



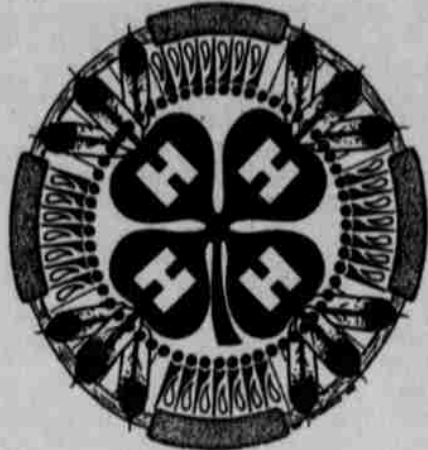
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**Bob Pawelek** Livestock  
**Clint Jacks** Staff Chair, Madras  
**Deanie Johnson** Secretary  
**Bernadette Handley** Home Economics  
**Zack delNero** Natural Resources  
**Sue Ryan** 4-H Assistant

The Oregon State University Extension Service staff is devoted to extending research-based information from OSU to the people of Warm Springs in agriculture, home economics, 4-H youth, forestry, community development, energy and extension sea grant program with OSU, United States Department of Agriculture, Jefferson County and the Confederated Tribes of Warm Springs cooperating. The Extension Service offers its programs and materials equally to all people.



**The Clover speaks**

by Sue Ryan  
 The big event looming on the calendar for the Warm Springs 4-H program is the annual 2nd Grade Natural Resource Tour. Actually, the 2nd, 3rd, 4th grades each have their own tour. The Jefferson County



office will be hosting the 3rd grade at Sullivan's Pond on May 13th, and the 4th graders will go to the Museum at Warm Springs on May 11th.

The 2nd graders will be coming up to He He Longhouse on May 20th. 4-H Agent Arlene Boileau says, "The intent of the tour is to teach natural resources in a nature loving way." The tour will have 10 stations this year. Stations will focus

on Ecology, Land Use Planning, Botany, Wildlife, and Fire. Luckily, we have 10 willing presenters stepping forward to teach our local youngsters about natural resources!

Schools coming to the 2nd grade Natural Resource tour include: Warm Springs & Simnasho Elementary, Westside Elementary, Metolius Elementary, Madras Elementary, and Maupin Elementary. There will be 291 2nd graders total on site for the day.

In other 4-H news, Community Garden coordinator Austin Smith has asked 4-H to help with digging up the soil for this year's garden. Clubs can use this as an opportunity to perform a community service project. If there are other individuals who are interested, they can contact Austin through the Healthy Nations Project.

The deadline is looming for the Hi-Desert 4-H Camp. You must have applications in by May 28th to go. The camp will be held June 22nd-26th at Crystal Springs Organizational Camp near Mitchell, Oregon. This camp is for youth in the 4th, 5th, and 6th grades. The Warm Springs 4-H office has scholarships available to help defer the cost of this \$95.00 camp.

That's all for now from the 4-H Corner.

**Natural Resource notables**

by Zach delNero, Natural Resources Agent

Ground Water in Oregon - The Unseen Resource

Ken Lite, Hydrogeologist for the Oregon Water Resources Department recently submitted the following information on groundwater resources in Oregon.

While we may seldom realize it, right now in the soil and rocks beneath us travels an unseen but crucial resource, a constantly renewing supply of water. This underground water resource occurs everywhere in Oregon, within a variety of geologic materials or "units." It exists in cracks and holes in volcanic and sedimentary deposits, and within fractured granitic and metamorphic rocks. Groundwater is also found in loose materials such as silt, sand, and gravel within stream drainages. The depth at which groundwater is encountered varies greatly throughout the state, from a few feet to hundreds of feet. Those water-holding parts of geologic units are called aquifers.

Oregon's aquifers are mostly used for irrigation, municipal, and domestic (household) uses. Records for about 250,000 water wells drilled in Oregon are on file at the Oregon Water Resources Department. While the vast majority of the wells are for

domestic uses, nearly 15,000 water rights have been granted in Oregon for other groundwater uses.

The effects of groundwater use are constantly monitored throughout Oregon. Groundwater levels in over 300 state observation wells, and hundreds of basin-project wells are measured monthly, quarterly, or annually. Automatic water-level recording devices are installed in about 50 wells to gather round-the-clock data.

