

# 4-H FOREST STEWARDS

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Oregon State UNIVERSITY **OSU** Extension Service

## 4H Forest Stewards Mission

To foster natural resource and science knowledge throughout Lincoln County. This year I will focus on developing four middle school after-school programs, continuing in the development of our Summer Natural Resource Crews, and a transition from our Blast to the Past Camp to providing outdoor school in Lincoln County.

## 4-H After-School Program

Lincoln County's four middle schools begin after-school programming this summer. 4-H will play big, delivering the 4-H Nature Detectives, an outdoor science inquiry club.

Delving deep into the mysteries of the natural world, hip boots pulled high, we intend to part the ooze, get our hands dirty, and discover the keys to our local ecology.

Each of the area middle schools is blessed with local wild spaces. Waldport with Lint Slough, Toledo with Olalla Creek, Newport with Big Creek, and Taft with Taft Creek, all have opportunities right out their front door to explore.

This spring, 4-H teamed with the MidCoast Watersheds Council, local landowners and high school students, using the last four weeks of school, to pilot our program in Toledo. With a Stadia Rod in hand, measure tape, D-Net, and plaster for animal footprints we crashed through head deep Reed Canary Grass and jumped into Olalla Creek. Our seven Toledo High School students

led a crew of middle school students classifying, collecting water bugs, finding animal tracks and orienteering, along East Olalla Creek with the permission of Richard Steenkolk, the landowner.



Toledo High School student, Justin Thompson, holds a stadia rod for pool photograph on East Olalla Creek

You seldom see students get so dirty, learn, have fun, and get their job done. The four-week crew exceeded my expectations finishing the stream mapping. This has enabled us to track the stream changes through time before and after restoration.

The after-school program, in collaboration with the Lincoln County School District, Lincoln County Extension /4-H, and a number of local businesses, agencies, and individuals, will provide services to area youth for five

years. The program is called "Community Learning Centers" with the intent to connect local citizens with the education and enrichment of our youth.

If you are interested in participating, please contact Parker Neal Ogburn at 541-574-6537 x 16 or at [Parker.Ogburn@oregonstate.edu](mailto:Parker.Ogburn@oregonstate.edu)

## Have Seeds Will Travel



Calling all nuts! . . . seeds, pods, casings, shells, or dried fruits! I am looking for any unusual nuts to add to the 4H 'Have Seeds Will Travel' interactive display for fair.

If you find interesting seeds around please send them to Parker Neal Ogburn for updated display, you may reach me @ 541-574-6537 x 16 or [parker.ogburn@oregonstate.edu](mailto:parker.ogburn@oregonstate.edu).

## DEQ Completes Statewide Assessment of Water Quality and Updates List of Waters Not Meeting

The Oregon Department of Environmental Quality (DEQ) has completed its latest assessment of water quality in Oregon. The assessment comes in its **2004/2006 Integrated Report**, which includes an updated list of waters that do not meet Oregon’s water quality standards. The list gives DEQ information about the kinds of pollutants being monitored in Oregon waters, and where these pollutants are found.

For waters that don’t meet water quality standards and are placed on an “impaired waters” list under Section 303(d) of the federal Clean Water Act, DEQ will need to develop plans to reduce pollution from all sources in order to meet clean water standards. These plans are known as Total Maximum Daily Loads (TMDLs). The 303(d) list helps DEQ establish priority rankings for water bodies with problems and assists the state in directing water quality resources to improve water quality throughout the state.

Out of approximately 37,600 water bodies in Oregon, about three percent are listed on the 303(d) list for at least one pollutant. Within Lincoln County, there are approximately 268 miles of streams listed for temperature, 65 miles listed for bacteria, 91 miles listed for dissolved oxygen and 30 miles listed for sediment. The most common listing is for temperature, a pollutant that can broadly affect the health of salmon, steelhead and other aquatic species in streams and lakes. The second most common listing is for bacteria, specifically fecal coliform and E. coli. Bacterial pollutants can affect human health and use of Oregon’s waters for recreation and shellfish harvesting.

