

Educational Tour to Israel

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Holman Fresh Pty Ltd

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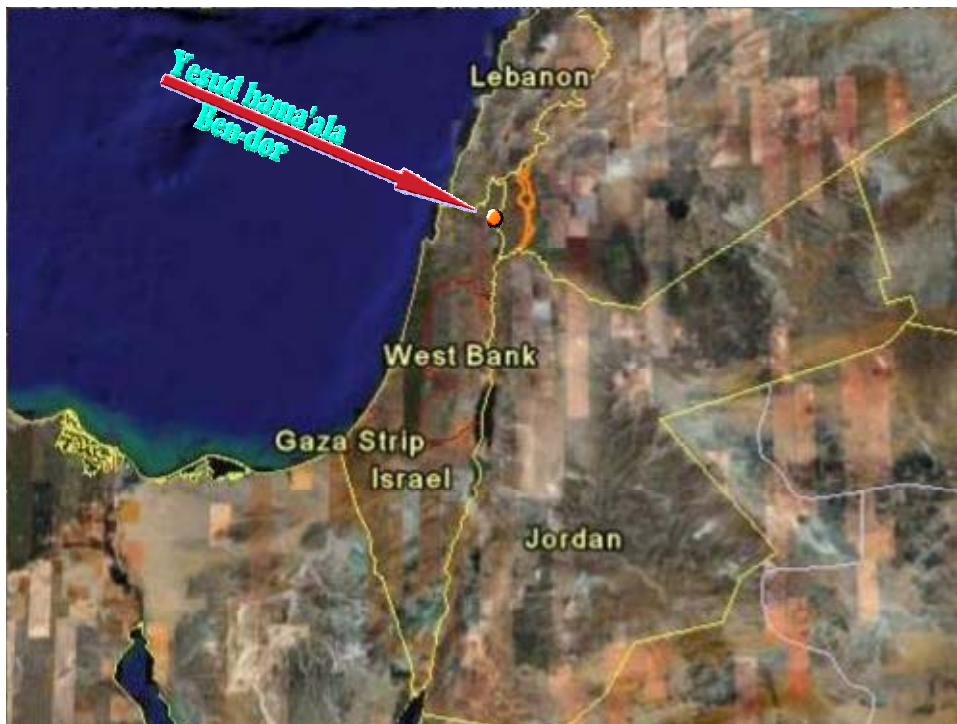
Educational Tour to Israel

Dates

The delegation departed Australia on Monday, 16th June and returned Saturday 21st June, 2008.

Participants

- Andrew Maughan, (Holman Fresh), Stuart Pickworth (Shepparton grower), Gaye Tripodi & Vinnie Tripodi (Swan Hill growers), and Michael Silm (consultant to Holman Fresh)



Objectives

- Learn supply chain efficiencies and customer requirements from a major Northern Hemisphere supplier to the important UK market with the aim of duplicating in Australia's counter-seasonal window.
- To assess the commercial potential of Ben-Dor bred apricots, (both coloured and aroma type) and early plums with the view of gaining IP rights for Australia.
- To assess the cultural / growing characteristics of Ben-Dor's yellow and Lamoon type of plums HF have existing rights to.

- maintain and enhance the Holman Fresh / Ben-Dor relationship to capitalize on future potential opportunities within the IP arena.
- If time permitted, assess any water saving technology from the Israeli growers.

Overview

Ben-Dor Fruits is situated in the northern part of Israel close the Lebanese border. The Hula Valley is a major fruit production region and Ben-Dor fruits is the largest stonefruit producer in Israel.

There are 4 distinct divisions of the Ben-Dor business:-

1. Plant breeding,(predominantly stonefruit, with some pome fruit)
2. Nursery trees- producing approx. 250,000 trees / year for supply to Israeli orchardists. Much of this is done in containers and in hot houses.
3. Orchard Production- production is approx. 300 ha of stonefruit.
4. Packing - There are 2 separate pack-houses packing Ben-Dor fruit and also from contract growers within the area.

All marketing is performed by Agrexco, a jointly owned company by the Israeli growers and the government.

Ben-Dor exports fruit to over 30 countries with the UK market being his most important.

Example of the tremendous variety variations from Ben Dor.



Ben Dor Fruits has a vast stonefruit breeding program specializing in high sugar varieties of plums. Because Ben Dor selects varieties on high sugar and flavour

and because Israel has virtually no rain over the summer months, brix levels of most varieties commercially produced range from 16-22 %TSS. Occasionally extremely high levels of 27-30 % TSS are recorded.



