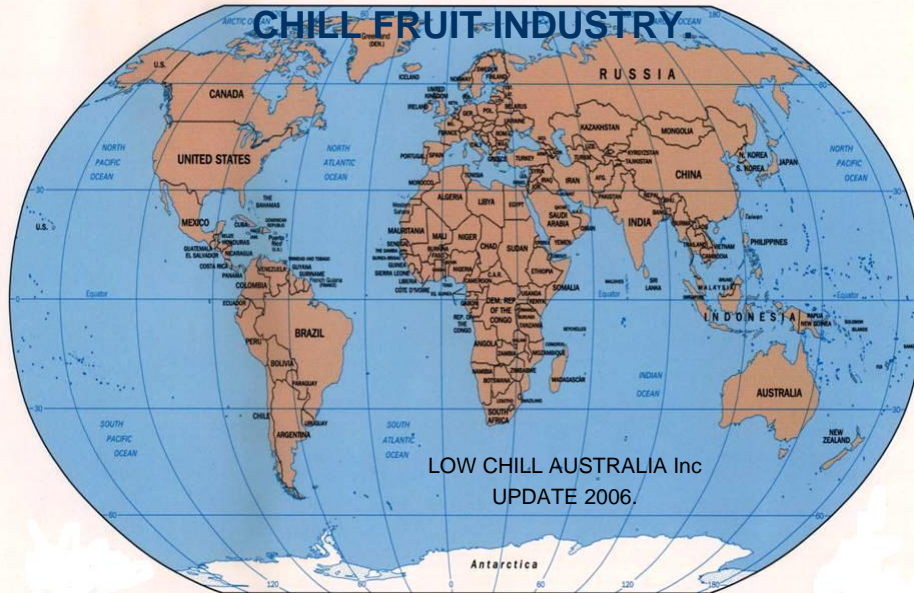


AN OVERVIEW OF THE SOUTH AFRICAN LOW CHILL FRUIT INDUSTRY



By ANDREW HACKING
Ad Lucem Agricultural Services.

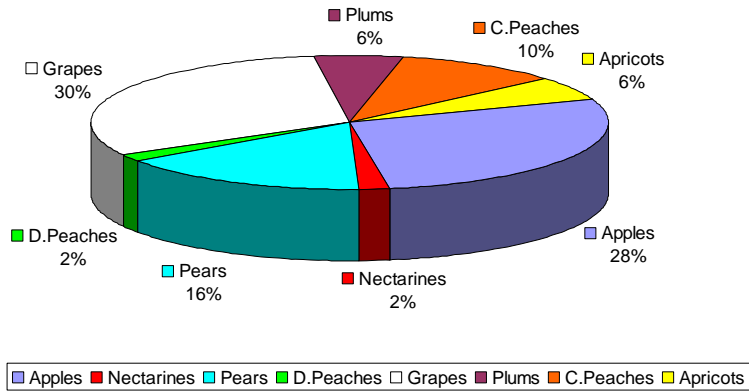
17 MAY 2006

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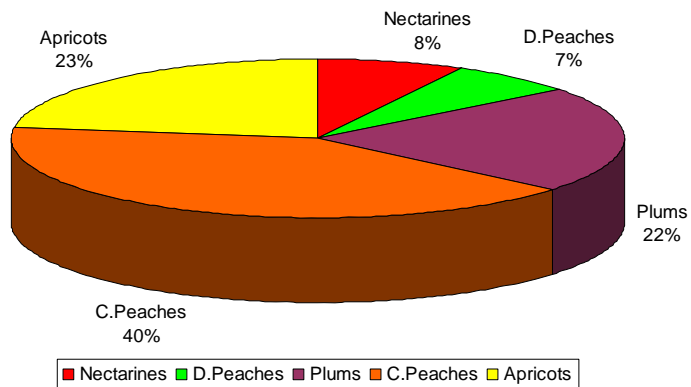
- SOUTH AFRICAN STATISTICS
- CHILL AND HEATING MODELS
- PRODUCTION AREAS AND FRUIT TYPES
- SOUTH AFRICAN LOW CHILL BREEDER/CULTIVAR MATRIX
- CONCLUSION

SOUTH AFRICAN STATISTICS

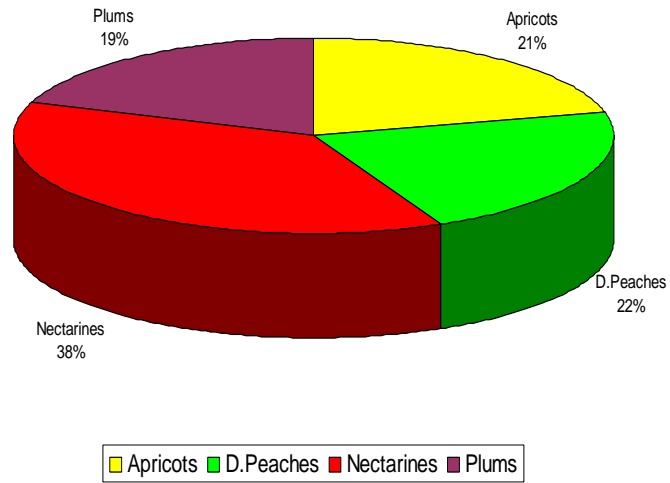
Total 2005 RSA Deciduous Fruit
Area = 74 247 Ha.



