



Citrus Growers Association

**WELCOME**

**Durban Citrus Logistics  
Stake Holders Workshop**



# Agenda

- RSA Citrus Volume Analysis 2004 – 2013
- Citrus Industry – Durban Critical Logistical Dilemmas
- Infrastructure and Development Proposals
- CGA – Weekly Logistics Report
- Durban Citrus Logistics Stake Holders Feedback

**Objective: To inform Durban Citrus Logistical Stake Holders of citrus volume trends and logistical dilemmas, propose a way forward through information sharing and informative mediums...**



## Logistics by Definition

Logistics Management is the process of **planning, organizing and executing** the efficient / effective flow and storage of goods, services and **related information**, from the place of origin to the place of consumption, in a way that optimally satisfies consumer requirements and with the goal of **maximizing the wealth of all the stakeholders**



## CGA's Role in the Logistics Chain

- Monitor *Logistical Trends* and inform industry stake holders
- Create an awareness of *Citrus Logistical Dilemmas*
- Create informative *Mediums and Forums* that are orientated towards identifying and overcoming the industries logistical dilemmas
- *Facilitate* a stabilized and sustainable logistics environment
- Identify and *Coordinate Logistical Developments* that meet with the industries long term demands




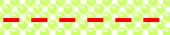



# RSA Citrus Volume Analysis 2004 - 2013

- Port Export Volume Analysis
- Shipping Mode Volume Analysis
- Market Volume Analysis
  
- **2004 – 2008 are actual shipped volumes**
- **2009 – 2013 tree census data linked to port (by commodity)**



## Key to Graphs

-  Port loaded: loaded at port cold store facility
-  Inland loaded: loaded at farm or hinterland cold store
-  Conventional loaded: loaded in break-bulk vessel at port terminal
-  Effective volume throughput based on cold store capacity
-  Capacity cross roads curve

Capacity throughput calculation is based on 80% utilization during peak weeks 20 - 40 with an ave. dwell of 10 days.

= 20 weeks x 7 days = 140 days / 10 (dwell) = 14 utilization factor per slot.

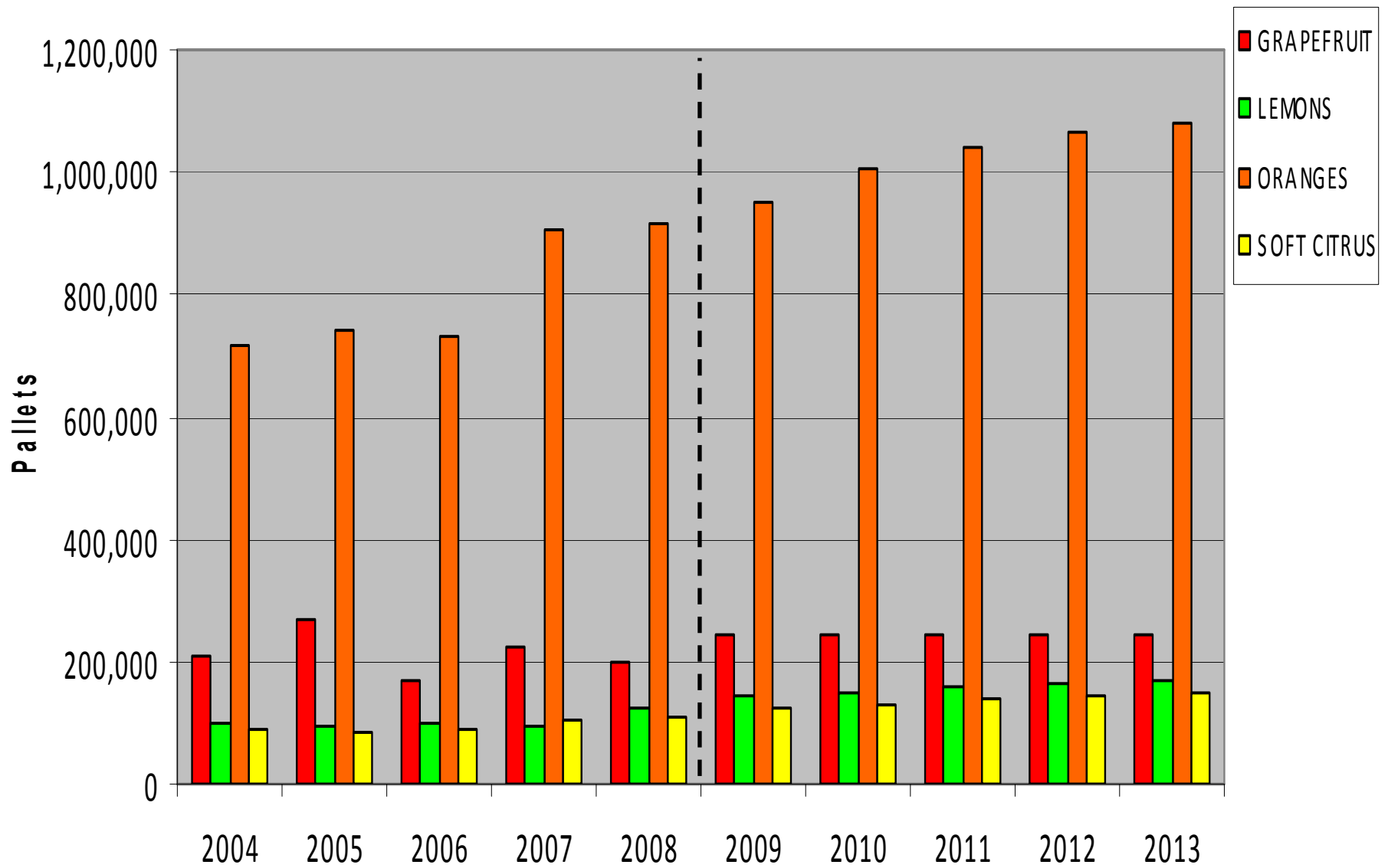
e.g. Durban capacity = 60,000 pallets

= 60,000 slots x 80% utilization x 14 u.f.p.s = 672,000 pallets throughput capability

## REGIONAL VOLUME GROWTH PROJECTIONS BASED ON THE TREE CENSUS DATA

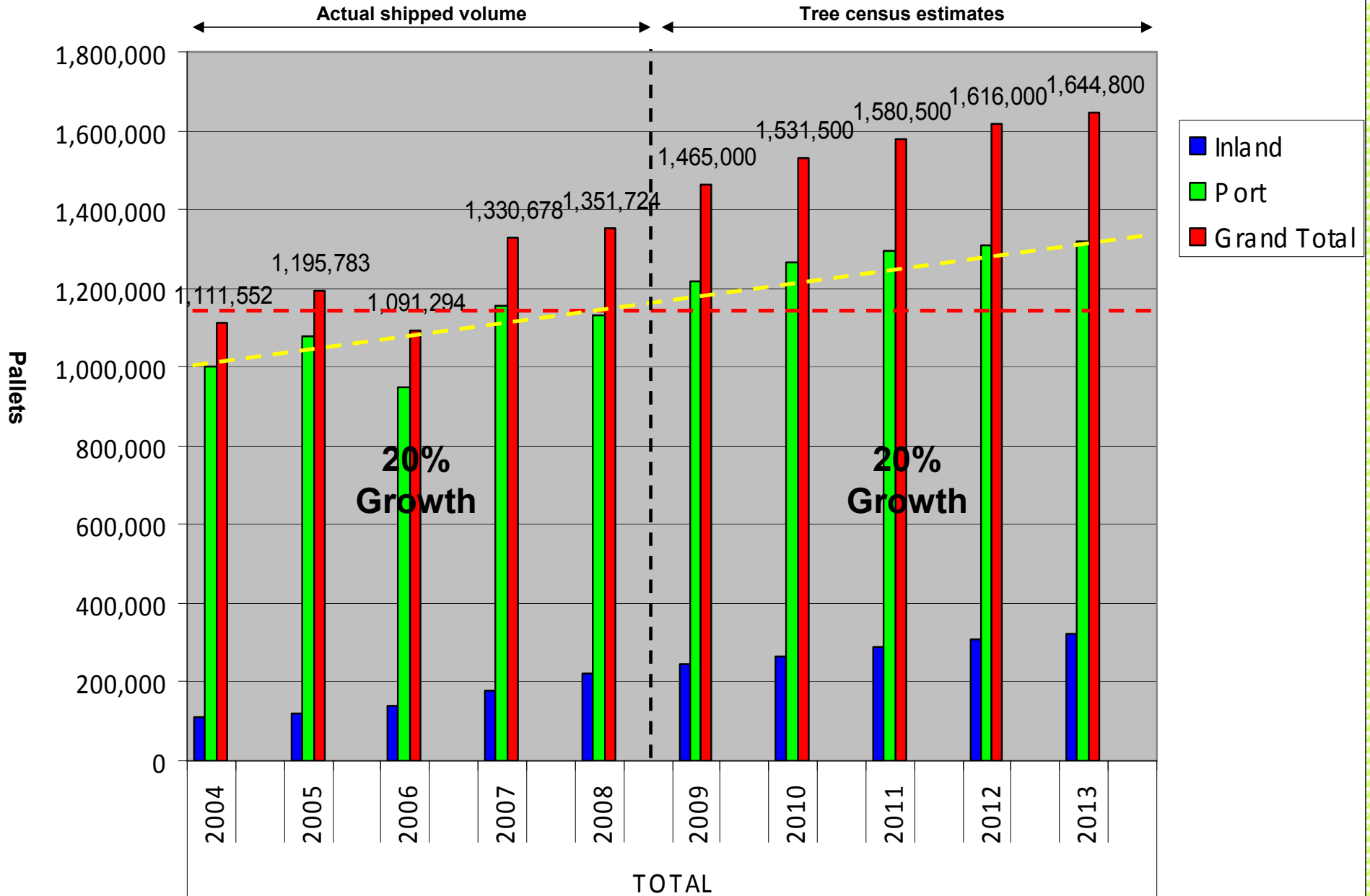
Sum of PLTS	Year								%
Region	2007	2008	2009	2010	2011	2012	2013	Grand Total	
Boland	37,110	39,959	42,577	44,327	45,416	46,118	46,755	302,261	26%
E. Cape Midlands	38,118	38,818	41,428	43,810	41,684	42,902	44,257	291,017	16%
Hoedspruit	45,982	51,168	56,653	59,038	64,425	66,500	65,051	408,817	41%
<b>Letsitele</b>	<b>232,951</b>	<b>247,318</b>	<b>261,256</b>	<b>277,271</b>	<b>291,127</b>	<b>293,305</b>	<b>294,577</b>	<b>1,897,805</b>	26%
N. Cape	13,652	15,261	16,829	18,221	19,489	19,917	20,040	123,408	47%
Nelspruit	84,439	87,477	90,785	93,040	92,888	90,106	90,544	629,279	7%
Nkwaleni	61,086	63,677	67,489	70,496	62,757	65,451	67,397	458,352	10%
Onderberg	133,689	135,518	139,923	144,611	149,231	151,437	151,606	1,006,015	13%
Patensie	58,492	62,310	65,597	67,819	69,951	71,047	71,176	466,392	22%
Pongola	19,433	20,136	21,058	20,575	21,669	21,972	21,445	146,288	10%
Senwes	105,198	114,812	124,019	128,723	134,241	139,275	143,571	889,838	36%
Southern KZN	26,390	28,483	30,515	32,389	33,610	35,385	37,071	223,842	40%
Sundays River Valley	165,972	176,772	185,931	193,956	199,216	202,040	204,149	1,328,036	23%
Swaziland	43,020	45,147	47,015	47,653	47,641	48,279	47,371	326,126	10%
Tshipise/Musina	61,983	67,650	69,706	73,951	77,786	80,401	83,079	514,555	34%
W. Cape	194,373	204,428	216,697	228,537	237,193	249,087	257,856	1,588,170	33%
<b>Grand Total</b>	<b>1,321,887</b>	<b>1,398,934</b>	<b>1,477,479</b>	<b>1,544,415</b>	<b>1,588,323</b>	<b>1,623,220</b>	<b>1,645,945</b>	<b>10,600,202</b>	25%
	<b>Big 5' Volume based</b>								