Refrigerated showcase for display of new varieties, Mr. Seffi Ben-Dor

Breeding

Breeding of each variety is done in the traditional method of controlled crossing and seedling evaluation. Ben-Dor's breeding program creates approximately 3000 seedlings every year. Pollen from a parent with certain desirable qualities is introduced to flowers of the female parent by hand.

The resulting hybrid cross fruit is then grown and at fruit maturity, the seed from the fruit is saved and cleaned. The seed must then under go cooling to simulate winter "chilling hours" and then the seed is germinated and planted out and the seedling is fruited, which takes 2-3 years to assess the resulting newly created variety for commercial potential.

When a new selection has been deemed as potentially commercial, Ben-Dor plants approximately 0.5 Ha (1000 trees) and test markets the fruit for 3-4 years. The customer feed-back is assessed and the decision made to further commercialize or discard the variety.

There is only 0.5 % of the seeding crosses that will eventually become commercialized.

There are no G.M. (genetically modified) techniques used in the Ben-Dor breeding program.



Breeding crosses with known pollen by hand.

Series or “Families” of Varieties

Varieties of similar characteristics but with varying maturity timings are grouped together into families. Each “family” is designed to provide long lines of consistent quality to the markets.

Ben-Dor has created the following Variety Families

- “Water Melon” - Green skin / Pink fleshed plums
- “Plumagranate” – Dark mahogany skin / Red fleshed plums
- “Lamoon” - Yellow skin / Yellow flesh with lemon shape plums
- “Shark Teeth” - Pronounced, elongated tip or nose of fruit shaped like a sharks’ tooth.
- “Aromacot” - Apricots that are especially aromatic
- “Coloured Cots” - Black, Red and Speckled apricots

Water Melon Plums



Watermelon plums

Variety	Available	Size Ø	Skin	Flesh	Brix%	Available						
						May	Jun	Jul	Aug	Sep	Oct	Nov
D 42-34/Early sweet	31/5/05	50	Green	Red	17		Green					
D 52-46	1/6/05	50	Green	Red	20		Red					
89-2 Red Heart avatich	3/6/05	60-70	Green	Red	18		Green					
D 42-42/Early aroma	5/6/05	50-55	Green	Red	23		Red					
D 44-5	15/6/05	50	Green	Red	17		Green					
CROCODILE DANDY	25/6/05	50-55	Green	Purple	20		Red	Green				
AVNER	29/6/05	50-55	Yellow	Red	22		Green	Green				
D 42-32	5/7/05	55-60	Green	Red	21			Green				
D 115-127	14/7/05	50	Green	Red	23			Red				
D118-34/D 116-34	14/7/05	50	Green	Red	18			Green				
MIRELL	30/6/05	50	Green	Red	22			Red	Red			
H 20-8	31/7/05	50	Green	Red	19				Green			
D 116-4	1/8/05	55-60	Green	Red	24				Red			
A 22-53	5/8/05	55-60	Green	Red	24				Green			
D-124-18	10/8/05	50-55	Green	Red	22				Red			
GREEN RED	18/8/05	55	Green	Red	25				Red	Red		
MERILIN	30/8/05	55	Orange	Red	20					Green		

“Plumagranate” Plums



Variety	Brix %	Available	5	6	7	8	9
O 14-5	20	25/05	■				
Brave heart	17	10/06		■			
Selek	15	15/06		■			
Madlen D 73-132	23	20/06		■	■		
K 1-252	15	20/06			■		
D 41-87	20	14/07			■		
Black egg	21	15/07				■	
D 105-434	19	15/07				■	
A 22-53	18	25/07				■	
A 11-29	23	25/07				■	
D 23-4	22	10/08				■	■
Mark	23	10/08				■	■

“Lamoon” Plums



Lamoon



LATE LAMOON





Variety	Brix %	Available	6	7	8	9
K 5-81	15	10/06				
D 44-108	17	25/06				
Kesem H 4-64	16	10/07				
Lamoon	18	15/07				
Earlamoon	20	01/08				
Late Lamoon	20	20/08				



“Shark Teeth” Plums



Variety	brix	maturity	6	7	8	9
H 13-250						
H 2-80 Black shark teeth	13	10/07		■		
H 18-326	20	25/07			■	
Early Galit	18	25/07			■	
Zigallow	18	25/07		■		
Yellow Galit	18	15/08			■	
Dolphin	18	15/08			■	
H 30-67	18	25/08				■

