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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 Extension Service offers its programs and materials equally to all people.



The Clover speaks

By Sue Ryan

Happy New Year! By the time this edition comes out the "holiday season" will have ended but I thought I would share some of our "Holiday Cookie" recipes from 4-H Youth Cooking as they are appropriate for many occasions besides the Christmas season. (And this way you'll have a whole year to test them out for the next holiday season!)

Sugar-Nut Slices

- 3/4 cup butter or margarine (softened, not melted)
- 2/3 cup sugar
- 1 egg
- 1 teaspoon vanilla
- 1/4 teaspoon salt
- 1 3/4 cup all-purpose flour
- 1/2 cup very finely chopped nuts (walnuts, almonds, or your choice)

Cream together butter & sugar till light & fluffy. Beat in egg, vanilla, and salt. Gradually stir in flour. Cover and chill 30 minutes for easier handling. Shape dough into 12 inch roll; roll in nuts to coat the outside of the log. Wrap in waxed paper or clear plastic wrap. Chill thoroughly. Cut into 1/4 inch slices. Bake at 350 degrees until lightly browned for 10 to 12 minutes.

Basic Decorating Icing

Flavor and color as desired for frosting cakes and cookies.

Measure out:

- 4 cups powdered sugar
- 1/2 cup shortening
- 1/4 cup water

If you add:

Flavoring - use 1 teaspoon per recipe.

For Food Coloring - you only need a few drops! Add & stir one drop at a time so you don't color your frosting too dark.

In large bowl, beat all ingredients at medium speed 8 to 10 minutes or by hand until mixture is smooth. Keep icing covered to prevent drying. Store in refrigerator.

Hints: Thicken with powdered sugar or thin with a few drops of water.

No-Bake Fudgies

Measure into a saucepan the following ingredients:

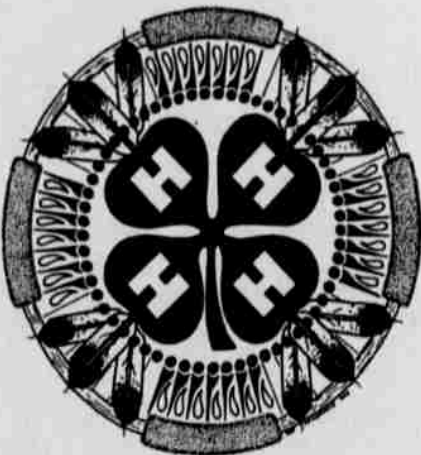
- 2 cups sugar
- 1/2 cup cocoa

- 1/2 cup butter or margarine
- 1/2 cup milk

Place saucepan onto stove. Turn heat onto medium high. Bring mixture to a boil, stirring the mixture while it heats. Boil the mixture for 1 1/2 minutes. Remove from heat.

Stir in:

- 1/2 cup peanut butter
 - 2 and 1/2 cups oatmeal or rolled wheat
- Add:
- 1 teaspoon vanilla



Drop by teaspoonfuls onto waxed paper OR spread in buttered pan and cut into squares. Cookies must cool! until hard before eating.

Caramel Corn Popcorn

Measure out:

- 1/4 cup butter
- 1/2 cup packed brown sugar
- 1/2 cup dark Karo syrup

Heat up in big pan, until butter melts. Pop popcorn into bowl with mixture. Mix until popcorn is coated lightly with mixture.

Heat oven to 350 degrees.

Stick popcorn mix into oven on buttered baking sheet for 10 minutes. Remove pan from oven, scrape caramel corn onto paper bag. Let COOL! before eating.

Natural Resource Notables

by Bodie Shaw

Harmony: A Partnership With a Healthy Land

Many Tribal people believe in harmony-a balance among themselves and the resources provided by our earth. Today, Americans of all backgrounds want to live in harmony with the environment. Many of us strive to recreate a balance between people and resources by helping an endangered species or working hard to preserve a type of land-such as wetlands or rangelands. This "environmental ethic" is the underlying notion of the Natural Resources Conservation Service (NRCS) and their *Harmony Project: A Partnership With a Healthy Land*.

As one strives to live in harmony with the earth, there will be discussions about watersheds and their function. Many environmental, conservation, agricultural, and political leaders now realize what Tribal people have always believed; that the land, natural resources, and people are all interconnected.

Watersheds, and the ecosystems they support, help us understand these connections and how to achieve a balance between resources and people. But what is a watershed? How can you work in it to strengthen the

connections between resources and people?

What is a Watershed?

Imagine your roof. It collects rainfall, which runs over the shingles, into the raingutter and down the spout to soak into the soil in your yard. Now think about the landscape around you. Like the roof, it collects rainfall and snow, which runs across the slope of the land or sinks into the soil to eventually find its way into a small creek, which joins with other creeks to become a river.