Annual groundwater recharge generally keeps pace with ground water use throughout the state. However, some overdraft of the resource is occurring. Overdraft is a condition in which annual groundwater use exceeds annual groundwater recharge, resulting in long-term groundwater declines. Aquifers within some of the Columbia River Basalt Group geologic units, found in parts of northern Oregon, have been particularly susceptible to overdraft. "Critical groundwater area" and "groundwater management area" protections established by the Water Resources Commission have been set for some aquifers in the Umatilla, Hood, and Willamette basins.

Potential effects on stream flows from groundwater use is another issue faced by water managers. Groundwater naturally flows out or "discharges" to springs and streams,

providing necessary base-flow to surface water, particularly during late



summer months. The rate at which groundwater discharges to streams varies greatly. Some discharges from in large volumes from porous lava flows, while other systems discharge slowly through fine-grained sediments such as silt and clay. The relation of rate and timing of groundwater use to surface-water flow are not known in many areas throughout the state. That information is necessary for proper groundwater and surface-water management in Oregon. Currently, the OWRD is conducting hydrogeologic studies in the Deschutes, Willamette, South Coast, Rogue, and Klamath Basins - with future projects slated for the Umatilla and Grande Ronde Basins.

**HOME SWEET HOME**

By Bernadette Handley, OSU Extension Home Ec Agent



OSU offers summer classes on the Web at Warm Springs. Summer is just around the corner. What are you going to do? Have you thought about going to summer school? You should consider taking a class this summer if you are:

- a student wanting to earn credits toward a degree;
- a K-12 teacher or counselor seeking PDU's (Professional Development Units) or credits;
- a professional needing new skills;
- a high school student looking for a college course experience;
- or if you are simply interested in life-long learning.

Oregon State University's summer schedule is available at the OSU/Warm Springs Extension Office. The schedule offers 85 classes in 22 subjects. A majority of classes can be taken on the web, by video or by studying at your own pace, one-on-

one with an instructor using email, mail, or by telephone. For students taking web courses, OSU provides a help desk to answer questions if you run into a problem.

Summer highlights in the schedule include a video classes on Principles of Wildlife Conservation (FW251), Management Principles of Pacific Salmon in the Northwest (FW323); and Wildlife in Agriculture Ecosystems (FW435/535). These courses meet requirements in natural resources, environmental science and agricultural degree programs. The Wildlife in Agricultural Ecosystems is also offered on the graduate level.

In-service teachers have a variety of one unit modules to choose from in topic areas such as Curriculum, Instruction and Service; Improving Practice; Technology for Teachers; and Assessment. There are all graduate level courses.

Dr. Kurt Peters, of OSU's Ethnic Studies

department will teach a workshop and three unit course at Warm Springs in August. The one-credit workshop entitled "Native Americans in the Cinema" will address diversity issues through the medium of film. The workshop is scheduled for Friday evening August 20 and Saturday, August 21st. The Ethnic Studies special topics course is entitled "Native American Experience Revisited". This course will incorporate the impact of boarding schools, defining sovereignty, what it means to be tribal, and related topics.

For a summer schedule or for more information about the courses, visit OSU's web site: <http://statewide.orst.edu> or call Diane Bohle, OSU/Warm Springs Distance Education at 553-3238. Diane is located at the Education Building in the OSU Extension office. Registration for summer classes will continue through June 20th. Classes start June 21-September 3rd. Contact Diane to register or call 1-800-235-6559.

**Have a happy and safe Memorial Day holiday**

"Making Meaning: A Challenge for the New Century"

People are talking about the need for community and spiritual resilience in turbulent times. Where do we find the strength to face uncertainties and difficult times? On May 27th join over 100 communities around the U.S. and Canada to address this question by participating in a live interactive Resilient Communities videoconference.

May 27, 1999 9am til noon  
 1st Floor Conference Room  
 Education Center

To register call OSU Extension at 553-3238

**Parenting Series**  
 When: Monthly  
 Time: 5:30 PM  
 Where: Education Building  
**DATES TOPIC**  
 May 20-Summertime activities - what to do with your child?

**OSU and State to unveil \$9.4 Million food Innovation Center**

CORVALLIS - Northwest food innovators now have an efficient resource to help them develop, promote, export or package new agricultural products. Dedication ceremonies are scheduled for May 13 at the new Food Innovation Center in downtown Portland at 1200 N.W. Naito Parkway.

The Food Innovation Center represents more than a decade of effort by Oregon State University and the Oregon Department of Agriculture. The result is a 33,160-square-foot complex that concen-

trates some services and expands others necessary to launching new Northwest food products.

