From Siberia with Love

A Book Review

By Dr. Paul Bosland

One of our members and the past-editor of Chile Pepper Magazine, Sharon Hudgins, has recently written a book about her adventures in Siberia, Russia, entitled The Other Side of Russia. She traveled to Siberia and lived there from 1993 to 1995 because she and her husband, Tom, taught at Russian universities in Irkutsk and Vladivostok, two major cities in Siberia. The book describes in colorful prose their adjustment to life on the Asian side of post-Soviet Russia. She debunks many of the myths and misconceptions that surround this “other side of Russia.”

When Siberia is mentioned most of us have images of a frozen wasteland, but Sharon does a marvelous job detailing their everyday life, set within their cultural and historical contexts. She describes the local customs, foods, festivals, urban life, educational system, and the developing market economy in Siberia and the Russian Far East. Siberia’s natural beauty, thriving cities, and proud people shine from the pages, proving it is not only a land of harsh winters and vast uninhabited spaces, but also a home to millions of Russian citizens who live and work in modern metropolises and enjoy a rich cultural and social life.

The book is not a “chiles in Siberia” book, but is an easy and enjoyable read about life in that region. It is a vivid and engrossing personal account of Sharon’s adventures in this exotic land. She presents a multi-layered picture of Russia that skillfully explains the changes that have occurred in Siberia and the Russian Far East over the past decade. Throughout this sojourn her descriptions of the people she met are wonderful, earthy, and direct. For example, she describes a conductress (provodnitsy) she and Tom met on the Trans-Siberian Railroad as a lazy, sullen young woman, so sour of disposition that we nicknamed her “Rassolova,” from the Russian word for pickle or brine (rassol).

One chapter describes their trip to an agricultural village in the countryside, where they help harvest bell peppers and tomato peppers from a large garden behind their friend’s country house. Sharon paints in words what it was like in the autumn to see...
the families in the high-rise apartments string bright red peppers for drying in the sun on their fifty-square-foot concrete balcony. All these personal experiences help to explain to us the people, culture, and cuisine of the region.

Especially enjoyable are Sharon’s descriptions of the native cuisine in this geographically and ethnically complex region. She describes meals with the Buryat, a Mongolian people who are cousins of the Mongol Horde of Genghis Khan, and live next to Lake Baikal, the deepest, oldest lake in the world. Sharon’s accounts of hors d’oeuvres made of sea slugs and roulades of raw horse liver will fascinate those with adventurous tastes. For those with a more placid taste bud, she describes meals with her colleagues in the high-rise apartments of Vladivostok and Irkutsk, where her friend, Alla, prepares sautéed fiddlehead ferns with paprika, onions, and garlic. Being true chileheads, Sharon and Tom could not go to Siberia without their beloved chiles and other essential Texas food ingredients. In her book, Sharon tells a story about carrying with her a precious supply of spices, dried peppers, and a bottle of hot sauce not replaceable in Siberia. In the winter as they traveled to Irkutsk from Vladivostok, they loaded all their belongings, including their treasured supply of fiery food ingredients, onto the train. Because they had so much baggage, the conductor insisted that some of their luggage had to go to the unheated baggage car at the back of the train, something the Hudgins had been warned to try to avoid. They paid their eighteen dollars of “protection money” to safeguard the luggage and were very relieved to have all of their luggage when they arrived at Irkutsk! They discovered, unhappily, the only casualty of the journey was their single bottle of Tabasco sauce had frozen solid in the baggage car and shattered in pieces.

One of the most interesting parts of the book for me was when Sharon described some dinner parties they threw for their friends. One was a “Spanish” meal that included a richly flavored pseudo-romesco sauce made with the chipotle chiles they had brought from Texas. Another was the infamous “Tex-Mex” dinner. Sharon and Tom decided to give their new friends a taste of their Texas home. The dinner included homemade green-tomato-and-chile dip, mild and hot pico de gallo, cheese-and-sour cream dip seasoned with Texas chile powder, and smoky black bean dip. When it came time to serve the dips, the guests didn’t know what to do, so Tom demonstrated “the art of dipping the dip.” The best part of this tale is when Sharon describes the serving of the piece de resistance — the turkey mole enchiladas. Tom prepared his celebrated mole with dried ingredients they had carried all the way to Russia from Texas, and with fresh ingredients he found foraging at the local farmer’s market. The guests however, were somewhat incredulous about the dish. In Sharon’s words, “the guests looked at their plates, then at each other, in complete silence.” Slowly, the guests began to ask questions about the enchiladas. After Sharon explains that enchiladas are like a kind of Russian flat bread, “blinchiki,” but made with corn instead of wheat and filled with turkey cooked in a special sauce, one of the guests took a bite. The guests begin to pick up the plates, and push the food around on their plates without much enthusiasm, taking only an occasional bite. Finally, one of the guests said she had never eaten anything like that before and that she could taste cinnamon in the sauce, although she wouldn’t think of putting cinnamon in a meat sauce. Sharon, being the good host, eagerly admits that not only is there cinnamon in the sauce but there is also cocoa powder. At that moment, all the guests put down their forks and just stared at their plates. To the guests, having put “chocolate” in the sauce was like adding insects to a salad! For the rest of the dinner, the guests nibbled on the rice and beans, but little more of the enchiladas were consumed. Looks like Pace and Old El Paso have their work cut out for them in that part of the world.