Many natural resource agencies plan and carry out their important work on a watershed basis. Measurements of water quality and how much water a stream can provide are determined watershed by watershed. Fish and wildlife populations are generally managed on a watershed basis, too.

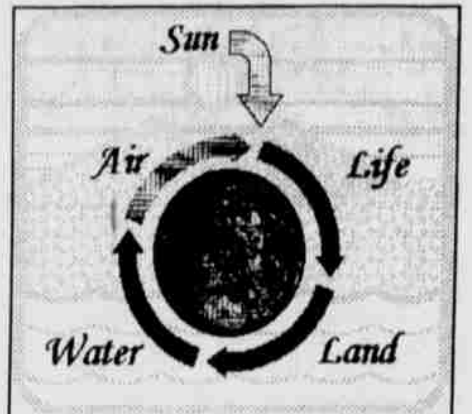
If you wonder where a watershed is, you're standing in one! Watersheds can vary from a few square blocks in size to millions of acres.

What makes a Watershed Healthy?

A healthy watershed is one that is in harmony with the needs of people, the land, and natural resources. We give back to the land by managing the soil, water, air, plants,

and animals so that our watersheds will sustain us for generations to come. Healthy watersheds can provide for stable local economies that enable people to enjoy a quality life and a quality environment.

Would you like to learn more about watersheds? Contact our office for additional information and ideas on NRCS's Harmony Project.



Donated guard llama watches over 4-H herd

by Bob Pawelek

Some years ago, Yankees' manager Yogi Berra was asked by a reporter if his First Baseman, Don Mattingly, had exceeded his expectations. Yogi replied, "I'd say he's done more than that."

When I stumbled upon the idea of a sentry animal for the 4-H Beef Herd, I really didn't know what to expect. Something had to be done about the hordes of stray dogs harassing the herd, and a sentry of some sort could possibly be the answer.

It is well documented that llamas serve well as guards for sheep flocks, but there is little or nothing written about their effectiveness for beef herds with cows in the middle of their calving season.

Nothing ventured, nothing gained, I thought.

The very first person I discussed the possibility with was Clint Jacks, who was quick to remind me to run it by Natural Resources first. After receiving their blessing, I decided to contact members of the Central Oregon Llama Breeders for their thoughts. Just picking a name from their directory, I called Tom Delano, who lives off of NE Hemholtz in Redmond.

Tom raises quite a few llamas and was quite interested in my idea. He said, "Well, Bob, if you're gonna do this for a research project, I'll donate a llama just to help you out. Come by and pick him up tomorrow."

Knowing next to nothing about llamas, I called Jack Towle, who knows even less. Jack and I drove out to Tom's place. We met his herd manager, a petite young gal, who introduced us to Tyrell, a stud llama. This

critter had us both somewhat intimidated (here I am talking about the manager, although when the llama stood up on his hind legs, snorted, and leaned out over the fence, I can't speak for Jack, but at that point I was ready to go back to the pickup and rethink this idea). The manager simply ignored him, and us too. She matter-of-factly entered his pen and walked right up to him, haltered him and led him to the trailer.

Jack and I loaded him up in the trailer but not without some cowboying about it.

Tyrell took his time bonding with the herd, and is still somewhat aloof, but he now behaves as if the cows are his cows. (If I could only teach him how to buck hay.) It took him several weeks to figure out that he had 62 acres to roam around in, although I'm sure he was a bit put out by the fact that there weren't any other llamas around the place.

The neighborhood required a little adjustment as well. Delvis Heath owns some Thoroughbreds and boards them at Kathleen's the next place over. I just happened to drive in when they discovered Tyrell. The dust they raised trying to figure out what he was! The horses nickered and snorted and bucked and raised one heck of a ruckus such that I figured I would wind up fixing fences after they took off. Luckily they settled down after he ignored them and wandered off to find something to eat. As for his new job, he is working out pretty well. I have witnessed him chasing at least three dogs off at once, away from the herd, shaking his head and looking as ferocious as a llama can look, I guess. I have not had to shoot a single dog, where by this time last year the count would have been up to near a dozen.

The Department of Animal Science at OSU now feels there may be some merit to a research project for beef cattle herd protection. They want me to write a journal article about it, but I have to figure out a way to get a couple more llamas onto a couple more ranches, so that there will be something to compare. And whether geldings do a better job than intact males, etc...

I'd like to thank Tom Delano for the opportunity to try this idea out. And to Jack for helping me stay cool under pressure.

Part two-Wood ash can be useful in yard

Ash from a cord of oak meets the potassium needs of a garden 60 by 70 feet, he said. A cord of Douglas fir ash supplies enough potassium for a garden 30 by 30 feet. Both types of ash contain enough calcium and magnesium to reduce soil acidity (increase soil pH) slightly. One-half to one pound of wood ash per year is recommended for each shrub and rose bush. Spread ash evenly on the soil around perennial plants. Rake the ash into the soil lightly, being careful not to damage the roots. Never leave ash in lumps or piles, because if it is concentrated in one place, excessive salt from the ash will leach into the soil, creating a harmful environment for plants.

