

Pepper Time!

Let the following been-there-and-doing-that stories be your guide to starting your own pepper-based small business!

BY LYN HOWARD

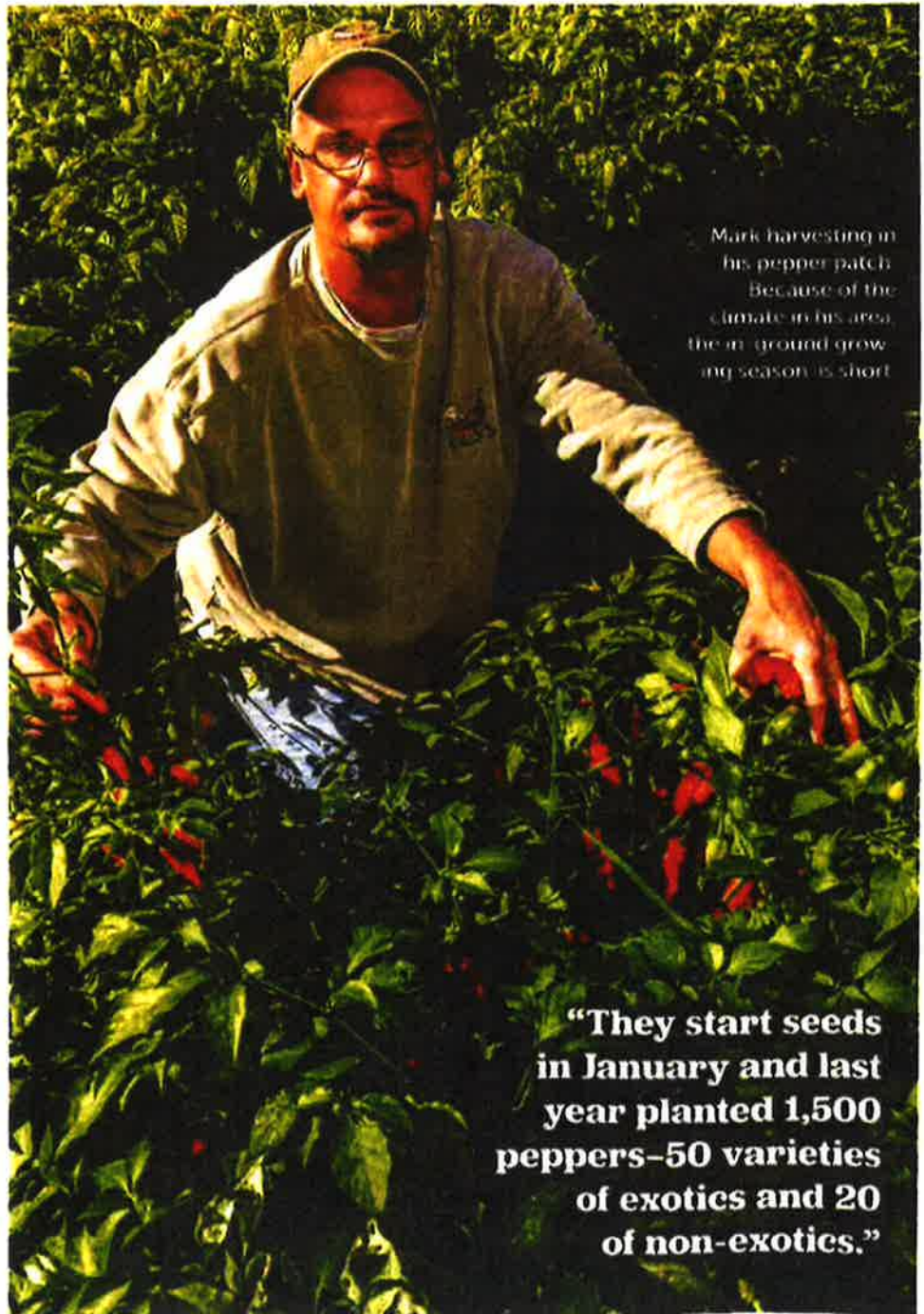
Mark Brown grew up eating spicy foods and had always liked peppers, but it wasn't until he left his truck transport business and went to work on a farm that his passion for peppers heated up.

"I was sitting at a desk all day in front of a computer and getting really heavy. I decided it was time for a change and sold the business but needed to find something to do. A friend of mine had a small farm near Gold Hill, Oregon. He offered me a job in 2001 and I took it. For a couple of years I didn't put a plant in the ground. I was the soil guy. He taught me how to turn dirt into soil, make compost. We grew Anaheims and some bells. I loved the flavors and started experimenting making a pepper mix. People liked it," he explained.