# RSA CITRUS - TOTAL COMMODITY VOL PROJECTION



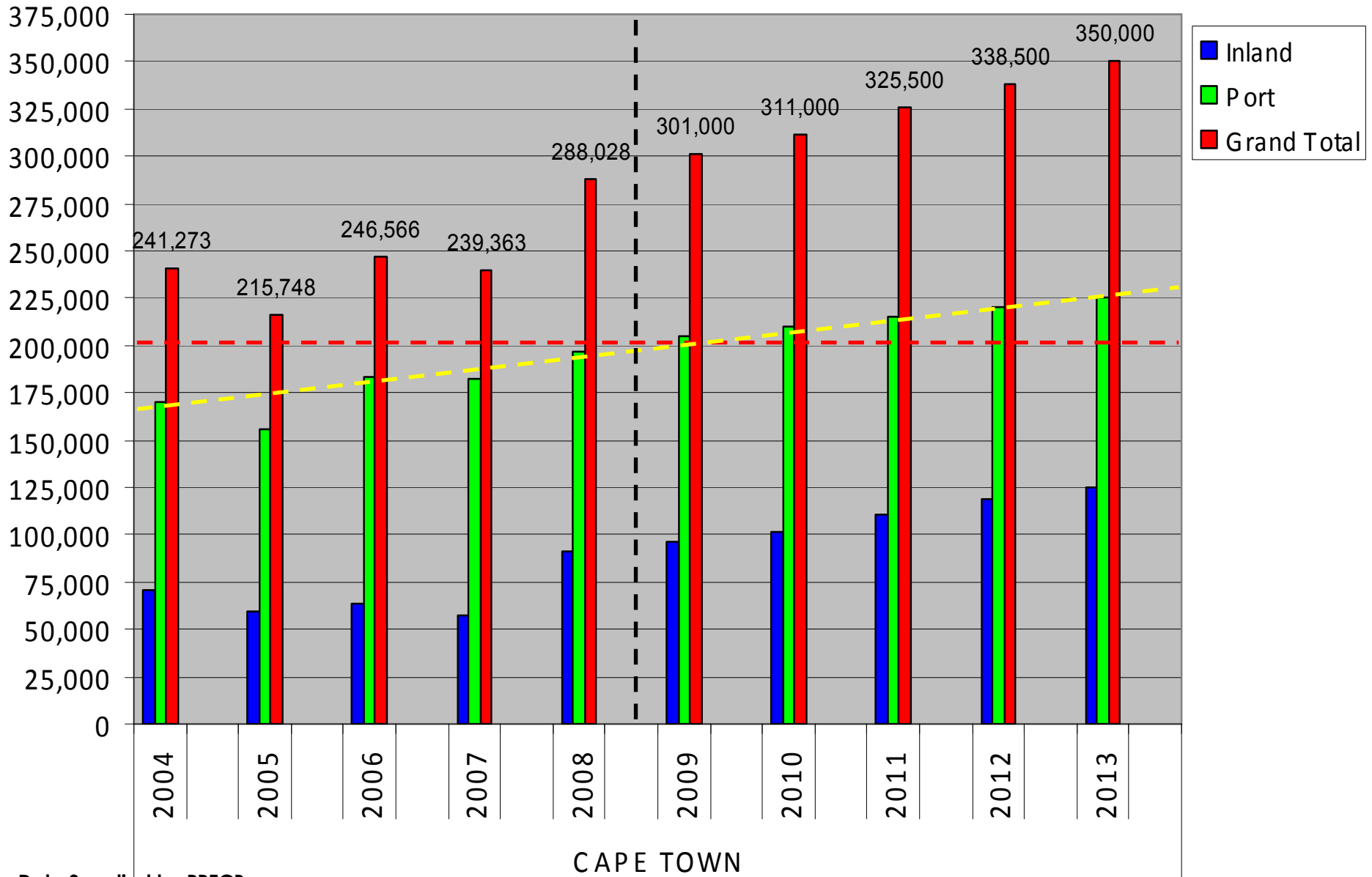
Data Supplied by PPECB

# RSA CITRUS - TOTAL VOLUME GROWTH PROJECTION



Data Supplied by PPECB

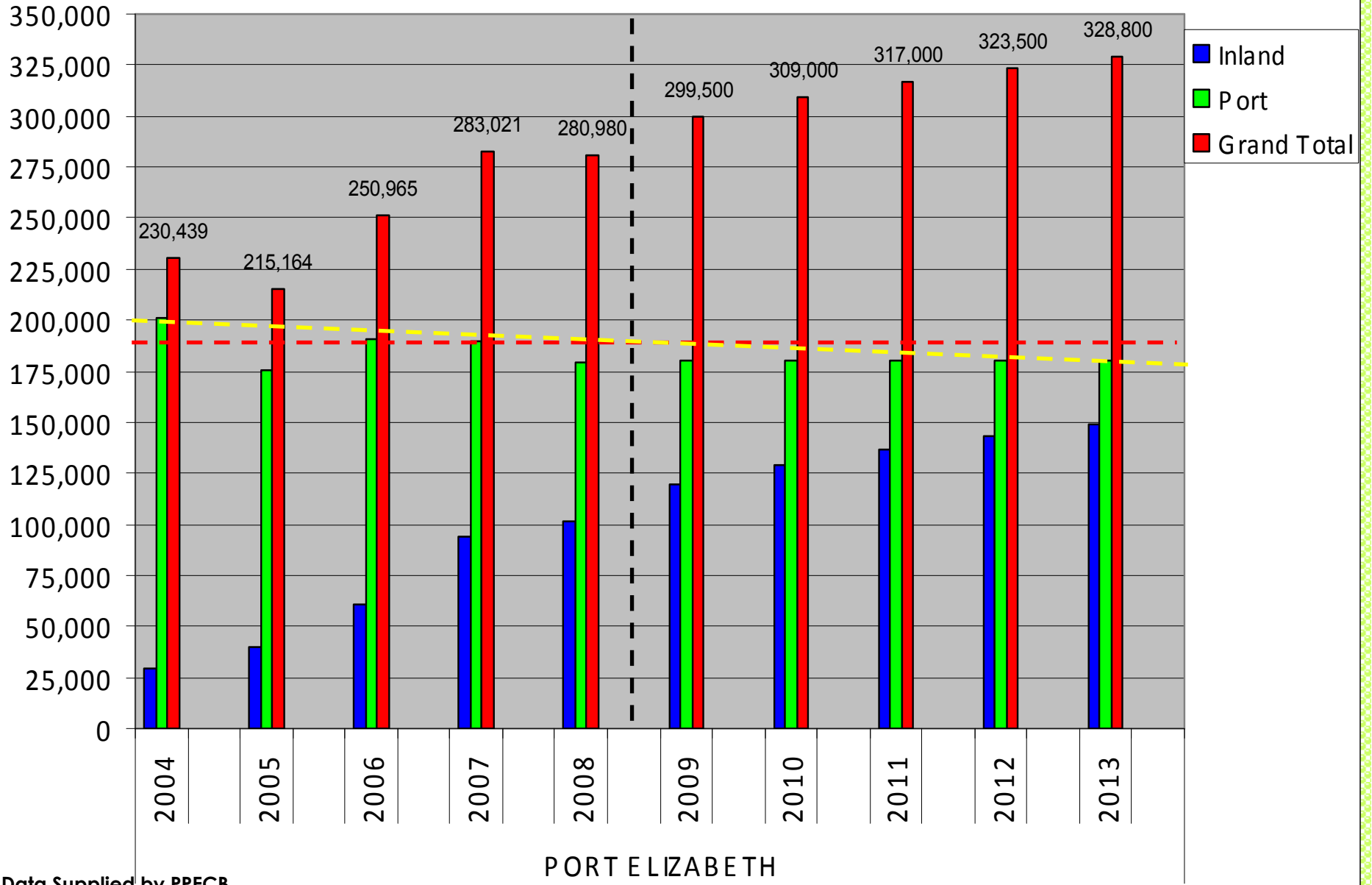
# RSA CITRUS - CPT VOLUME GROWTH PROJECTION



Data Supplied by PPECB

CAPE TOWN

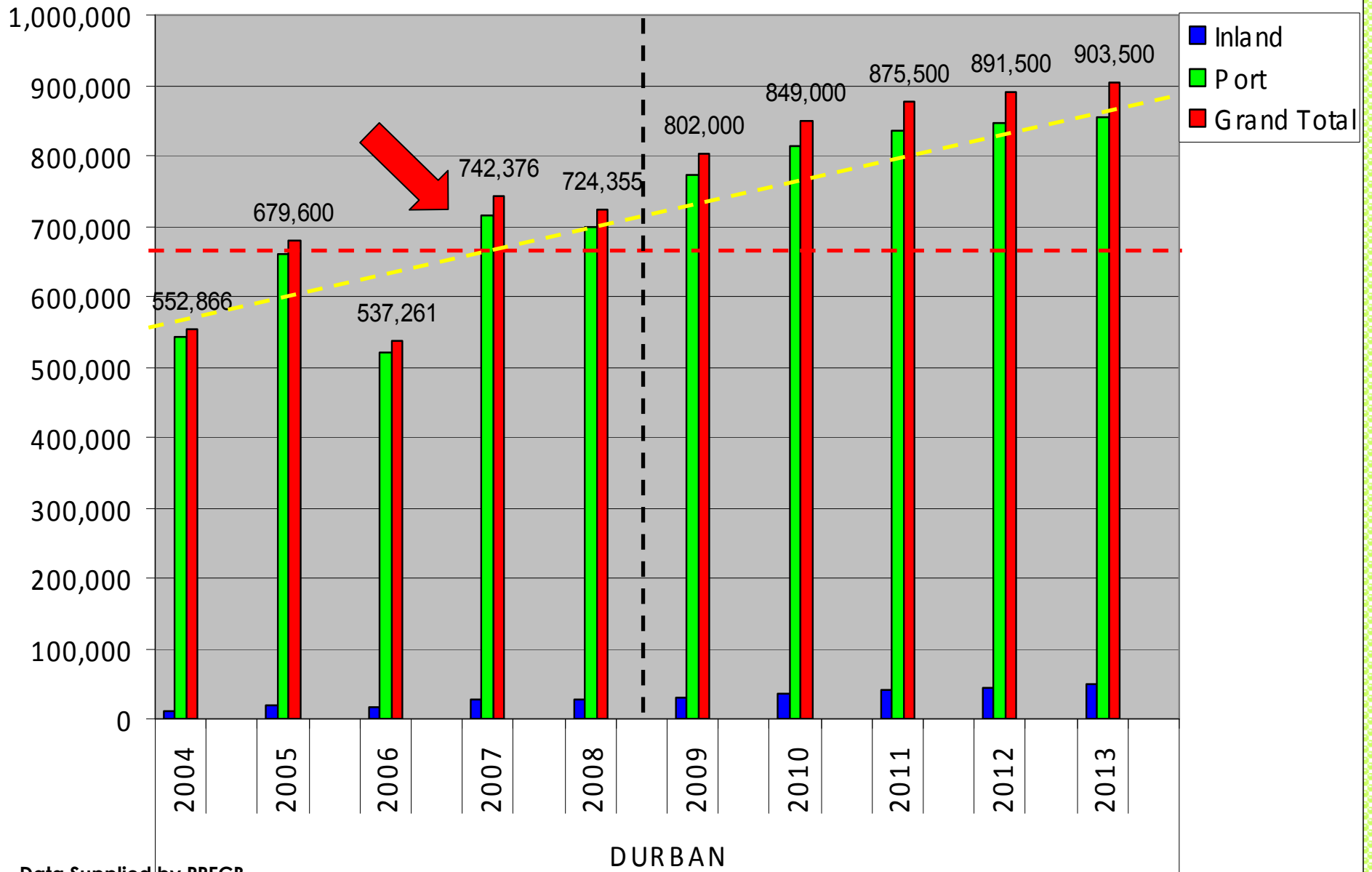
# RSA CITRUS - PE VOLUME GROWTH PROJECTION



Data Supplied by PPECB

PORT ELIZABETH

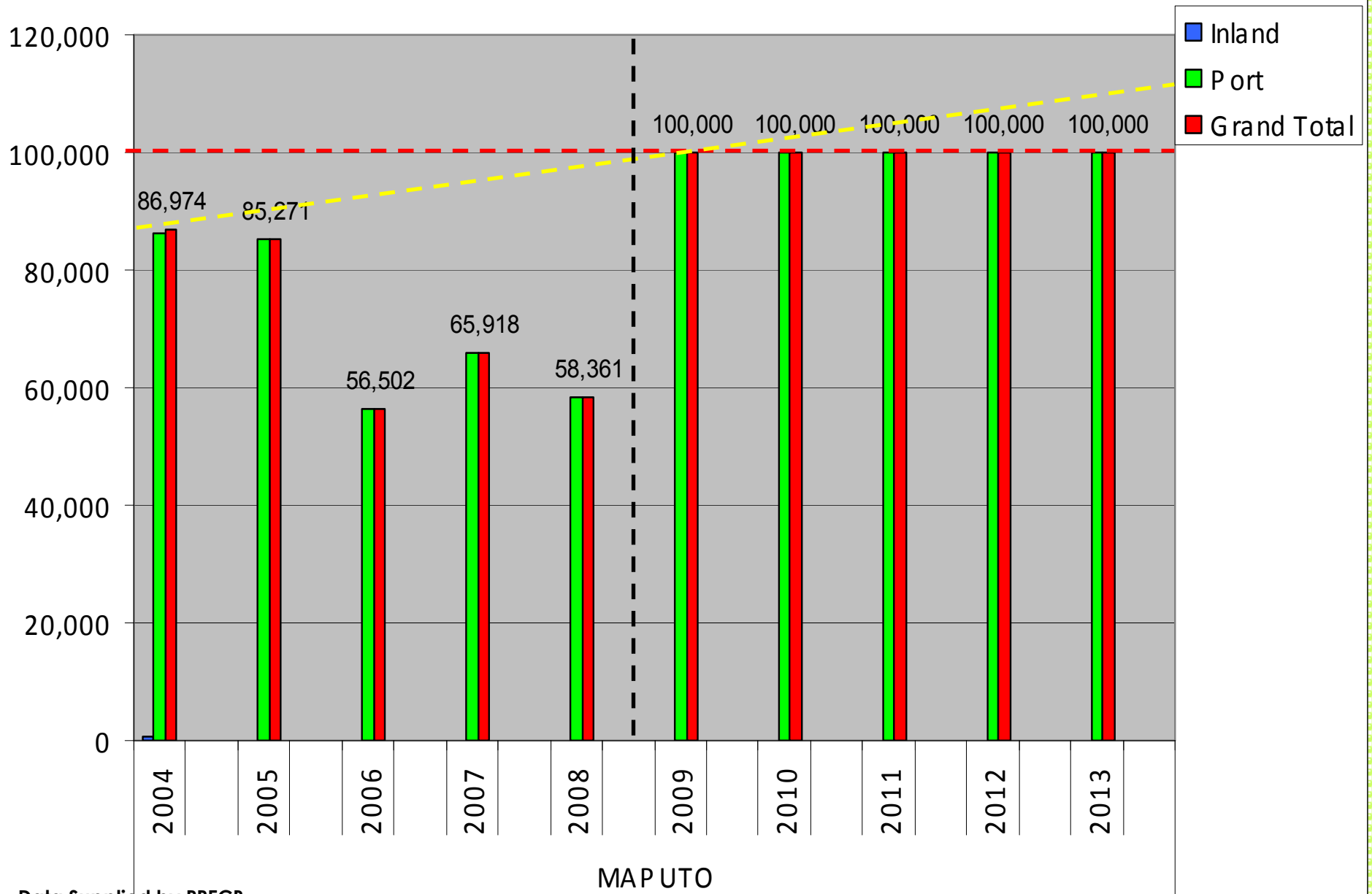
# RSA CITRUS - DBN VOLUME GROWTH PROJECTION



Data Supplied by PPECB

DURBAN

# RSA CITRUS - MPT VOLUME GROWTH PROJECTION



Data Supplied by PPECB

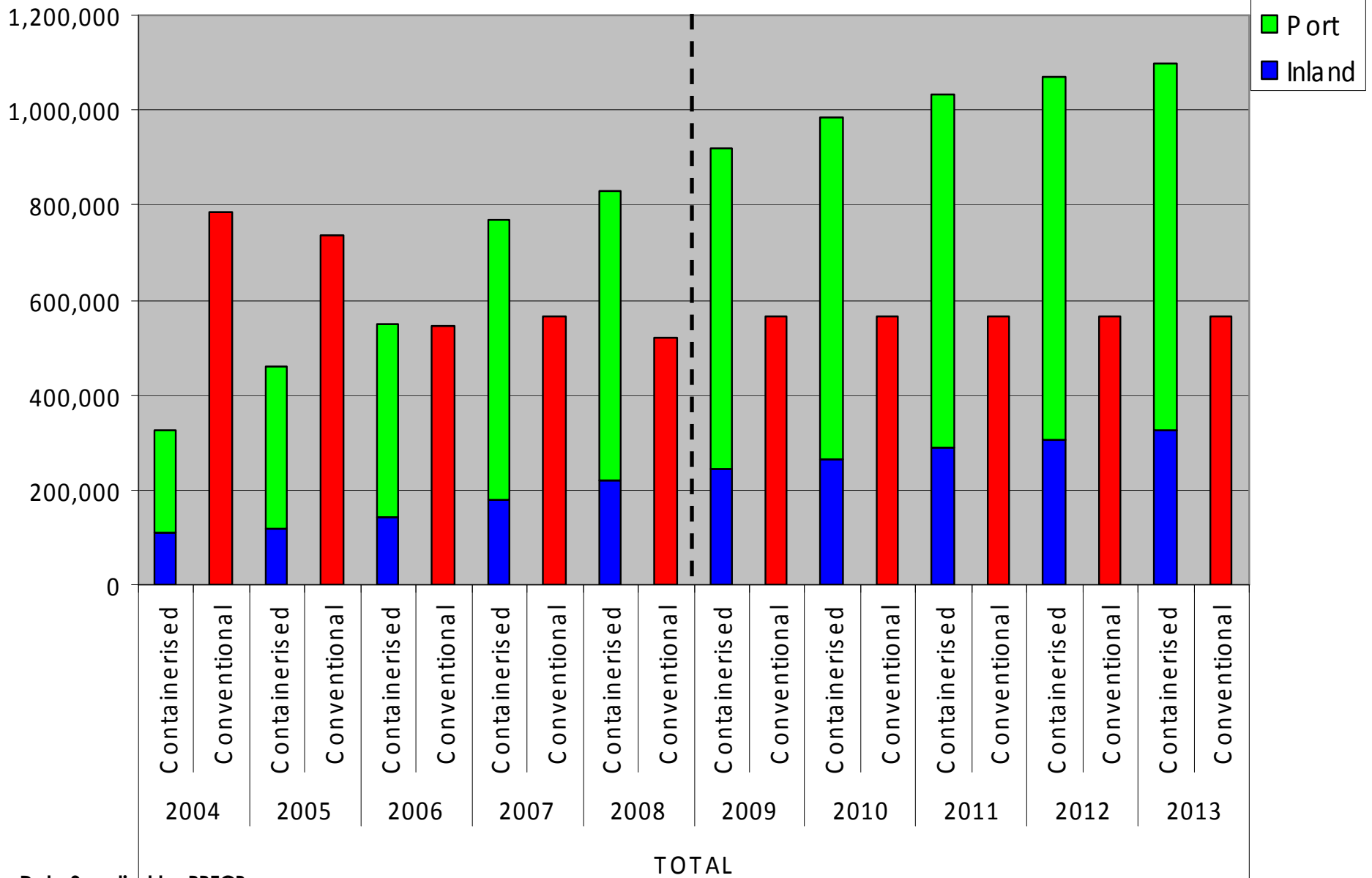
MAPUTO



## Port Volume Summary

- 20% Growth in volumes exported 2004 - 2008
- 20% Further growth expected 2009 – 2013
- Cape Town and Durban reached capacity cross – road
- Maputo volume decreased which is adding pressure on Durban port
- Huge increase of inland container loading
- Inland container loading volume trend required to relieve port congestion (Durban inland loading should be prioritized)

