

Utah Forest News

Utah Forest Landowner
Education Program Newsletter

EXTENSION
Utah State
UNIVERSITY

Volume 10 Number 4

Fall 2006

Pine Nuts: A Utah Forest Product

Pine nuts are a fall tradition in Utah. Roadside stands with hand-painted signs spring up in places such as Cedar City and Price Canyon. The nuts are usually eaten by using your teeth to crack the shells one-at-a-time to get the buttery and nutritious nut inside. For many families, this is an activity associated with elk or deer hunting season.

These pine nuts come from the cones of pinyon trees, of which Utah has two varieties (*species*): The singleleaf pinyon (*Pinus monophylla*), which has needles arranged singly and produces a large, soft-shelled pine nut, and the Colorado pinyon (*Pinus edulis*), which has two needles per bundle and produces a smaller, hard-shelled pine nut. Most of the pine nuts offered at roadside stands in Utah are the soft-shelled variety. The pine nuts we use for pesto and are accustomed to seeing in bulk at the grocery store are typically from the Siberian Pine (*Pinus sibirica*) and the Korean pine (*Pinus koraiensis*). They are typically grown in Russia and processed and imported from China.



Pinyon cones, seeds, and branches

Pine nuts are delicious raw, but many prefer their taste when salted and roasted in a 350 degree oven for about 10 minutes. There is a trick to cracking open the individual nut with your teeth. Being an amateur, it took me several tries before I learned the soft touch required to avoid biting through the entire seed. You want to try to keep the nut whole until you remove it completely from the shell.

People tend to prefer the nut that they grew up eating. If you are from southern Utah or Nevada, the soft-shelled nut from the singleleaf pinyon is preferable, but if you grew up in New

continued on next page

INSIDE THIS ISSUE:

- Utah 4-H Forestry Team
- Aspen Conference Materials Online
- New State Foresters Hired
- Harvesting Methods on Display

continued from previous page

Mexico or Arizona, the smaller hard-shelled nut is the taste of choice, according to Larry Shurtliff, co-owner of Blue Coyote Pine Nuts, in Gunlock, Utah (northwest of St. George.)

Blue Coyote hires 17 workers to harvest pinyon cones and remove, process, and package the pine nuts that are their final product. They originally started with 27 workers, all from Chihuahua, Mexico. However, the work is hard and dirty, often covering pickers in sticky pitch, and 10 of the original workers quit before the first season ended.

The harvest starts with “green picking.” Pickers use 28-foot ladders to climb the trees and gather the still-green pinecones, which have not yet released their seeds. Some use poles with hooks at the end to pull down the branches with the cones attached. The cones typically grow at the tops of the trees, which can easily grow taller than 30 feet. Ten-gallon canvas sacks are used to collect harvested cones.

The season typically lasts two months, although this year it was cut short by the weather and a poor cone



Pinyon cones typically grow at the tops of the trees

crop, and only lasted six weeks. Pickers usually get around 15 to 20 sacks per day, but this year they had an especially strong and adept picker who managed to collect 40 sacks of cones a day. This is a record, according to co-owner Calero Romero, who Shurtliff describes as the “brains of the operation.”

Romero is a native of Chihuahua, Mexico and has been in the business for much of his life. One of his main responsibilities is taking care of their workers – making sure they have good food and water in camp, comfortable sleeping accommodations, and of course, making sure they are paid fully and promptly. His workers pick an average of 45,000 pounds of cones each year.

All of the processing goes on at the picking site. After the cones are picked and repacked into burlap bags, the bags are laid flat in the sun and turned after a week or so. This will dry the cones until they open up in the heat and release the seeds (nuts) they protect. The cones are then placed in a machine called a tumbler that is equipped with special screens that allow the nuts to fall through. The nuts come out the front and the cones come out the back of the machine. The cones are then collected and go back through the drying process, and through the tumbler again, to ensure that all of the nuts are extracted from each cone. Some cones never open, especially if they were picked too soon. A burlap sack of cones will yield about five pounds of pine nuts.

