

## CITRICULTURE AND ITS CHARACTERED TREES IN SARGODHA

*Muhammad Ishfaq\**, *Niaz Ahmad Chaudhary\*\**, *Tanweer Ahmad Mohar\*\**

\* Assistant Horticulturist,

\*\* Horticulturist, Citrus Research Station, Sargodha.

Before partition, Citrus industry had taken a strong foothold in the District of Lyallpur, Montgomery and Sargodha. In the early years of post independence, the cultivation of sweet orange varieties like Musambi, Blood red, Jaffa, Pineapple and Valencia late and limited extent of local mandarin spread rapidly. The introduction of kinnow proved a turning point in the spread of Citriculture in Punjab. Now kinnow has emerged number one fruit of the Province.

At the time of introduction of kinnow, citrus fruits were not a major crop in country. The area and production of citrus fruits expanded dramatically with the popularity of kinnow. From a mere few thousand acres in 1947 it rose

to 123500 acres in 1960, 197106 in 1970, 233415 in 1980, 369759 in 1985 and 486590 in 2001. The area increased steadily during 1960 and peaked in the decade of 1975-1985.

During 1940 kinnow along with several other citrus varieties was introduced on experimental basis in this country. The first two plants happened to the progenitors of our entire kinnow industry were established at the Punjab Agriculture College and Research Institute, Lyallpur.

Citrus possesses the most remarkable position in fruit industry of Sargodha District producing 649860 tonnes from an area of 150460 acres with 4.32 tones per acre productivity. Sargodha District

**Variety wise area in District Sargodha in 2002-2003**

Variety	Sargodha	Bhalwal	Shahpur	Sahiwal	Silanwali	Sargodha District
Musambi	5029	3185	454	1554	782	11004
Pineapple	-	41	-	-	-	41
Jaffa	16	5	-	-	-	21
Hamlin	-	21	-	-	-	21
Blood red	623	799	27	300	-	1749
V. Late	-	50	10	-	-	60
Ruby Red	111	14	-	-	12	137
Sweet lime	32	32	-	-	17	81
F. Early	5153	2290	214	1108	1343	10108
Kinnow	39868	69550	1993	4617	10147	126175
G. Fruit	16	2	15	-	3	36
Lemon	17	33	-	100	-	150
Others	151	234	83	360	51	879
Total	51016	76256	2796	8039	12355	150460

Source: DOA, Sargodha, 2003

shares about 35% to total acreage of citrus in Punjab Province.

The main Citrus growing areas are Bhalwal and Sargodha Tehsil with about 85% area. The rest 15% has been cultivated in Silanwali, Sahiwal and Shahpur Tehsils.

According to the above table Tehsil Bhalwal is leading in citrus cultivation under citrus with an area of 76256 acres. Kinnow is a major variety which has been grown over an area of 1, 26,175 acres in District. Next to kinnow, Musambi and Feutrell's early are the varieties which are under cultivation in this area. Due to its promising characteristics i.e. growth habits and fruit quality, Kinnow was readily recommended for commercial cultivation.

#### **Some more Information about Kinnow**

The most interesting features are: tree vigorous, large, top erect, dense, very symmetrical with a few scattered thorns; leaves medium in size, broadly lanceolate; base somewhat rounded, rather obtuse, apex moderately acuminate; petioles short to medium in

length, nearly wingless to narrowly winged.

- a. Ripening time – Jan to April
- b. Consumed as fresh fruit and juice
- c. Foreign exchange earning source
- d. Part of our social and cultural life
- e. Exchange as gift
- f. Yield more than 4 tonnes/acre
- g. Vigorous growth
- h. Profuse variety
- i. Heavy yielder
- j. Excellent flavor, colour, size
- k. Excellent eating quality
- l. Size = 6.5 x 7.3 cm
- m. Weight = 200 gm
- n. Juice% = 52 %
- o. TSS = 13-15 %
- p. Acidity = 9 %
- q. PH = 3.7
- r. Vitamin C = 36 mg/100 gm

In spite of several good attributes of kinnow a number of problems have also been observed in its cultivation. A large extent of variability with respect to tree health, productivity and fruit quality has been found in all the kinnow growing belts. In addition to this, some other inherent problems in kinnow cultivation are, its late maturity, high seed content,

**Comparison of Characteristics of three major varieties**

	<b>Kinnow</b>	<b>Feutrell's early</b>	<b>Musambi</b>
Size	Medium	Small – medium	Medium – large
Shape	Oblate – round	Oblate	Round
Peel	Smooth & Glossy	Smooth	Rough
Colour	Deep cadmium yellow orange	Grenadine red	Orange yellow
Juice	50 %	46%	43 %
Seeds	24	16	10
TSS	12-13	10	9.3
Acidity	0.8	0.4	0.3
Taste	Very good	Good	Very sweet
Ripening time	February	November	November
Av. Yield	1000	500	400

high acidity, poor keeping quality, unsuitability for processing, over and alternate bearing. An ideal approach would be to develop a common varietal base for whole of the region which should include, in addition to kinnow, some other mandarin and sweet orange varieties which match kinnow in productivity, but vary in maturity period and also have some desirable attributes like low seed content, better keeping quality, longer productive field life, suitability to processing.