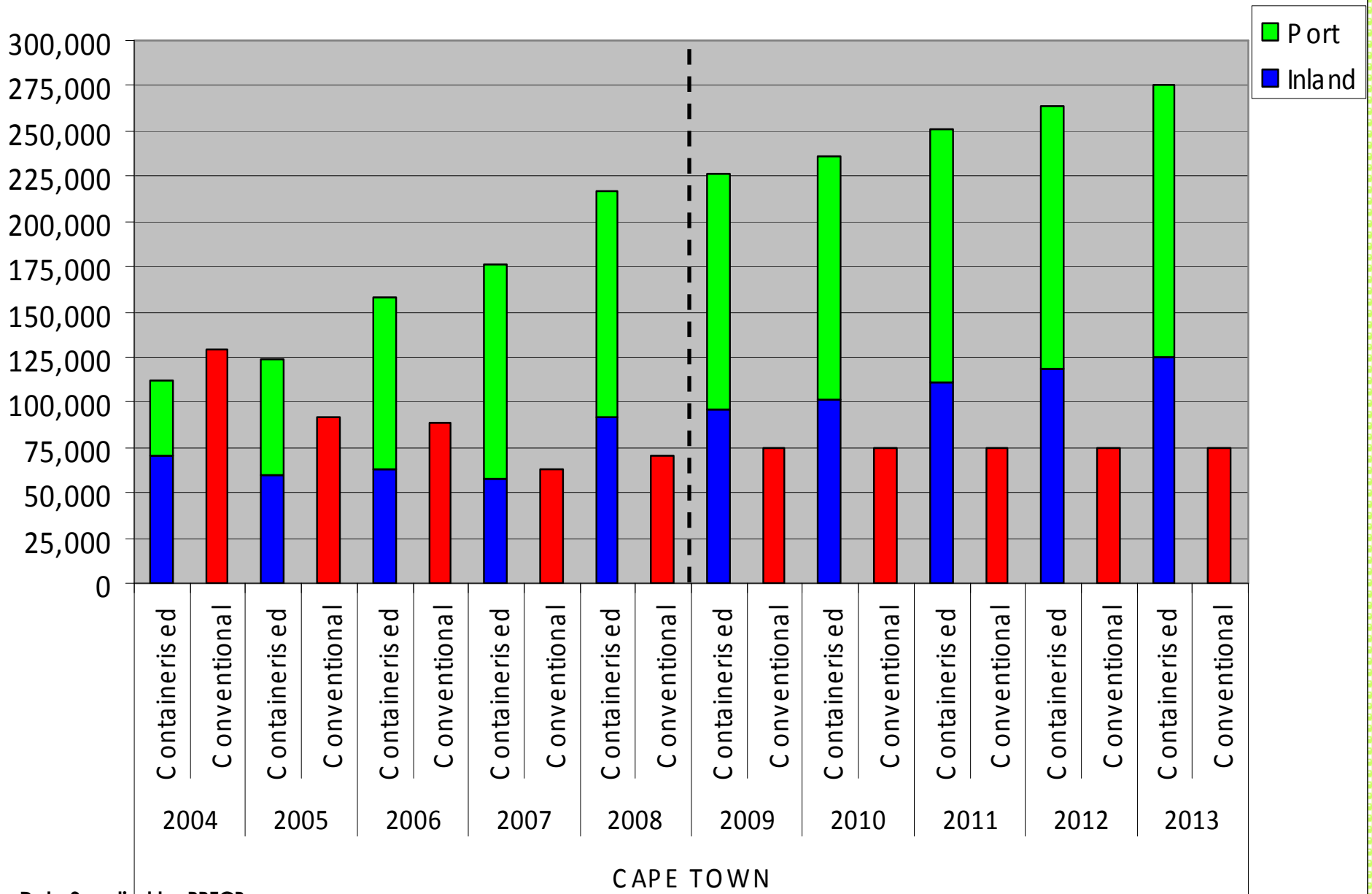
# RSA CITRUS - TOTAL SHIPPING MODE VOLUME PROJECTION



Data Supplied by PPECB

TOTAL

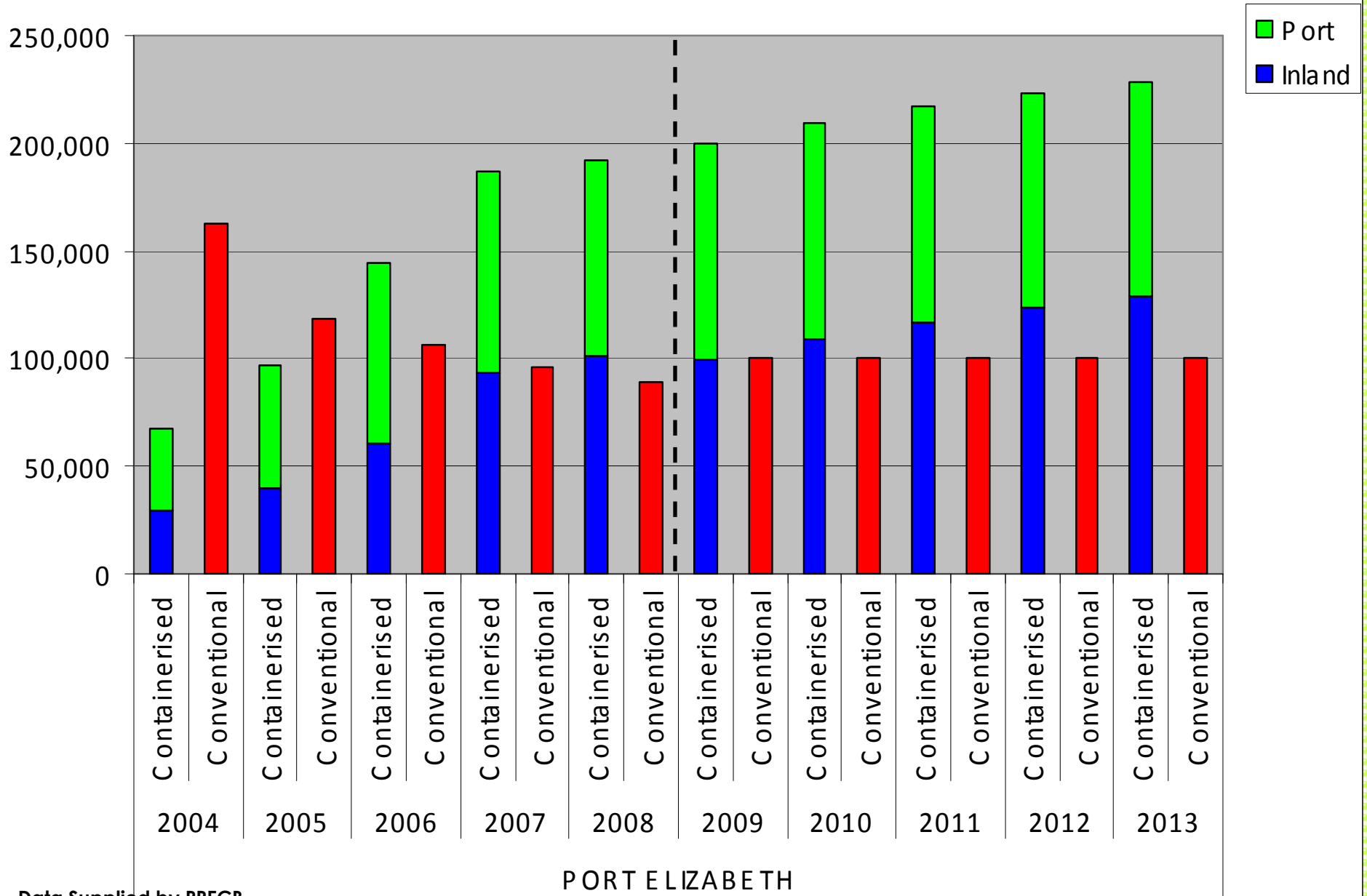
# RSA CITRUS - CPT SHIPPING MODE VOLUME PROJECTION



Data Supplied by PPECB

CAPE TOWN

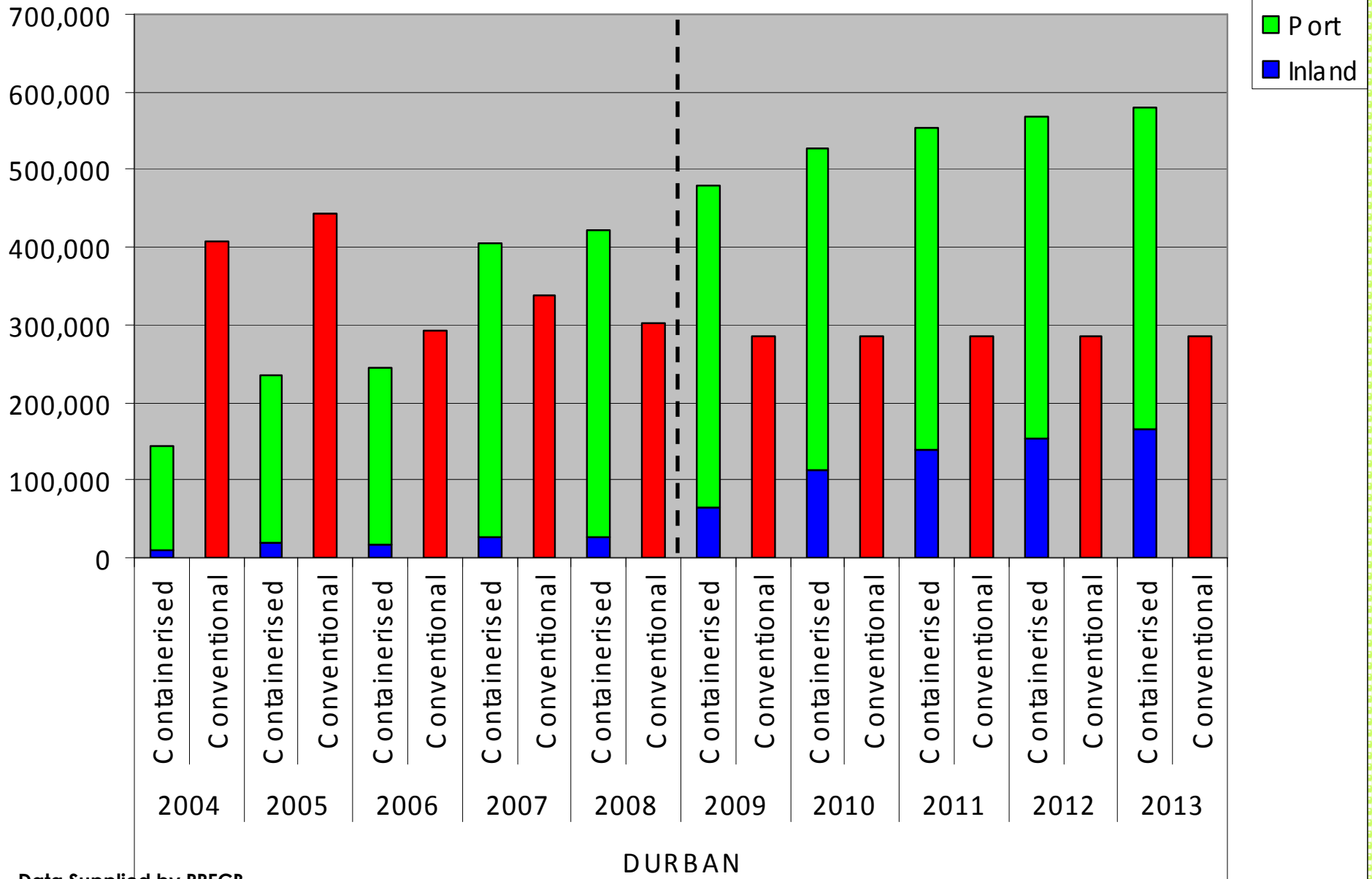
# RSA CITRUS - PE SHIPPING MODE VOLUME MODEL



Data Supplied by PPECB

PORT ELIZABETH

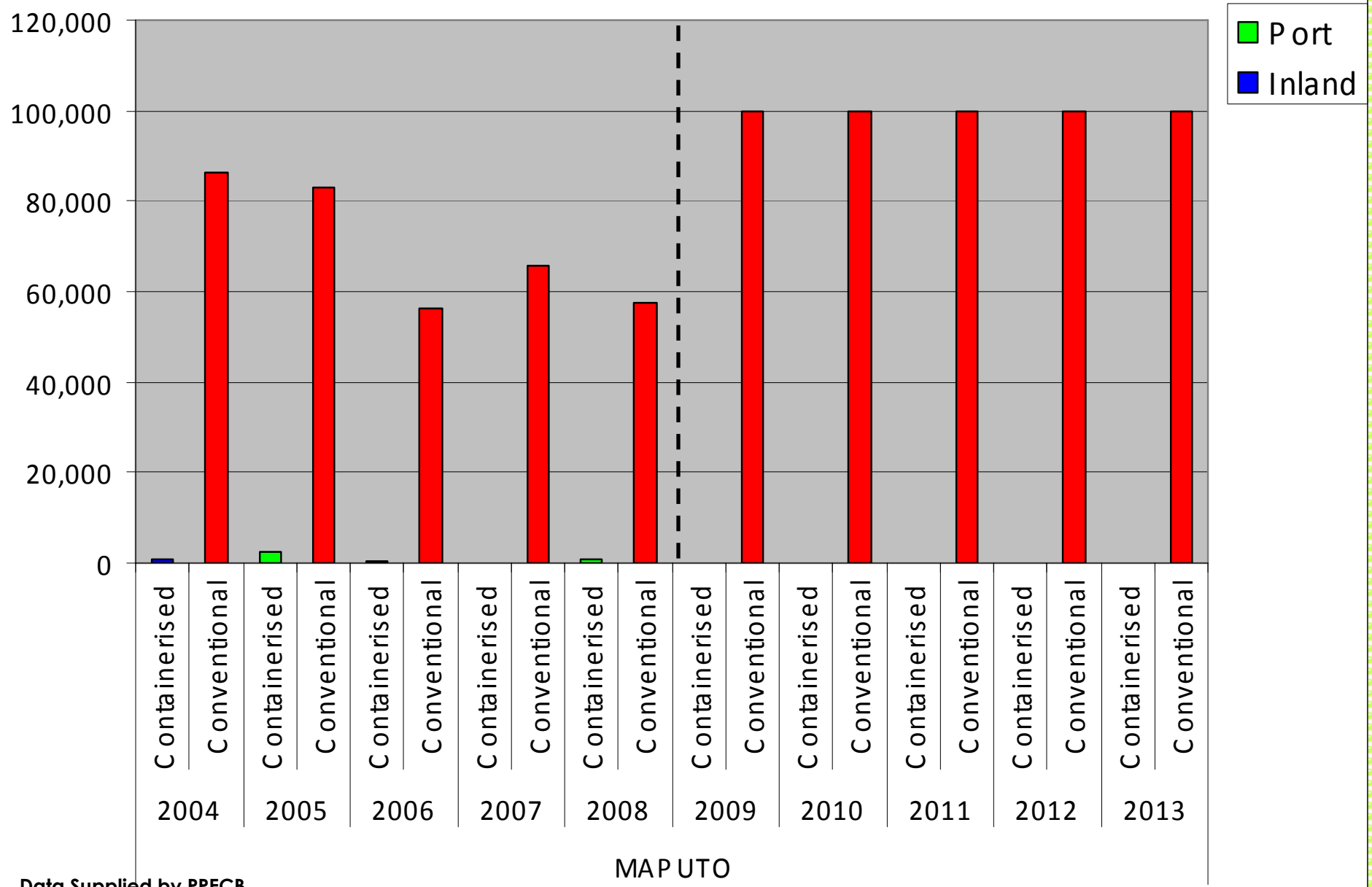
# RSA CITRUS - DBN SHIPPING MODE VOLUME MODEL



Data Supplied by PPECB

DURBAN

# RSA CITRUS - MPT SHIPPING MODE VOLUME MODEL



Data Supplied by PPECB

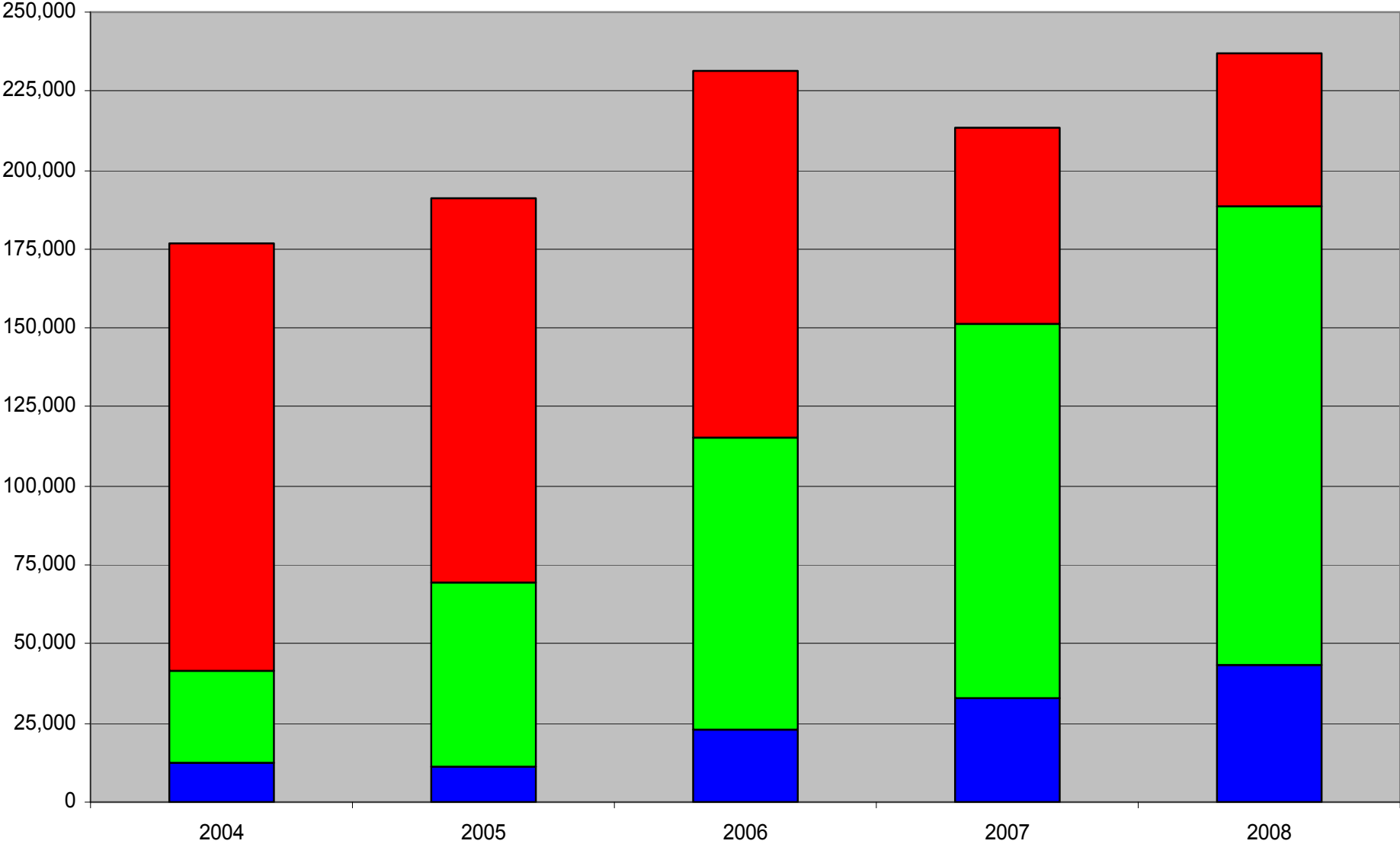
MAP UTO



## Shipping Mode Volume Summary

- 195% Total growth in RSA Citrus container volumes
- CPT = 100% / PE = 300% / DBN = 280% / MPT = Nil
- Durban handles 32% of all RSA Citrus by containers
- High % volume of inland loaded containers in CPT & PE
- Trend towards inland container loading pulling fruit away from ports due to congestion
- Maputo volume drive currently in place to increase volumes to 100,000 pallets
- Maputo direct container service on the cards

