Star Ruby Grapefruit

Origin
In the search for red grapefruit with improved flesh colour, Dr Dick Hensz at the Texas A & I University Citrus Centre developed the Star Ruby in 1959. This was achieved by irradiating Hudson grapefruit seed. The result was a tree with bushy, compact growth that produced fruit with a deep red flesh and rind colour. It was named and released in 1970 and was introduced as seed to South Africa in 1972. The nucellar seedlings grown from the 12 imported seeds were evaluated and Star Ruby was released to the industry in 1982. Subsequently the nucellar selection was put through shoot tip grafting and cross protected with the Nartia mild CTV isolate and established at the Citrus Foundation Block.

Ownership
Open.

General Description
A more compact tree than other grapefruit selections that develops some leaf chlorosis and produces fruit with an excellent deep red flesh colour. Fruit size is slightly smaller than other red grapefruit selections and yields are very good. The Star Ruby makes up a substantial part of the South African grapefruit industry.

Tree Characteristics
The tree is less vigorous than other grapefruit types and tends to bear more fruit inside the tree.

Rootstock Options
Suggested rootstocks are Swingle citrumelo and Carrizo/Troyer citrange, depending on soil type and whether plantings are on new or replant ground. Rootstocks inducing lower sugars levels are not advised.

Fruit Characteristics
Fruit size is a uniform large with smooth rinds. Fruit shape is round to flat, depending on climate, and fruit rind colour is fairly uniform developing a deep red blush at maturity. Internal flesh colour is a uniform deep red. Star Ruby has very low seed counts. The flavour is very good, maturing in mid April to mid May in suitable areas. The fruit maintains its quality on the tree until mid June. The majority of fruit vary from 98 to 82 mm (Counts 32 to 56).

Production
Yields of 60 tons per hectare are expected for mature orchards. Young trees bear well.

General
The Star Ruby does not require crop manipulation and is not susceptible to any pests and/or diseases other than those common to other grapefruit selections, i.e. CTV. Harvest, packing and shipping requirements as well as post harvest disorders are as for other grapefruit.

Status, Area Suitability and Availability
Commercial - suitable grapefruit (hot & humid) areas. Commercial quantities of propagation material are available from the Citrus Foundation Block.

Star Ruby fruit showing typical shape, thin rinds and ultra low seed counts.
Key References
The information in this fact sheet is based on evaluations by Citrus Research International.

Evaluation Data

| Internal Quality - Star Ruby on Carrizo citrange - Count 40 - Swaziland |
|-------------------------------|----------|----------|----------|----------|----------|
| Date                         | Juice %  | Brix     | Acid     | Ratio    | Seed     | Colour   |
| 22/05/2007                   | 58.1     | 10.5     | 1.30     | 8.1      | 0.2      | 2        |
| 22/07/2007                   | 60.3     | 8.9      | 1.20     | 7.4      | 0.2      | 1        |

Note: These data are from Tambuti Estate in Swaziland

Count Distribution

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<tr>
<th>Count</th>
<th>27</th>
<th>32</th>
<th>36</th>
<th>40</th>
<th>48</th>
<th>56</th>
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</thead>
<tbody>
<tr>
<td>%</td>
<td>14.7</td>
<td>10.6</td>
<td>25.1</td>
<td>23.9</td>
<td>18.6</td>
<td>7.1</td>
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</tbody>
</table>

Note: From Tambuti trial - averages SC & C35

Production
60 Tons per hectare at 6 x 3 m spacing.

Export %

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<thead>
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<th>Grade</th>
<th>Percentage</th>
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</thead>
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<tr>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>3 &amp; 4</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Note: These data are from Tambuti Estate in Swaziland

Comments
The Star Ruby has for many years now been one of the main grapefruit selections planted in South Africa. Due to its very good internal quality and deep red flesh colour it is in demand in numerous export markets. It is a very good quality grapefruit that currently comprises over 55% of total grapefruit plantings.