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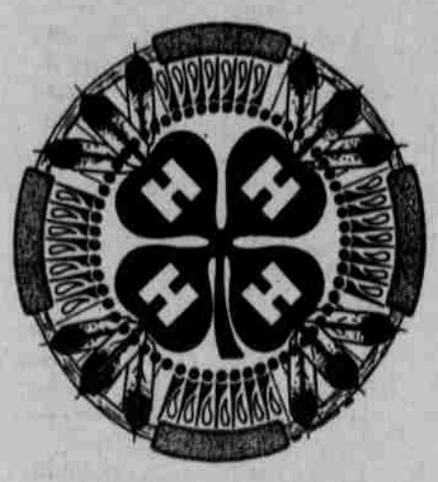
The Oregon State University Extension Service staff is devoted to extending research-based information from OSU to the people of Warm Springs in agriculture, home economics, 4-H youth, forestry, community development, energy and extension sea grant program with OSU, United States Department of Agriculture,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

The Clover speaks

by Bob Pawelek

Twenty years or so ago, tribal members who were part of George Schneiterís Rockiní 4-H club wanted to learn about livestock and agriculture.

Today, 4-H is different. Maybe not better, but different.



Now, the Extension agents are directed to persuade adults to become volunteer leaders. Thatís different from the past, when George pretty much was the leader.

Now, the agents are directed by the university to teach and train adult volunteer leaders. This may or may not be as effective at Warm Springs as back then when George was the leader. But times change and management styles change with them. For instance, agents now receive specialized training to teach adults to become effective 4-H leaders. Leaders in turn receive that specialized training from the agents. This is evident from the training Arlene and Sue give to adults before the summer camping season.

Agents also do work outside of 4-H. If you read elsewhere on this page, you'll notice that we work in matters relating to nutrition, natural resources and agriculture. Weíre helping tribal members develop farm business plans to increase their net worth. Weíre working with the Tribe to help establish new tribal enterprises to increase everyoneís net worth. Weíre offering OSU credit courses to all tribal members who want to further their education.

Other tasks mean we now have to persuade adults to become 4-H volunteers. And yes, we depend a whole lot on the adult volunteer to help the youngsters through their projects.

The Warm Springs 4-H program is still in need of adult leaders, especially for livestock projects. If someone from the community can step forward to claim that role of leadership it would be possible to once again involve more children and parents in livestock production as there once were in George Schneiter's day.

4-H livestock projects arenít intended to be get-rich-quick schemes. They are intended to help kids develop skills that will carry them through adult life. But the kids have to want to raise the animal in the first place, to be accountable, and to grow with their club. In addition to pledging one's "head to clearing thinking, heart to greater loyalty, hands to better service, and health to better living," 4-H is there to teach kids about the Three Rís: Responsibility, self Reliance, and Respect. Once kids learn the Four H's and Three Rís, they turn out to be pretty great kids.

Sincerely,
Texas Bob Pawelek
OSU Extension Agent
Livestock and Ag Production

P.S. Those adults interested in taking an active, positive role to make a difference in kid's lives in the community can contact the Warm Springs 4-H Program to get started.

Natural Resource notables

by Zach del Nero

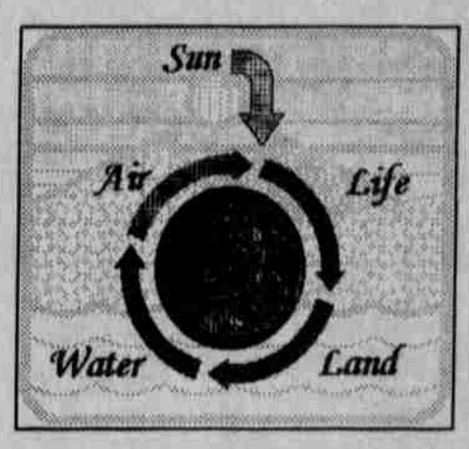
Biodegradable Plant Based Hydraulic Fluid

Dawn Lyons-Johnson recently reported that scientists at the National Center for Agricultural Utilization Research have developed a commercial-grade, biodegradable hydraulic fluid to power heavy equipment. An environmentally friendly alternative to petroleum-based hydraulic fluids, this new process creates a key component from vegetable oilseeds such as high-oleic soybean oil.