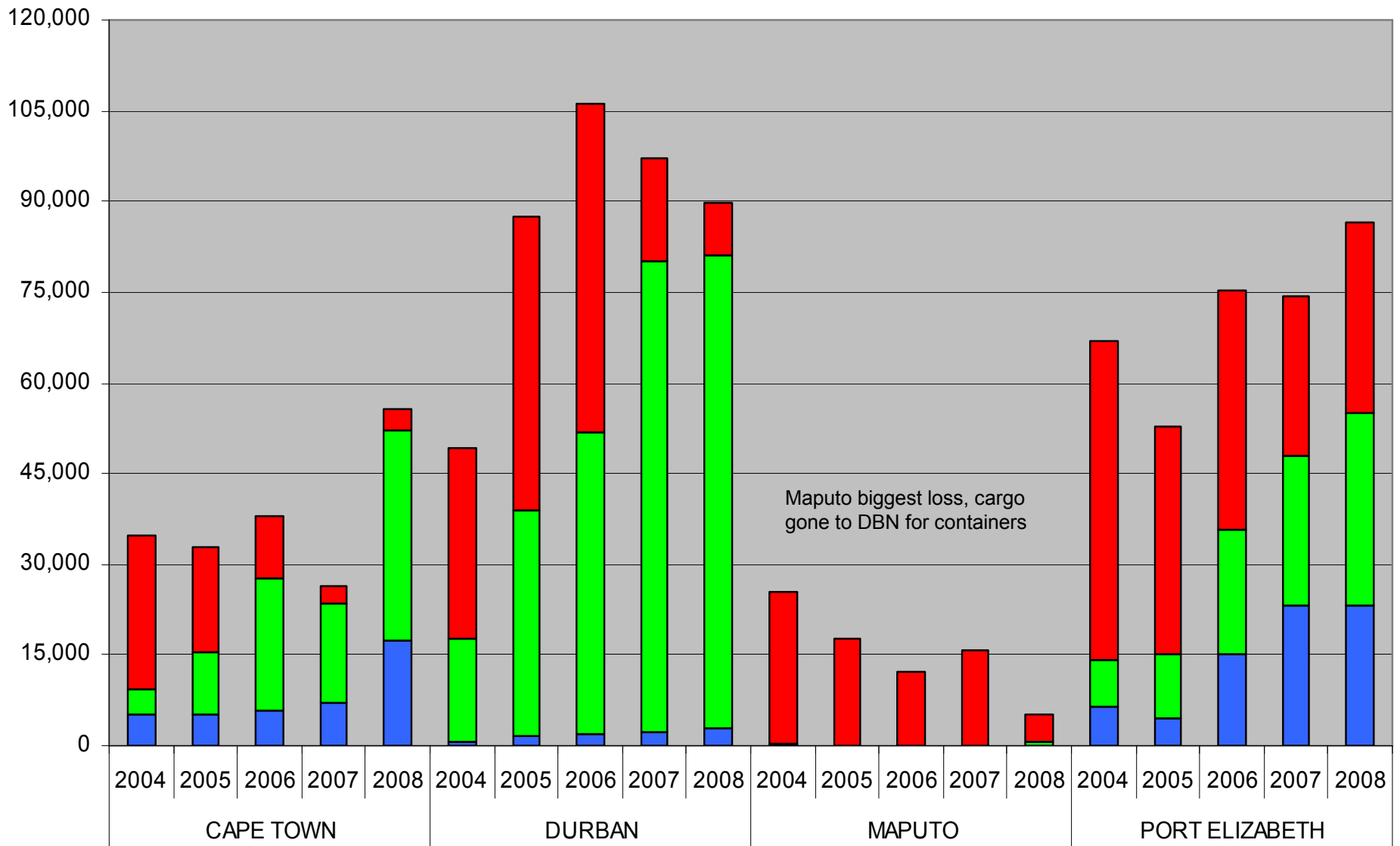
# RSA CITRUS - TOTAL EXP VOL TO MIDDLE EAST



Data Supplied by PPECB



# RSA CITRUS - REGIONAL EXP VOL T0 MIDDLE EAST



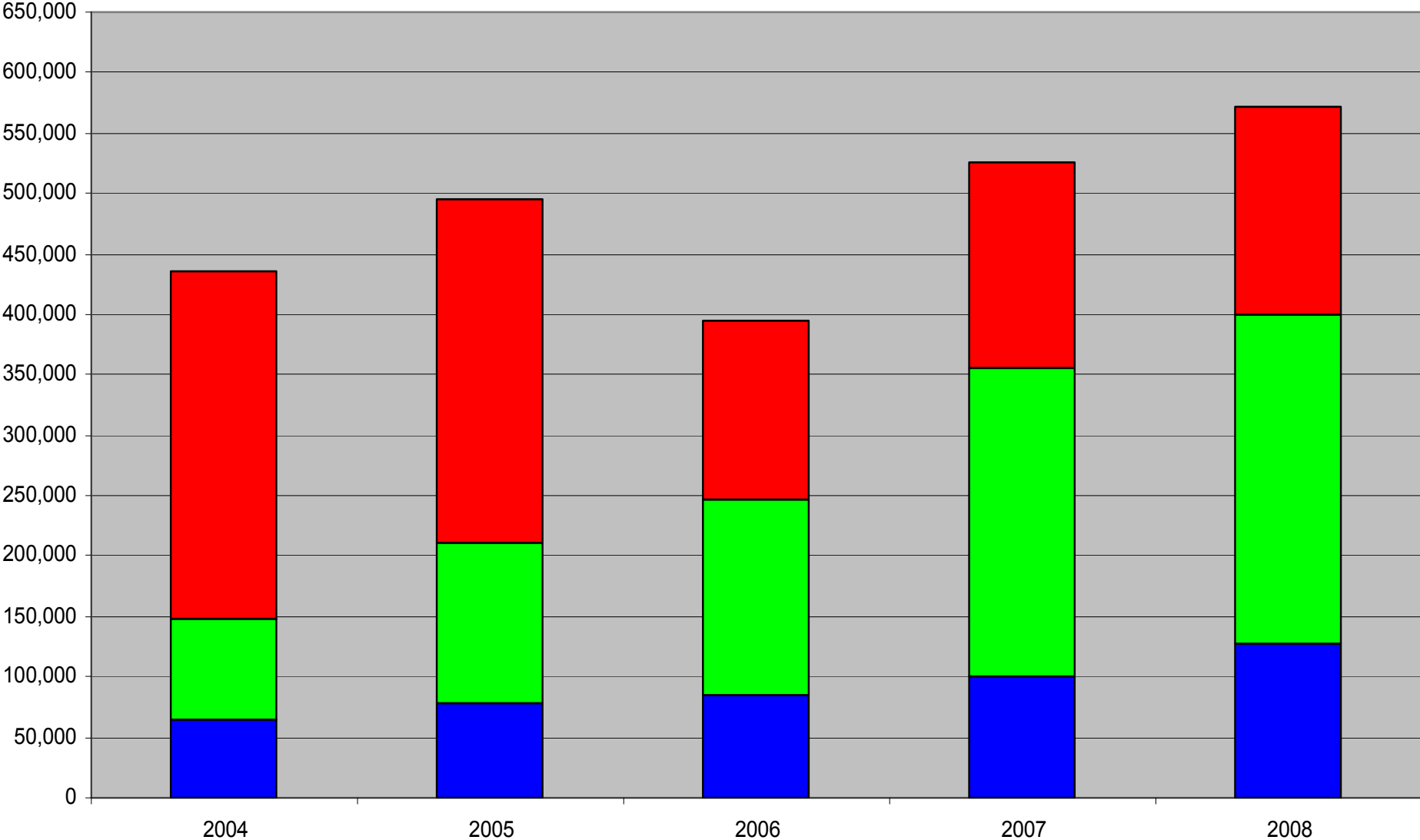
Data Supplied by PPECB

■ Inland Containerised

■ Port Containerised

■ Conventional

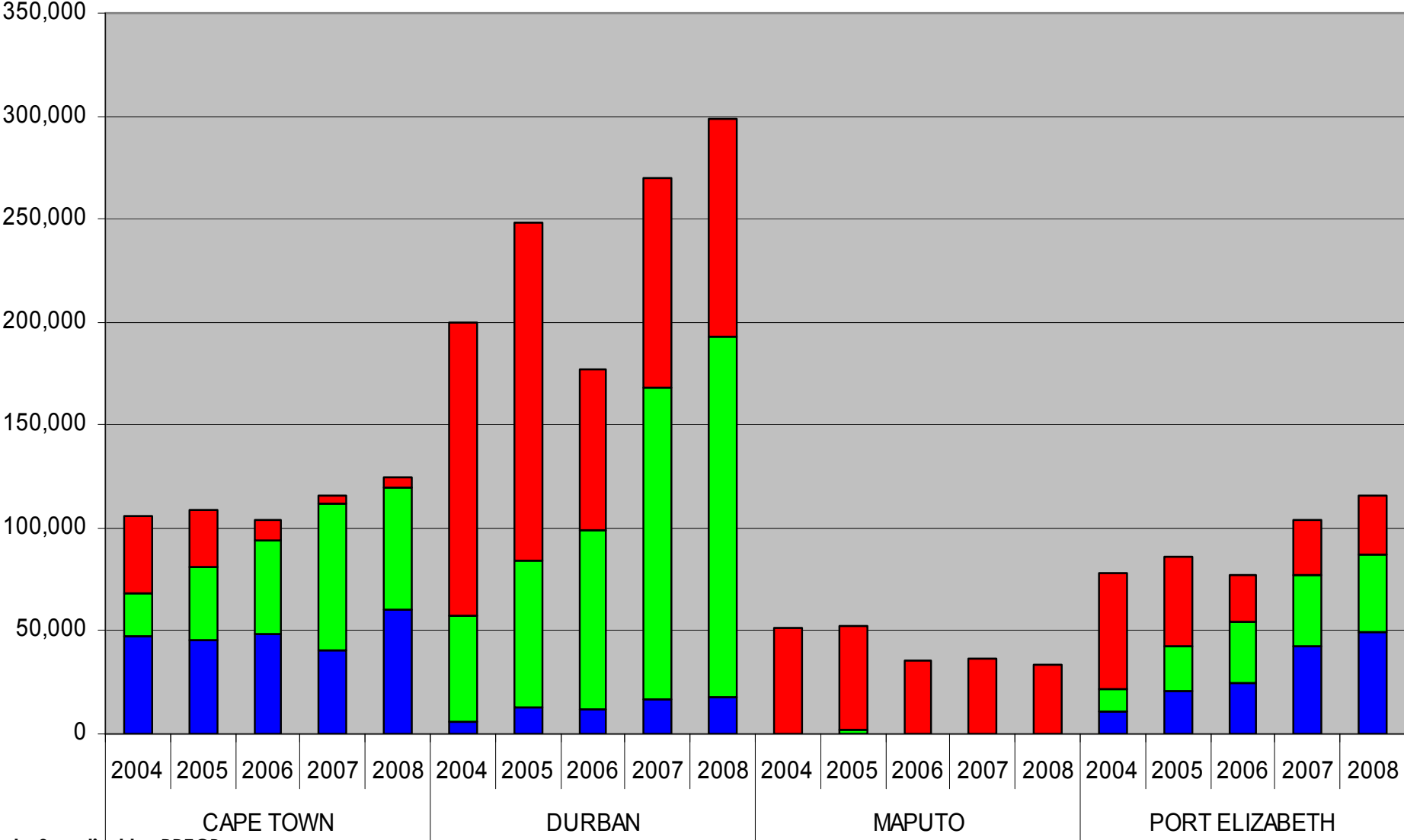
# RSA CITRUS - TOTAL EXP VOL TO NWC / UK