Aromacots



Name	Cod	Available	Skin	Brix%
	DM 1-70	25/5/05		16
	DM 1-100	27/5/05		17
Shinecot	Dm 2-140	1/6/05		17
	DM 22-97	1/6/05		15
	DM 5-98	1/6/05		15
	DM 2-138	5/6/05		18
Ginger	DM 5-129	5/6/05		16
Fina	DM 109-5	15/6/05		20
Juicy	DM 13-147	15/6/05		20

Coloured Apricots





Study Tour Outcomes

1. Orchards

The tour party concluded the orcharding practices were high density with average plantings at 1000+ trees / hectare. However, there was virtually no trellising used especially higher density systems like the Open Tatura.

Almost no rain falls in the spring and summer months. Therefore bacterial spot and brown rots problems are unheard of. If there is some unseasonal rain events during the season, these problems can be devastating. Also, rain events will reduce the sugar levels of the fruit which is a major problems during the season because Israel's stonefruit has a very strong market niche because of the earliness of season and also the traditionally high sugar levels.

Water for irrigation is a constant concern and it was reported to the touring party the lack of winter rainfall last season has caused and severe drought and limited supply of irrigation water. This has caused the cost of water to rise substantially from the Government supply infrastructure. Current costs are 1 sheckle (US\$0.33) for 1000 litres. (or US\$330 / megalitre) for what you use each season.



Seffi Ben – Dor employs nutrition agronomists to advise and monitor each block of fruit. He commented that although it is expensive, yields are increasing and quality is improving, making the investment worth while.

In field packing stations like below are used to pack directly into punnets for sensitive skinned varieties. This cost could not be justified in Australia.



2. Pack-house Management

Observations by the tour party noted the packing of fruit was mostly hand packed into single or double layer trays and packed into punnets which were then placed into RTD cartons.

Efficiencies were not particularly good and party thought pack-house management in Australia is more efficient.



Below- hand sizing and packing into punnets - very slow, but hopefully worthwhile with the niche product.



3. Nursery

The tour party was extremely impressed with the nursery operation run by Ben-Dor.

The growth made by the containerized trees growing in climate controlled hot houses was very impressive.

Below- containerized cherry trees showing phenomenal flush of growth after 7 weeks from budding.



Below- budding date 12th April, photo taken 19th June



The majority of all work performed in the nursery was by Philippines imported under a guest worker program. The expertise they displayed was very impressive indeed.

5-6 hectares of hot houses produced over 150,000 fruit trees, the majority sold in containers.

Variety Co-operation

After assessing first hand the fruit varieties the tour party was interested in, the collective decisions were made and the following recommendations forwarded:

- Coloured apricots were too small to be commercially viable in Australia. Although the flavour and appearance was good, the average size of 40-45 mm was not appealing.
Recommendation – do not pursue.
- Watermelon plums has no eye appeal. They actually looked like a very immature blood plum.
Recommendation – do not pursue.
- Plumagranate plums- although some were larger size and most had reasonable eating characteristics, they were not sufficiently different to the plums already available to growers.
Recommendation – do not pursue.
- Lamoon Plums- good colour and differentiation. Performing well in UK market.
Recommendation – Continue to develop.
- Aromacots- too much risk to import material and hope they will perform, particularly with bacterial spot risk.
Recommendation – do not pursue.
- Shark Teeth - nose too pronounced and would be costly to pack and market.
Recommendation – do not pursue.

Cultural Diversity.

The tour party enjoyed very much the cultural differences of travelling in Israel. Things many Australian never see, like the bomb shelter below reminded us we were visiting an area not was safe as we are used to. The shelter below was attached to the hotel kibbutz we stayed in, which was only 3 kms from the Lebanese border.



Bomb shelter near our hotel in Nth Israel.



All 18 y.o. people must do national service of 3 years. The tour party was surprised to see so many young men and women with automatic weapons.

The Tour party really enjoyed the visit to Jerusalem. The history and ancient artefacts were really appreciated.



above - Part of Jerusalem and the Great Temple



above – Bethlehem (Jesus birth place) inside the Palestinian controlled West Bank



above- the wall between Israel and the West Bank in Jerusalem.



above- the Wailing Wall in Jerusalem.



above- Graduation Parade at the Wailing Wall.

Acknowledgements

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