A class of long-chain esters, estolides are the basic ingredient in many hydraulic fluids. These fluids, under pressure, transmit power to moving parts of many machines, including heavy equipment. Scientists developed a plant-base estolide from meadowfoam seed, a crop developed and bred by the Agricultural Research Service (ARS) and grown primarily in the Northwest for cosmetics and other facial-care products. Meadowfoam showed promise as a basestock in hydraulic fluid, but poor low-temperature properties and high costs were prohibitive. The same technology was applied to other vegetable oils, particularly those high in oleic acid, such as sunflower, safflower, and some soybean to serve as starting material for the formation of estolides.

Petroleum-based hydraulic fluids and lubricant basestocks do not degrade well. In response to tighter environmental regulations, construction equipment manufacturers recently began seeking a biodegradable alternative. In tests, about 30% of a petroleum-based hydraulic fluid degraded in 28 days, compared to 80% for vegetable-based estolides. Biodegradable products are broken down into harmless products by the action of living microorganisms.

Estolides form when two fatty acids- the



building blocks of vegetable oils- link together. ARS researchers used a blend of fatty acids that could be obtained from high-oleic oils. Oleic acid is commonly used in formulating food products that seem to show potential for lowering blood cholesterol in humans. It also displays chemical properties scientists want in formulating biodegradable hydraulic fluids.

Caterpillar, the heavy equipment manufacturer based in Peoria, Illinois, is testing the new biodegradable hydraulic fluid in cooperation with ARS and Lambent Technologies. A provisional patent has been filed on this new product and Lambent is seeking licensing rights to market the product commercially.

HOME SWEET HOME

By Bernadette Handley, OSU Extension Home Ec Agent

The arrival of the New Year has many Oregonians (including us in Central Oregon) thinking ahead to the new millennium. Some are expressing concerns about the implications of Y2K computer re-programming on food and water supplies. Although professionals don't advocate storing emergency supplies of water and food in case of Y2K computer glitches, emergency drinking water supplies are sometimes needed when there are power failures or natural disasters, such as floods or earthquakes.

In terms of water storage, plan on one gallon of water for each family member per day for drinking, food preparation and personal hygiene during an emergency. Be sure to plan water for pets, too. It's wise to store enough water for at least 72 hours (3 days).

Water that is chemically treated by a public utility won't have to be treated before storage. You'll need to store it in containers that were manufactured for food use, such as 2-liter soft drink bottles with tight-fitting screw-on lids.

To store water from a well or spring that isn't chemically treated but is known to be free of pathogens, add two drops of liquid household bleach per gallon of water before sealing the container. Make sure that the label indicates that the bleach is free of soap or fragrance and contains 5.25 % sodium hypochlorite as the active ingredient.

Rotate stored water from the tap at least every six months, advises Carolyn Raab, OSU Extension Foods and Nutrition Specialist. The "flat" taste that develops during storage can be improved by pouring the water from one container to another before use.

To store commercially bottled "spring" water, distilled water, or carbonated water, keep it in its original sealed container. Once opened, use it and don't store it further. Again, rotate every six months for best quality.

Okay…so now you have your water safely stored…what resolutions have you made for the year 1999? How about planning a course for healthy living? Ellen Schuster, OSU Extension Nutrition and Foods Specialist, recommends REALISTIC goals – ones that are "do-able" that you can achieve. How about starting with just one a month?

January–Start the New Year with Breakfast! Eating something when you get up is an important part of good nutrition. Take a few minutes the night before to think about what you can quickly prepare in the morning. Think quick and easy!