Data Supplied by PPECB



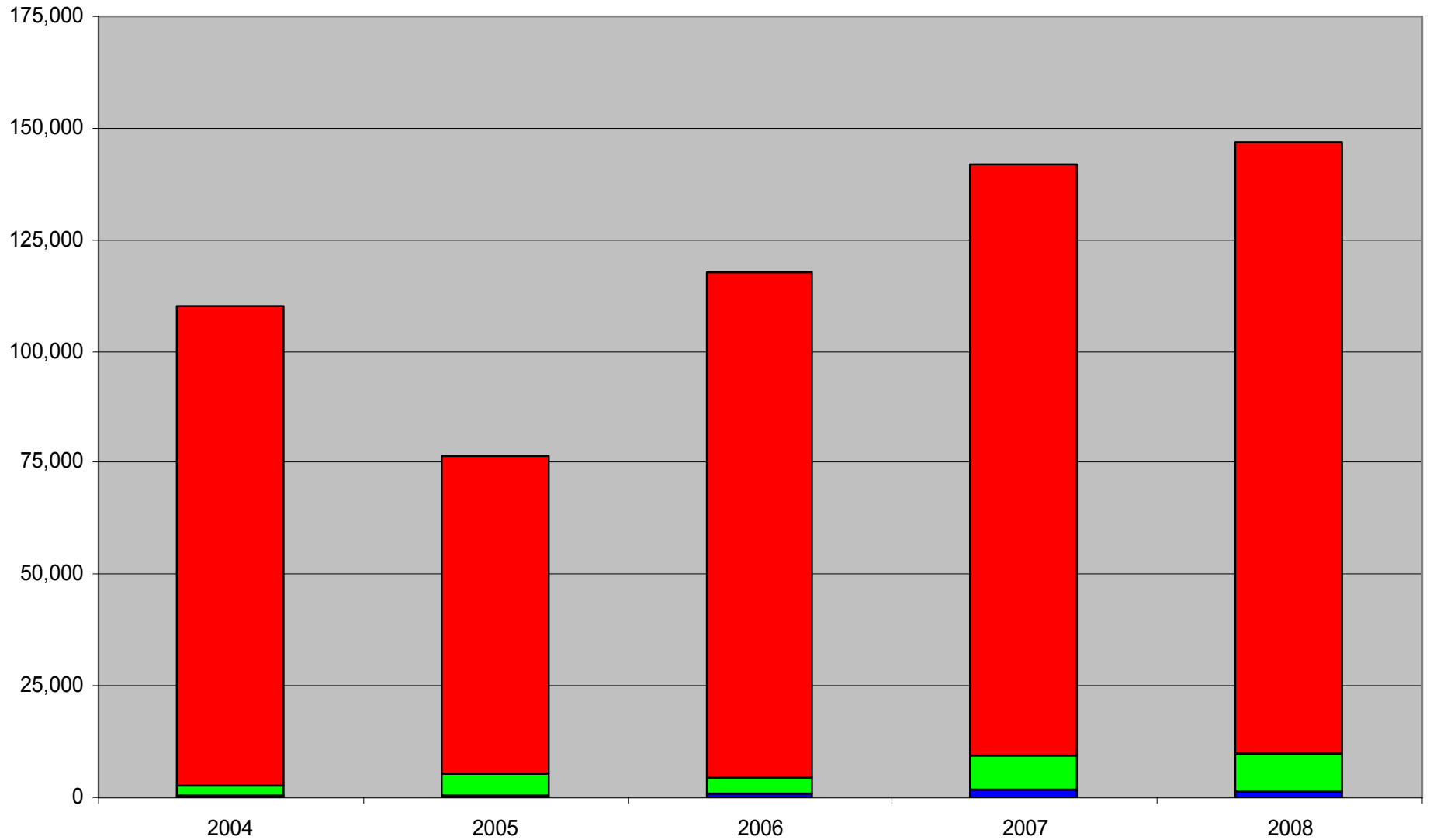
# RSA CITRUS - REGIONAL EXP VOL TO NWC / UK



Data Supplied by PPECB



# RSA CITRUS - TOTAL EXP VOL TO RUSSIA / EAST & CENTRAL EU



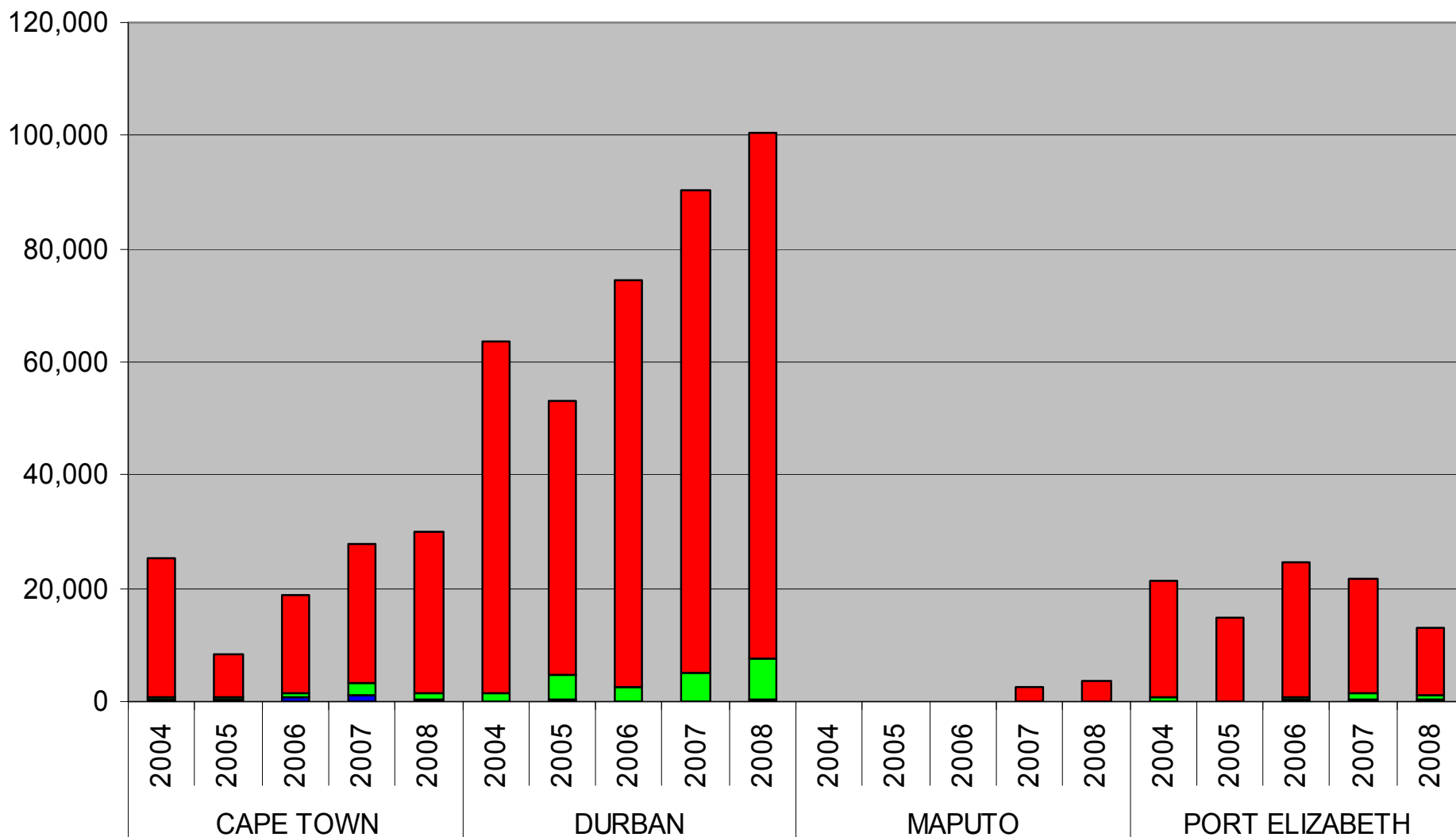
**Inland Containerised**

**Port Containerised**

**Conventional**

Data Supplied by PPECB

# RSA CITRUS - REGIONAL EXP VOL TO RUSSIA / EAST & CENTRAL EU



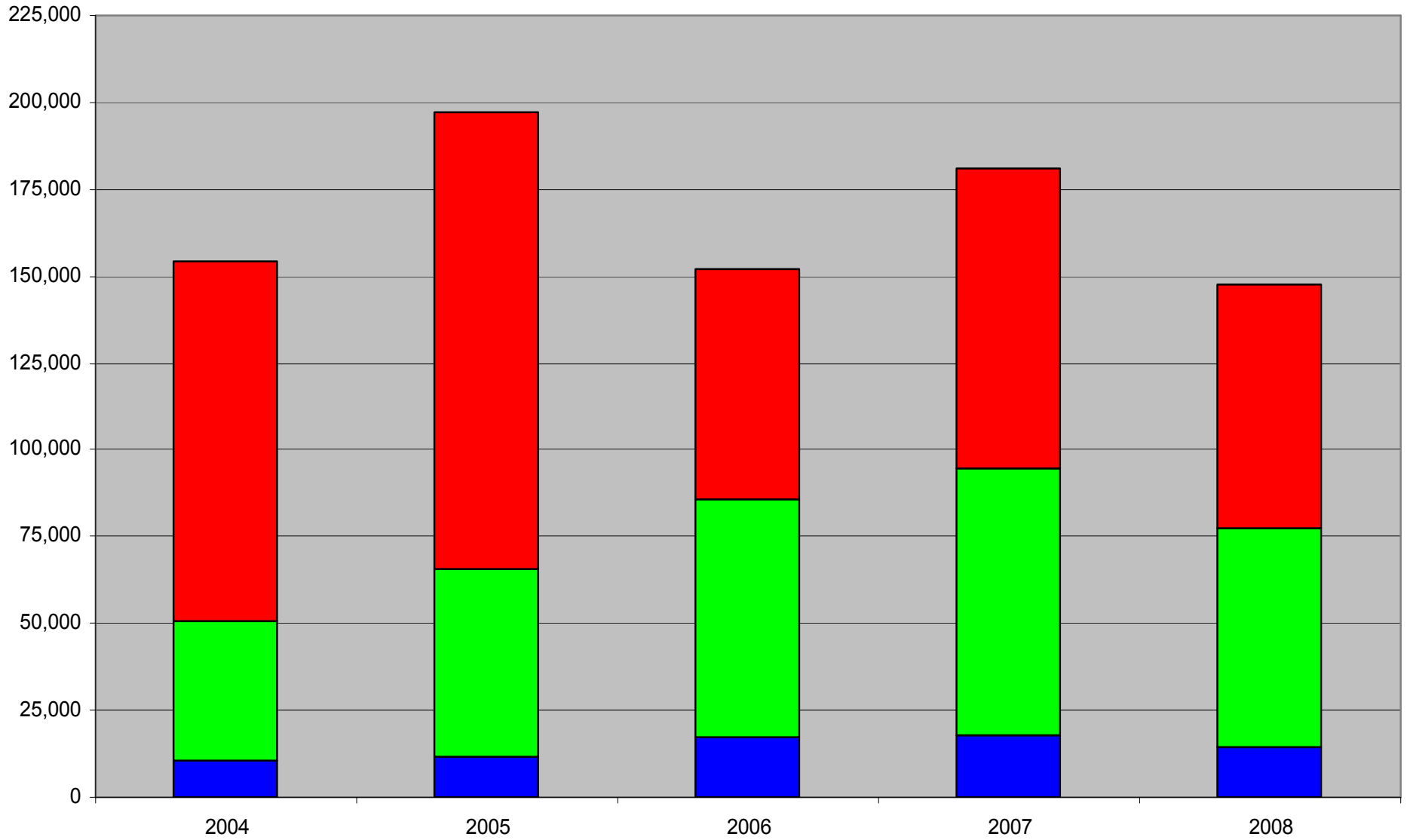
Data Supplied by PPECB

■ Inland Containerised

■ Port Containerised

■ Conventional

# RSA CITRUS -TOTAL EXP VOL TO FAR EAST



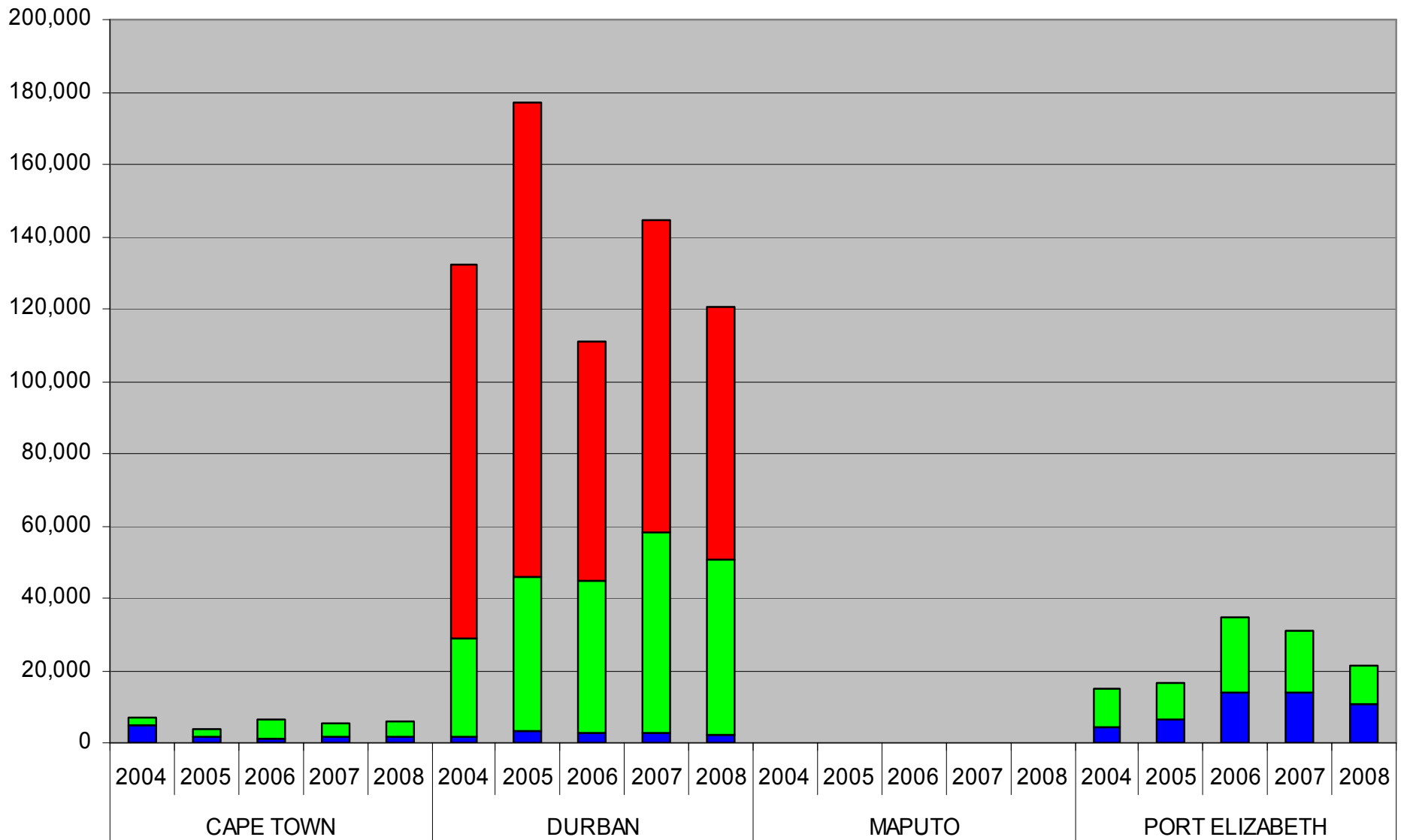
Data Supplied by PPECB

 Inland Containerised

 Port Containerised

 Conventional

# RSA CITRUS - REGIONAL EXP VOL T0 FAR EAST



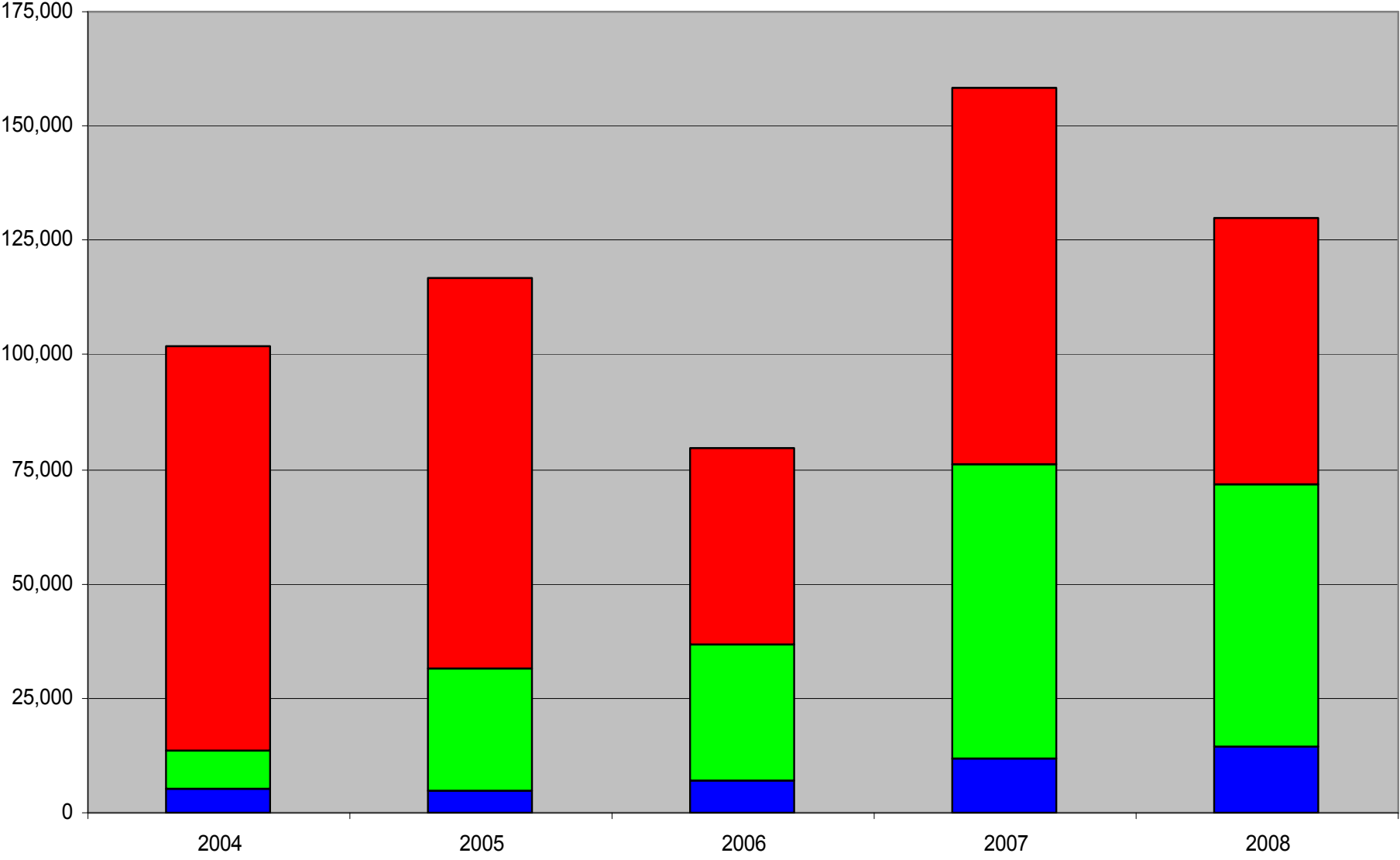
Data Supplied by PPECB

■ Inland Containerised

■ Port Containerised

■ Conventional

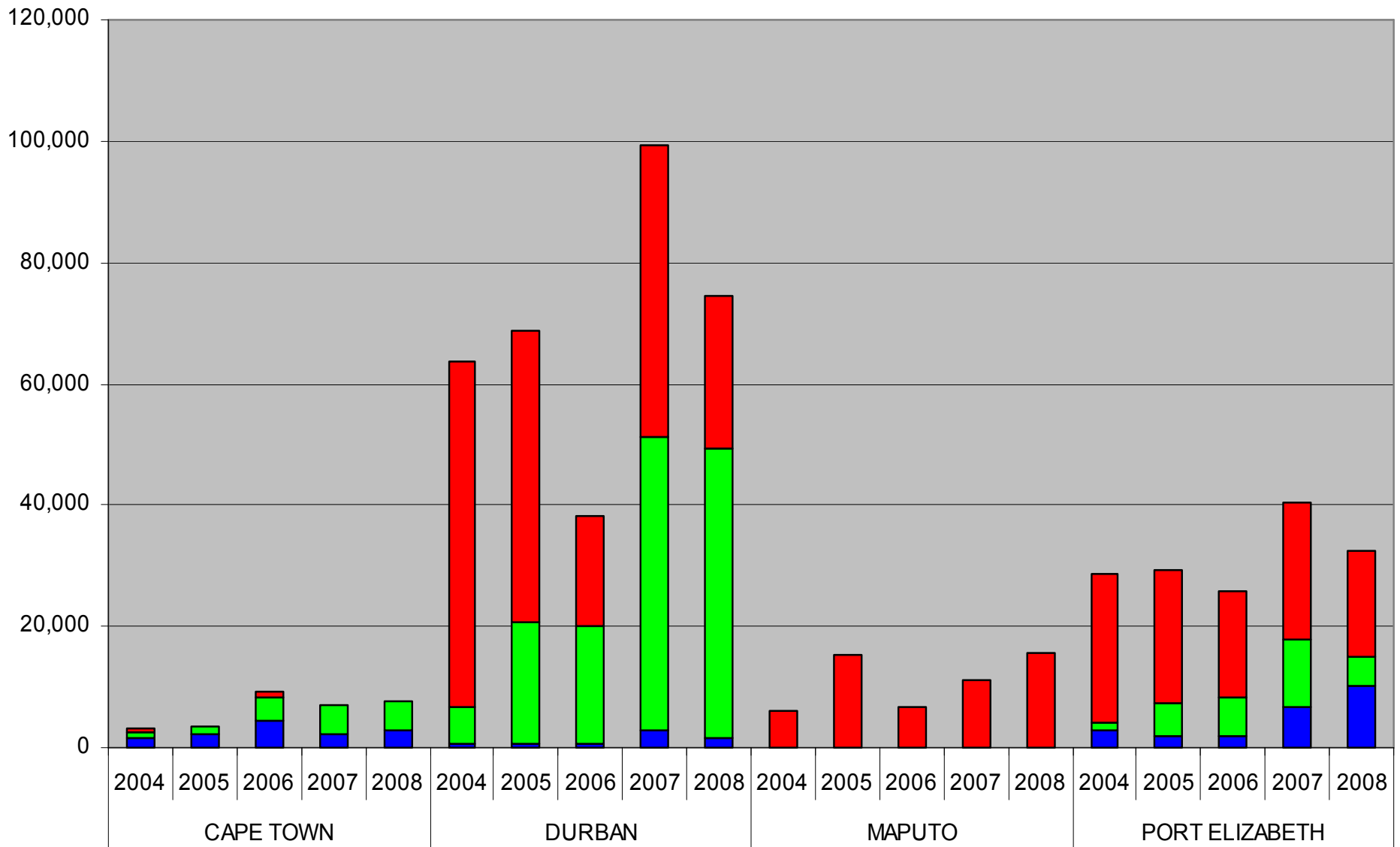
# RSA CITRUS - TOTAL EXP VOL TO MEDITERRANEAN



Data Supplied by PPECB



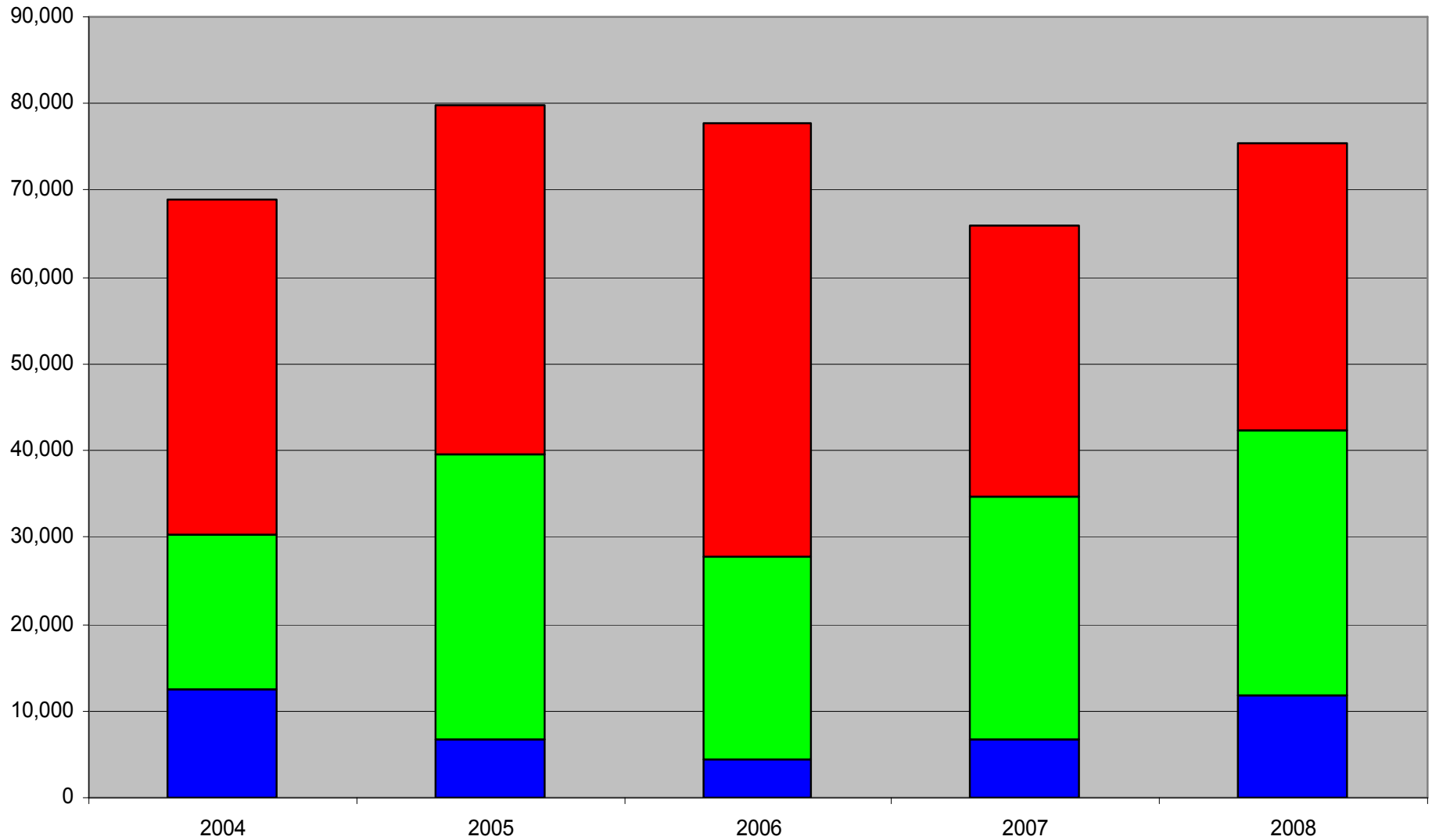
# RSA CITRUS - REGIONAL EXP VOL T0 MEDITERRANEAN



Data Supplied by PPECB



## RSA CITRUS - EXP VOL TO AMERICA / CANADA



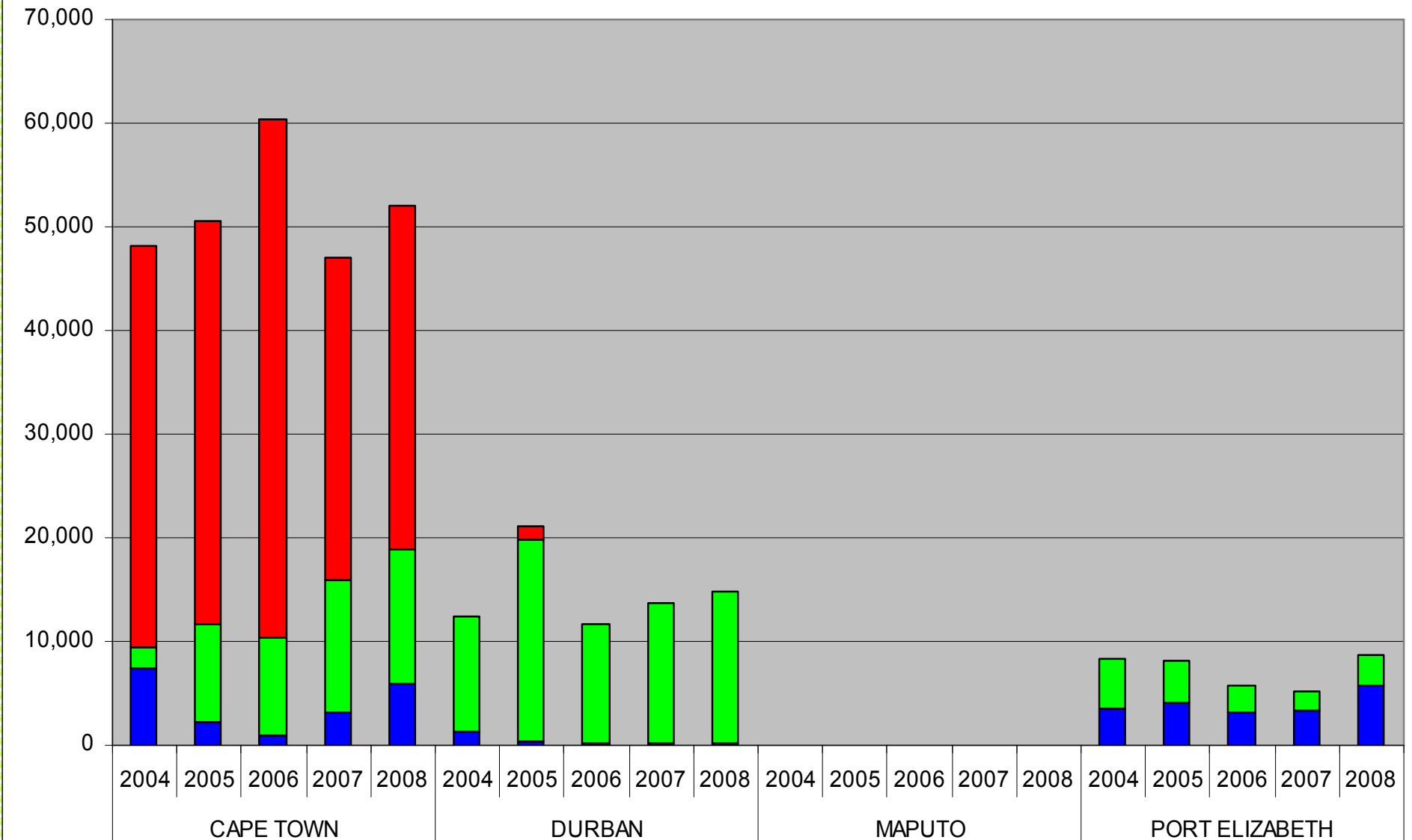
**Inland Containerised**

**Port Containerised**

**Conventional**

Data Supplied by PPECB

# RSA CITRUS - REGIONAL EXP VOL TO AMERICA / CANADA



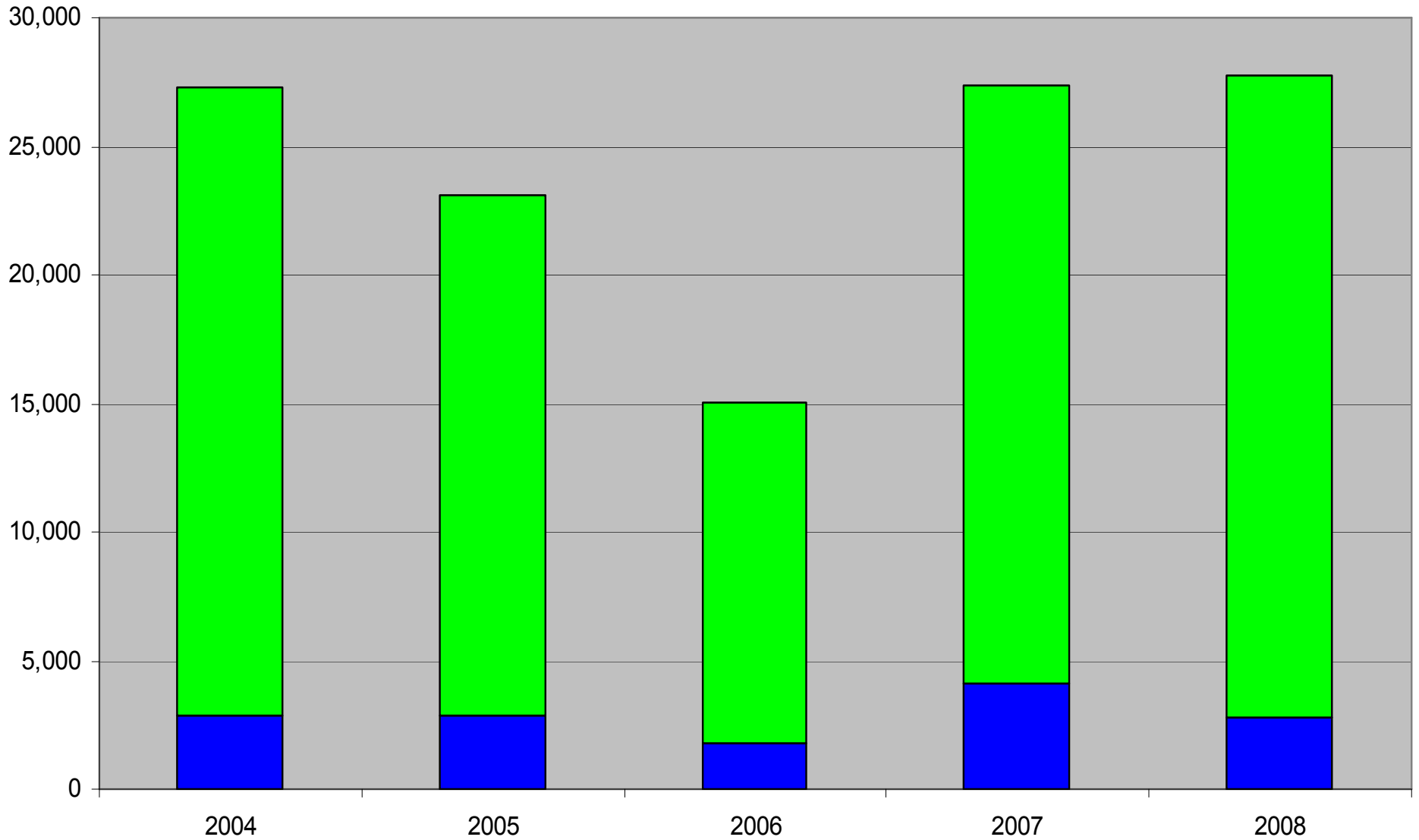
Data Supplied by PPECB

■ Inland Containerised

■ Port Containerised

■ Conventional

# RSA CITRUS - TOTAL EXP VOL TO ASIA



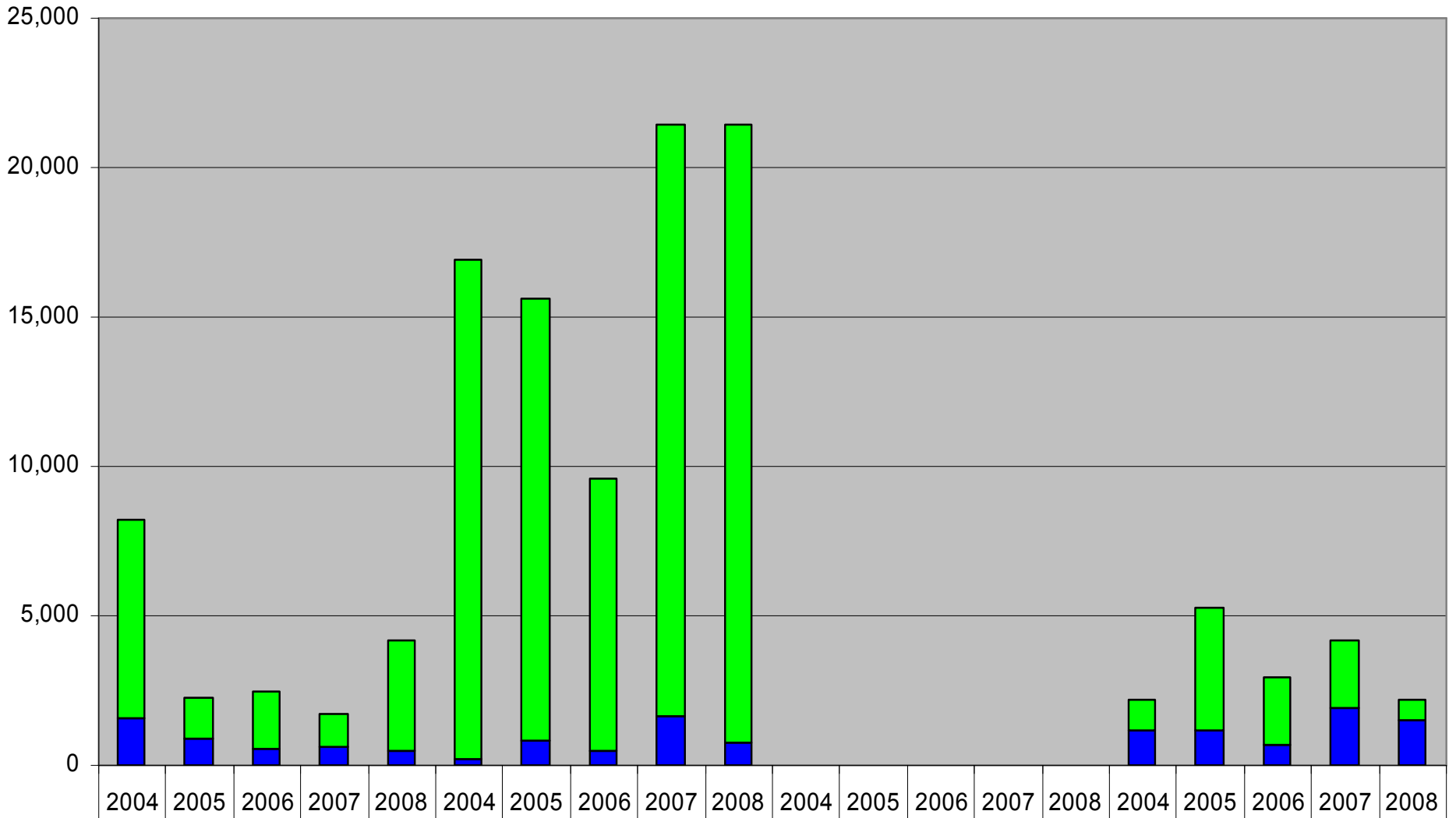
Data Supplied by PPECB

 Inland Containerised

 Port Containerised

 Conventional

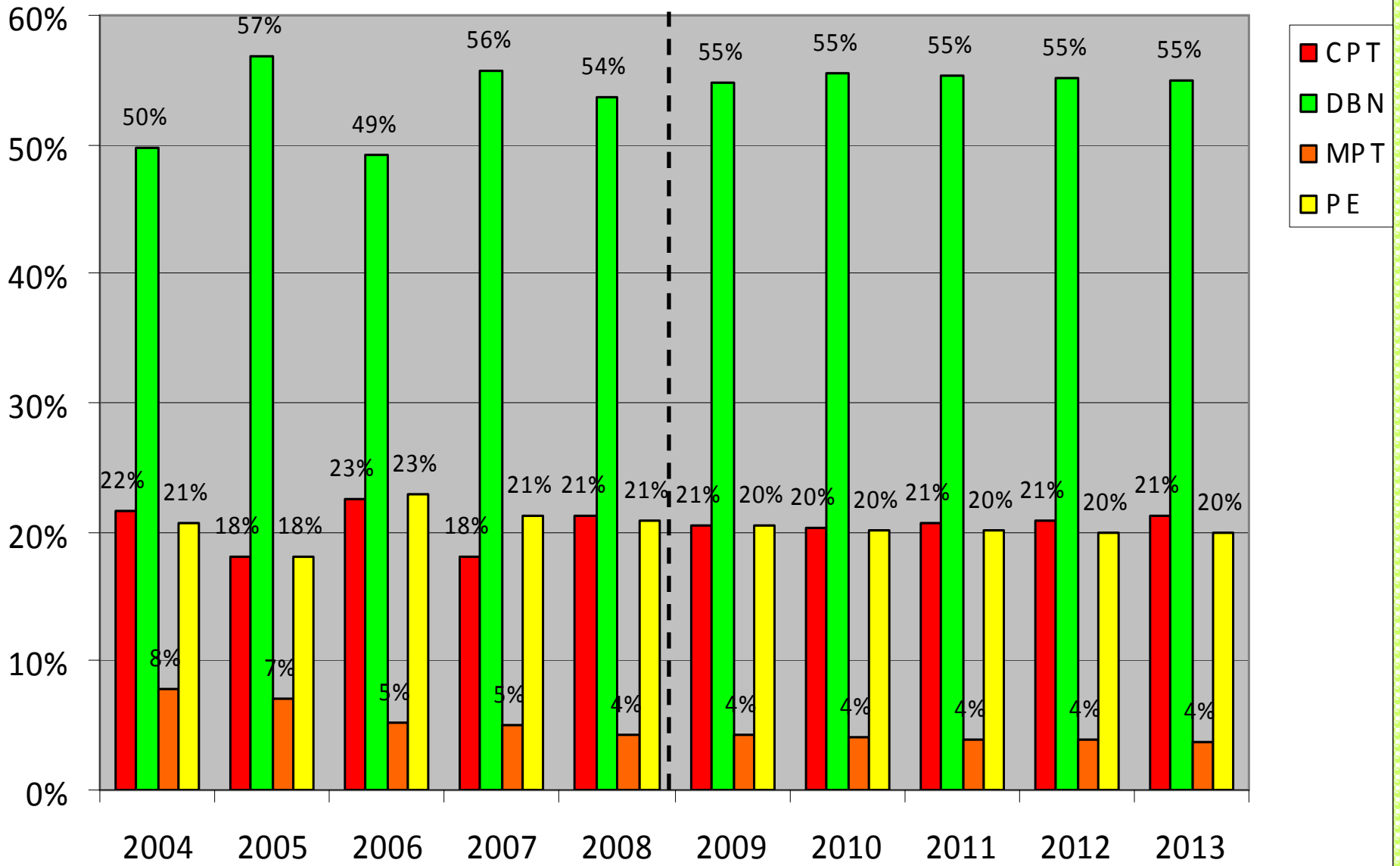
# RSA CITRUS - REGIONAL EXP VOL TO ASIA



Data Supplied by PPECB



# RSA CITRUS - PORT VOLUME PERCENTAGE



Data Supplied by PPECB



