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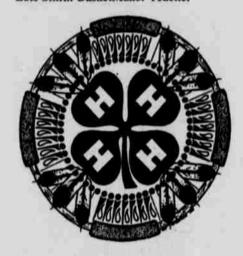
The Oregon State University Extension Service staff is devoted to extending research-based information from OSU to the people of Warm Springs in agriculture, home economics, 4-H youth, forestry, community development, energy and extension sea grant program with OSU, United States Department of Agriculture, 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 Sue Ryan

4-H Culture Camp has wrapped up at Peter's Pasture! We are still cleaning up but felt that we had a very successful program. We want to thank each one of these folks for all their time and energy at 4-H camp.

Deanie Johnson-a great camp secretary Sue Ryan-All around staff helper Wilson Wewa, Jr.- Co- Director Hilda & Effie Culpus-Camp Elders Lois Smith-BasketMaker Teacher



Sarah Thomas-Recreation Director J'Dean Kalama-Bead Work Teacher Tracy Miller-Lead Girls Counselor Eliza Greene-Drum Maker Teacher

Kathy Crane-Girls Counselor Rosemary Charley-Art Director Julie Johnson-Girls Camp Counselor Mary Smith-Camp Nurse/RN nurse from Madras, OR /Volunteer

Alice Wyena-Bead Work Teacher Priscilla Blackwolf-Camp Cook Harold Blackwolf-Boys Counselor/Cooks Helper/All Around Helper Agnes Wolfe-Cooks Helper John Beal II-4-H Agent from Jefferson

County office in Madras Keith Baker-Hike Leader/Volunteer Sam Culps-Boys Counselor Chris Barney-Boys Counselor/Volunteer Jessica Parrish-Girls Counselor/Volunteer Nicole Charley-Girls Counselor/Volunteer Glenn Kelly-Boys Counselor & Volunteer William Bagley-EMT/WS Fire & Safety Brad Rumbarger-EMT/WS Fire & Safety Dave Simmons-EMT/WS Fire & Safety RaNeva Dowty-EMT/WS Fire & Safety Bodie Shaw - Teache/WS OSU Ext. Agent Dallas Winishut, Jr.-Language Teacher Arlita Rhoan-Language Teacher Suzie Slockish-Language Teacher Levi Bobb-W.E.D.D. Work Crew Vince Simtustus-W.E.D.D. Work Crew Marsha Soliz-W.E.D.D. Dept. Manager Anita Davis-C.H.E.T. Health Teacher Judy Charley-C.H.E.T. Health Teacher Carol Wewa-C.H.E.T. Health Teacher

Anson Begay-C.H.E.T. Health Teacher THANK YOU ALL !!!!!!!!!

#### School success begins at home

September 3rd will mark the return to school for Warm Springs youth. While the hot temperatures may make that seem a far away time, class bells will ring sooner than you think. 4-H has a few tips for making school an acheivable time.

Children who have parents who think edu-cation is important and take an active interest in what their children do at school are more likely to be successful. What can you do to help?

Get the children to school on time and insist on regular attendance. Children who miss school have a hard time keeping up and

often fall behind.

Visit the school and get to know your children's teachers.

Show interest in their school work. Ask to see the work they bring home. Set up a regular study time and help them with homework as needed. Limit TV watching to two hours a day.

Attend school activities such as open houses, parent-teacher conferences, and special programs, and volunteer to help with school events and class projects.

\*From the University of Washington Cooperative Extension Service.

#### Natural Resource Notables

by Bodie Shaw Watering Home Gardens and Land-

scape Plants Watering home landscape and garden plants properly is one of the most misunderstood problems facing the average gardener. In most areas of our region, there is not enough rainfall to support plant growth during the period when water is critically needed. If landscape plants are water stressed during the summer, they may experience severe problems during the rest of the year, such as increased insect and disease susceptibility and decreased winter hardiness.

Water loss from the soil

There are several ways in which water is lost from the soil. Rain, melted snow, or water applied by the gardener may percolate through the soil beyond the root zone. This water is useless to growing plants.