Lawns needing some lime and potassium can also benefit from wood ash. Apply no more than 10-15 pounds of ash per 1,000 square feet of lawn; at high levels, ash can be toxic. Do not use if soil pH is more than 7.0 or if potassium levels are excessive.

"You may want to have your soil analyzed periodically to determine its need for lime and potassium," said Sullivan. "As a general rule, acid soils that would benefit from ash application are usually found in those places

in Oregon that get more 20 inches of rain per year. Alkaline soils (pH greater than 7) soils in portions of central and eastern Oregon generally won't benefit from ash application."

In compost piles, wood ash can be used to help maintain a neutral condition, the best environment to help microorganisms break down organic materials. Sprinkle ash on each layer of compost as the pile is built up. Ash also adds nutrients to compost.

If used judiciously, wood ash can be used to repel insects, slugs and snails, because it draws water from invertebrates' bodies. Sprinkle ash around the base of your plants to discourage surface feeding pests. But once ash gets wet; it loses its deterring properties. Continual use of ash in this way may increase the soil pH too much, or accumulate high salt levels harmful to plants.

Sullivan offered advice for using wood ashes as a soil or compost amendment: *Protect yourself when applying wood ash. Use the same precautions you would use when handling household bleach, another strongly alkaline material. Wear eye protection and gloves. Depending on the fineness of the ash, you may want to wear a dust mask. *Do not use ash from burning trash, cardboard, coal or pressure-treated, painted or stained wood. These substances contain trace elements, harmful to many plants when applied in excessive amounts. For example, the glue in cardboard boxes and paper bags contains boron, an element toxic to many plant species at levels slightly higher than that required for normal growth. *Do not apply wood ash to a potato patch as wood ash may favor the development of potato scab. *Do not use ash on alkaline soils or on acid-loving plants. *Do not apply ash to newly germinated seeds, as ash contains too many salts for seedlings. *Do not add ash with nitrogen fertilizers such as ammonium sulfate (21-00-0-24S), urea (46-0-0) or ammonium nitrate (34-0-0). These fertilizers produce ammonia when placed in contact with high pH materials such as wood ash.

Several types of mildew can be helpful or harmful to your home & health

by Norma L. Simpson

If your home does not have any mildew, it's because you made great effort to control it. Mildew is a form of fungi that performs many good tasks in our lives, but at the same time can do things that we wish fungi would not do. In fact there are 80,000 species of fungi plants. Some are harmful to plants, animals and humans. They have some of the same characteristics when we study them and the damage they do.

Fungi is spread around by spores, the form of reproduction. In fact some times we intentionally get it to reproduce by adding *Penicillium roqueforti* to make blue cheese, or *Aspergillus oryzae* to make soy sauce.

Then there are unwanted fungi like fuzzy blue bread mold (that's *Rhizopus stolonifer*) or mold on jam in the jar even in the refrigerator, and mold in spaghetti sauce in the refrigerated jar. Citric Acid, used in soft drinks, candies, effervescent tablets like Alka Seltzer, inks, and engraving materials, is made from *Aspergillus niger*.

These are types of Fungi, free or unprotected like *Penicillium* and *Aspergillus* or in protected structures like *Rhizopus* and *Mucor*. Don't give up - we are getting to the rest of the house.

Many people are allergic to fungi when they inhale the spores. If you did not rake your leaves in the fall, the leaves become moldy. You don't really notice it until spring when you clean up the yard and you get an attack of mold allergy.

MILDEW ON CLOTHES AND IN THE BATHROOM

But what about the mildew which is black, on the clothes when you folded the clothes were not dry enough to put away. It is better to shake out the damp clothes when you get home from the laundromat, and let them dry completely. Last week I helped a tribal mother to fold a mountain of clothes while she juggled a small child. We set aside the hooded sweat

shirts, because they were too damp to fold and stack with the other items.

Once mildew has formed on colored clothes, you may be able to use oxygen bleach (sodium perborate rather than chlorine bleach) to remove mildew without damaging the color in the clothes. Oxygen bleach is also called Non-chlorine or "all fabric" bleach. Oxygen bleach will not be strong enough to return the whitest white when mildew is removed. On the other hand, the mildew on white clothes will come out more easily with chlorine bleach.

If you wash the Christmas table cloth, but don't dry it well enough when you store it away, you will find a bad case of mildew the next year. You probably will not be able to get the mildew stains out, even with chlorine or non-chlorine bleach. So don't leave the table cloth in the bottom of the hamper for several weeks. The mildew will already have a good start spreading the fungi spores around, and growing in our warm homes.