## Market Volume Summary

- High growth to NWC / UK / ME / MED / RS markets
- High container volume to NWC / UK / ME markets
- Volume diversion from MPT to DBN can be seen for container loading to ME
- NWC / UK / MED / RS predominant conventional loading – opportunity for Maputo
- Inland container loading more prevalent on ME / NWC / UK
- Durban port handles 54% of RSA Citrus export volume
  - 32% containers / 22% conventional of total RSA Citrus crop



# Durban – Critical Logistical Dilemmas 1

- Effective throughput capability in Durban reached its cross-road:
  - Citrus volume to Durban has increased substantially (31% in 5 yrs).  
Where is the additional capacity to handle this volume???? **Is it time to build?**
    - **Sweat the current capacity / Focus on inland loading**
  - An assessment of the Durban Cold Store infrastructure indicates that a 12,000 pallet pure container loading facility is required in Durban.
    - **Not a likely possibility in the short term**
  - Interested parties should visit the new Coega Cold Store.
    - **Pure container facility**



## Durban – Critical Logistical Dilemmas 2

- Increased container volumes (3 fold increase in 5 years):
  - **32% of RSA Citrus is loaded in containers out of Durban = 400,000 plts p.a**
  - Conventional volumes have decreased, the strong pull has lapsed. **Can containers match it?**
  - 3 - 4 Vessels on berth can load 6,000 – 8,000 plts in 24hrs, this equates to 300 - 400 containers a day in Durban alone. **Eish!!!**
  - Containers are here to stay, **how do we increase productivity (Pull)?**
  - Offload trucks at day, load Reefer containers at night!!! **Is this a solution?**
    - **DCT advised that only 20% of total containers arrive from 20h00 – 06h00!!!**
  - Pre-staging of container fruit is essential, **is this being done?**