Water may also evaporate from the soil surface, leaving it dry. Water from lower layers in the soil is drawn to the surface by capillary action and also evaporates. This continual evaporation may deplete water from quite deep in the soil.

Transpiration is the process by which a plant loses water through its leaves. This is a necessary process for plant growth. A large tree may lose hundreds of gallons of water a day in the summer. Water lost from the soil by evaporation and transpiration must be replaced by precipitation or irrigation. Soil-Water-Air relationships

Establishing the correct water-air relationships in the soil is essential for the best growth of all plant types. Oxygen in the soil is necessary for plants to grow. Watering too often or too much is likely to exclude the

necessary oxygen from the soil pore spaces. Without enough oxygen, plant roots suffocate and die. Plant parts above ground exhibit symptoms of this stress: wilting, yellowing, and drying foliage, leaf drop and twig dieback may all occur. Constant overwatering kills most plants. Too little water, on the other hand, does not allow the roots to replace water lost by the plant through transpiration. The roots may dry up and die, and the top growth begins to show abnormal symptoms. In both cases, either too much or

too little water, the plant suffers from lack of

moisture in its tissues.

Heavy clay soils are much more likely to be overwatered than light soils. Conversely, light sandy soils are drought susceptible and tend not to be watered enough. Although light soil allow deeper and quicker water penetration, they dry out more rapidly because they hold less water. Heavy soils, on the other hand, are slower to allow penetration but also dry out much more slowly. In our community, we have a little of both soil types.

A good rule to follow in watering plants is to fill the entire root zone with water, and then allow the soil to dry out partially before the next irrigation. The amount of drying depends on the plant species and size. Large trees and shrubs can be allowed to dry several inches down in the soil before rewatering. A small or newly established plant will need watering before very much soil drying takes place.

It is essential that gardeners become familiar with how long it takes the root zones of the various plants in their gardens to become completely moistened, and then, how deeply they can allow the soil to dry before the plants begin to show stress and need rewatering. It is also necessary to understand that quick, light sprinkling will not do the job of wetting the entire root

Water penetration

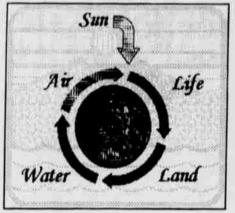
Soil type or texture is a major determining factor of how much water a soil will hold, or how quickly a soil can be irrigated. For example, 1 inch of water applied to a sandy soil will penetrate 12 inches. It will move anywhere from 6-10 inches into a good loam soil, and in a clay soil it will percolate down only 4-5 inches.

Sandy soils allow water to penetrate more quickly than will heavy, dense soils. Wetting the entire root zone of plants growing in heavy soils takes much longer than wetting plants growing in lighter soils. Sandy loams will accept from 1/2-3 inches of water per hour. A clay-loam may absorb only 1/10 - 3/5 inches of water in the same amount of time. A very dry clay-loam soil could therefore take as long as 120 hours to completely wet to a depth of 12 inches. A

sandy loam, however, might take as little as

Organic matter

Soils to which organic matter has been



added will behave differently. For example, clay soils with added organic matter will accept water more quickly. Organically amended sandy soils hold water longer, and consequently do not need to be irrigated as frequently

Compaction and thatch

Water cannot soak into compacted soils, or soils overlaid with a thatch accumulation, particularly if water is applied too quickly. For compacted or thatch-choked areas, or possibly under the canopy of trees and shrubs, the best treatment is to aerate the soil by removing plugs. Mulches around trees and shrubs help restructure the surface layer of compacted soils to allow more efficient penetration of water. Wetting agents can also help water soak through dry organic layers, like thatch, so that it moves into the soil. Compacted soils in which a vegetable or flower garden is to be planted should have organic matter incorporated into the top 6-8 inches. This allows easier water penetration after the garden is established.

That is probably more than enough information for this week. Next week I will talk about water requirements of various plants, along with the concept of planting native species. For further information or comments, give me a call at 553-3238.