RSA 2005 Stone Fruit
Area = 18 905 Ha



RSA 2005 Low Chill
Area = 1 768 Ha.



CHILL MODEL UNIT ACCUMULATION

<u>Temperature °C.</u>	<u>Richardson Units</u>	<u>Infruited Units</u>
< 1.4	0	0
1.5 - 2.4	0.5	0.5
2.5 - 9.1	1	1
9.2 - 12.4	0.5	0.5
12.5 - 15.9	0	0
16 - 18	-0.5	0
> 18	-1	0

HEAT UNIT ACCUMULATION

- FROM BUDSWELL ONWARDS
- MEASUREMENTS TAKEN FROM 18:00 TILL 06:00
- UNITS ACCUMULATE >10C

NORTH vs SOUTH.



Groblersdal Cumulative Chill Units – 2002.

<u>Month</u>	<u>ICU</u>	<u>RCU</u>	<u>Hrs < 7.2°C</u>
MAY	26	0	123
JUNE	146.5	127.5	336
JULY	268	220.5	583
AUGUST	287	21	652

Waterkloof Cumulative Chill Units – 2002.

<u>Month</u>	<u>ICU</u>	<u>RCU</u>	<u>Hrs < 7.2°C</u>
MAY	92	56	10
JUNE	333	269	49
JULY	602	520	113
AUGUST	778	602	155

Groblersdal Heat Unit Accumulation – 2002.

<u>Month</u>	<u>Heat Unit Accumulation</u>	<u>Cumulative Heat Units</u>
JULY	133	133
AUGUST	227	360
SEPTEMBER	254	614
OCTOBER	342	956
NOVEMBER	328	1284

Waterkloof Heat Unit Accumulation – 2002.

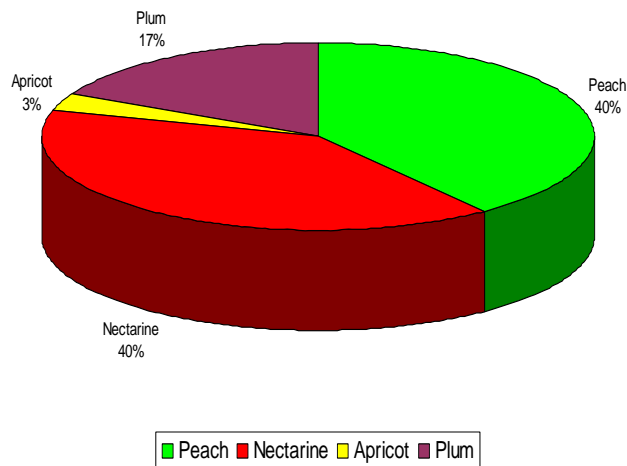
<u>Month</u>	<u>Heat Unit Accumulation</u>	<u>Cumulative Heat Units</u>
JULY	74	74
AUGUST	124	198
SEPTEMBER	183	381
OCTOBER	185	566
NOVEMBER	227	793

PRODUCTION AREAS AND FRUIT TYPES.