  - Need for a container forum in Durban focused on increased productivity
    - **Role Players are keen**



## Durban – Critical Logistical Dilemmas 2

### Conventional role players:

1. Exporter
2. Shipping Line
3. Cold Store
4. Terminal
5. Ship

### Container role players:

1. Exporter
2. Shipping Line
3. **Inter-modal / Haulage Dept.**
4. **Container Depot**
5. Cold Store
6. **Container Terminal**
7. Ship

Additional role players for container loading requires added coordination of efforts to increase productivity

**Forward and backward cause and effect identification and awareness**



## Durban – Critical Logistical Dilemmas 3

- Farm intake truck delays:
  - Transport industry up in arms!!!
  - Producers bear the cost of delays!!!
  - Trucks spend days in the port? **How do we deal with this in the short term?**
  - What is the real cause of delays?
    - **Lack of information flow - Packhouse to port?**
    - **Fruit dwell times affecting throughput?**
    - **Push (Intakes)– Pull (Shipping) disequilibrium (unbalanced)?**
  - CGA requested information to monitor market stocks vs. shipping
    - **Cold Stores are inflexible with information**

**COLD STORES NEED TO ADDRESS THE TRANSPORT ISSUE!!!**



# Infrastructure and Development Proposals

## Durban Short Term Solutions:

- Identify Push – Pull techniques
  - Set activity schedules
    - **Farm intakes / pre-staging during the day**
    - **Container loading / stowing mainly done at night**
- Container loading best practice – create a Durban Container Forum
- Monitor port dwell times
- Monitor port market stocks vs. shipping schedules
- Information database: Push – Pull monitoring
  - CGA Weekly Report



# Infrastructure and Development Proposals

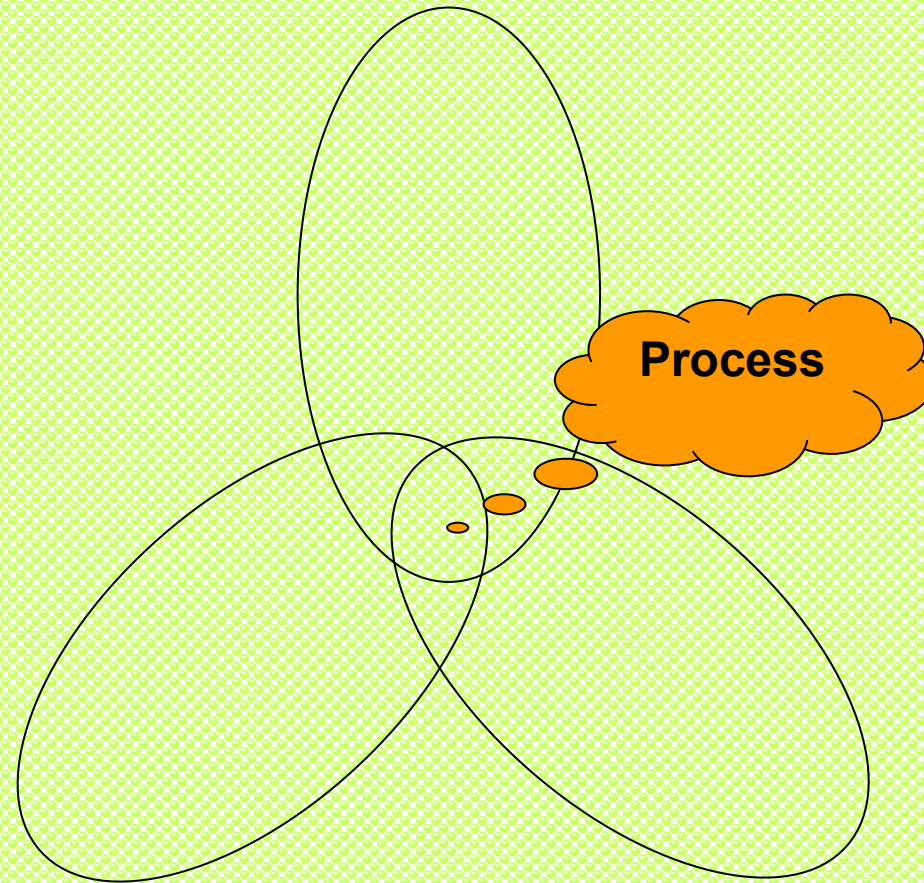
## Durban Long Term Solutions:

- Inland loading container facility to pull fruit from Durban port