## All day demo set

Norma L. Simpson. OSU/Warm Spring **Extension Agent-Home Economics** 

The IHS nutritionist and I will conduct the second annual All Day Demonstration at the Warm Springs Wellness Center Kitchen on August 21 from 9 am to 4:30 pm. This year we will make freezer jam, acidified tomatoes, fruit leather, talk about safety with venison jerky in electric dehydrator, make fruit pie fillings to can with Clear Jel thick-

We'll talk about the equipment for drying, canning and processing, slicers, pitters, dehydrators, dial gauge testers. And we will reconstitute pie fillings.

There are some new concerns for food preservation and fresh consumption including E. coli in meats, fruits and vegetables. Tips on food sanitation can save the lives of your family members and friends. What you do with foods at home can really make a difference.

#### Working mothers spend more time with children

Sally Bowman, OSU Extension Family **Development Specialist** 

It defies conventional wisdom about working mothers and families. Statistics show that in 1975 married mothers spent more time in direct child care (defined as bathing, feeding, dressing and driving a child around while doing nothing else) per family and per child than they did in the 1920s.

Family life researchers examined the statistics that come from time-use surveys conducted in 1977-78. The researchers also discovered that as mothers spent most time working outside the home, it was the mix of parent-child time that changed, not the overall amount of time they shared.

Mothers who spent more hours in the paid labor force actually devoted more time to

shared-housework and shared-leisure time with their children. "Mothers spent less time in direct child care, but only with the oldest child, and fathers appeared to compensate for this decrease in the mother's time."

The study also demonstrated that household activities shared by parents and children were gender typed, according to Sally Bowman, OSU Extension Family Development specialist. Mothers shared more time with daughters in meal preparation and family care activities, while fathers shared more time with their sons maintaining the yard, car, and home and taking care of pets.

The research information came from the Winter 1997 Human Ecology Forum at Cornell University and the February 1996 Journal of Marriage and the Family.

# Keep internal body watered

By Norma L. Simpson

One of our Hot Hot Days, about 100°, in July, I saw a young mother walking on a treeless country road carrying one 18 month old child, a diaper bag and towing along a 3 year old tot. I offered to take them to where she was walking. She rejected my offer saying it's not far. But as I drove away, I realized that she still had another half-mile to the nearest home and had been at least another half mile from the houses she had left. They all must be hot from the walk. So I waited at the highway to be sure that they could safely cross the vacation traffic to the other part of their road. We had to wait about 5 minutes, the traffic was

so heavy. For that she was grateful. In the old days, we would have been able to

walk such a distance, but we are now hobbled by the mechanical horses that we ride. Yet we know that dehydration is a very important consideration for young children and older

Be sure that you have plenty of water for your journey, by car or by foot. Drink water even if you are not sweating, to keep your body full enough of water to prevent heat exhaustion or heat stroke. Probably a cup of water every hour in this hot, hot weather. Remember the caffeine and alcoholic beverages will do you little good to replenish your internal water supply. Water is a nutrient we

#### Natural sweetner can be used in cooking classes

by Norma L. Simpson
For several years I have been waiting for the Food and Drug Administration to approve the use of a natural non-caloric sweetener called Stevia. On July 21, an extension service colleague called from southern California to say that Kaá Jeé, a Paraguayan plant has seed (called Royal Sweet) that can be

grown in the USA. We enjoyed the leaves of the plant when we plucked them from the wild bushes to mix with the local herb tea. One leaf would sweeten the tea the entire day, serving after serving after serving. It was tasty in either hot of cold drinks.

A Paraguayan botanist, M.S. Bertoni, identified the wild plant and named it in 1899. Much of the recent research was conducted in Japan and in Paraguay, when I worked for

the Texas A and M University/Paraguayan Extension Service project funded by the U.S. Agency for International Development. Japan bans artificial sweetener and therefore has been interested in natural sweeteners that would grow in Japan. Unfortunately the soil in Japan is not ideal for growing Stevia. Most of the plant is grown in the border of Brazil and Paraguay.