Why Mildew is Worse in the Winter
Mildew tends to get worse in our homes in the winter because we close the doors and hold in all of the moisture that we produce when we shower and cook.

More moisture means that we need to look at the spots in the house where we can make some changes. One thing we can do is to shorten the length of time of the shower. Ouch - some people want to shower for 20 minutes with the shower head at full speed. No wonder we have lots of moisture. One suggestion is to have a 10 minute shower, with the exhaust fan on while the water is running, and then leave the fan running for 10 more minutes after the water is turned off. In fact 10 minutes is a long shower if you have a lot of people using the same hot water tank. Ah yes, the moisture is removed from the bathroom if you are lucky.

In the Bathroom

One tribal woman said that she has trouble

in the Tenino Apartment because the fan in the bathroom is broken. I wonder how many apartments have troubles with fans that don't work. **Perhaps we need a workshop on repairing the fans**, especially because the number of Utilities personnel will be fewer than this year. Yes that means that we need to have an electrician teach us how to do it. We can learn.

Mildew above the shower leaves dark stains that smell of the mildew. Tubs and showers on the outer walls may be cold. The moisture does not dry as fast, giving the mildew another spurt of growth.

There are four things that we can do to reduce the mildew:

1) With a brush, scrub the wall and shower curtain with a gallon solution of - warm water and 2 tablespoons chlorine bleach to remove the existing mildew. Then rinse off the bleach, especially if the wall is a colored formica or tile surface. You may want to follow the bleach with a soapy water. But since most detergents now also have ammonia in them, they should not be mixed with the chlorine and water. Poisonous fumes are produced by chlorine and ammonia.

If the shower or tub are made of fiber glass, be more gentle as you scrub it so that you do not damage the surface.

2) One time, when you plan to be gone for several days, try removing the mildewy grout or caulking that is around the edge of the tub or shower. Then dry the area with a hair dryer, so the caulking will stick to the wall and the tub. When you purchase the caulking compound buy the caulk that is MILDEW RESISTANT. Some caulks are not mildew resistant, so don't buy them even for a few cents cheaper. Caulk takes time to dry, so the family needs to be away from home at least 36 hours before exposing to water.

Yes, I know that's asking a lot to prepare for a trip and caulk the tub or shower. The benefits are that the wall will be warmer, and

STOCKMAN'S ROUNDUP: Watch your cows closely



by Bob Pawelek
OSU Livestock Agent

Cows coming off the range are in pretty good shape, considering the year we've had. Now is the time to inventory your winter feed supplies to make sure you don't run short if we have a longer than normal win-

ter. A good rule of thumb for beef cattle is 1.5 ton of good quality hay per 1,000 lb cow per month. Bulls will require that much plus a half ton.

Do not feed in the same spot day after day. Feeding on the same few square feet of ground every day encourages internal parasites. If possible, choose seven different feeding stations and rotate each day of the week. Feeding alongside a fence will also reduce wasted hay.

Practice good sanitation and cleanliness. A disease cycle can be broken by cleaning and disinfecting. Provide plenty of clean fresh water.

Isolate newly purchased animals for 10 days to two weeks. Also, isolate sick animals from the rest of the herd to prevent the spread of disease.

Dispose of dead animals quickly and properly. Large animals should be sent to the rendering plant when possible.

Resistance to disease can be maintained by a number of methods: Feed according to nutritional requirements, vaccinate where possible, and cull all unsound animals.

Cows having had fall or early winter calves should be watched closely as they are highly

susceptible to coming down with a bug of some sort, especially if the weather gets real nasty. If possible, separate these animals from the rest of the herd and feed them well. The same goes for your yearling heifers, as they are still growing and can't compete with the boss cows for feed.

Common sense will go a long way in keeping your herd healthy through the winter.

Snow makes good garden mulch

by Carol Savoien

Snow is an excellent insulator and can protect landscape plants from the devastating effects of repeated freezing and thawing, according to Ross Penhallegon, horticulture agent with the Oregon State University Extension Service.

If winter snowfall blankets the ground evenly, there is little mulching to do.

"The snow is already uniformly spread over the home landscape," explained Penhallegon. "If you shovel snow off driveways and walkways, take a little extra time to pile it around landscape plants under eaves that may have escaped coverage by snowfall."

Flower bulbs and garden root crops, in particular, will benefit from an insulating layer of snow, and the added moisture when the snow melts is good for plants, he said.

"Of course, homeowners should take care not to pile up a lot of snow in areas around the house where drainage is poor," warned Penhallegon. "This can result in unwanted quagmires around the home and drowned garden and landscape plants when the snow eventually melts. For the safety of the plants and your convenience, use snow mulch only where you are sure melting snow will drain away easily and efficiently."