  - City Deep / Komatipoort
    - **Container cargo can be consolidated inland and sent in containers to Maputo, Durban, Port Elizabeth or Cape Town by road or rail**
  - Supports the TOT initiative
- Development of a state of the art Durban container loading facility
  - Comparable to other cold stores in RSA, Durban needs this!!!
- Information flow system: pack-house to port
- USB Gap Analysis
  - Identify current and future RSA Citrus logistical issues.



# Information Synergy

CGA



Cold Stores

PPECB



# CGA Weekly Logistics Report

1. Commodity Volume Analysis
2. Export Market Volume Analysis
3. Shipping Mode Volume Analysis
4. Port Dwell Time Analysis
5. Port Stock Volume Analysis
  - Port stock levels vs. capacity
  - Market stock levels vs. shipping schedule

**Information is the key success driver to any logistical operation, without information flow the operation will be unsustainable.**



# CGA Weekly Logistics Report

## What do we need?

- Weekly port stocks from PPECB
- Weekly export stats database from PPECB
- Weekly pallet age file from Cold Stores
- Weekly stocks per TM from Cold Stores
- FPT shipping plan of RSA fruit vessels
- Container stocks from Container Depots

**Stakeholders cautious to supply information**



## Where to from here?

- Durban Citrus Logistics Stake Holders Forum (DCLF)
  - CGA / PPECB / Cold Stores / Shipping Lines / Agents / Container Depots / Haulers
- Identify and implement Push – Pull techniques
- CGA to monitor port environment - feedback
- CGA to engage with role players to identify solution generation
- Pull fruit back to Maputo and increase volume throughput
- Identify current Durban port constraints and send feedback to industry



Citrus Growers Association

**Many Thanks**

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