A focused monitoring program began in the

summer of 2005 to collect data that will be used to develop total maximum daily loads for the Mid-Coast Basin. The Mid Coast Basin, which includes the Salmon, Siletz, Yaquina, Alsea, Yachats, Siuslaw, Siltcoos and Tahkenitch Rivers and their tributaries, as well as all streams flowing directly into the Pacific Ocean between the Salmon and Tahkenitch watersheds. The data collection was the result of a partnership formed in by Lincoln Soil and Water Conservation District (Lincoln



SWCD), the Oregon Department of Environmental Quality (DEQ), local water quality monitoring groups, and the Confederated Tribes of the Siletz Indians. the Mid-Coast Basin, which includes the Salmon, Siletz, Yaquina, Alsea, Yachats, Siuslaw, Siltcoos and Tahkenitch Rivers and their tributaries, as well as all streams flowing directly into the Pacific Ocean between the Salmon and Tahkenitch watersheds. One way the data will be used is to develop a series

of computer models that can help direct where restoration projects would be most effective in maintaining or enhancing the water quality of these systems. In the coming years, data will continue to be collected to determine sources of bacteria, dissolved oxygen and sediment. Through the analysis of that data, other projects may be developed to minimize the impact of those pollutants on the water quality of coastal rivers and streams.

The 2004/2006 Integrated Report documents and a searchable 2004/2006 report database are available at: <http://www.deq.state.or.us/wq/303dlist/WQ2004IntgrRpt.htm>.

# Forestry Educational Tour ~ July 19, 2006



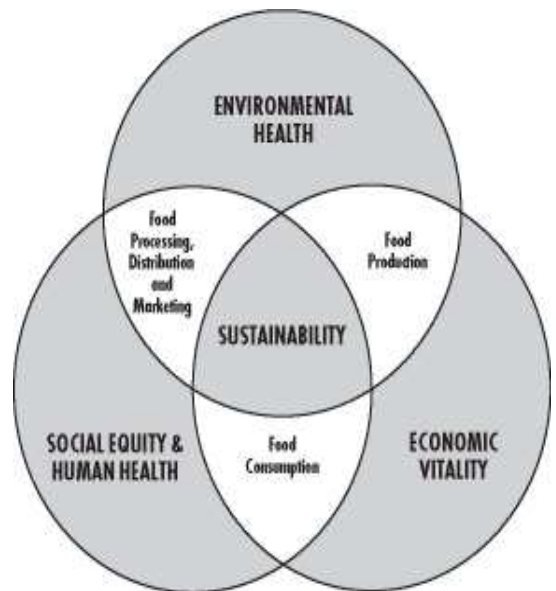
**OSU Extension Service, in partnership with the Newport Senior Activity Center, will sponsor an educational tour to the Valley of the Giants forest in Lincoln County Wednesday, July 19, 2006 from 9:30 am to 3 pm.** Forestry specialists will be available to ID trees and answer questions related to forestry and the environment during the tour. There will be time allotted for hiking on the trail, so come prepared. This tour is limited to a maximum of 20 people and you carry your own lunch but water and refreshments will be provided. Registration is \$15. Call the Newport Senior Activity Center to register before July 17 @ 541-265-9617.

## Developing a Community Food System

It is no secret that the food and agricultural system in the United States changed dramatically in the last half of the twentieth century. The dominant trend has been toward industrialization, with increasing centralization in production and processing operations and with farmer control over production, marketing, and labor decisions being replaced by corporate control. Since the 1920s, farmers' share of the food dollars has declined from 41% to less than 7% today. This trend has seen thousands of farmers go out of business annually. Rural communities nationwide are deteriorating socially and economically and consumers have gradually lost the knowledge about where their food comes from. In many areas even in Lincoln County that enjoys soil and water resources, many people are not able to access fresh, locally grown food. In the face of these trends, there is a need to revitalize a community food systems approach which puts emphasis on sustainable food production, processing, distribution and consumption. This basis will ensure environmental, economic, social, and nutritional health of our community (see attached figure). The success of a community food system is dependant on the participation by all local residents who care greatly about their community. They can work on multiple food system issues such as:

- improving access by all community members to an adequate, affordable, nutritious diet
- supporting a stable base of family farms that use production practices that are less chemical and energy-intensive, and emphasize local inputs
- generating marketing and processing practices that create more direct and beneficial links between fishermen, farmers and consumers, and to the extent possible, reduce resources used to move food between producers and consumers
- developing food, fisheries and agriculture-related businesses that create jobs, re-circulate financial capital in the community, or contribute to the community's economic development
- Creating food and agriculture policies that promote local food production, processing and consumption.

