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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

The best way to explain how this came about is to talk about a rock. This may seem off-kilter but hang in there with me. One hot afternoon I got stuck in a truck. Or rather, the truck got stuck-but either way it meant we weren't moving along very fast. We tried to get the truck unstuck but it didn't work. So we sat down on a rock to wait. The rock was red, very broad and extremely comfortable to sit on. As people will do, we began to talk and forgot about the stuck truck for awhile.

Our conversation veered and ran and finally curved around to why people don't seem inclined to get involved anymore. Mainly, we were talking about government - not politics-but the broad brush of citizenship. After awhile we talked enough that we came up with a plan. (We had forgotten about the truck and were busy planning how the world should run). Our plan sat and waited patiently for us during six months while we figured out the details. It was a very patient plan. We thought that we should start from the beginning-that maybe people didn't get involved because they hadn't been given a sense of what citizenship was early enough on in life. This talking, while sitting on a rock, waiting for a truck to become unstuck, became Know Your Indian Government.

(By the way-the truck did finally become unstuck as two people happened along that knew what a granny gear was and how to use it.)

The 4-H office made a commitment to Know Your Indian Government. To hold the class each spring and each fall for the next five years. This fall will be our second session of KYIG. The first one was held in March. The second session starts in early November, but we are holding sign-up now at the 4-H office.

How can you be involved ?

You must sign up at the 4-H office and be in 6th through 12th grades. Last year we had some adults interested-and its been decided that adults can attend the evening sessions but the two half-day work sessions will be only for youth. The final schedule will be approved on October 7th. In the meantime, you can come talk with us at the 4-H office. We are on the 1st floor of the Education Center, next to the Elementary school in Warm Springs.

Know Your Indian Government participants in March 1997: Left to right front row Cassie Wolfe, Evaline Patt and Aaron Mitchell. Second row Cyril Wolfe, Bill Topash, Arlene Boileau and Matthew Vaeth.

Cassie Wolfe presents what she learned to the Know Your Indian Government team.

4-H Leaders wanted to work with kids

4-H is looking for leaders. We can use people who-want to work with kids in Warm Springs,-or have creative ideas,-or want to try out a new activity or skill.

Leaders can lead long-term clubs, short term series or one day workshops.

You can tailor what you teach to reach a certain age of children or a specific need in the community.

4-H is also looking for resource leaders to help with 4-H Saturdays that will be held in January and February next year.

Reach out to Warm Springs youth and make a difference!

If you are interested-stop by the 4-H office on the first floor of the Education Center or call 553-3238.

Natural Resource notables

by Bodie Shaw

Bathe yourself in water wisdom

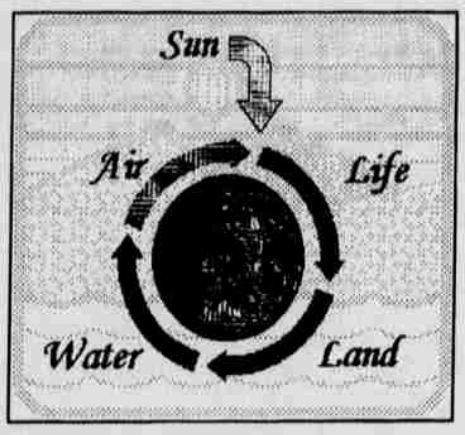
I've been immersed in the natural resources field for many years. Throughout my travels, there has been one constant that is pervasive throughout all societies: water is the lifeblood of our environment; every living object needs it. Should we be concerned with the quality of our water? Is water important? How important?

Water is our most abundant resource, covering about 71% of the earth's surface. This precious film of water-most of it salt water with the remainder being fresh water-helps maintain the earth's climate, dilutes pollutants, and is essential to all life. The much smaller amount of fresh water constantly renewed by the hydrologic (water) cycle is also a vital resource for agriculture, manufacturing, transportation, and countless other human activities.

Despite its importance, water is one of the most poorly managed resources on earth. We waste it and pollute it. We also charge too little for making it available, encouraging even greater waste and pollution of this vital renewable resource.

Consider the facts. The world's fixed supply of water in all forms (vapor, liquid, and solid) is enormous. However, about 97% of the earth's volume of water is found in the oceans and is too salty for drinking, growing crops, and most industrial uses except cooling. The remaining 3% is fresh water. But all except 0.003% of this supply is polluted, lies too far under the earth's surface to be extracted at an affordable cost, or is locked up in glaciers, polar ice caps, atmosphere, and soil. If the world's water supply were only 100 gallons, our usable supply of fresh water would be roughly 2 (two) teaspoons (*State of the World*, 1996).

