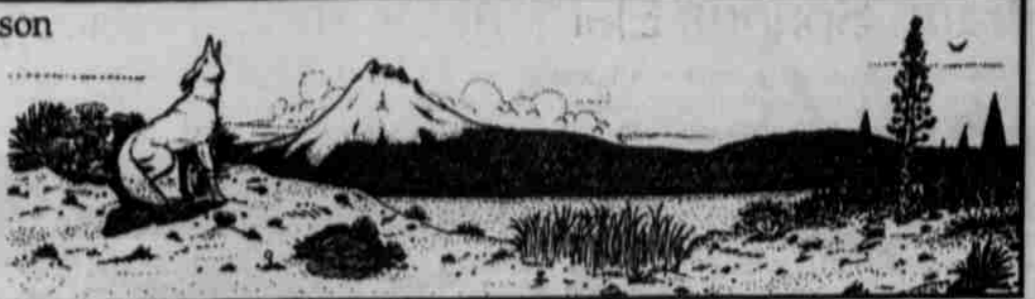
 <p>OSU EXTENSION SERVICE (503) 553-3238</p>	Arlene Boileau 4-H & Youth	Bob Pawelek Livestock	Clint Jacks Staff Chair, Madras	Deanie Johnson Secretary
	Bernadette Handley Home Economics	Zack del Nero Natural Resources	4-H Assistant	

Internet Address: <http://www.orst.edu/dept/wsex>

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.



Clover speaks

Learning a lot

by Bob Pawelek

Well, summer's about over now.



Both the 4-H Camp and the Jefferson County Fair are history. James McInterf was one big winner of the summer. His Maine-Anjou

cross steer won Reserve Grand Champion at this year's fair. Lots of folks helped him a little at a time, and everyone wound up learning a lot!

Arlene's camp up at Peter's Pasture was a smashing success as well. No fires, no bears! Lots of folks helped Arlene out. The kids had a fantastic time and guess what? They all wound up learning a lot!

Arlene would like to thank everyone who participated in making camp the success it was.

We are heading into a new 4-H season. If you think your kids might benefit from something more substantial than the boob tube, why not consider having them join 4-H?

Even if they don't have room to raise a calf, or if camp isn't their bag, there's plenty more that 4-H has to offer. Give it a try. You'll be glad you did. And who knows? We all might wind up learning a lot!

4-H... More Than You Ever Imagined.



For more information, contact your County Extension Office.

Natural Resource notables

Urbanization Effects on Rangelands

by Zack del Nero

Large urban areas are developing in several parts of the western United States such as around Denver, Colorado; Albuquerque, New Mexico; Phoenix, Arizona; El Paso, Texas; Boise, Idaho; Salt Lake City, Utah; and Las Vegas, Nevada. This is also happening in rangeland areas in Latin America and Africa. Almost no information is available on the amount of rangeland being lost to urbanization and how this is impacting local economies. However, a recent report indicates around 1.5 million acres of rangeland may have been lost per year to development during the 1990's in the USA (USDA 1997).

Information is also lacking on how poorly planned urbanization is impacting local tax levels for home owners, farmers, and ranchers. Large zones of low density housing now surround most western US cities. There is evidence that this has greatly increased property tax levels over what they would be under well planned development.

Water tables are being lowered in many areas - this can have severe impacts on rangeland productivity and water availability to livestock, fisheries, and wildlife. Ranching becomes more difficult when subdivisions are scattered through graz-

ing lands (Huntsinger and



Hopkinson 1996).

The long term impacts of this type of "urban sprawl" are not known, exactly. However, common sense tells me that there are serious problems on the horizon. We can see this happening locally. I would rather go to Portland sometimes, rather than deal with the traffic through downtown Redmond and Bend in the afternoon. Without strict urban planning, we will continue to see more and more traffic related problems as well as all of the environmental impacts that come with it.

"Mini farms" and "hobby ranches" are popping up all over, and those can be good business if you grow hay. However, we do need better planning and education so that environmental impacts can be minimized.

Medical research helps animals, too

by Bob Pawelek

HealthCentral.com, Dr. Dean Edell's consumer health website, featured a poll on animal research in medicine last week. The use of animals in scientific research is a hot-button issue. To a vehement animal rights activist, it is completely unacceptable - a cruel assertion of man's questionable superiority over our animal friends. To the parent of a child with cystic fibrosis, whose life has probably been extended by treatments developed using animal research, it is an absolute necessity. Most of us probably fall somewhere in between. Where do you fall in the spectrum?

When I first found this website, those favoring animal research were in the majority...around 55%, with another option—research only for life threatening illnesses (!)—getting around 12% and the opponents pulling something in the 25% region.

News of the poll was posted to several animal rights sites. Several

activists must have followed Boston Mayor James Michael Curley's advice to vote early and vote often: now the numbers are 41% for research, 47% opposed, and the "only for lifethreatening illness" option remains at 12%.

I also support the use of animals in medical research if it can help us to cure diseases and make the world healthier.

Important medical progress has been made because of animal research, the bulk of which is done with rodents.

If you don't like the idea of dogs and cats being used for research - approximately 76,000 dogs and 25,000 cats were used in the U.S. in 1998 - think of this: 2.5-7.2 million dogs and cats are killed annually in animal shelters, according to the Humane Society.

If activists really want to help animals, they'd take home those abandoned cats and dogs.

