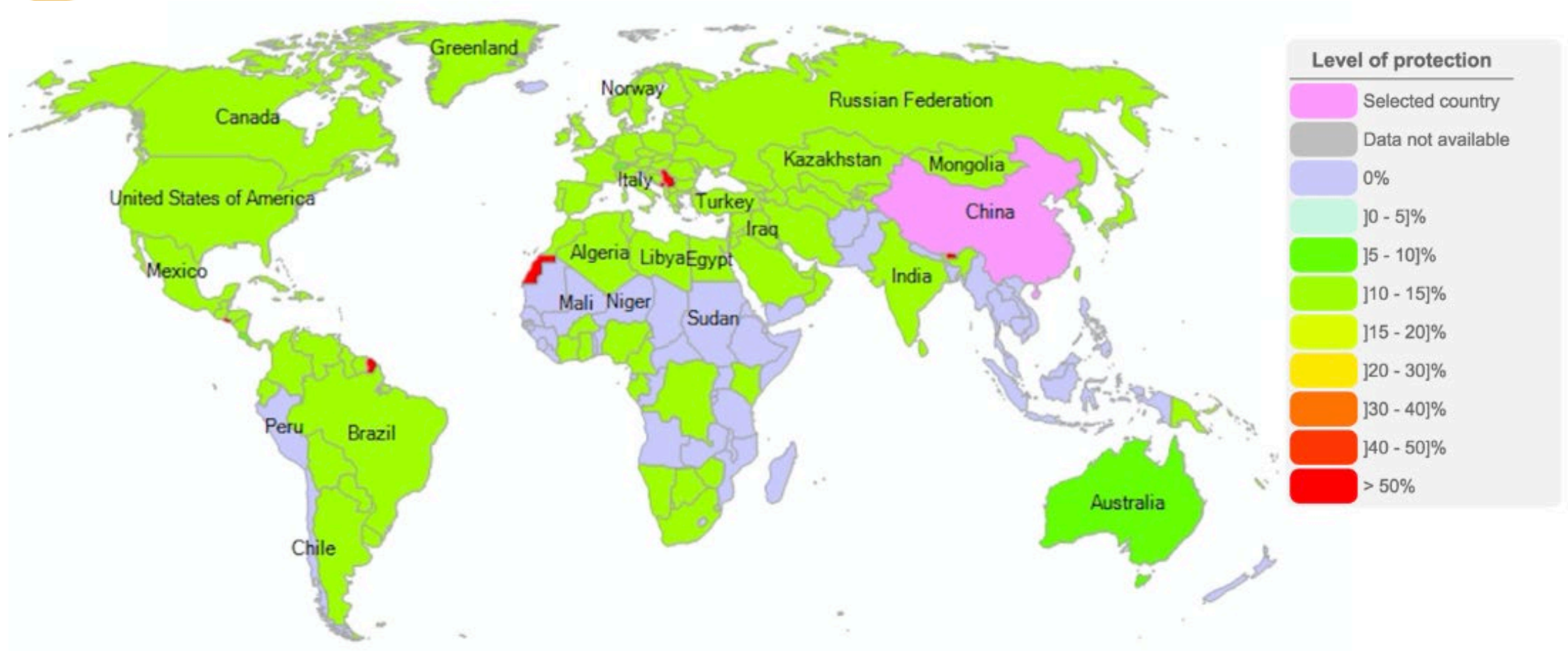
Time for imports is the time necessary to comply with all procedures required to import goods recorded in calendar days. The time calculation for a procedure starts from the moment it is initiated and runs until it is completed



Data from the World Bank

Mango tariffs

Exporting countries to China





Import regulation changes

- ▶ March 2016 changes to the permissible products and tax rates has affected cross-border B2C e-commerce
- ▶ Now must pay 70% of the assessed VAT rate (retail price), which has significantly increased costs.



Current and future developments

Current agreements

- ▶ 17 active trade agreements
- ▶ 11 trade agreements under negotiation
- ▶ 11 trade agreements under consideration

Future developments

- ▶ At this stage China does not accept irradiation as a protocol however there have been some indicators that this may change in the future.



Conclusion SWOT analysis

Strengths

- ▶ More partner countries have direct market entry to China.
- ▶ Tariffs are reducing.
- ▶ Costs of VHT plants is reducing and technical skills in exporting countries is improving, which leads to reduction in damage associated with heat treatments.
- ▶ Supermarkets making substantial inroads into import trade offering better cool chains and fewer middlemen.
- ▶ Genuine moves in streamlining the import process within China



Conclusion

SWOT analysis

Weaknesses

- ▶ VHT very expensive and can be damaging to fruit (potentially shorten shelf life).
- ▶ HWT only suitable for some varieties and can damage fruit (can shorten shelf life).
- ▶ Irradiation can cause fruit quality problems ripening and scalding, not accepted by China as yet.
- ▶ Fumigation: Montreal protocol, environmental issues, can damage fruit, not accepted by China for mango .
- ▶ Systems approach: not widely accepted as yet.



Conclusion

SWOT analysis

Opportunities

- ▶ Reduction in tariffs, more FTAs
- ▶ Supermarkets now actively looking at direct sourcing
- ▶ More formal market entry giving better control over product quality
- ▶ Possibility of China accepting irradiation as a treatment
- ▶ More streamlined inspection and customs process significantly reducing delays
- ▶ Growing e-commerce



Conclusion SWOT analysis

Threats

- ▶ Political issues spilling over into trade
- ▶ Slowing economic growth in China
- ▶ Changes to protocols
- ▶ Pest incursions in exporting countries
- ▶ Limited treatment facilities in some partner countries.