So as to foster these kinds of interactions and to start conversations among community leaders and residents, OSU Extension in partnership with local farmers markets and Lincoln County school district will start holding seminars starting this summer to educate producers and consumers on the merits of such a system for our county. We will be encouraging local restaurants and chefs to get involved in buying and featuring local foods in their menus. Detail about this program will be forthcoming in later issues of the Coast Ranger or by calling or emailing Sam Angima at the Extension office. A local group encompassing Benton, Linn and Lincoln Counties called the Ten Rivers food web <http://www.tenriversfoodweb.org/> has already started this initiative in Corvallis.





**Eddie Huckins**  
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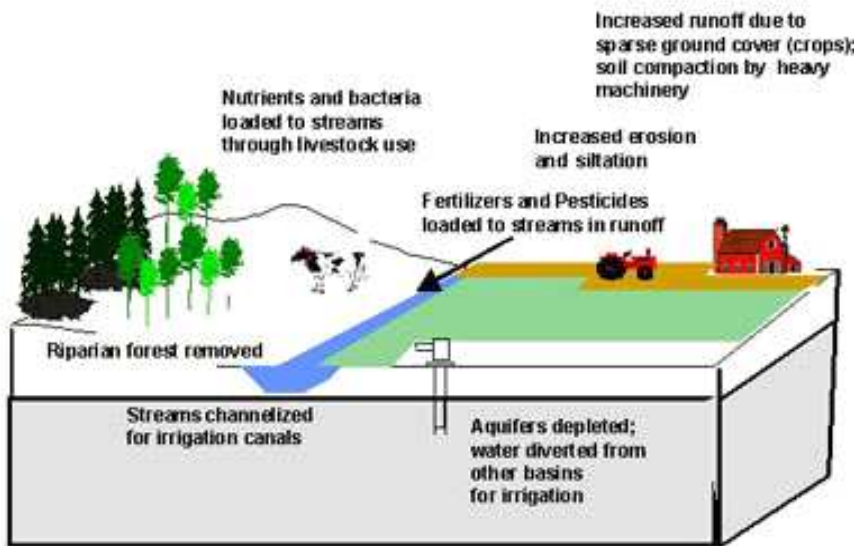
**Lincoln Soil & Water  
Conservation District**  
(541) 265-2631



**Meredith Savage**  
msavage@midcoastpartners.org

## Lincoln Soil and Water Conservation District ready to provide assistance to agricultural activities in Lincoln County

### Effects of Agriculture on Stream Hydrology and Chemistry



Funds are available for one more year to provide technical and financial assistance to agricultural landowners/operators who want to improve water quality on their lands. Utilizing best management practices (BMPs) from published federal and state technical guidelines, the District is equipped to help with: 1) Establishing vegetation on streambanks to provide shade and prevent erosion. 2) Installing fences, enclosures and other protective devices, as necessary, to prevent damage to new plantings from rodents, beavers, deer, elk and livestock. 3) Developing off-stream watering systems or water gaps where livestock are excluded from the streambanks. 4) Constructing manure

storage facilities where not required by permit, order, or enforcement action. 5) Applying geotextile fabric and rock to protect against soil erosion in concentrated animal use areas (excludes confined animal feeding operations).

## Natural Resources Conservation Service (NRCS) Announces 2007

NRCS has established **October 1, 2006 through November 15, 2006** as the sign-up window for the 2007 Environmental Quality Incentives Program (EQIP) in Lincoln and west Lane counties.

The Environmental Quality Incentives Program is a voluntary conservation program from the USDA Natural Resources Conservation Service (NRCS), re-authorized in the 2002 Farm Bill. The program supports production agriculture and environmental quality as compatible goals. Through EQIP, farmers may receive financial and technical help with structural and management conservation practices on agricultural land. These contracts provide incentive payments and cost-shares to implement selected conservation practices. Persons who are engaged in livestock or agricultural production on eligible land may participate in the EQIP program. EQIP activities are carried out according to a conservation plan developed in conjunction with the producer that identifies the appropriate conservation practice or practices to address the resource concerns. The practices are subject to NRCS technical standards adapted for local conditions.

Contact Lincoln Soil and Water Conservation District at (541) 265-2631 for further information.

## Lincoln County Extension Office

29 SE 2nd Street, Newport, OR 97365  
Phone: 541-574-6534 Toll Free: 888-350-2125

**Office Hours:** 8 a.m. - 5 p.m., Monday-Thursday  
8 a.m.-12 noon Friday  
(closed Friday afternoon)

**Master Gardener hours** ~ April - October:  
9 a.m. - 12 noon, Monday, Wednesday & Friday

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### **Office Support Staff:**

Patty Mann/Office Specialist- 4-H & Ag-Forestry  
Judy Pelletier/Office Specialist  
Kathy Buisman/Office Specialist- Sea Grant,  
Master Gardener, Coast Ranger  
Lori Vegas/Accountant

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## What is the Farm Service Agency?