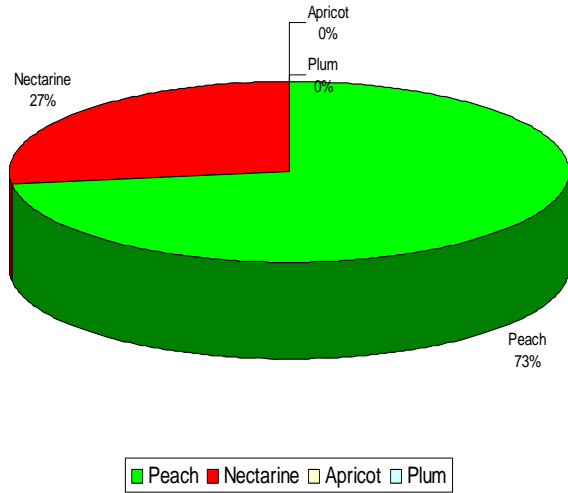
LIMPOPO PROVINCE

472 Ha.



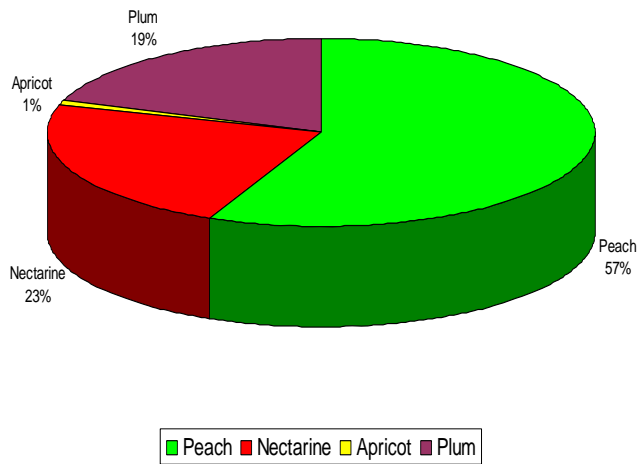
MPUMALANGA PROVINCE

88 Ha.



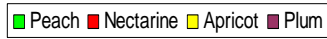
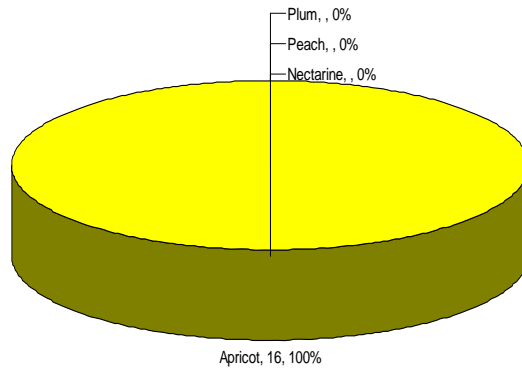
NORTH WEST PROVINCE

113 Ha.



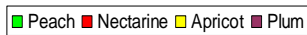
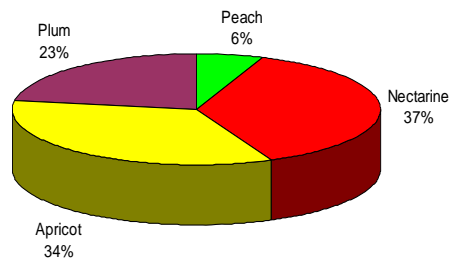
NORTHERN CAPE PROVINCE

16 Ha.

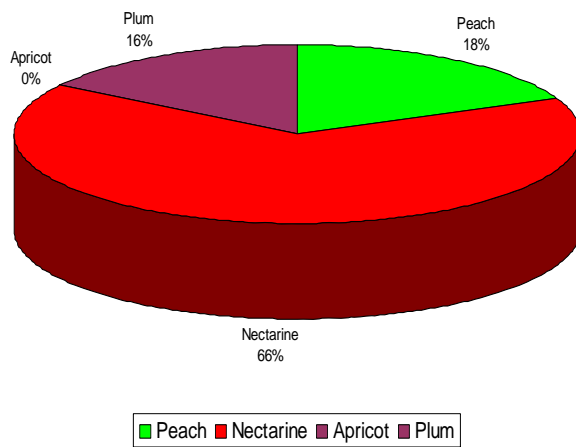


W.CAPE PROVINCE

997 Ha.



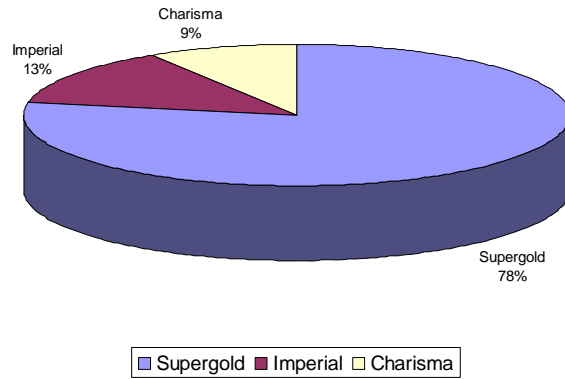
E.CAPE PROVINCE
82 Ha.



**SOUTH AFRICAN LOW CHILL
BREEDER/CULTIVAR MATRIX.**

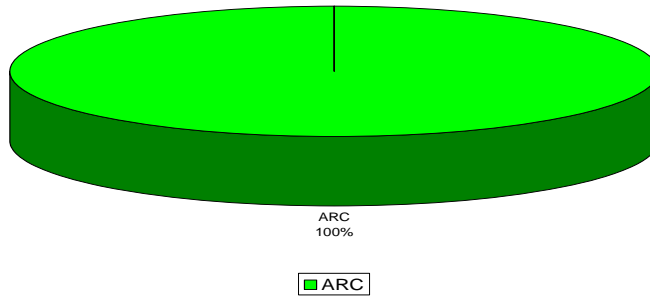
APRICOTS

ARC Low Chill APRICOT Selections
in RSA in 2005.
373 Ha.