After green picking comes “dry picking,” when the cones have dried on the tree but the seeds have not yet been released. The now-brown cones are placed on screens mounted over tubs and hit four or five times to release the seeds. This operation usually takes place at the base of the tree the cones were picked from.

The final step in the process is separating the good seeds from the empty shells. About 10% of the seed shells are empty in a typical year due to blight or other factors, and another machine is used to separate them from the good ones. When all steps are completed, a little vegetable oil is added to coat the shells, giving them an appealing luster.

The whole process starts early in the spring, when the owners spend a few weeks scouting mountain ranges and canyons, looking for favorable cone crops for the upcoming season.

Cone crops tend to be quite variable, as the cone production occurs in pockets throughout a range. The owners drive mountain roads, go on four-wheelers, and even hire helicopters to help them determine where the good picking will be. Once found they revisit the site two or three times to ensure the crop still looks good before bidding on a specific area.

On Bureau of Land Management (BLM) land in Utah, almost the entire pine nut crop comes from the Indian Peaks range, which parallels the state's western border with Nevada, northwest of Cedar City. In Nevada most of the crop comes from the Roberts Mountains. The BLM holds a formal auction annually where the pickers bid for the right to harvest pine nuts on districts the BLM has assigned to each area. Utah has 19 areas to pick from, while Nevada has about 60. 7 or 8 commercial picking businesses compete for the

crop in Utah and Nevada. Businesses also negotiate directly with private landowners to pick on their land.



Blue Coyote Pine Nuts is co-owned by Colero Romero, Larry Shurtliff, and Joseph Smith (not pictured)

The BLM allows individuals and families to pick up to 25 pounds of pine nuts per person for personal use without a permit. A common harvesting method for individuals is to spread out a tarp below a pinyon just after the cones have begun to open, then shake the cones to release the nuts into the tarp. Care should be taken to avoid breaking branches and damaging the tree. In Southeastern Utah, picking pine nuts is

reportedly a Navajo tradition; they harvest the nuts by hand soon after they fall to the ground. Many Utah Indian tribes historically used pine nuts to make a flour that they would mix with dried berries and store as an important winter food staple. Pine nuts were also an important commodity for trading with early Mormon pioneers.

Blue Coyote has markets for their pine nuts all over the Southwest and as far away as Missouri. They can be reached at 435-574-2485. Other pine nut producers in Utah include the Dayer LeBarron family (www.pine-nut.com) and the Liston family (www.liston.biz). These companies are also interested in purchasing picking rights from individual landowners.



by Darren McAvoy

Utah 4-H Forestry Team Goes to National Invitational

A 4-H team from Emery County got a crash course in forestry and a trip to Appalachia last July when they were selected to participate in the sixteenth annual National 4-H Forestry Invitational. Held near Weston, West Virginia, the Invitational lasted four days and drew teams from 15 states. This was the first year that a team from Utah participated in the event.

Emery County Extension Secretary and team chaperone Gaylene Condor explains that she became interested in sending a team to the Invitational after receiving an email from the Invitational co-chair Robert Hanson. Hanson, who attended college at Utah State University, was eager to have a team from Utah participate. According to Condor, cost was the only prohibitive factor, so after she obtained funding from the International Paper Company Foundation, the Society of American Foresters (SAF) Utah Chapter, and the SAF Intermountain Section, the trip to West Virginia was a go.

A contest was held to select the Utah 4-H Forestry team. Current Emery County 4-H members were tested on their forestry knowledge, and the four students with the highest scores made the team. They were Whitney Jensen, 17, Caleb Jones, 16, Jacie Fasselin, 17, and Cade Whittle, 16. All four

team members were also active in Future Farmers of America, where they had learned about forestry, and some of them had previously participated in 4-H contests such as the Horse Bowl. Extension provided the team with a trunk of study materials to prepare for the Invitational. It contained a forestry textbook for each member, Biltmore sticks, and tree identification guides.



Emery County's 4-H Forestry Team: Caleb Jones, Whitney Jensen, Gaylene Condor, Jacie Fasselin, and Cade Whittle.

