Module 36
Infrastructure Overview

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information

Please Note

The information in this module was accurate at the time of going to print, which was after the 2009 citrus season. Please keep up to date with the latest developments in terms of infrastructure availability and usage by consulting the regular logistics report issued by the Citrus Growers' Association (www.cga.co.za).

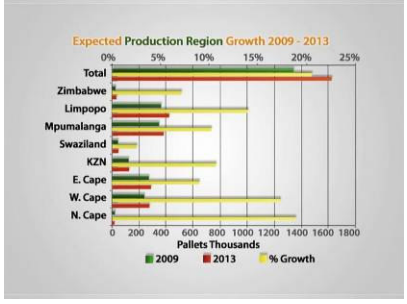
Introduction

Citrus is a perishable product. The infrastructure that is required to transport, load and ship the almost one-and-a-half million tonnes of citrus that is exported from South Africa annually therefore needs to be adapted for the special needs of our product. Infrastructure can be defined as the basic services, physical structures and facilities needed for the operation of citrus exports. The term typically refers to the technical structures that are required such as roads, rail lines, cold store facilities, port terminals and shipping, and so forth.

Production and Export Ports

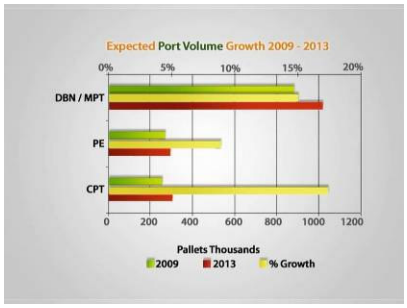
On the map we can see the production regions in relation to the ports utilised for exporting citrus, being Cape Town, Port Elizabeth, Durban and Maputo. A high concentration of citrus production can be seen in the northern part of South Africa, which is sent to Durban and Maputo ports.

Here we can see that, from the citrus tree planting data in each of the provinces, we are expecting an increase of 20% in production in the next five years. If we align this data from each region and link it to a shipping port, then we can ascertain what volume of growth can be expected to be shipped from each port.



If we consider the data that is reflected in the next slide, it can be ascertained that each port is likely to expect volume growth in the next five years.

The Durban and Maputo ports combined ship about 60% of citrus exports, which is a lot higher than what is shipped from Cape Town or Port Elizabeth. The Durban and Maputo ports combined are expected to ship a further 15% of citrus between them, which may eventually exceed one million pallets of citrus in the next five years. This is based on the tree citrus planting information provided from the northern regions.



The Cape Town and Port Elizabeth ports are also expected to grow about 15% and 10% respectively. When considering this data in terms of infrastructure we need to evaluate what the future demands are going to be required to ensure that this volume of citrus will be efficiently and effectively managed.

Infrastructure Requirements

Rail Transport

Rail transport handled less than 5% of citrus exports during the 2009 season, and therefore rail transportation is considered a critical strategic element for citrus exports.

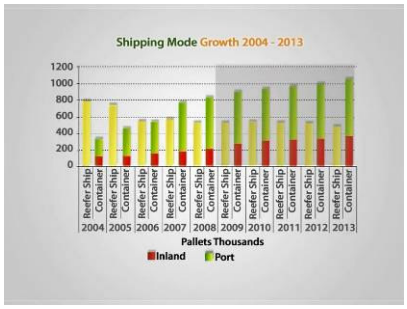
Cold Store Capacity

Further we need to evaluate what cold store capacity is available in each region and consider proposals to increase capacity where a shortfall can be identified.

Container Shipping Growth

We can see that high volumes of citrus are being exported in containers. From the 2004 season to the 2008 season, a three fold increase in container volume was seen where now 60% of citrus is shipped this way.

Further growth in container exports are expected in the next five years, where it is estimated that 70% of citrus exports will be transported by containers to markets.



Mobile Racking Units

If we consider this, it will be essential to ensure that cold store facilities adapt infrastructure to manage this volume. This will entail the development of mobile racking units and extra container bays will be needed.

Stock Dwell Time

Short term solutions to ensure that volume growth can be managed sufficiently with the current infrastructure, is to reduce stock dwell time so that a higher volume of citrus can be handled by cold stores, as lower dwell times will mean that products will move quicker through the cold stores facilities.

Increasing Rail Transport

Another important aspect is to increase the use of rail transport, and rail will ensure that the product flow from packhouse to port facilities and terminals is a seamless operation.

Conclusion

It is also critical that industry stakeholders are aware of the volumes of citrus that is expected to be exported in the next five years in order to evaluate infrastructure demands.

The Citrus Growers' Association makes available information on current and projected citrus production and export volumes, and infrastructure usage and requirements.

Please visit their website at www.cga.co.za for more information.

active learning

Watch the DVD clips, read through the learning material and do workplace research to gather the knowledge and information to complete the assignments below.

Activity 36.1 – Research Report

Contact your local railway offices and transport operators to determine the price difference between transporting citrus fruit by rail or by road from your packhouse location to the harbour.

Write a 2-page report, summarising the cost comparison – remember to take into account all costs involved in each mode of transport – and discussing the advantages and disadvantages of the two modes. Make a recommendation based on your findings and conclusions.

Activity 36.2 – Group Discussion

In your group, discuss where capital investments in infrastructure should be made to ensure that the expected growth in citrus production and exports can be adequately handled. Make keynotes on your discussion in your workbook.

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