24th INTERNATIONAL Pepper CONFERENCE
November 4-6, 2018 | Fort Myers, Florida USA

Embrapa

Embrapa´s Jalapeño Pepper Breeding for Mechanical Harvesting

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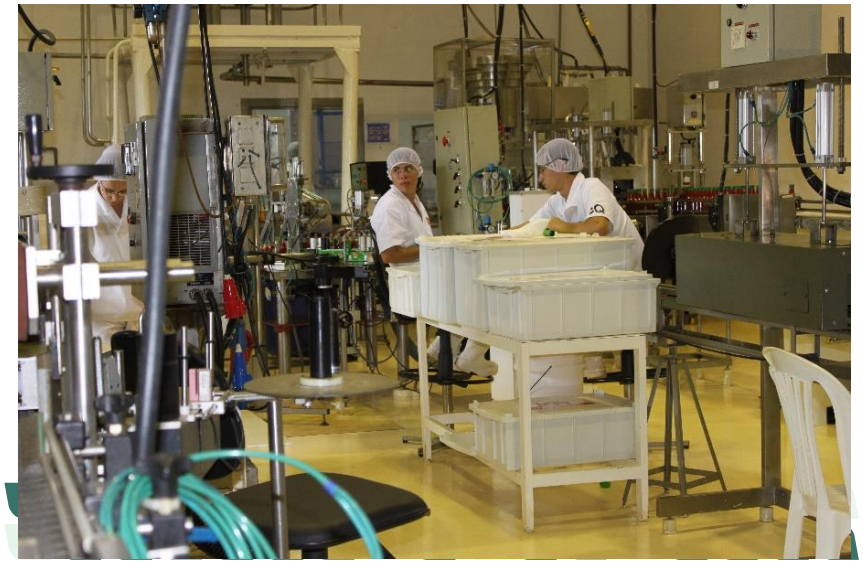
November 5th 2018

Jalapeño pepper major sauce processing industries

Embrapa and Private Sector Partnership - 2002



www.sakura.com.br

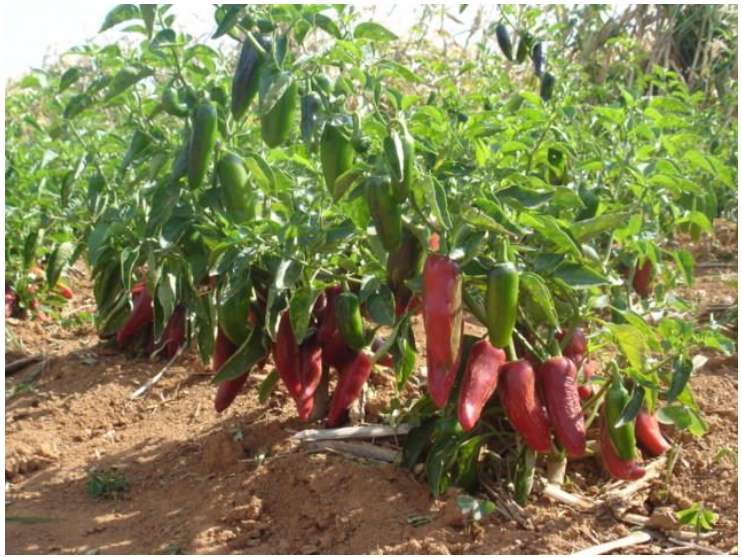
Products are also exported to South America, USA, Europe, Middle East and Japan

Jalapeño pepper harvesting

BRS Sarakura hand harvest – Goiás

Objective

Jalapeño pepper lines adapted to mechanized harvesting, pungent, concentrated fruit set/maturity