February–Focus on eating low fat foods. Borrow a low fat recipe book from the library or the extension office. Try one new low fat recipe each week and share.

March–Serve yourself a smaller portion at mealtimes. And eat s-l-o-w-l-y.

April-f you haven't started a new exercise routine.. this is the time. Walk a few minutes each day and build up to 30 minutes. Ready…. Set…. GO!!!

May-Focus on low fat healthy snacks. Choose a few crackers with low fat cheese for an afternoon snack….Or a piece of fruit… Or yogurt with veggies.

June-Try a new vegetable or fruit each week or one straight from the garden.

July-Get out the grill and roast foods. Try a different combination each week.

August-Need a cool down? Mix fruit juice with seltzer and add a slice of lime. Or mix fruit and ice in the blender for a refreshing, low calorie, low fat treat.

September-Make sure to pack salads, yogurt, fresh fruits and vegetables in your lunch for home or school. Or freeze low fat leftovers and reheat.

October-The days are cooler and exercising outside is not fun. Check out the hours at the Community Center and sign up for an indoor class.

November- Think ahead to how you will avoid holiday weight gain. Balance out heavy meals with lighter meals. At parties, focus on the fun people, not the food.

December-It has been almost a year since you made your resolutions. Pat yourself on the back for sticking to them. Time to plan new ones for 2000!!

E.Coli case prompts health warning

Four weeks ago, a Washington County girl became infected by Escherichia coli O157:H7, and health officials say the incident points out the importance for consumers to use food safety precautions when handling raw meat.

The infection occurred after a toddler put a small amount of raw hamburger into her mouth before her mother could stop her. Subsequent testing of leftover meat confirmed the presence of E. coli O157:H7. "This incident provides a strong reminder that ground beef can have dangerous bacteria," stated Dr. Paul Cieslak, an Oregon Health Division epidemiologist.

"Since you can't see or smell or taste these bacteria, the only way to play it safe is to assume that all uncooked meat is contaminated and should be handled carefully."

The ground beef that tested positive was purchased from an Albertson's supermarket at 14300 Barrows Rd., Tigard, on November 14, 1998. Because the meat was ground at the store from a blend of several ground beef and whole meat products that had been sold throughout the previous week, health officials could not trace the original source or specify which other meat products might have be contaminated. However, DNA fingerprinting of other O157 strains in Oregon shows no other cases that match this child's strain, according to Cieslak.

Any raw meat may contain microorganisms that cause disease. "At present there is no reliable way to prevent contaminated meat from entering retail channels. Consumers should understand that no matter where or when they buy meat, there is some risk if they aren't careful," emphasized Dr. Cieslak. The Health Division advises the following food safety precautions:

*Cook ground meat completely (to an internal temperature of at least 160*F). Freezing does not kill these organisms.

*Clean and sanitize utensils, cutting boards, and other surfaces that touch raw meat. That means washing them with hot water and soap. Sanitize countertops with a bleach solution or other disinfectant.

*Store and defrost hamburger and other meats in a way that prevents meat juice from dripping on other foods or surfaces. Transport meat packages in a separate plastic bag, and refrigerate them in a pan or similar container.

*Wash hands thoroughly with soap after handling raw meat, before eating, after using the toilet, and after changing diapers. E. coli O157:H7 and many similar infections can be easily spread from one person to another.

E. coli O157:H7 is a bacterium that can cause mild to severe intestinal illness, including abdominal cramps and diarrhea, which is often bloody. Symptoms usually develop within 2-5 days after exposure. Some patients develop complications that can require hospitalization. A few patients, especially young children, may suffer serious kidney damage. In addition to beef, other sources include venison and other meats, raw milk and unpasteurized apple cider, contaminated fruits and produce, and fecally contaminated water.

The number of E. coli O157:H7 infections in Oregon has remained fairly constant over the past four years; 103 cases have been reported to date in 1998. Many infections are mild or asymptomatic and are never diagnosed, Dr. Cieslak said.

