Impact Assessment of SPS Measures Citrus Black Spot (CBS) case study – South Africa

Meeting of Experts to Update
EAC Harmonised SPS Measures
and Procedures Documents

Kampala, 24 - 27 May 2010

U Kleih and D Cassidy

Background to Citrus Black Spot

- Citrus black spot (CBS) is caused by the fungus *Guignardia citricarpa* Kiely,
- It is a leaf-spotting and fruit-blemishing disease affecting *Citrus, Poncirus, Fortunella* spp. and their hybrids.
- Except for sour orange and Tahiti limes, all commercially grown citrus species and cultivars are affected by the disease.
- Lemon is particularly susceptible and thus, in an unaffected area, the disease usually first appears on this species.
- The pathogen is widely distributed throughout Southern Africa though not in the winter rainfall region of South Africa (the Northern Cape and much of the Western Cape).
- Due to the external blemishes, CBS symptomatic citrus fruit is unsuitable for the fresh market but can be processed.

Citrus Black Spot (CBS)

Background to the notification

- The presence of CBS in South Africa became an issue for citrus growers targeting the EU market, when in 1997 the European Communities issued a notification listing third countries and areas recognized as being free of *G. citricarpa* – citrus black spot.
- As a result, given the EU's specific quarantine pest profile for which it requires the application of phytosanitary measures, citrus exports from South Africa risk being intercepted if CBS is discovered during inspections upon arrival in Europe.
- Despite an ensuing lengthy correspondence including a pest risk assessment by South Africa in 2000 and subsequent submission of scientific research results, the EFSA (European Food Safety Authority) Panel on Plant Health did not agree with South Africa's position that the climate of the EU is unsuitable for the establishment of *G. citricarpa*, and that G*. citricarpa* is unable to survive transport, storage and existing pest management procedures.

Background to the notification, ctd

- In addition, the FVO team visiting the country in mid-2009 concluded that South Africa has established a system of official controls for citrus exported to the EU that is generally in line with relevant International Standards for Phytosanitary Measures.
- The FVO team, however, identified a number of weaknesses in the official checks in respect to fruit originating outside of the pest free areas and that there was, therefore, a continued risk of potential introduction of CBS into the EU on such fruit.
- As a consequence of the FVO mission's recommendations, as of August 2009 South Africa's NPPO is applying a strengthened CBS risk management system.
- Nevertheless numerous stakeholders belonging to the NPPO and the citrus industry appear unconvinced of the EU's arguments and there remains the possibility that South Africa will seek a dispute settlement through the IPPC.