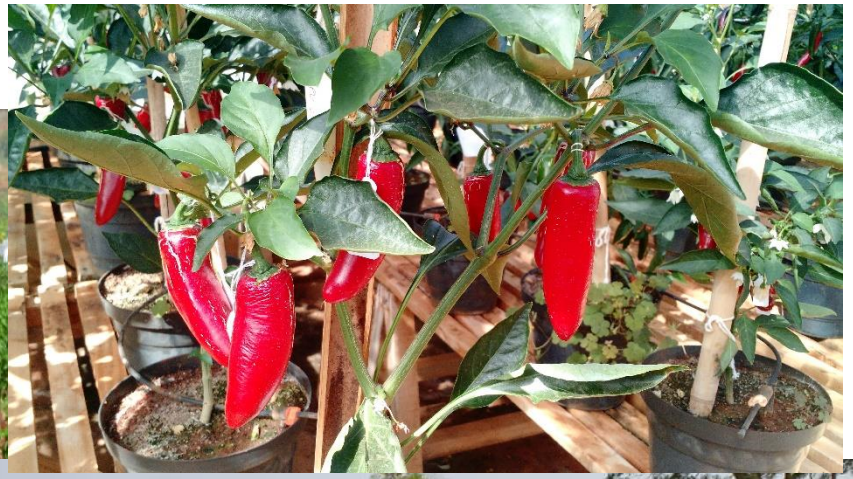
BRS Sarakura

Breeding program for mechanical harvesting

Started in 2015

Four cycles - individual plant selection based on progeny tests

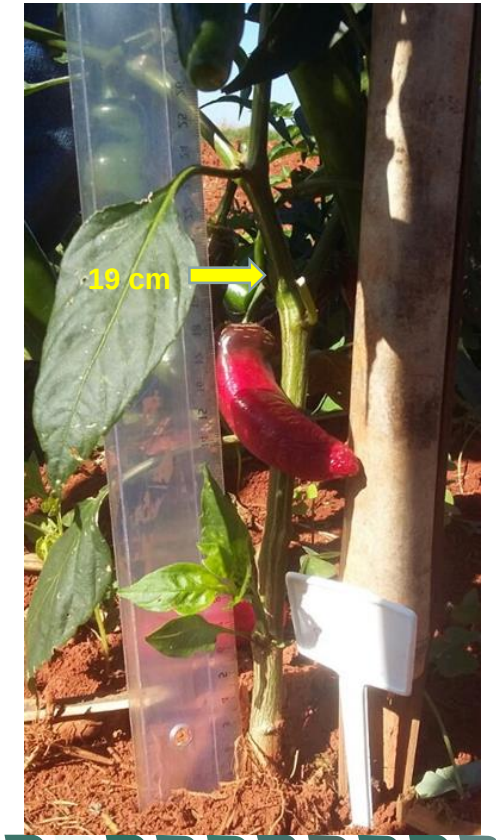
Progeny tests in Brasília

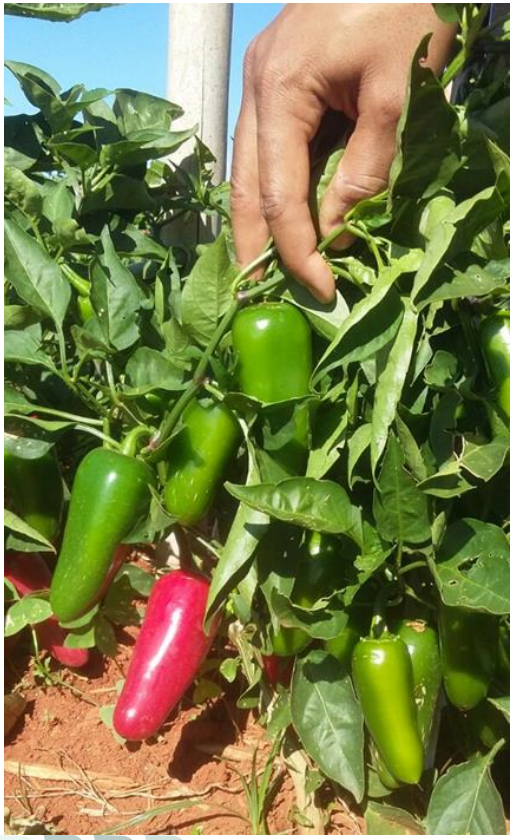


Progeny tests in Catalão

Plant selection/ architecture

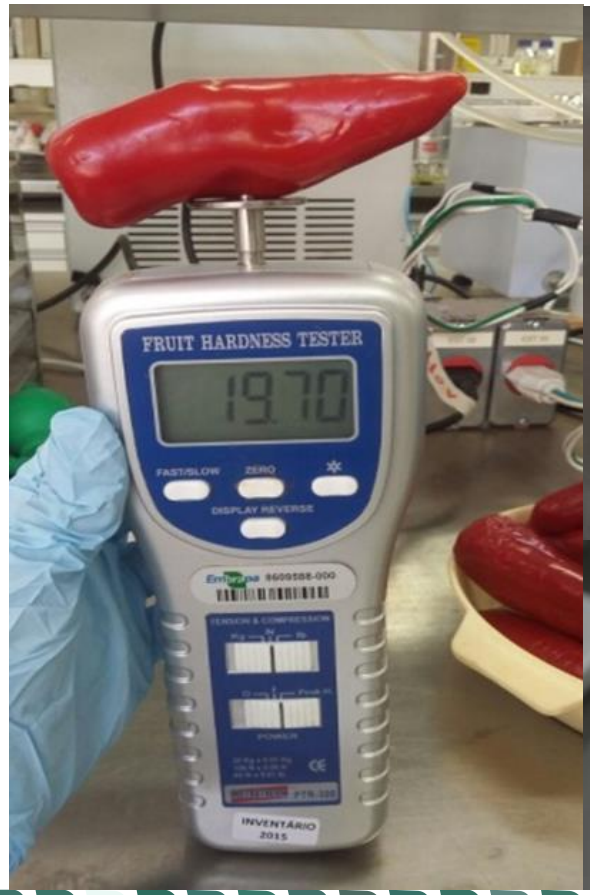
plant height (>60 cm), height of first bifurcation (>16 cm), plant growth habit, side shoots, earliness, yield = or > BRS Sarakura, and concentrated fruit set

