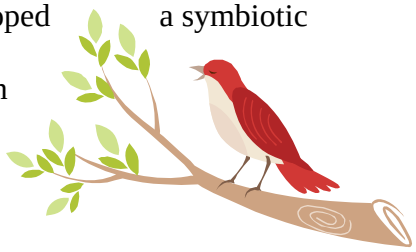
The Story of Chile Peppers

Origin

Chile peppers originated in the lowlands of Brazil as small red, round, "berry-like" fruits. This location called the 'nuclear area' has the greatest number of wild species of chile peppers in the world today. Scientists believe that birds are mainly responsible for the spread of wild chile peppers out of this 'nuclear area.' Over the centuries birds developed a symbiotic relationship with chile peppers. Birds do not have the receptors in their mouths that feel the "heat" and a birds digestive system does not harm the chile pepper seed. So while birds could go around gathering up the small fruits and consuming them with no adverse effects, dispersed seeds would grow into new plants. Many scientists also believe that chile pepper plants evolved the capsaicinoids, the chemical that makes chile peppers hot, to deter mammals from eating the pods, thus ensuring the spread and continuation of the species. The fruit of wild chile peppers, when ripe, are easily removed from the plant by birds, however when green will not pull away from the calyx very easily, thus ensuring that only viable seeds are being dispersed.



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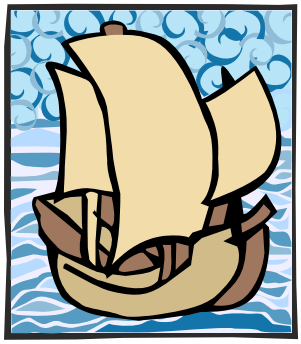
Domestication and Types

There are five domesticated and 25 known wild species of chile peppers. The domesticated species include *annuum, chinense, frutescens, baccatum,* and

pubescens. *C. annuum*, has the greatest number of varieties and contains the New Mexican pod type, jalapeño, bell pepper, cherry, poblano, and hundreds more pod types. *C. chinese* has the habanero and scotch bonnet, while *C. frutescens* has the famous Tabasco. *C. baccatum* are the South American 'aji's' while *C. pubescens* is the 'Rocoto' and 'Manzano'.



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<u>The Spread of Chile Peppers</u>

When Christopher Columbus was looking for a new spice trade rout and bumped into the new world, he came across these new fruits when the Western Natives offered him some chile pepper. When he ate the pods he felt the same "burn" or "heat" felt from black pepper and he mistakenly called it "pepper" this is why today chile peppers are called peppers. Columbus took the fiery pods back to Spain and they quickly spread across the Eastern hemisphere and are used in almost every international cuisine around the world. Chile pepper plants are also grown in almost every country in the world.

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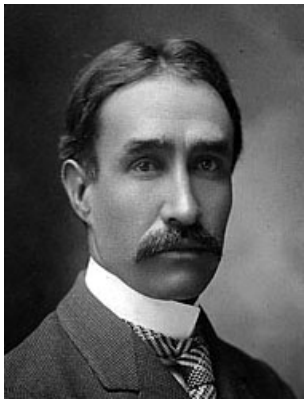
There are several stories about how chile peppers came to New Mexico, some scientists believe that Onate brought them on his expedition of the Camino Real and others believe they arrived in New Mexico through trade between the Pueblo Indians of the Southwest

and the Toltec Indians of Mexico. There is no archeological evidence to neither prove nor dispel either theory. But one thing is for sure, the Native Pueblo Indians of the southwest were definitely growing chile peppers.

New Mexican Chile Peppers

Today many of these chile peppers that were grown for thousands of years are still being grown in small family oriented farms scattered around Northern New Mexico. However these landrace chile peppers are dying out because there are more "robust" varieties that are more desirable to the industry. Back at the turn of the 20th century, Fabian Garcia, a pioneer horticulturist at New Mexico State University, realized the problems inherent with native landraces and introduced a new type of pod to the chile pepper industry: 'New Mexico No. 9'. This cultivar was a farmer's dream, with its regular size and shape and dependable heat. It was a commercial success and kicked-off the Mexican food boom in America. Farmers, in particular in southern New Mexico where the growing season is longer, eagerly swapped out their traditional landraces for the new cultivar and started turning out profitable crops. On the other hand, the landraces that existed in the Southern part of the State have vanished and been replaced by more commercially viable options. Dr. Garcia breed several varieties of Mexican pasilla and chile pepper Colorado to come up with the hybrid now known as the New Mexican pod type. Varieties of New Mexican pod types include NuMex Big Jim,



Fabian Garcia

NuMex Sandia

NuMex Joe E. Parker, NuMex Sandia and NuMex Española Improved. The publics demand for New Mexican chile pepper peppers started a little over 75 years ago. Any variety developed at NMSU carries the precursor "NuMex." NuMex Big Jim is in the Guinness Book of World Records for the longest chile pepper ever grown at 13.5 inches long. New Mexico is the nation's premier producer of hot chile peppers. Green chile pepper is produced mainly for the fresh market with a small portion going to processing, almost all of the red chile pepper and cayenne produced is processed. Paprika is used mostly for its coloring agent properties. Three southern New Mexico counties account for 75 percent of all chile pepper acreage. Dona Ana, Luna, and Hidalgo. 20 percent of the entire states harvest and almost the entire northern New Mexico crop is destined for the fresh market. New Mexico's cash crop of chile peppers, which includes; green and red New Mexican chile pepper peppers, jalapeños, cayennes and paprika, is worth $60 million at harvest. After processing this value quadruples.

NuMex Big Jim

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Chile Pepper Production

There are many factors that affect chile pepper production on New Mexico, including pests and disease. Many chile pepper researchers describe chile peppers as not liking to get their "feet" wet. In New Mexico and most areas of the world, chile pepper growers can experience harsh losses if their fields are in standing water for greater that a 24 hour

period. The loss is due to the soil born fungus called phytophthora, and referred to as “chile pepper wilt” by many home gardeners. Other disease includes curly top, which is transmitted by the leaf hopper insect, powdery mildew, and damping off. Many other insects which make chile pepper peppers a host include, aphids, thrips and whiteflies.