He might still be working for the farmer and making his pepper mix as a hobby if Jennifer Mehta hadn't been passing through Gold Hill in 2011. She had been traveling up and down the West Coast selling crystals, minerals and fossils at concerts and other venues from her van. "I needed a new van," Jennifer said, "and saw one sitting by the side of the road and inquired about it. It belonged to the owner of the farm where Mark was working."

She bought the van and made another decision. "I really liked the area and thought it was time to settle down."

Before she knew it she had rented a house and taken the farmer up on a job offer at his farm, where she met



Mark harvesting in his pepper patch. Because of the climate in his area, the in-ground growing season is short.

"They start seeds in January and last year planted 1,500 peppers—50 varieties of exotics and 20 of non-exotics."



Lily Bear Brown, the company mascot, and Jennifer. Mark got Lily Bear as an 8-week old puppy in 2008.



Mark and Lily (nosing in) roasting peppers the day before a farmers market, where they sell them by the bag.

PHOTOS BY THOMAS KIRCHEN

Mark. She was no stranger to gardening. Growing up in Kentucky, she had learned the ins and outs of English cottage gardens from her English grandmother. “Mostly, she grew flowers, but we also had the usual summer crops—beans, tomato, squash, things like that,” she said.

Soon Mark and his rescue bulldog, Lily Bear Brown, started coming over to help her with projects around her house, spending more and more time there. When Mark told her about the dried pepper mix he was giving away, the marketer in her spoke up. “You can’t afford to give this away; you need to have a company,” she told him.

By this time Mark’s passion for peppers was getting fiery. He wanted to make his pepper mix hotter. The couple started searching for the world’s hottest peppers, the so-called exotics. When they couldn’t find them locally, they ordered plants from the internet.

Growing Pains

“We were really disappointed,” said Jennifer, “the starts were terrible. Then we ordered some seeds of different varieties from another company and got them to grow. We realized that we could provide exotic chile peppers locally at a tenth of the cost that you can buy them over the internet. We could grow them here in our backyard. It was an opportunity to provide an

exclusive product. I wanted to keep vending and Mark was ready to grow more peppers and make more sauce. It all came together.”

And come together it did. They decided to try their hand at growing organic peppers full time as a way of earning a living in their backyard. First, Mark built 12 raised beds and a small greenhouse since the weather in southern Oregon mandates starting pepper seeds indoors. “We had starts all over the kitchen—the greenhouse was stuffed with them,” Jennifer said.

They needed more room and took over the abandoned 1/2-acre vacant lot next door. “We leased it and went to work on it in 2012. It was an eyesore—overgrown with blackberries and diseased trees. When we cleared it, we thought the soil would be great because we are right next to the river, but I dug down and hit rock—we found out a house had been there,” Mark said. “So we made our own soil, using sheep, llama and rabbit manure, worms from our vermiculture bin and peanut skins for mulch. I buy the peanut skins in 500-pound bags from a local business that makes peanut butter. The skins are great—they have good water-holding capacity.”

Jennifer and Mark start seeds in January in the greenhouse and last year planted 1,500 peppers—50 varieties of exotics and 20 of non-exotics.

Jennifer’s Business Advice

BE SPECIAL: Find a niche, an item that no one in your area is selling. And see if you can find a trendy item. Exotic peppers are popular right now and for that reason command a higher price than something like carrots or onions.

NETWORK & BARTER: Don’t be afraid to ask questions. People have been very willing to share information with us. One of the managers of the markets we go to has given us lots of good advice. Join local organizations related to what you are doing, and try to network and help others.

Barter labor for tools and equipment. We are both gardeners and were able to trade our skills for things like manure and topsoil.

BE FLEXIBLE: Be patient, willing to change. We don’t do anything now the way we did the first year we started.

Don’t be too quick to say, “We need.” The first year I bought all sorts of things we didn’t need. We have cut our packaging costs down from \$3.50 per packet of spice mix to \$0.13.



Super-hot business! Some of Lily’s peppers on display at a farmers market. The couple sell them fresh as well as roasted. They also sell seeds and starts during the growing season.

Fiery Success

While growing the peppers, Mark continued to experiment with his dried pepper mixes. They invested in a pepper roaster and a food handler's cart. Jennifer signed them up to sell at three local farmers markets, and off they went. Today they cannot keep up with the demand for Mark's pepper mixes.

Lily's Original Spice Mix now comes in four taste profiles: Mild, Medium, Hot and Wildfire. They sell it year-round along with Lily Bites, pepper-seasoned chocolates. They also sell bags of roasted peppers in season, seeds and starts in spring.

"We are making a living—just barely," said Mark, and they pour everything they earn back into the business.