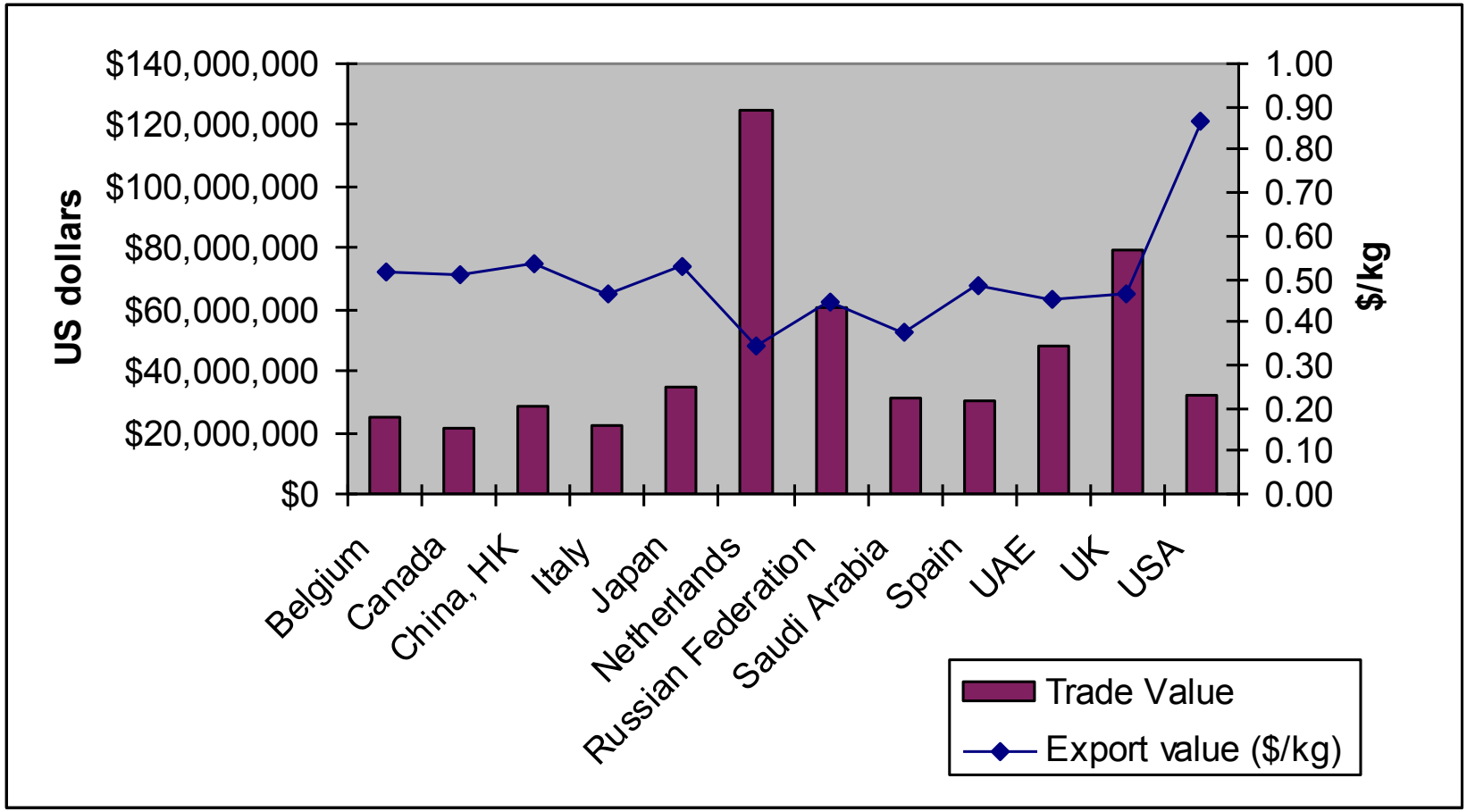
Citrus production in South Africa

- In 2008, South Africa produced 2.27 million tonnes of citrus, of which
  - 1.53 million tonnes were oranges (Valencia, Navel, etc);
  - 0.34 million tonnes grapefruit;
  - 0.17 million tonnes soft citrus; and
  - 0.23 million tonnes lemons and limes.

South African citrus exports

- South Africa is amongst the world's leading exporters of oranges (0.97 m tonnes, in 2008) and grapefruit (0.19 m tonnes).
- In 2008, the main export destinations for oranges were: Northern Europe (29%, in particular the Netherlands), Middle East (20%), Southern Europe (12%), Russia (11%), UK (8%), Far East (7%), USA (4%) and other markets (6%).
- Total citrus exports were worth USD 663 million (2008).
- Industry participants tend to express prices in South African Rand (ZAR) per 15-kg carton of fruit.
- Export fruit fetches by far the highest price (R 3.4/kg of oranges in 2008), compared to the local fresh fruit markets (R 1.4/kg), and fruit destined for processing (R 0.42/kg).

Main destinations for SA citrus and export value (2008)



The South African SPS system (Plant Health)

- National Notification Authority: Directorate of International Trade/ Department of Agriculture, Forestry and Fisheries (DAFF).
- National Enquiry Point: Directorate of Plant Health (DPH)/DAFF; it has good interaction with private sector (e.g. Citrus Growers Association and Citrus Research International); and other Gvt directorates (e.g. APIS) dealing with plant health issues.
- There are several forums and committees (e.g. Market Access Working Group; Citrus Working Group; Cold Chain Forum) bringing together private and public sector players.
- Implementation of SPS matters: Agricultural Products Inspection Service (APIS) and Perishable Products Export Control Board (PPECB).

SPS system (Plant Health), issues

- Working groups and committees play an important role in setting priorities; however involvement of Directorate of International Trade at DAFF, or Department of Trade and Industry could be strengthened.
- SPS Coordination Committee is not meeting regularly, due to changes in the DAFF structure; more communication is required.
- There may be an issue of overlap of functions between APIS and PPECB.

Interceptions of South African citrus in the EU (e.g. in the Netherlands)

Year	Number of interceptions
2006	22
2007	42
2008	78
2009	13 Fewer interceptions due to improved CBS risk management in South Africa

Initial outcomes of the ban

Trade diversion is one of the consequences of CBS and 'potential' as well as 'real' interceptions. In particular, the following options have been highlighted:

- If a consignment is intercepted in the EU (e.g. Rotterdam) this is likely to lead to onward shipments to countries such as Russia.
- In order to avoid interceptions, citrus shipments would be sent to less sensitive markets (e.g. Middle East, non-EU Eastern European countries) if a consignment was in danger of being intercepted on arrival in the EU.
- Fruit considered not fit for export would be sold on the local fresh fruit market or used for processing (e.g. juice, jams, canned fruit).
- Each of the options is associated with an economic loss in that produce sent to less sensitive markets is likely to fetch lower prices. Also, additional handling and freight costs will be incurred if a consignment has to be redirected.

