Origin and Release of Tomato Line 31-St-6 and Hybrid Pink Delight

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The Missouri Agricultural Experiment Station announces the release of tomato breeding line 31-St-6, primarily as a source of germplasm for the development of superior pink fruited hybrids. Pink Delight, a pink fruited hybrid developed for fresh market and shipping, utilizes 31-St-6 as a parent line.

Line 31-St-6

Description

Line 31-St-6 has good horticultural type. The fruits are pink, 6.5 oz. average size, deep globe shape, and rank above average in fleshiness. The line shows good tolerance to both radial and harvest cracking (burst), which are common deficiencies in most pink-fruited varieties. Maturity of line 31-St-6 is about 70 days.

Plants of line 31-St-6 are indeterminate with moderate foliage density and possess field immunity to Fusarium oxysporum f. Lycopersici (Sacc.) Snyder and Hansen, which was contributed by Missouri Accession 160 of Lycopersicon pimpinellifolium, a selection of P. I. 79532.

Pedigree

Line 31-St-6 is an F₆ selection of Mammoth Wonder (Burgess Seed Co.) x Tomboy. In addition to Missouri Accession 160, the following cultivars contributed to the line: Earliana, Break-O-Day, Bison, Early Stone, Marglobe, Bonny Best and Winsall. Throughout the segregating period, heavy selection pressure was exerted for deep globe shape, fleshiness and high yield.

Pink Delight

Description

Hybrid Pink Delight resembles one of its parents (Traveler) in many fruit and plant characteristics. The pink fruits average slightly larger than those of Traveler (6.7 oz. vs. 6.0 oz.) and they possess the attractive red overtone, firmness and slicing qualities of Traveler. Growth and harvest crack resistance are comparable to that of Traveler, and far exceeds most pink varieties. Maturity is about 70 days, slightly earlier than Traveler.
Pedigree

Hybrid Pink Delight is an F₁ 31-St-6 x Traveler (Arkansas AES).

Performance

The performance of Pink Delight as compared to Traveler and hybrid Avalanche has been determined for the 3-year period in replicated trial plots at the Horticulture Research Facility, New Franklin, Missouri and in numerous commercial gardens.

<table>
<thead>
<tr>
<th></th>
<th>Marketable Fruit</th>
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<tbody>
<tr>
<td></td>
<td>Ft. size (oz./Fruit)</td>
</tr>
<tr>
<td>Pink Delight</td>
<td>6.7</td>
</tr>
<tr>
<td>Traveler</td>
<td>6.3</td>
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<tr>
<td>Avalanche</td>
<td>7.8</td>
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Availability of Seed

A limited amount of foundation seed of 31-St-6 is available on a pro rata basis upon written request to the Department of Horticulture, University of Missouri-Columbia, Columbia, Missouri 65201. Seed of Pink Delight should be available from commercial seed sources in 1976.