"We want to buy or lease 2 to 5 acres and stay in the pepper business," said Jennifer. This spring she hopes to be selling Mark's latest pepper products: a hot sauce and a Bloody Mary mix.

The couple couldn't be happier. Said Mark, "It's like Christmas for me everyday. There are so many varieties of peppers. I love their spiciness."

And Jennifer, a born marketer and sales person, is venturing into the wholesale market. She loves spreading the word about Lily's products. For more information, visit lilyschilies.com or call 541-787-0837.



Jennifer's mother, Maria, reading TNP. She lives with them and dehydrates the peppers for the Original Spice Mix.

Meet Dr. Chile Pepper



The king of hot is here to give you some cool history and some slick ways to grow your own!

BY GERARD ATTOUN

Paul Bosland treads through the teaching garden at New Mexico State University (NMSU) in Las Cruces, plucks a jalapeño pod and, without hesitation, takes a big bite. No tears, no sweat. That's because this cultivar, NuMex Primavera, is a mild jalapeño developed by Bosland and his team of researchers at NMSU's Chile Pepper Institute back in 1997. It has the flavor of a traditional jalapeño but without the sting. A no-heat jalapeño? That made some purists among chile-heads fiery mad.

"I got emails that I've sold my soul to the devil," said Bosland, one of the world's foremost experts on chile peppers. "But when you make salsa, you want a mild product that will lower the heat without changing the flavor. Blending with bell peppers will change the taste of a salsa."

As a professor of horticulture and the institute's director for 28 years, Bosland has had a hand in developing more than 40 varieties of chile peppers, including New Mexican pods, cayennes, jalapeños and, recently, some ornamentals.

"My goal is to breed cultivars best suited for New Mexico and the Southwest," he said. "That is, to make the state the center of the universe for chile peppers."



Many would say he's already succeeded. Chile peppers are New Mexico's official state vegetable, although, botanically speaking, they are berries. The state grows more of them than any state in the union, and the hotbed of that production is in the region surrounding Hatch, where the annual Hatch Chile Festival attracts visitors from all over the world.

"Chile peppers are fascinating," Bosland said. "They are a spice, a vegetable, a medicine and an ornamental."

Capsaicin, the compound that gives chile peppers their heat, is used in all sorts of products, from rabbit and deer repellents for gardeners to police pep-

PHOTOS COURTESY PAUL BOSLAND

per spray to liniments for joint and muscle pains. It's the color compounds in chile peppers that give color to fish and birds, not the capsaicin.

Chile peppers, which can be traced back thousands of years to south of Amazonia, were valued not just for their flavor but also for their medicinal properties. The Aztecs used chiles to relieve toothaches, stomach aches, and other pains.

Their popularity quickly spread across the world after Christopher Co-

lumbus took some seeds home with him, mistaking them for the much-valued spices of the Far East. The chile's popularity has been especially robust in the United States the last several years. Bosland attributes that to the growing Latino and Asian populations in the United States and young people, who especially enjoy hot, spicy foods in buffalo wings, chipotle dishes and Mexican fast-food menus.

"We in the U.S. have a very good food-safety record, so people are more

willing to try different kinds of foods," he said.

World's Hottest

Bosland and the institute made big news in 2005 when they discovered the world's hottest chile pepper, the Bhut Jolokia, which is native to north-eastern India. Bosland tested the pepper at more than 1 million Scoville heat units, which is about 100 times hotter than an average jalapeño and 1,000 times hotter than a green chile.

Bosland's Growing Tips

SELECT THE RIGHT CULTIVAR: Before planting, decide on which cultivars you want to grow and how much you want to produce. Know your own needs: Do you really need a dozen plants of the super-hot, or would one plant be enough? Decide on how many fruits of each cultivar you want for cooking, then plant the number needed. Plant breeders each year develop disease-resistant, high-yielding cultivars. Check out the "All-America Selections," which have been tested all over the U.S. and are chosen by experts as the all-around best. Other good sources of information are your gardening neighbors, the local gardening club and the county agricultural Extension agent.