Economic impacts

At enterprise level, the impacts of CBS are as follows:

- Increased spraying regime required in order to minimise risk of interceptions in sensitive markets;
- Replacement of old trees that are more likely to be affected by CBS;
- Orchard hygiene in the form of leaf litter removal;
- More intensive grading required in pack houses in order to sort out blemished fruit;
- Lower margins as a result of fruit diverted onto other markets, and/or increased production and pack house costs.

Economic impacts, ctd

Adjusted Gross Margins as a Result of CBS

	Normal season (assuming 60% of crop is exported; 10% sold on local fresh fruit market, and 30% sold to processing industry)	10% less exports (assuming exports are reduced by 10% and equivalent is sold to processing industry)	No EU/ Japan/ Iran/ Korea exports
Gross Income per Hectare	R 93,150.00	R 81,450.36	R 73,588.50
Total Variable Costs	R 49,930.61	R 49,930.61	R 49,930.61
Gross Margins per Hectare	R 43,219.39	R 31,519.75	R 23,657.89

Social impacts

- Citrus production plays an important role in rural employment (i.e. well over 100,000 workers carrying out production and post-harvest activities).
- Paradoxically, it appears as if CBS is actually contributing to employment in that a relatively small number of extra workers are being employed in pack houses for grading.
- Given the strict spray management regime required, small citrus farms have more difficulties to control CBS.
- Initiatives by the CGA/Citrus Academy and the Fresh Produce Exporters Forum (FPEF) are important in assisting emerging farmers.

Environmental impacts

- Intensive spraying can lead to extra pressure on the environment.
- Mancozeb and strobilurins are commonly used to control CBS. Both these chemicals/chemical groups are not persistent and are quickly broken down in the soil. In addition their mammalian toxicity is low.
- However, copper based fungicides have a long-term impact on a wide range of soil biota.

Institutional impacts

- The sensitivity of the main citrus importing countries to CBS and other pests and diseases required a coordinated response from the South African industry and the public sector.
- In particular, a close link has been established between the private sector and NPPO, involving growers (represented through a strong association), research bodies (e.g. CRI, universities), and DPH and inspection agencies.
- Various meetings and working groups have been formed on a permanent or ad-hoc basis as required in order to tackle the demands of the export markets, including CBS related interceptions and notifications.
- As for the functioning of the SPS Coordination Committee it appears as if the link between the Directorate International Trade and the NPPO plus private sector stakeholders could be strengthened.

Flanking measures – CBS related measures in the citrus value chain

Stage in the value chain	CBS related activities
Production	Old trees are being replaced; Orchard hygiene, tree pruning (CBS related); Removal of leaf litter; Spraying – at least one additional spraying is required as a result of the risk of interceptions in sensitive markets; Movement of citrus plants is controlled at provincial level; only registered nurseries can officially sell plants.
Pack house	Grading; sorting out of blemished fruits (CBS related or otherwise); Inspections by PPECB and APIS; Both Swazi and SA inspectors are present in Swaziland
Transport	No temperature treatment required

Flanking measures – CBS related measures in the citrus value chain, ctd

Stage in the value chain	CBS related activities
Ports (South Africa)	PPECB inspectors; Pre-shipment inspection by Japanese, Korean, and USDA/APHIS inspectors.
Ports (Overseas)	Inspections; if interception then notification by EU Member State NPPO to South African NPPO (i.e. DPH).

Conclusions

- South African stakeholders have taken seriously the necessity of complying with the requirements of sensitive citrus markets, in order not to jeopardise exports of this important industry. For example, this has resulted in a sharp drop of CBS related interceptions of South African citrus upon arrival in the EU.
- At the same time, they appear unconvinced of the arguments brought forward by the European Commission's EFSA and FVO regarding the suitability of the EU's climate for the establishment of *G. citricarpa*, and the latter's ability to survive transport, storage and existing pest management procedures.
- As a consequence, there is the possibility that South Africa will seek a dispute settlement through the IPPC. Whilst dispute settlements provided by IPPC are not binding, the process and results will likely have significant weight if the issue is taken to the WTO under the SPS Agreement.

Thank you for your attention !