Ichecked the Internet under Yahoo, Sweeteners, Stevia. When I emailed to one address, I learned that FDA still has not approved Stevia as a food ingredient or as a sugar substitute but it is ok to sell it as a dietary supplement.

Stevia is 200 to 300 times sweeter than sugar, yet does not have any sucrose in it. Unlike sugar, it does not trigger a rise in blood sugar. Stevia is available in several

forms-crude green powder and brownish liquid extract. It is then processed to become a white powder used to create a "Working Stevia Solution" made of filtered water and white powder. It is so sweet that only a small drop of solution is mixed from other ingredients. It is stored in bottles with an eyedropper to control the amount of sweetness used.

One woman has developed lots of recipes using Stevia. Nicolette Dumke has a book called Allergy Cooking with Ease, with carob cake and cookies for healthier cakes especially for birthday parties. I tried to contact them for more information about the "Working Stevia Solution" and we'll try it this fall in the Healthy Cooking Classes in the Wellness Center Kitchen.

Let me know if this research-based information is of interest to you. Call Norma at The Master Food Preserver HOT LINE is now open MONDAY through FRIDAY Until September 30.

Call 1-800-354-7319, 9 AM TO 4 PM. The statewide free service is provided by Certified Master Food Preservers and Extension Home Economists in Lane county.

For publications, contact the Warm Springs Extension Service 553-3238 or check the publications rack outside Norma Simpson's office in the Education Center of 1110 Wasco Street.

# **Eagle Spirits**

3rd Annual All-Indian Co-Ed slowpitch tournament, August 30-31, at Warm Springs Community Center fields.

12 team "True Double" elimination, entry fee \$225, deadline August 22. \*\*Awards\*\* 14 championship jackets

1st thru 6th place MVP's Best hitter Best Glove awards (1 male/1 female) 14 All-Stars; Sportsmanship Not responsible for theft, injury, and or accidents Send check or money orders to: Ricky Minthorn PO box 955 Warm Springs, OR, 77761 Phone #(541)553-1831, no collect calls please.

Call after 9p.m. evenings.

## "Glowing" seafood not known to cause illness-

The following information concerning "glowing" seafood is reprinted at the request of Governmental Affairs general manager Louie Pitt. The original article appeared in the Food Day section of the

Oregonian July 22, 1997.

Q: Recently, as I was eating some imitation crab, I took it into my bedroom while I was getting my bedroom slippers. In there, it glowed in the dark. Why? Is it safe? TN, Portland

A: We were sure there was an explanation for this and there is. Jim Barr at Icicle

Seafoods in Seattle, where

TN's imitation crab was packaged, passed along this information on glowin-the-dark seafood from seafood technology specialist Robert J. Price at the University of California at Davis:

"The bacteria Photobacterium phosphoreum is probably the most common cause of glowing seafood," al-though he identifies six others. "Luminous marine bacteria are common in the marine environment, and on the outer surfaces and the intestines of marine animals...Most luminous marine bacteria grow at

temperatures as low as 39 degrees F. P. phosphoreum and V. logei can grow at 32 degrees F. These bacteria are able

to grow on seafood in the refrigerator, but they require sodium or salt to multiply...Seafoods such as cooked crabmeat, cooked shrimp and simulated seafood products made from surimi have salt added during processing. These products are the most common seafoods associated with luminescence or glowing. When seafood glows, it means that many luminous bacteria are present. This sug-

gests that the seafood was held for a time and at a temperature where these bacteria could grow. It does not mean the seafood is unsafe or low quality. There are no reports of illness from luminous marine bacteria growing on seafood."

Price suggests you refrigerate all seafood products as close to 32 degrees as possible to slow the growth of bacteria. Most refrigerators don't chill lower than 40 degrees, so pick the coldest spot in your refrigerator. He advises consumers to eat cooked seafood products within a day or two after purchase.