With the above information in mind, allow me to present some *comparative figures:* In the U.S. the average home uses 10,000-12,000 gallons of water per month (4 person family). Earlier this summer, the Water Treatment Plant in Warm Springs monitored some homes in Greeley Heights. The per household figures on average were 40,000-50,000 gallons per month. One home tallied an amazing 200,000 gallons of water in one month! Leonard Zinda, the Tribal Water Treatment Plant Manager adds that



the 200,000 gallon figure takes 20 new homes out of the housing plan because the plant cannot supply enough water (10,000 X 20 = 200,000). To put the figure in perspective, 200,000 gallons of water would fill 3,639 fifty-five gallon barrels. We seem to have an awareness problem within our community.

Fortunately our freshwater supply is continually collected, purified, and distributed in the hydrologic (water) cycle. However, this natural recycling and purification process only works as long as we don't pollute water faster than it can be replenished, overload it with slowly degradable and nondegradable wastes, or withdraw it from slowly renewable underground deposits faster than it is replenished. Unfortunately, we are disrupting the water cycle by doing all of *these things.*

The underlying theme: water is too precious of a commodity to waste and abuse. Warm Springs has its share of abuses and wastes when it comes to water, but with the right people who share a common goal, we can help stem the tide and begin righting some wrongs. Once again, should we be concerned with water? Is water important? How important? I think we all know the answer.

Wise Water Use Tips

The typical American home uses 300 gallons of water a day.You can take several simple steps to greatly reduce your overall water consumption:

Flushing: At 5-7 gallons a flush, with an average of 23 gallons per person a day and 8,395 gallons a year, flushing uses more water than anything else in a household.

You can: 1) Flush less often. 2) Install toilet dams, available at most hardware stores. 3) Put a plastic jug in the tank filled with water (so that less water is used per flush.)

Brushing, Shaving, and Washing the Dishes:A normal running tap can waste 3- 5 gallons per minute.

You can: 1)Turn the faucet on only to wet and rinse your toothbrush. 2) Fill the sink with water instead of letting the faucet run while washing dishes or shaving. 3) Install aerators on faucets that add air to the water and produce a full flow but waste 40%-60% less water.

Showering and Bathing: Showers typically account for 32% of home water use. A shower head uses 5-7 gallons per minute. A bath can use 40-50 gallons of water.

You can: 1)Take a shower or low-water bath. 2)Take shorter showers. 3) Install low-flow shower heads, cutting the water flow by 50%.

Clothes Washing: Most washing machines waste over 5,000 gallons of water every year.

You can: 1)Use front-loading washing machines that consume one- third less water than conventional top-loaders. 2) Do only *full loads of wash.*

If you have any questions, comments or suggestions on water and its wise use, please call Bodie at the extension office.

October

Garden hints from your OSU Extension Agent

- Plant garlic for harvesting next summer.
- Clean and paint greenhouses and cold frames for plant storage and winter growth.
- Harvest sunflower heads; use seed for birdseed or roast for personal use.
- Dig and store potatoes; keep in darkness, moderate humidity, temperature about 40°F.
- Recycle disease-free plant material and kitchen vegetable scraps into compost.
- Control lawn weeds while they are small.
- *Western Oregon:* Harvest squash and pumpkins; keep in dry area at 55° to 60°F.
- Harvest and immediately dry filberts and walnuts; dry at 95° to 100°F.
- Ripen green tomatoes indoors.
- Take care of soil drainage needs of lawns before rain begins.
- Harvest and store apples; keep at about 40°F, moderate humidity.
- Spray stone fruit trees to prevent various fungus and bacterial diseases. Use copper fungicides.
- Place mulch around berries for winter protection.
- Save seeds from the vegetable and flower garden, dry and store.
- Plant ground covers and shrubs.
- Place mulch over roots of roses, azaleas, rhododendrons for winter protection.
- Dig and store geraniums, tuberous begonias, dahlias, gladiolas.
- Place hanging pots of fuchsias where they won't freeze.
- Propagate chrysanthemums, fuchsias, geraniums by stem-cuttings.
- *Western Oregon:* Fertilize lawn for last time this year.
- Stake bushy herbaceous perennials to prevent wind damage.
- *Western Oregon:* Bring houseplants indoors.
- Pot and store tulips and daffodils for early bloom in December and January.
- *Early October:* Begin manipulating light to force Christmas cactus to bloom in late December.
- *Western Oregon:* Treat for moss on roofs during dry periods.
- Store garden supplies, fertilizers in safe, dry place out of reach of children.
- Dig and divide rhubarb. (Should be done about every 4 years.)
- *Western Oregon:* If weather permits, spade organic material and lime into garden soil.
- Cover asparagus and rhubarb beds with a mulch of manure or compost.
- Rake and destroy disease-infested leaves (apple, cherry, rose, etc.).
- Trap moles and gophers.
- Clean up annual flower beds and mulch with manure or compost.
- Remove windfall apples that may be harboring apple maggot or codling moth larvae.
- Clean and oil tools and equipment before storing for winter.