KIDS COOKING CLASS

Classes will focus on basic cooking skills, healthy food choices and kitchen safety.

When: 1/12, 2/9, 3/9, 4/6, 5/11
Time: 3:30 P – 5 P
Where: Education Building
Age: 7- 8 years old
Instructor: Bernadette Handley, OSU Ext Home Ec Agent
Contact OSU Ext @ 553-3238 to reserve your spot.

Parenting Series

When: Monthly
Time: 12 - 1 PM & 7 – 8 PM
Where: Education Building

DATES	TOPIC
January 20	Home Handy person
February 17	Parenting the older child
March 17	Stress Management for the parent
April 14	How to keep your child busy
May 20	Summertime activities – what to do with your child?

STOCKMAN'S ROUNDUP: High performance hooves

by Bob Pawelek
OSU Livestock Agent

New studies are out that say that horseshoes may not be all that necessary, and perhaps even harmful.

According to Jaime Jackson, a farrier, horseowners should consider removing their horses' shoes and "going barefoot. With proper attention to the feet by a qualified hoof care provider," states Jackson, "the hooves will immediately begin to toughen naturally. Horses suffering from hoof-related lamenesses will also begin to heal with natural hoof care. The horses will perform better and experience fewer debilitating lamenesses."

Jackson bases his observations on his own studies of wild horses and on current European research on domestic horses.

In the early 1980s, Jackson entered into America's wild horse country to investigate what he thought might be a model for natural barefootedness and hoofcare. States Jackson, "What I saw were sound horses with perfect hooves by industry standards. I began to adapt the shape of their naturally worn hooves to my clients' horses and in some instances, asked horse owners to provide more natural living conditions to help toughen the hooves. Invariably, unshod horses in my care developed better-quality hooves with fewer problems than those shod."

Further inquiries into barefootedness led Jackson to a German veterinary researcher, Dr. Hiltrud Strasser.

At her clinic in Tubingen, Germany, Strasser and her associates treat all lame horses by removing their shoes and trimming the hooves according to the principles of hoof care outlined in Jackson's book, "The Natural Horse: Foundations for Natural Horsemanship."

Jackson points out that scientific natural hoof care is unlike conventional horseshoeing. "The hoof is trimmed much differently and more frequently. But the result is a superior hoof without any of the problems that are caused by shoeing." Jackson notes that a wide variety of terrains, such as are roamed by America's wild horses, provide excellent environments to encourage barefootedness. Jackson claims that horses in his care that are being ridden barefoot many hours a day - over rocky ground, through streams, and over every type of terrain in between.

Jackson believes that most horse lamenesses can be traced to imbalanced, unnaturally shaped hooves and the wearing of horseshoes. "I would liken it to persons wearing ill-fitting shoes. Unlike horses, however, people can change their footwear. A shod horse can'tÖand lameness is often the result.

Jackson explains that a little-known property of naturally worn hooves, called the "hoof mechanism" by European researchers, is responsible for successful, high-performance barefootedness seen in unshod horses.

Jackson says that without the fixed horseshoe, the hoof is free to expand and contract naturally. Blood flow increases throughout the hoof, making it healthier. A natural calousing action takes over. The hoof wears naturally.

According to a recent study, approximately 17 percent of horses in the United States are now going barefoot. Jackson says he expects this figure to rise dramatically as horse owners become aware of the natural trim and health benefits of barefootedness.

Guidelines for natural trimming are found in Jackson's book, available from Star Ridge Publishing. Their phone number is 1-800-499-5606.

Woman's Stress Management Workshop
When: January 23
Time: 8:30 AM - 2:30 PM
Where: Education Building
Cost: $ 5 includes lunch and snacks
Enrollment: Limited to 15
Contact OSU Ext @ 553-3238 to reserve your spot.

Happy New Year from OSU Extension