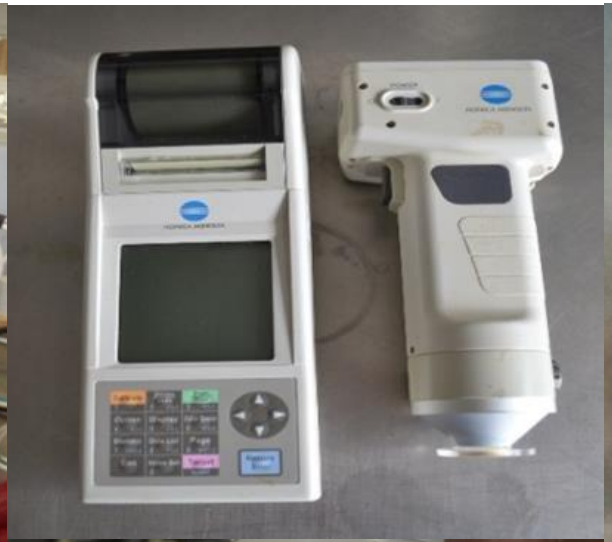


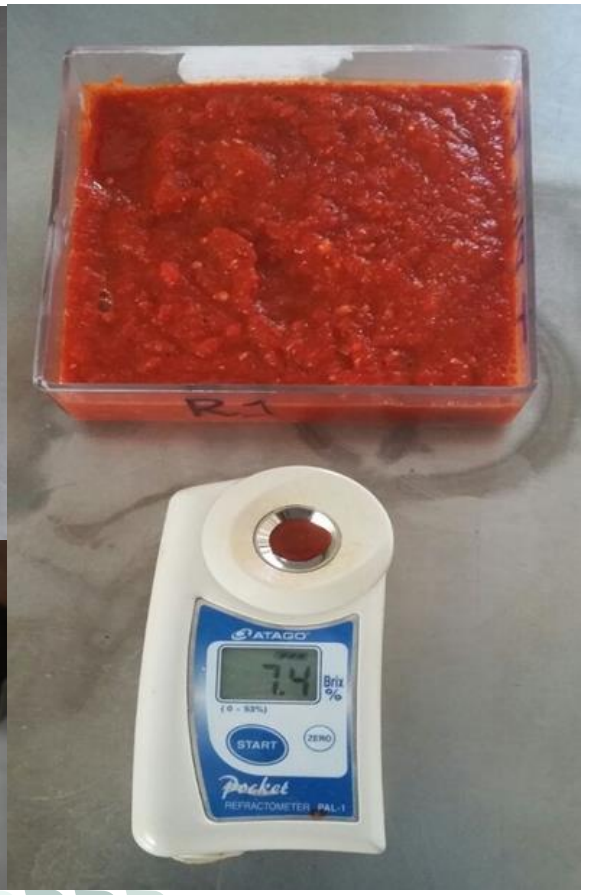


Fruit traits

pungency (>30,000 SHU), ºBrix (>7), pH, titratable acidity, fruit size, firmness and color of the ripe fruit







Relative performance of CNPH 30375, 30377, 30607 and 30609

Genotypes	Plant Height	Bifurcation	Earliness	Side shoots	Yield	Pungency	Brix
Jal. Plus F1	X	✓	X	✓	✓	X	✓
BRS Sarakura	X	X	✓	X	✓	✓	✓
BRS Garça	✓	X	X	X	✓	✓	✓
CNPH 30375	✓	✓	✓	✓	✓	✓	✓
CNPH 30377	✓	✓	✓	✓	✓	✓	✓
CNPH 30607	✓	✓	✓	✓	✓	✓	✓
CNPH 30609	✓	✓	✓	✓	✓	✓	✓

X = lower performance

✓ = superior performance

New tests with the mechanical harvester

Four selected lines are being cultivated in Brasília-DF for tests with Moses 1010-Etgar harvester

Challenges go beyond breeding:

1. Adequate soil preparation
2. Uniform planting with uniform seedlings
3. Planting period and
4. High yielding adapted Jalapeño pepper lines

Thank you

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