

'CaroTex-312,' new Habanero-type pepper introduced

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The Agricultural Research Service of the U.S. Department of Agriculture (USDA) and the College of Agriculture and Life Sciences of Texas A&M University recently announced the release of 'CaroTex-312', a new high-yielding, orange-fruited, Habanero type, F1 hybrid pepper (*Capsicum chinense* Jacq.).

According to Kevin M. Crosby from Texas A&M University's Vegetable and Fruit Improvement Center, open-pollinated cultivars of Habanero peppers are used extensively by US growers, but the cultivars have historically suffered from several deficiencies, including low yields, late maturity, disease and pest susceptibility, and lack of uniformity.

"Transition to F1 hybrid cultivars such as jalapeño, bell, and ancho has led to greatly increased yields, earlier maturity, and superior fruit quality." In the August 2013 issue of *HortScience*, Crosby and fellow researchers introduced 'CaroTex-312', the result of an F1 cross made at Charleston, South Carolina, between 'TigerPaw- NR' and UV88-2004. Crosby said that 'CaroTex-312' should appeal to consumers of Habanero-type peppers because of the new cultivar's large, attractive, orange-colored fruit.

"However," Crosby noted, "the most outstanding attribute of this new cultivar is its ability to produce high yields, particularly early in the season." The results of three replicated field studies conducted at Charleston in 2009 and 2010 showed that the total yield of marketable fruit harvested from 'CaroTex-312' equaled or exceeded the yields of total marketable [fruit](#) harvested from the 'TigerPaw-NR' parent, or from

the open-pollinated control cultivar Habanero. "More important," Crosby said, "we found that average early yield (first harvest yield) was 19% of total yield (total of six harvests) for 'CaroTex-312', but only 4.7% of total yield for 'TigerPaw-NR' and 4.2% of total yield for the open-pollinated control cultivar 'Habanero'."

Observations of a number of 'CaroTex-312' plantings in Texas and the results of prior research with the parental lines used to develop 'CaroTex-312' also suggested that the new cultivar has several potentially useful disease-resistance attributes.

The yield attributes of 'CaroTex-312', particularly its potential for producing high early yields, should be especially appealing to growers trying to widen their marketing window. "We recommend 'CaroTex-312' for trial by fresh-market growers throughout the southern United States," Crosby said. The USDA has obtained a Plant Variety Protection Certificate for the 'TigerPaw-NR', parent of 'CaroTex-312'. 'TigerPaw-NR' seed is available to interested pepper researchers for experimental purposes. Small quantities of 'CaroTex-312' seed are available for research purposes from Crosby at the Vegetable and Fruit Improvement Center at Texas A&M University.

More information: hortsci.ashspublications.org/content/48/8/1059.full

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