Stabilizing farm income, helping farmers conserve land and water resources, providing credit to new or disadvantaged farmers and ranchers, and helping farm operations recover from the effects of disaster are the missions of the U.S. Department of Agriculture's Farm Service Agency (FSA).

Though its name has changed over the years, the Farm Service Agency's relationship with farmers goes back to the 1930s.

Congress set up in unique system under which Federal farm programs are administered locally. Farmers and landowners who are eligible to participate in these programs elect a three-to-five-person county committee, which reviews county office operations and makes many of the decisions on how to apply the programs. This grassroots approach gives farmers a much-needed say in how Federal actions affect their communities and their individual operations. After more than 60 years, it remains a cornerstone of FSA's efforts to preserve and promote American agriculture.

### **LOAN DEFICIENCY PROGRAM (Wool, Mohair, Honey and Grain)**

2006 crops are eligible for loan deficiency payment (LDP's) in lieu of marketing loans. LDP's provide price support during times of low market prices. LDP provisions are active when the national average price is less than the base loan rate. LDP requests MUST be completed BEFORE selling, or losing beneficial interest (ownership) in the crop. For more information, contact the Farm Service Agency at 541-967-5925, extension 103.

### **2006-CROP INSURANCE**

**Non-Insured Assistance Program (NAP)** is available through Farm Service Agency and provides financial assistance for crop loss due to natural disasters. NAP is for crops, including pasture and hay, for which catastrophic risk protection is not available. The insurance must be purchased by certain dates, usually before the crop is planted. Now is the time to apply for coverage for fall planted crops such as carrot and onion seed, sugar beets for seed, grass seed. The fee is \$100 per crop per county or \$300 per producer not to exceed \$900 per producer.

**Multi-peril Crop Insurance** is available from your insurance agent and covers natural disasters for insurable crops such as wheat, oats, barley, corn, and beans.

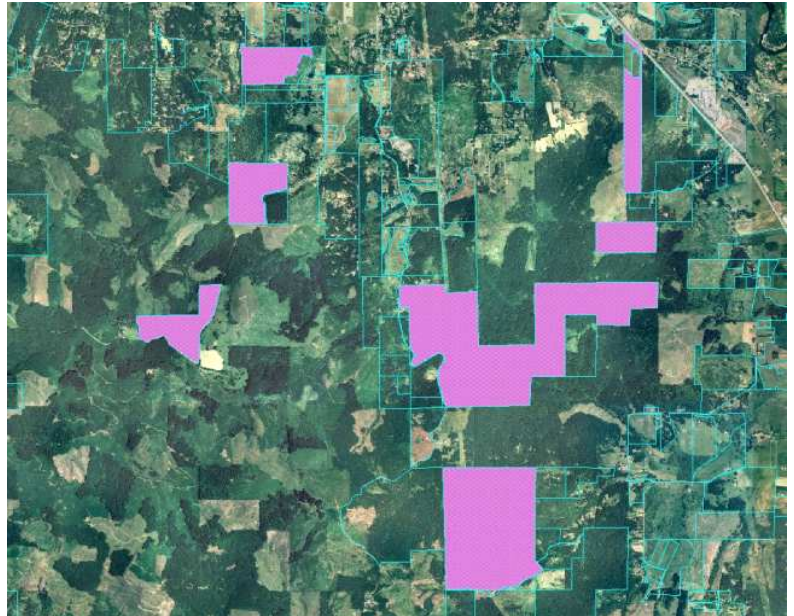
# Geographical Information Systems and Farm Service Agency

Like other businesses globally, the Farm Service Agency (FSA) is advancing technologically. One such advancement has been in how they keep their farm tract records. Historically, FSA has kept track of farm tract data on aerial photographs. Now that information is handled through the computer by use of the software program GIS, or Geographical Information Systems. GIS is a very powerful tool by which the FSA will save time and money. The future holds a strong promise for an integrative approach in land management and farming practices.

In the past, aerial photos were updated every five years. Farm tract information was manually transferred from the old photographs to the new photographs.