Sharon and Tom are back in the United States now and currently reside in McKinney, Texas. This is a warm and completely engaging book from start to finish. For those seeking a window into the soul of Siberia, you need to look no further than this book with 352 pages and 24 black and white photos. If you are interested in a part of Russia most Westerners never visit, you should read “The Other Side of Russia” published by the University of Texas Press.

Tabasco made life a little easier for Sharon and Tom.
Migrant Students Learn Research Techniques Through Chile Pepper Institute Program

The second summer of the Chile Pepper Institute’s Agricultural Science Summer Undergraduate Research and Development (ASSURED) Program wrapped up at the end of July and included ten students from migrant farm labor backgrounds. Four female and six male students learned many aspects of scientific and agricultural research.

Each student was assigned a faculty mentor and research assistant mentors. They learned about topics ranging from curly top virus and biological control to mechanical cleaning of harvested chile and water use efficiency.

Surveys administered at the beginning and end of the program showed participants in the program had an 80% average increase in knowledge of agriculture and agricultural research from the time they entered the program until the program ended.

All of the students had positive things to say about the program. Students all remarked on different aspects of the program and commented especially on how helpful it was to work one on one with a mentor.

“I’ve enjoyed everything. The Program was well organized and challenging. I learned about a whole new world I never knew existed,” said Pablo Rios, program participant.

Another program participant, Blanca Ceja, was grateful for the program.

“This program has been great. I had a very ugly view of agriculture growing up. This program made me see that there are other sides to agriculture,” said Ceja.

Other students commented on how they learned aspects of professional development such as the importance of organizational skills, critical thinking and the importance of asking questions.

Three students found academic year employment within the College of Agriculture and Home Economics after the program ended.

Dr. Paul Bosland, Principal Investigator for the ASSURED program, commented on the program’s success.

“We are very grateful for the support for such a valuable program,” said Bosland. “It is important to see the students take away something that will help them throughout their future careers.”

For more information and future news about the ASSURED Program please visit the Chile Pepper Institute’s website at www.chilepepperinstitute.org.
New Mechanical Chile Cleaners Will Boost Efficiency  
By Jan Brydon

As New Mexico’s chile harvest rolls into processing plants this fall, it will be met from time to time by NMSU’s new, experimental cleaning equipment. Before entering the processing plant, selected batches of machine-harvested red chile will be tumbled and turned across two different prototype cleaners to remove leaves, sticks and other unwanted plant material that were harvested along with the chile pods.

Separating marketable chile from other plant material has remained a stumbling block to widespread mechanization of New Mexico’s chile harvest—a goal that the chile industry has identified as being key to its long-term survival. Recent changes in United States’ trade policies have made the industry susceptible to competition from lower priced foreign imports that are produced using low-paid laborers. U.S. producers must pay considerably more for agricultural labor, and crews often are unavailable when needed.

The experimental cleaners, developed by New Mexico State University Chile Task Force engineer, Dr. F. Ed. Eaton, with assistance from colleagues at Sandia National Laboratories and the chile industry, separate material by length and by shape. The first cleaner, developed in 2003, conveys harvested material across a bed of 6- or 7-inch, overlapping, square, plastic cards that rotate on parallel shafts. Card spacing on the first section of this tumble-type cleaner is adjusted so that small sticks fall through the spaces between the cards. On the next section, a wider spacing between cards allows the marketable pods to drop through the cleaning bed. Sticks that are longer than the pods bridge the wider spaces and are conveyed to a discard pile.

This tumble/card cleaner is based on a design originally introduced by Jim McClendon of Tulia, TX, in the 1980s and used with varying degrees of success throughout the red chile industry. Tumble cleaners are capable of operating for long periods with minimal maintenance. However, their success in separating chile pods from harvest trash varies considerably depending on the condition of the harvested product. The adjustability that Eaton built into the machine allows the cleaner to be tuned to provide significant cleaning of any chile variety, under any harvest condition.