Recommendations in this calendar are not necessarily applicable to all areas and varying climates of Oregon. If you desire more information, contact your county office of the OSU Extension Service.

STOCKMAN'S ROUNDUP: Bull power = profit

by Bob Pawelek
OSU Livestock Agent

A bull is only as good as his ability to breed cows. The best looking, most expensive bull with the best pedigree is still a dud if he won't settle cows. And that hinges on more than just fertility. Breeding ability is just as important as good genetics and fertility.

A bull's ability to service cows depends on several things, including desire (libido) and other psychological factors, such as social dominance-whether a bull is "boss" or intimidated by an older or more aggressive bull. Physical factors may cause discomfort when breeding or sap energy and sex drive. A bull may start the season with enthusiasm but quit due to fatigue, intimidation, or some other problem.

One in five bulls fails to breed.To have cows bred and settled in a short breeding season, it's important to pay attention to breeding behavior to know if bulls are doing their jobs.

Observe performance in every breeding pasture throughout the breeding season. You need to know what's happening if a problem arises, then be able to resolve it quickly before cows are missed.

Yearling bulls

Yearling bulls often work well, since they tend to be more aggressive breeders than older bulls. But, on ranches where breeding is done under harsh, extensive range conditions, it's best to use older bulls, says Ron Baker, C&B Livestock at Hermiston. Feed may be too marginal, or there may be too much country to cover for a yearling to keep his condition while still growing, he says. To be successful, yearling bulls must be well-grown and well-fed (but not fat) so they "won't run out of gas," becoming thin and tired.

Carefully observe new bulls when first turned out with the cows. If they've been raised in all-male groups, they may be hesitant when introduced to females. Most will quickly figure out what to do.

Some young bulls, however, are clumsy, overeager or continue to think more about fighting other bulls than looking for cows in heat. As the young bull learns about cows, he usually gets better at his job-but some don't.

Yearlings and two-year-olds sometimes aren't as dependable as older bulls when confronted with several cows in heat. They may spend all their time with one cow, ignoring the others. Older, experienced bulls are more likely to distribute their services more efficiently.

The largest, fastest-growing bulls may not have the most sex drive. Several studies have shown that big, fast-gaining bulls are often slower to reach puberty and sexual maturity and may be poorer breeders than early-maturing, smaller-framed bulls. Earlier-maturing, smaller-framed bulls with large scrotal circumferences sire daughters that mature early and breed faster than larger, later-maturing heifers.

A number of studies have shown major differences in sex drive among bulls. How important this factor is may hinge on the breeding pastures you use. In small pastures you may get by with a bull that's not an aggressive breeder. But, in range areas where a bull must travel long distances or steep terrain to seek out cows in heat, sex drive may be very important.

Pecking order

Cattle are very social animals. Pecking order and individual attitudes can have a bearing on what happens in the breeding herd. Two bulls may get along fine or they may not. Their attitudes can affect pregnancy rate in any pasture when you're using more than one bull.

If four bulls are turned out with 100 cows, it doesn't mean each will sire 25 cows. A socially dominant, aggressive bull can sire most of the calves, or keep other bulls from breeding the cows even if he doesn't get the job done.

One bull may take his harem to a corner and box them in, trying to keep them away from other bulls. He may spend more time jealously herding his cows than breeding them.

Just because a bull is aggressive doesn't mean he'll be a good breeder. Sometimes the quiet, mil-mannered bull will stick to business and breed the cows, while the aggressive ones spend their time fighting.

Psychological factors can alter the picture when you add a new bull or take one out of the pasture, too. The pecking order may shift, influencing whether the cows get bred. Bulls that get along reasonably well may not be compatible after introducing a newcomer. Subordinate bulls may spend all their energies fighting for top position after a more dominant bull is removed.

Often, there are fewer problems in a breeding group if you leave the same bulls with those cows all season rather than upsetting things by adding or switching bulls.

Bull:Cow ratios

How many cows you can put with a bull will depend partly on your length of breeding season. If the breeding season is 45-60 days or longer, you can usually get by with one bull per 30-50 cows if the bulls are good breeders and the pastures are small enough for them to travel.

In this situation, a cow will have more than one chance to get pregnant. If she doesn't get bred on her first cycle due to bull fatigue, injury, social dominance problems, etc., there's another chance later. And if you have fewer bulls in a breeding group, you'll likely experience fewer injuries due to bulls fighting.

Ranchers with very short breeding seasons (45 days or less) use more bull power to make sure cows aren't missed. For getting cows settled quickly, it also helps to have several small breeding pastures, with only one to three bulls in each group.

With small groups, there is more chance of getting every cow bred. Though some days there may be many cows in heat at once, there may be only a few in each group. If cows are all together in one large herd, some might be missed while the bulls fight over the others. And, the extra activity provides more risk of injury.

Paying close attention to activities within your herd will help you know whether or not a bull is doing his job.