



That's One

Hot

HABANERO!

Spicy TigerPaw
pepper also resists
root-knot
nematodes

It's bright orange, nematode resistant, and hot. Make that very hot!

It's TigerPaw-NR, a new, groundbreaking habanero pepper developed and released recently by scientists at ARS's U.S. Vegetable Laboratory in Charleston, South Carolina. It's bound to make an impression on consumers whose desire for pungent peppers is on the rise.

Geneticist Richard Fery, who developed TigerPaw-NR with plant pathologist Judy Thies, says the pepper—named when a fellow scientist saw a picture of its fruit and claimed they looked like tiger paws—will interest casual gardeners and serious growers alike.

"Not only is it among the spiciest ever developed at ARS," he says, "it's also highly resistant to many important species of root-knot nematodes."

How spicy is TigerPaw-NR? It scored a scorching 348,634 on the Scoville Heat Scale, placing it among the elite of the world's hottest peppers. The Scoville scale shows peppers' relative heat in terms of their content of capsaicin, the compound that produces a burning sensation on the tongue. Jalapeños fall into the

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3,500-5,000 range of this scale, while habaneros rate 100,000 and higher.

But TigerPaw-NR's true uniqueness lies in its nematode-resisting abilities. "All habanero-type cultivars currently available to commercial growers and home gardeners are susceptible to nematodes," says Fery. These microscopic, soilborne worms are major pests of many other crops worldwide.

Fery says that TigerPaw-NR can fend off the southern root-knot nematode, *Meloidogyne incognita*; the peanut root-knot nematode, *M. arenaria*; and the tropical root-knot nematode, *M. javanica*. In greenhouse tests, the pepper had 97 percent fewer nematode eggs per gram of fresh root than did its susceptible parent.

Fery and Thies developed TigerPaw-NR through conventional recurrent backcross breeding, which transferred the gene responsible for root-knot nematode resistance in PA-426, a Scotch Bonnet type of pepper, into PA-350, a classical habanero type. Thies says that in tests, nematode resistance of the new pepper was equal to that of PA-426.

Fery has also been involved in the recent release of two new southernpea varieties: WhipperSnapper, a dual-purpose cultivar that can be used to produce both snaps and fresh-shell peas; and GreenPack-DG, the first pinkeye-type southernpea to be released whose green seed color is conditioned by both the green-cotyledon and green-testa genes.

He says that WhipperSnapper, developed in collaboration with scientists at Louisiana State and Lincoln universities, can be used to produce abundant quantities of snaps during seasons too hot for successful culture of snap bean cultivars. GreenPack-DG, developed under a cooperative research and development agreement with Western Seed Multiplication, Inc., of Wadmalaw Island, South Carolina, has potential to replace Charleston Greenpack in the frozen food industry.—By **Luis Pons**, formerly with ARS.

This research is part of Plant Genetic Resources, Genomics, and Genetic Improvement (#301), Plant Diseases (#303), and Methyl Bromide Alternatives (#308), three ARS national programs described on the World Wide Web at www.nps.ars.usda.gov.

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