The second cleaner, designated the Creager cleaner, is designed to sort trash that is missed by the first cleaner. It consists of a series of helical wound coils all turning in the same direction and sorts by diameter of material rather than length. Named for Wondel Creager of Salem, N.M., who developed an early machine using the coil cleaning concept, the machine allows trash and sticks that are thinner than chile pods to fall between the coils while the pods float over the coil bed and are ejected at the lower end. Creager constructed a prototype commercial version of this cleaner and installed it at the Biad Chile Company’s San Simon, Arizona, plant several years ago. Mechanical failure forced the removal of the cleaner before development could be completed. Eaton modified one section of Creager’s prototype cleaner this season as an research and development test tool to determine the design of the new prototype machine built for testing. The current Creager prototype allows for adjustment of coil spacing, axial slope, transverse slope and rotational speed. Initial tests indicate that, when used in tandem with the card sorter, it will produce a clean product. Initial testing also indicates that the Creager cleaner may be effective in removing leaves from fresh jalapeño harvests, improving the storage capacity of that chile crop.

Developing the cleaning equipment necessary for the industry to maximize efficiency by moving to widespread mechanical chile harvest is a giant step toward helping New Mexico’s signature industry.
Agricultural Practices Program Introduced

By Norman Martin, NMSU Agriculture Communications

While crops are covered by an abundance of safe pesticide application laws, few guidelines address safe production and handling of fresh produce. To prevent bacterial contamination, New Mexico State University’s Cooperative Extension Service has launched a good agricultural practices program, GAPS for short. Critical control points include irrigation water sources for vegetable crops, clean water movement in relation to animal operations and manure use methods. Other key factors are worker sanitation, along with produce handling and packing.

“Fresh vegetable produce contamination can occur anywhere along the farm-to-fork chain,” said Nancy Flores, a food technology specialist with NMSU Extension.

“GAPs is a good, common sense approach that fresh vegetable growers can utilize to meet consumer concerns and awareness about food safety,” said Roy Pennock, a research specialist with New Mexico State University’s Cooperative Extension Service.

That’s why this GAPS program is a much-needed tool to reduce microbial contamination on the farm. According to the U.S. Department of Agriculture, the impact of foodborne diseases on health in the United States is considerable.

“GAPs is a good, common sense approach that fresh vegetable growers can utilize to meet consumer concerns and awareness about food safety,” said Roy Pennock, a research specialist with NMSU’s GAPS project.

Currently, our main focus is on commercial growers who contract with food processors. Among the programs elements are step-by-step assessments of a growers operation from planting to harvest to determine possible contamination points, he said. Included in this review is an emphasis on lot identification and record keeping, in addition to trace-back tracking, which is increasingly important to commercial food processors.

“Clear, precise documentation of all management areas, along with written standard operating procedures for food safety are also important,” Pennock said. “This would include training workers in sanitation and safe handling procedures,” he said.

Today, GAPs is an industry-driven, voluntary program. There are no official governmental regulations. But growers are starting to hear from inside the food processing industry about the creation of third party inspections. In other words, produce buyers would require annual, independent inspection audits to certify GAPs compliance. One reason behind this push from buyers is their growing need to meet product liability and trace-back concerns. Moreover, a growers name on a GAPs national certification list indicates a commitment to deliver consistent quantity and quality.

In New Mexico, third party inspections are available at a reasonable cost from the New Mexico Department of Agriculture, he said. The USDA is also posting the names of state-certified operations on its Web site. Passing a GAPs audit is no easy feat. There’s a steep learning curve, which is why one of our top goals is to provide on-farm assessment and training to help growers pass these on-farm audits.

For more information, contact Roy Pennock at (505) 644-9387.

Information is also available online at http://cahe.nmsu.edu/gap.
Chile Used for Lower Back Pain

A study on the use of a capsicum based plaster for the treatment of lower back pain was conducted by the Medical and Regulatory Affairs Department in Hamburg, Germany. Patients were subjected to the capsicum plaster and after three weeks of treatment, data were recorded. Compound pain was reduced in patients by 42% while the patient’s efficacy rating of “symptom free” or “improved” reached 82%. No systemic side effects were observed. It was concluded that capsicum plaster offers a genuine alternative in the treatment of non-specific lower back pain.

An unexpected finding shows chile powder, pepper and turmeric prevent destruction of E. coli. Researchers in India say that some common spices — red chile powder, black pepper and turmeric — can actually prevent bacteria such as E. coli from being destroyed by irradiation. On the plus side, however, the researchers believe their findings indicate that spice extracts could be used to protect healthy tissue in people undergoing radiation therapy. The finding that the spices protect some bacteria against irradiation was “contrary to expectations,” according to Arun Sharma, Ph.D., lead scientist in the study. Sharma wrote that the observed protection of microbes may essentially be due to the protection of their DNA by the constituents of spices. Chile offered the highest level of protection, followed by black pepper and turmeric.