This was necessary because changes in the landscape meant changes in farming practices. Some intentional changes may have been, for example, a new subdivision, a new workshop or hay barn, trees cleared, trees planted or perhaps an artificial wetland was introduced. Other natural occurring changes in the landscape may have been caused by flooding or fire.

Currently, nationwide, FSA is nearing the completion of transferring their farm tract data into computer by use of GIS. In GIS layers of information may be stacked upon each other like layers in cake. These geospatial layers (map views) are linked with tabular data (spreadsheets)



and may be turned on or off, so that one may view just the necessary information. Geospatial information may include transportation (roads and railroads), tax-lot boundaries, township, range and section lines, public utilities, elevation, soils, watersheds, wetlands, conservation practices, and of course, farm tract boundaries, to name just a few. Aerial photographs in digital form usually make up the base layer of imagery. Satellite imagery may also be used.

GIS data management allows the FSA to quickly access these layers of information for analysis, updating and services. Many FSA programs have already benefited from the time saving features that GIS allows. Compliance may be completed within hours instead of weeks. Maps for acreage reports may be prepared with significantly less time. Changes in tract and cropland boundaries may be updated directly. Measurement services may be completed in the office. Also, GPS (global positioning satellite) units may be used to collect data in the field and downloaded into GIS. This is useful for mapping any area or points of interest, particularly suitable for conservation practices.

In addition, GIS is a useful tool for disaster events. It may help in planning and preparedness for worse case scenarios. It may be used to map affected areas and to make accurate assessments of emergency incidents so that the most efficient action may be taken.

As our natural resources become scarcer, it is imperative that we understand the dynamic relationships we have with the earth. GIS allows for an intuitive, practical approach to changing land management through image analysis and the sharing of basic data sets for an ecologically sound and economically strong future.

## NATURAL RESOURCES



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Oregon State UNIVERSITY **OSU** Extension Service

## The Spruce Aphid

I have been getting calls about spruce tree needles turning brown. This condition is caused by the spruce aphid that attacks Sitka spruce, Norway spruce, and Blue spruce. Aphid attacks are usually preceded by mild winters, and may last for 2-3 years, but can produce severe needle drop and even death of the tree. Since spruce aphids can reproduce throughout the year, large colonies may develop during mild winters affecting many trees especially along the coastline.

Nymphs or adult aphids are found on the lower surface of needles where they pierce tissue and suck sap. Adults have a yellow-green head and dull red eyes. Old needles are preferred over current growth until later summer when new growth hardens. Infestations start in shaded portions of lower crown. Foliage discoloration and defoliation are most noticeable in spring. The needle discoloration intensifies in the spring and early summer and is sometimes accompanied by a black fungal growth that looks like soot. The affected needles will later turn brown and drop prematurely, leaving only the tips of the new growth unaffected. Infested crowns turn a dull green to brownish color. This feeding reduces the vigor of the tree, causes growth loss, and if severe, may kill the tree.

### Guidelines for Reducing Damage

Usually no control measures are attempted in forest stands.

However, for urban settings, several steps can help reduce impact of aphid attack. During the summer months, there's no way to deal with spruce aphids. If you have spruce trees, check the growth



from January through late April.

A good way to look for spruce aphids is to hold a piece of white paper under the branch and tap it. The insects will fall off onto the paper like small greenish specks. Ensure trees have the best possible growing conditions. Yearly spraying will be most effective on small trees; it's impractical to deal with spruce aphids on huge trees. Avoid injuring the roots, either mechanically or through soil compaction. Soil should neither be placed on top of nor removed from the area beneath the crown of the tree. Adequate water should be provided to the trees throughout the growing season. Spring fertilization especially for young trees helps promote tree vigor.

When aphids are sighted in early spring, several alternatives are available for their control:

- A high-pressure water spray will dislodge many of the aphids and knock them to the ground, but this will need to be repeated frequently during the season.
- The least-toxic materials registered for the problem are horticultural oils or insecticidal soaps or dishwashing detergent. Be sure to get thorough coverage of all needles, and apply on a dry day. Also, be aware that horticultural oils will discolor the blue needles of Colorado blue spruce, turning them a muddy green
- Many commercial insecticides are available and very effective against needle aphids.
- For trees taller than 25 feet some chemical options are available and effective. A systemic insecticide (one which will travel through the plant tissues) is best, and should be considered if the tree is being significantly attacked (i.e., live aphids present and a considerable amount of the crown defoliated from prior year(s)).

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