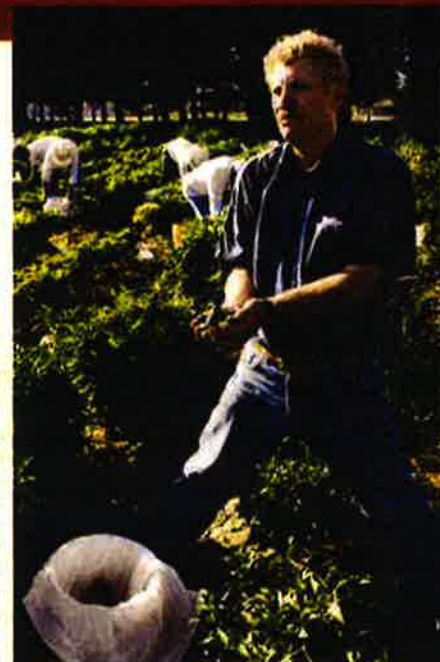
BUY QUALITY SEED: The pepper garden can only be as good as the seed that is planted. Bad seed (sometimes equated with cheap seed) produces unsatisfactory results no matter how much effort one puts in. With good quality seed, one starts off on the right foot toward producing excellent plants and high yield. Check the seed packet for a germination percentage; the germination percentage should be more than 85 percent. To increase germination percentage and potential seedling vigor, remove any seeds that are shriveled, discolored, cracked or otherwise damaged.

PREP THE SOIL:

The best pepper-growing soil is a warm, full-sun location with well-drained loam or sandy loam high in organic material

with moderate fertility. A soil pH of 6.7 to 7.3 is perfect. The grower has a number of options to choose from, but not all of the environments (cold frames, for example) will keep the seeds warm enough for quick, high-percentage germination. Using heating cables under the growing containers is recommended. The plastic-covered cables will keep the soil temperature between 70 and 80 degrees Fahrenheit and are equipped with a thermostat that shuts off the heat when the pre-set temperature is reached. Suppliers now offer propagation mats that keep the temperature at 75 degrees, but these are more expensive than cables.

WATER AND FEED: Unless one lives in an area with ample rainfall, chile peppers need to be irrigated. Overwatering can cause the ground to become too saturated, and it will either suffocate the roots or promote diseases. Do not water if the soil is wet or damp to the touch. Let the soil dry, and then give the plants a deep watering. Chile pepper roots can grow as deep as 2 feet below the surface. Chile pepper plants respond very well to fertilizers, but too much nitrogen will produce mostly vegetative growth and fewer pods, meaning lower yield. Seedlings can be fertilized with fairly high levels of nitrogen to encourage strong vegetative growth, but after the plants have adjusted to the garden, fertilizers should not be applied unless the plants show low nitrogen symptoms, such as leaf yellowing and/or stunted growth. Then, if necessary, the plants should be fertilized modestly with a product that has a higher percentage of phosphorus than nitrogen.



Paul Bosland harvesting chiles. He discovered what was then the world's hottest chile, Bhut Jolokia, in India.

PROTECT & DEFEND: Even under the best growing conditions, chile pepper plants can become diseased or infested with pests. Diagnosing plant health problems is a three-step process. Frequent examination of the chile pepper plants leads to the first step in the diagnosis: perceiving the problem. The next step is determining the cause, and the final step is delivering an appropriate solution based on information gathered in the first two steps. Each state provides assistance for home gardeners. Your Cooperative Extension Service can help determine the cause because it has access to research information and the resources of universities, the USDA and other federal agencies. For more information, visit chilepepperinstitute.org. —Paul Bosland

PHOTO BY THOMAS KIRCHEN



The pepper, which then set a Guinness World Record as the world's hottest spice, was overtaken in 2012 by the Trinidad Moruga Scorpion, also crowned by Bosland and his staff as the hottest, with some plants producing more than 2 million Scoville units, the scientific measure of a pepper's spiciness.

"You take a bite, it doesn't seem so bad," Bosland told the Associated Press about the Scorpion. "And then it builds and it builds and it builds. So it is quite nasty."

More recently, the Chile Pepper Institute has been developing holiday ornamental peppers for the potted plant and nursery industries. Long before the upstart poinsettia became the traditional Christmas plant, compact red and green chiles were the yuletide favorite.

"We decided to let poinsettias have Christmas, but we were going to take the rest of the holidays," Bosland jokingly said. So he and his students are having fun developing colorful varieties, including a pepper that turns from white to red for Valentine's Day, one that goes from green to orange for St. Patrick's Day and from black to orange for Halloween. All these ornamentals and others can be potted and grown indoors as houseplants.

"I could spend all my time on chile peppers," said Bosland. "I put all my chiles in a basket and watch that basket very carefully."

Scoville Scale Of Hotness!

Bell peppers: 0 Scoville units

Anaheim: 500-1,000

Anchos: 1,000-1,500

Jalapeno: 2,500-5,000

Poblano: 2,500-5,000

Cayenne: 30,000-50,000

Habañero: 100,000-300,000

Bhut Jolokia (the "Ghost Pepper"):
1 million+

Trinidad Moruga Scorpion:
2 million

Putting Out The Fire: Experts advise that to relieve a pepper's sting, eat yogurt, ice cream or milk. Eating bread or a flour tortilla can also help. ☺