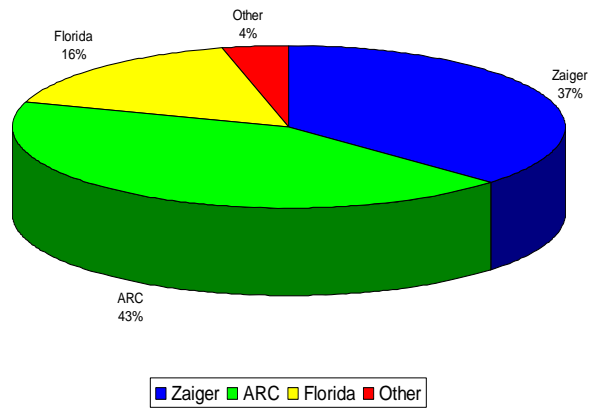
PLUMS

RSA 2005 Low Chill Plum Origin
Area = 342 Ha.

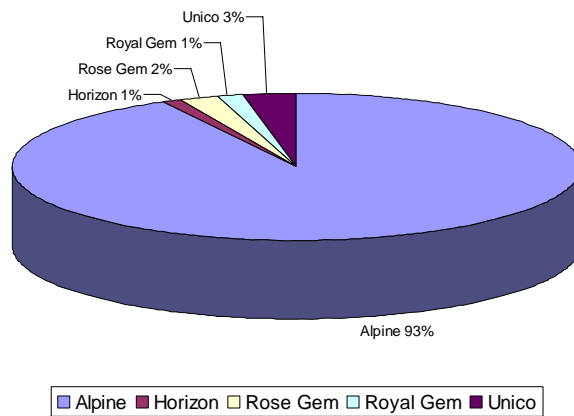


NECTARINES

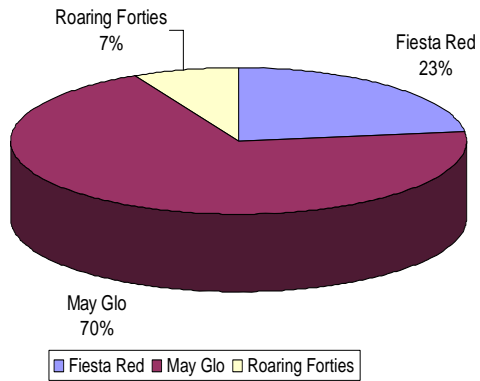
RSA 2005 Low Chill Nectarine Origin
Area = 666 Ha.



ARC Low Chill Nectarine Selections
in RSA in 2005.
286 Ha.

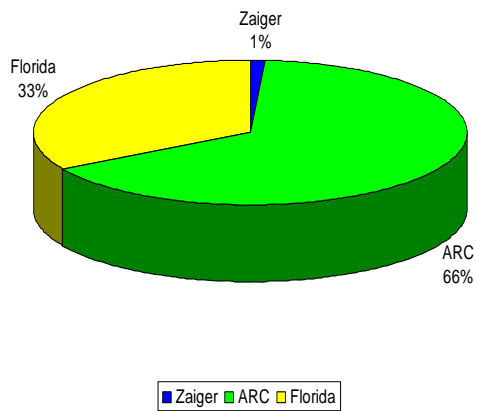


Zaiger Low Chill Nectarine Selections
in RSA in 2005.
247 Ha.

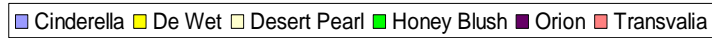
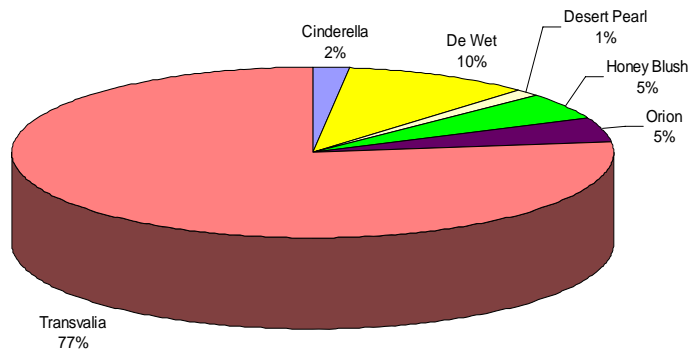


PEACHES

RSA 2005 Low Chill Peach Origins
Area = 387 Ha



ARC Low Chill Dessert Peach Selections
in RSA in 2005.
253 Ha.



CONCLUSION

- 1 768 Ha of Low Chill Stone Fruit in RSA
- = 2.4% of total Deciduous Fruit Plantings
- Northern Provinces “better” suited to Low Chill Production
- 1254 Ha (70%) of Low Chill is Locally Bred
- Global Climate Change