The team arrived at the Jackson Mill Resort, near Weston, West Virginia, on July 22nd. During the first few days there, the team participated in demonstrations and competitions on a wide variety of forestry topics, including tree identification, forest insect and disease identification, compass and pacing skills, map reading, and tree measurement. There was also a forestry "quiz bowl," a written examination, and a forest evaluation event. On the last day of the Invitational, a competition was held to test woodsman skills such as sawing and rolling logs. Condor says that the "instructors were incredible," and that the team learned a lot from the hands-on activities. One challenge for the Utah team was identifying Eastern tree species. Although they had studied their tree identification guides, the branches on display for the competition looked "a lot different in real life," according to Condor. However, the Emery County team had no problem identifying junipers.

The four members of the Utah team had different strengths in the competition, according to Condor. Whitney had a knack for compassing and pacing, Cade did the best at forest disease identification, Jacie's specialty was tree measuring, and Caleb was an expert in tree identification.

In addition to the competitions, team members participated in fun activities like barbeques and tours of the local area. The highlight of the trip, according to Condor, was meeting kids from other parts of the country. The Utah 4-H team came back with Southern drawls, and many of them have kept in touch (via text messages) with the friends they met there. Utah team members hope to see some of their new friends next year at the Wildlife Habitat Evaluation Program National Contest, held in Cedar City.

Condor explained that since this was the first year Utah had participated in the event, it was mainly about observation, and learning what they would need

to study for next time. Hopefully, Utah 4-H teams will continue to participate in this fun and educational event. In any case, Condor says, "It's an experience these kids will remember their whole life."

by Olivia Salmon



Whitney Jensen and Jacie Fasselin participate in the log cutting competition

Aspen Conference Materials Available Online

Last September, researchers, managers, and landowners gathered at Utah State University for the 2006 Restoring the West Conference. The theme of the conference was aspen restoration.

During the two-day conference, managers and researchers gave presentations on the most current issues relating to aspen management. Topics included aspen die-off, interactions between aspen and wildlife/livestock, water yield in aspen stands, aspen genetics, and mapping of aspen landscapes. Reports were also presented on collaborative aspen management efforts in Idaho and Nevada. A field trip up Logan Canyon took place on the second day of the conference, with speakers discussing aspen restoration efforts at Tony Grove, Franklin Basin, Swan Flats, and the Green Canyon Common Garden.

A new Web page has been created with materials from the Restoring the West 2006 Aspen Conference. Included are speaker presentations with audio, photographs, conference handouts, and aspen related links. The page is part of the USU Forestry Extension Web site and can be accessed at <http://extension.usu.edu/forestry/utahforests/rtw2006/rtw2006.htm>.

New Area Foresters Hired

Three new Area Foresters have been hired with the Division of Forestry, Fire, and State Lands (DFFSL). These new foresters will be available to assist landowners in their respective regions throughout the state.

Natalie Conlin was hired as the Area Forester for the Southeast Office, based in Moab. She has bachelor's degrees in Environmental Science and Geography from McGill University in Montreal, Canada and has spent the past 9 years in Utah and Colorado doing forestry-related work. She has experience doing forest inventories, timber marking, beetle surveys, forest data analysis, and has written several Forest Stewardship Plans. While working for the U.S. Forest Service Forest Health Monitoring program, she established forest plots in remote areas of the Book Cliffs and other areas in Grand, Carbon, and Emery counties. She has traveled throughout San Juan County for recreation for many years and says that because she has spent "lots of time in the Southeast Region for work and play," she feels familiar with the area. She can be reached at 435-259-3765 or natalieconlin@utah.gov.