“Spices potentially can offer protection to organisms against the damaging effects of gamma radiation, and also offer hope for the development of better radioprotective agents,” said Sharma. The findings from the study are not a cause for concern, says Sharma. The irradiation doses routinely used to process prepared foods are high enough to kill any E. coli.

Compound in Salsa May Fight Food Poisoning

According to the American Chemical Society, researchers have found a compound in cilantro, a key ingredient in many salsas kills harmful Salmonella bacteria. The compound, dodecenal, also shows promise as a natural and safe food additive that might help prevent food borne illnesses. Researchers claim that dodecenal, which is found in both the leaves and the seeds of cilantro, is the only naturally occurring anti-bacterial that is more effective than gentamicin, the commonly used medicinal antibiotic.

“The study suggests that people should eat more salsa with their food, especially fresh salsa,” said study leader Isao Kubo, Ph.D. From Fiery Foods Super Site 2004.

2005 New Mexico Chile Conference Approaching

It's not too early to plan for the New Mexico Chile Conference to be held on Tuesday, Feb. 1, 2005 with the annual welcome reception on the evening of Jan. 31. This year's conference will focus on profitability, production, planting, current issues in the industry and new research. Go to www.chilepepperinstitute.org/Conferences.htm on the web for additional information, registration and hotel information.
**BURNING QUESTIONS**

Q. How do I know when to pick green New Mexican type chile peppers?
A. As chile peppers ripen, the pods become firm. The pod will be 'firm' when squeezed. With a little practice, you will become a professional chile pepper picker. In addition, pick chile peppers before any redness appears. Once the red color appears the skins stick after being roasted or blistered and will not come off easily.

Q. Why do birds eat all of my chiltepins right before I want to pick them?
A. If it weren't for birds, our wild chile pepper species would not have spread as far as they have. Because birds are not capable of feeling the hotness of chile peppers, they love to eat them—especially the wild chiltepin types because they are the perfect size, color, and shape for a bird. The wild chile pepper fruit also detaches from the plant very easily, so with a slight pull from the bird the pod is removed.

Q. Will my hands burn from picking my chile peppers?
A. As long as you do not break open the pods you will not get any of the capsaicin on your skin and your hands will not burn. Capsaicin is only produced on the placenta. Breaking open the pods causes the capsaicin glands to burst, releasing the oil that is very penetrable, which is why your hands will burn after handling opened pods.

Q. How do you properly dry chile peppers?
A. Depending on whether they are partially dried on the plant or harvested when succulent, moisture must be reduced to about 10 – 11% for proper storage. Traditionally, chile peppers are dried by the sun. Large commercial processors use gas fired drying ovens to dry the pods. The best temperature to dry chile peppers is in the 140 - 150°F range. When the pods are brittle to the touch they have reached the perfect drying stage.

**Recipe:**

**Romesco Sauce**

- 1-2 ancho chiles
- 1 chipotle chile
- 10 full almonds
- 6 cloves garlic
- 4 small slices bread, (French baguette is preferred).
- 2 Tbs olive oil for frying
- 1 tsp salt
- 1sp cayenne
- 1 Tbs Hazelnut oil
- 3-5 Tbs extra virgin olive oil
- 1 Tbs maple syrup
- 3 Tbs sweet Hungarian paprika
- 1 large jar of roasted red peppers (preferably the sweetest you can find)
- 1 Tbs tomato paste
- 1 Tbs maple syrup
- 3-5 Tbs extra virgin olive oil
- 1 Tbs hazelnut oil
- 3 Tbs sweet Hungarian paprika
- 1 large jar of roasted red peppers (preferably the sweetest you can find)
- 1 Tbs tomato paste

Roast the ancho and chipotle chiles in a 350° oven for 10 minutes. You can use a coffee grinder to grind the chiles into a powder.

Cooking Time: 30 minutes To prepare Romesco Sauce.

In a skillet sauté almonds and garlic with 2 Tb. olive oil. As they turn brown, remove to a plate lined with a paper towel. In the food processor, Start with the solid ingredients: bread, almonds, and garlic. Pulse 5 to 6 times on high speed until well blended. Add the roasted red peppers and pulse 1-2 more times. Add the dry ingredients and pulse 1-2 times (all chile powders).

Slowly add the olive oil and hazelnut oil while pulsing to emulsify the sauce. The sauce can be heated for 1 minute in a small heavy saucepan. Serve as sauce with empanadas or roasted or steamed vegetables.

Recipe from *The Pepper Harvest Cookbook* available at the Chile Pepper Institute.