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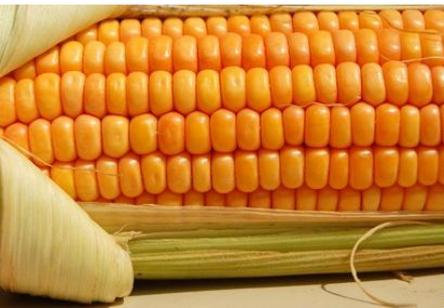
The cost implications of complying with the EU Citrus Black Spot Requirements

Presenter

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Outline of the Presentation

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- What is Citrus Black spot?
- EU phytosanitary requirements
- South Africa's compliance initiatives
- Research Methods
- Results and discussion
- Conclusion

Introduction

- Citrus fruit industry plays a significant role to the economy in terms of:
 - Provides job opportunities (100 000 direct and over 150 000 indirect)
 - Foreign earnings from exports (R7.3 billion in 2013)
 - Export a total quantity of 2 million ton (20 jobs equivalent to 1 ton)
- European Union (EU) market remains a primary and largest export destination for South African citrus, accounting for 55% share in total exports
- However, SA faces the challenge of Citrus Black Spot (CBS) reoccurrence in their EU exports .
- EU has detected 30 and 36 CBS interceptions in 2011 and 2012, respectively (six times more than maximum allowance)
- CBS is an important phytosanitary requirement for citrus import permission in the EU market

What is CBS?

- Kotze, (1981) defined CBS as the fungal disease that affects the development of citrus fruit.
 - Spots outside the fruit
 - Mostly found in lemons and oranges



EU Phytosanitary measures to control Citrus Black Spot Disease

- The Council Directive of European Commission requires that:
 - Plant products and other objects that carry a risk of CBS be subjected to plant health inspection
 - CBS interceptions should not exceed the allowed maximum (5)
 - Citrus fruit from affected orchards be not allowed in the EU

South Africa's compliance initiatives

- Invested heavily on research and development for CBS (about R32 million in 2012)
- Deregistered CBS affected orchards for EU exports
- Introduced:
 - Strict spraying programme to mitigate the risks of CBS
 - Strict monitoring of CBS and testing measure
- This study seeks to evaluate the cost implications of CBS compliance by SA's citrus industry to the EU requirements.

Research Methods

- WITS Partial equilibrium method was used to analyse the impact of CBS on South Africa citrus exports
- The mathematical expression of the WITS Partial equilibrium as follows:

$$M_{ijk} = X_{ijk} \dots\dots\dots (1)$$

where $M_{ijk} = F(Q, P_{ij}, P_{ik})$ and $X_{ijk} = F(P_{ijk})$

- A change in price reflects amount of the incidence tariff/ Non-Tariff Measures (NTMs) applied expressed as follows;

$$P_{ijk} = P_{ikj}(1+t_{ijk}) \dots\dots\dots (2)$$

Measuring the economic impact of CBS compliance as a SPS measure

- To measure cost compliance the following scenario were developed
 - The incidence of CBS will require compliance on citrus affected producing regions in SA.
- Compliance cost measure include:
 - Spraying of orchards
 - Inspection of fruits
 - Packhouse audit
 - Pre-inspection at the port
- CGA estimated that compliance measures increased total production costs by 57%
- Cost of compliance are reflected as tariff equivalent of NTMs in the model as incidence of CBS;
- $P_{ijk} = P_{ikj}(1 + NTM_{ijk}) \dots \dots \dots (3)$

Results and Discussions

1. Impact of CBS on SA's exporters

- Decrease of citrus exports (loss of \$100 million)
- Citrus exports affected
 - Soft citrus
 - Citrus fresh or dried
 - Lemons

| Products | Exports in \$million for 2012 | % change in exports |
|-------------------------|-------------------------------|---------------------|
| Oranges | 312 | -10 |
| Soft citrus (Mandarins) | 38 | -60 |
| Grapefruit | 70 | -5 |
| Lemons | 46 | -29 |
| Citrus fresh or dried | 1 | -52 |
| Total citrus products | 516 | -19 |

Results and Discussions

2. Impact of CBS on trade diversion and trade creation

- No trade creation
- Trade diversion occurred (\$739 thousand)
- South African exporters displaced by the following markets
 - Spain
 - Turkey
 - Morocco

| Product | Trade total effects (\$ 1000) | Trade creation (\$1000) | Trade diversion effects (\$1000) |
|-------------------------|-------------------------------|-------------------------|----------------------------------|
| oranges | 3 595 | -3 786 | 4 985 |
| Mandarins (soft citrus) | -23 002 | -4 251 | -3 416 |
| Grapefruit | -1 249 | -340 | -76 |
| Lemons | -5 987 | -1 246 | -747 |
| Citrus fresh or dried | -131 | -38 | -6 |
| Total | -26 777 | -9 664 | 789 |

Results and Discussion

- 3. welfare effects
 - 2 Jobs losses per ton for SA's industry

| | Value | quantity | Export losses | Job per ton | Job losses |
|---------------|-------|--------------|---------------|-------------|------------|
| World exports | 7.3 b | 1.6 m | | 15 | |
| EU exports | 2.9b | 630 thousand | 140 thousand | 7 | 2 |

Conclusion

- The aim of this study was to estimate the cost implications of CBS compliance by South African citrus industry to the EU
- The nature of cost were in the form of;
 - Revenue loss
 - Job losses
 - Trade diversion
- The total losses were estimated at \$100 million which is equivalent to 19% of exports (2010-2012).

END OF PRESENTATION

THANK YOU