Morgan Mendenhall joins the DFFSL as the Area Forester of the Bear River Area, based in Logan. He is from Hurricane, Utah and obtained an associate's degree from Dixie College and a bachelor's degree in forestry from Utah State University. He has work

experience on the Dixie National Forest and Camp Williams National Guard Base. Prior to being hired by DFFSL, he worked in Heber City as an Extension Educator for USU Forestry Extension. While there, he offered technical assistance to forest landowners, developed fact sheets, wrote articles for the Utah Forest News, and compiled a report and directory of the Utah Wood Products Industry. He also

gave presentations to landowners and master gardeners on subjects such as tree planting, selection, health, and pruning as well as firewise landscaping and habitat improvement. He can be reached at 435-752-8701 or morganmendenhall@utah.gov.

Patrick Moore is the new Area Forester for the Southwest Area, based in Cedar City. He grew up in the Midwest

and the Southeast, obtaining degrees in biology and forestry. He is currently finishing a Ph.D. in forest ecology, researching stand dynamics of spruce-fir forests in southern Appalachia. He has done seasonal work with the BLM and also has work experience in saw mills, where he "pulled boards, planed boards, stacked boards, unstacked boards, restacked boards, packed boards, and loaded boards." He thinks that his new position is "a great opportunity to make a positive difference on so many acres of private forests and give assistance to all kinds of landowners." He can be reached at 435-586-4408 or patrickmoore@utah.gov.



Newly hired Area Foresters: Morgan Mendenhall, Patrick Moore, and Natalie Conlin

Harvesting Methods on Display at T.W. Daniel Experimental Forest

On a brisk fall Saturday morning in October, a group of landowners and researchers gathered for the fifth annual timber harvest tour at the T.W. Daniel Experimental Forest. Covering 2,560 acres near the summit of Logan Canyon, the experimental forest is a valuable resource for those who wish to learn about and view the impacts of various silvicultural treatments.

On display were three different harvesting methods: single-tree selection, group-selection, and shelterwood with reserves. The harvest took place in a mature spruce-fir section



Quarter-acre openings were cut in the group-selection harvest at the T.W. Daniel Experimental Forest

of the experimental forest and was a cooperative effort between Utah State University's College of

Natural Resources and the Wasatch-Cache National Forest. The purpose of the harvest was to provide research and demonstration opportunities, as well as to reduce the risk of a spruce beetle outbreak.

USU researchers and Forest Service managers are pleased with the results of the harvest thus far. They will continue to monitor and study the three treatments for aesthetics, beetle

activity, windthrow damage, noxious weeds, and spruce regeneration.

For more information regarding any of the information presented in this newsletter, please call Darren McAvoy at Utah State University, 435-797-0560, write to him at 5230 Old Main Hill, Logan, UT 84322-5230, or email darren.mcavoy@usu.edu.

The Utah State University Forestry Extension Web site, found at <http://extension.usu.edu/forestry>, is an excellent source of technical forestry information for woodland owners. Check the "What's New" section periodically for new postings.

State of Utah Division of Forestry, Fire and State Lands (DFF&SL) service foresters for your area can be contacted by calling 801-538-5555.

Ideas and written contributions to this newsletter are encouraged. Send your contributions or comments to the return address above or call 435-797-0560, or email darren.mcavoy@usu.edu.



Utah Forest News



EXTENSION

Utah State
UNIVERSITY

Forest Landowner Education Program
College of Natural Resources
5230 Old Main Hill
Logan, UT 84322-5230

NONPROFIT ORG
U.S. POSTAGE
PAID
UTAH STATE
UNIVERSITY

Utah State University is an affirmative action/equal opportunity institution.
This newsletter is partially supported by USDA Forest Service State and Private Forestry.

Utah Forest News

COMING EVENTS

Small Log Conference: March 28-30, 2007, Coeur d'Alene, ID. Three day conference with presentations and tours focused on small-diameter log utilization. Visit www.forestnet.com/slc for more information.

Trees and Utilities National Conference: April 16-18, 2007, Las Vegas, NV. Contact Matt Fong at 402-474-5655 (ext. 243) for more information.

The Utah Forest Products Association Annual Meeting and Utah Logger Education Program: April 25-28, location to be announced. This year's program will feature the Business of Logging and Mechanized Harvesting. Call Darren McAvoy at 435-797-0560 for more information.



Fall colors in Logan Canyon