Tours begin at 9 a.m. and will continue after the formal dedication, which begins at 10:30 a.m.

Among the dignitaries expected to attend the ceremony are Gov. John Kitzhaber, former U.S. Sen. Mark Hatfield, Portland Mayor Vera Katz, OSU President Paul Risser, Phil Ward, director of the Oregon Department of Agriculture and the ODA's former director, Bruce Andrews.

Thayne Dutson, dean of OSU's College of Agricultural Sciences, is the scheduled emcee for the dedication ceremony for invited guests. He said the center will benefit not only the agricultural industry, but the entire region.

"If you look at the agricultural segment of the economy, it is a major portion of the economy," Dutson said. "A good portion of that now is being sold raw or unprocessed. If we can take those products and add value (through additional processing), we should

be able to get more value for Oregon citizens out of the available, land, water, sunlight and financial resources."

By locating the Food Innovation Center in Portland, resources from OSU and the Oregon Department of Agriculture now are closer to trade and marketing sites. Most of the services of the center will be provided on a contract basis.

For example, the ODA will headquarter its trade and promotional program, the Agriculture Development and Marketing Di-

vision, at the Food Innovation Center. The ODA's regulatory laboratory will be in the new building, according to Ward.

"We believe the opportunity to co-locate two of our important programs with OSU, and the other exciting functions of the Food Innovation Center, not only makes a lot of sense but will further strengthen the partnerships between ODA, OSU and food industry in general," Ward said.

ODA's Export Services Center, which is the official food customs laboratory for Japan, Korea and Taiwan, is just across the street in the Albers Mills building.

OSU will expand its Sensory Testing Laboratory where new products can be tested for appearance, taste, scent, texture and other factors that influence consumer choice. OSU packaging research will help solve such packaging problems as how a product will be shipped, product stability, storage, weight and shelf life. The marketing research program will provide information about trade issues facing food processing industries.

Although the building soon will open for business, some work remains to be done before it can be fully operational. The search continues for a director and a board of advisers from the food and agriculture industry. The quest also continues for more grants and funding to launch food innovation projects.

**STOCKMAN'S ROUNDUP: Wise Livestock Marketing-Private**



by Bob Pawelek  
 OSU Livestock Agent

Not all horses and cattle are sold through the auction yard these days anymore.

The stockman has various methods by which to market his stock. There are now satellite video auctions, where cattle are seen in the pasture and bids are placed by phone. Order buyers are also available, who buy direct from the ranch. This method is becoming popular, but it

pays to be knowledgeable about the buyer, as well as the method of payment.

A cattle producer may wish to hang on to some of his steers and sell them as yearlings. This approach is called a "rollback," as more pounds of beef are sold, but at a slightly lower price than for weaner calves.

Horses are often bought and sold privately. This is a desirable option for many stockmen. However, some get non-payment problems in return. Reduce your risk by using a few precautions:

- \* Ask for cash (obviously).
- \* Verify the buyer's ability to pay by calling his bank.
- \* Retain title to livestock until final payment is received.
- \* Insist on other acceptable methods of payment, such as wire transfer, cashier's check, money order, letter of credit, or cash.

When selling by private treaty, a personal check may be written. Make sure all pertinent information is on the check, including mailing address, phone number, and date of birth. It would be wise to jot down the auto

license number if you accept a check from someone you've never done business with before.

Other stuff... Was asked to remind folks about using the corrals at the industrial site. You'll notice a sign posted up there, "ONE WEEK ONLY."

Some folks might be interested in getting the youth on the North End interested in Rockin' 4-H. We need volunteers. Also lots of interest in getting youth involved with horses and horse management. We had a horse health clinic a couple of weeks ago and it went quite well. Thank you Jason Smith for letting us use One Spot.

The Rockin' 4-H cow herd batted has 1000 again. Yep, 100% calf crop. Thanks to Irene and Jack Towre for the use of one of their herd bulls. The calves in this year's crop came from a Hereford bull they raised.

Lots of dogs again this year. Let's hope the problem won't be as severe as last winter.

All the Reservation Extension agents that are funded by USDA dollars met in Tampa, Florida the first

week of December. Since you won't believe it wasn't a vacation, I might as well tell you the weather was beautiful, with the temps around the 72 degree mark.

Unless we get some extreme weather in the next few weeks, you still have time to broadcast grass seed on any portion of your home base that requires improved forage. There are many varieties and mixes available for less than \$2.00 per pound. Check with me about your plans. I'll be glad to help.



For more information, contact your County Extension Office.