

NMSU's Chile Pepper Institute names the Trinidad Moruga Scorpion hottest pepper on earth



New Mexico State University's Chile Pepper Institute has identified the Trinidad Moruga Scorpion as the new hottest pepper on the planet. (NMSU photo Danise Coon.)

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When it comes to bringing the heat, there's a new king of the hill. According to a first-of-its-kind scientific study on "super-hot" chile varieties, New Mexico State University's Chile Pepper Institute has identified the Trinidad Moruga Scorpion as the new hottest pepper on the planet.

"For this study, we wanted to establish the average heat levels for super-hot varieties. That's something that hadn't been scientifically set," said Paul Bosland, an NMSU Regents Professor and director of the Chile Pepper Institute. "We also wanted to see which chile pepper truly has the highest heat levels."

For the study, Bosland and his partners Danise Coon, a senior research specialist, and Gregory Reeves, a graduate student, looked at several chile breeds reputed to be among the hottest in the world, including Trinidad Moruga Scorpion, Trinidad Scorpion, 7-pot, Chocolate 7-pot and Bhut Jolokia - a previous world record holder identified by the Chile Pepper Institute and certified by Guinness World Records in 2007.

Each of the super-hot varieties was grown in an NMSU plant science research field, following standard agricultural practices for chile peppers grown in Southern New Mexico. Later, randomly selected, mature fruits from several plants within each variety were selected, harvested, dried and ground to powder. The capsaicinoids, or the compounds that produce heat sensation, were then extracted and examined.

The Trinidad Moruga Scorpion scored highest, overall, in mean heat with more than 1.2 million Scoville Heat Units. Chocolate 7-pot came in at almost 1.17 million SHU. 7-pot placed third with more than 1.06 million SHU. Trinidad Scorpion packed almost 1.03 million SHU and Bhut Jolokia had almost 1.02 million SHU.

Chile peppers of the same variety will often vary in heat, even when grown in the same field or picked from the same plant. This study saw similar results, with some individual plants scoring much higher than the mean heat levels. Two individual Trinidad Moruga Scorpion pepper plants registered more than 2 million SHU – almost twice as hot as an average Bhut Jolokia pepper.

"Part of the reason we conducted this research is that rigorous scientific testing is required to ensure accurate determination of super hot heat levels," Coon said. "The Chile Pepper Institute, as the leading authority on chile peppers, was a logical place for this research to be conducted."

The chile industry is already taking notice of Bosland's study. Over the past few years, CaJohns Fiery Foods has worked with NMSU's Chile Pepper Institute to create products with super-hot chile varieties. The company has Holy Jolokia hot sauce, salsa and barbecue sauce available which are made from the Bhut Jolokia pepper. The company's latest creation is Sancto Scorpio hot sauce, made from the Trinidad Moruga Scorpion pepper. The hot sauce can be purchased at the NMSU Chile Pepper Institute in Gerald Thomas Hall, Room 265, or on the institute's website at www.chilepepperinstitute.org