### **Marketing Aspect of Kinnow**

On the ripening of fruit, its disposal and to take it to the consumer or market, there are the following steps.

1- Harvesting:- While harvesting the following precautions are to be observed

- Fully mature fruit be harvested
- Clippers should be used
- 1-2 cm stem should be left with the fruit.

2-Transport to the grading units

3-Washing

4-Waxing

5-Grading

6-Packing

Packing plays a significant role in fetching better price in the markets. Packing also reduces the loss of fruits during transit and maintains freshness of the fruit. The following grading, packing units has been installed at Sargodha. All the above mentioned steps are being carried out with great care and fruit is being exported by the owners of their factories.

### **List of Kinnow Grading Plants in Sargodha**

1. Arif over seas traders Chak no.84 sb, Talib wala road
2. Sargodha kinnow factory 10 km. Talib wala road

3. Ibrar grading & waxing plant Bhagtanwala
4. Mateela citrus ltd. Matella
5. Ali international group of companies salam kot Momin road
6. Lalazar grading plant Hujin
7. Hassan traders Rawana
8. Shahtaj grading plant sultan pur maila mor, Kotmomin
9. Miran grading & waxing plant moazmabad road, Kotmomin
10. Razaq shah grading & waxing factory Chak no.09 SB, Bhalwal kot momin road
11. Mash Allah kinnow factory Bhalwal Kotmomin road
12. Roshan enterprises Bhalwal Kotmomin road
13. Insaf kinnow factory Bhalwal Kotmomin road
14. Zahid grading & waxing plant Bhalwal Kotmomin road
15. Union fruit company Bhalwal Kotmomin road
16. Al-madina kinnow factory Bhalwal Kotmomin road
17. Al-jamal kinnow factory Bhalwal Kotmomin road
18. Zaman kinnow factory Chak no.6 SB
19. Shaheen kinnow factory Chak no.6 SB
20. Bismilla kinnow factory Bhalwal Kotmomin road
21. Gondal kinnow factory Bhalwal salam road
22. Fresh grading plant Sultan pur noon
23. Ishfaq & afzaal grading plant Sultan pur noon
24. Itfaq grading plant chawa
25. Arshid & company chak 10 NB
26. Al-Mahmood grading & waxing plant Sakaser
27. Haji Mohammad Azam grading plant Ottian
28. International waxing & grading plant Chak 10 NB

29. Pak kinnow
30. Bhalwal kinnow factory Chak 23 NB
31. Iftkhar & company Chak 27 NB
32. Al-Habib grading factory chak 27
33. Sarfraz grading & waxing plant Moazmabad
34. Ghosia & mheria grading plant Chak 15 SB
35. Haji Mahmood kinnow factory Chak 15 SB
36. Araien kinnow factory Mari lak
37. Sheikh grading plant Lalian

#### **Citrus juice concentrate units**

Citrus Juice concentrate is the major product in international trade.

Two concentrate units have been installed in Sargodha at different locations

##### ***i-Sunflo***

This is rich unit at present if it comes in operation, it can help the growers a lot.

##### ***ii-Cargill* – Now **CITRO PAK****

It is in operation and reasonable fruit is being crushed for concentrate.

#### **Export of Kinnow**

As in the world, Citrus ranks first with respect to area and production in Pakistan as well. Citrus is one of the most important fruit in international trade as fresh fruit and as processed product. Pakistan has been in citrus trade for the last more than 30 years. The major variety, rather the only variety at present to be exported and being exported is our kinnow.

It is essential for exports of kinnow that its quality should be ensured to meet the requirements of importing countries. The growth in export is directly related to production of required quality fruit on sustained basis.

Pakistan at present is exporting its kinnow to many countries of the globe, which is on increasing trend.

#### **EXPORT OF KINNOW**

<b>Year</b>	<b>Quantity (<sup>000</sup> kg)</b>	<b>Value (<sup>000</sup> \$)</b>
1996-97	86776	13255
1997-98	58593	7017
1998-99	51269	9059
1999-00	82250	13916
2000-01	97028	16310
2001-02	121692	20842
2002-03	121496	21000

#### **For Further Reading**

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