Master Food Preservers

Do you need an answer your food preservation questions? Call the Certified Master Food Preservers and Extension educators in Lane County on the OSU Extension Service Food Preservation Hotline. The hotline will be available from

July 15 - October 15. Phone calls may be directed to 1-800-354-7319 between the hours of 9 AM - 4 PM Monday-Friday (except holidays).

HOME SWEET HOME

By Bernadette Handley, OSU Extension Home Ec Agent

Whether you grow it, pick it or buy it... fresh produce is everywhere... in the garden, on the roadside, at the grocery store. And with hunting season just around the corner, it will be time to preserve meats and game. It is wonderful to have the tastes and smells of fresh produce and meats but how can you keep the "freshness" without eating it all now? Canning is one option of food preservation that can assist in keeping those foods safe and tasty all year long.

Canning? When we hear the word, many of us run for cover. Memories of standing in a hot steamy kitchen for hours and hours come to mind... food scraps on one counter, lids and seals on another and jars stacked from floor to ceiling. But that is not how it has to be. The process and the equipment have changed a lot. Canning may be simple and efficient and just plain fun. When I attended the Master Food Preserver training early this spring, I was amazed at the simplicity of the process and how LITTLE time and money it really takes. It certainly is not as easy as buying a can off the grocer's shelf, I admit, but it is more cost effective and the product tastes better. And... there is a certain pride, a deep sense of accomplishment when I had some part in the food preservation.

Canning may be done using either a water bath canner or a pressure canner. How do you know which process to use for what foods? Food acidity determines which canning method to use. Fruits and tomatoes may be canned using a water bath as they are high acid foods. Low acid foods such as vegetables and meats require canning in a pressure can-

ner. Only pressure canning produces temperature high enough to kill many bacteria that can grow in low acid foods including Clostridium botulinum. Toxins could be present even though the canned vegetable or meat looks, smells and tastes normal.

Fruit selected needs to be firm and fresh. And free of bruises and diseases. Vegetables for canning need to be young and tender. Foods may be canned using either the hot pack or raw pack method. The hot pack method involves boiling the product in water, syrup or juice and packing the item in the jars while it is still hot. In the raw pack method, raw food is packed in the jars and covered with boiling water, syrup or juice.

The hot pack method has several advantages. Heated foods are easier to pack into jars because they are softer and may require less processing time. Fewer jars are needed and each jar is packed more fully. Raw pack usually results in a product that has a firmer texture. To maximize food safety, the United States Department of Agriculture (USDA) advises following packing directions and heating times exactly or the food may not be free of microorganisms.

Safety Checklist for home canning:

Σ Follow directions exactly for filling jars. Over packed jars do not heat as evenly as correctly packed jars.

Σ Always can meats and vegetables in a pressure canner. A boiling water canner or steamer does not produce high enough temperature to kill botulism-causing bacteria and other spoilage organisms.

Σ Never can in an oven (electric, gas, woodburning or microwave)

Σ Be sure the pressure canner dial gauge is accurate. Have it tested once a year or more often if you do a great deal of canning or if you drop the lid.

Σ Each time you use a pressure canner, check to see that the petcock and safety valve are not blocked.

Σ Always exhaust air from a pressure canner before letting pressure build.

Σ Increase pressure at altitudes of 1,000 feet (for any weighted gauge canner) or 2,000 feet (for dial-gauge canner) to reach the proper temperature (240 F) for pressure canning.

Σ Never can meat or vegetable products for which you do not have researched processing times. A safe canning time cannot accurately be determined at home.

Σ For an extra guarantee of safety, you may boil home-canned vegetables and meats before eating them.

For more information about home canning and upcoming food preservation events, contact the Warm Springs OSU Extension office @ 553-3238 or call the Master Food Preserver Hotline @ 1-800-354-7319 between 9 AM and 4 PM Monday through Friday.

Be a beef ambassador

by Bob Pawelek

The National Beef Ambassador Program Competition will be held at the Airport Hilton in Wichita, Kan., Nov. 4-6, 1999. State representatives, ages 15 to 19, come from across the nation to participate in the competition and learn to be better spokespersons for the beef in-

dustry. They will also attend a workshop that helps them handle the media and consumers when talking about the beef industry. ANCW would like to invite anyone interested in the program to come to Wichita. Contact Shelle Taylor (ANCW), staylor@beef.org or 303/850-3442.

STOCKMAN'S ROUNDUP: What a horse eats and why



by Bob Pawelek
OSU Livestock Agent

Horses ... first there was the eohippus and at only 12 inches tall, he fed on leaves, soft grasses and ran from his greatest predator, the saber tooth tiger. As evolution of the horse progressed through the stages of the Mesohippus, Merychippus, and Pliohippus to today's Equus, the horse remained a forager. It is no wonder that nutritionists consider forages to be the FIRST step in establishing a sound diet for the horse.

Even today, one cannot dispute the wisdom of Columella, A.D.50 who stated, "For those whose pleasure it is to rear horses it is of the utmost importance to provide a painstaking overseer and plenty of fodder."

Thousands of years of foraging has resulted in a rather unique digestive system that bears resemblance to only the rabbit and guinea pig. Placement of a rather small stomach immediately prior to the small intestines where most of the starch, fat, and protein digestion occurs in the horse very much like other monogastric animals.

But just beyond the small intestines is the cecum, a blind gut compartment that harbors the microbial flora similar to the microbial population in the rumen of cattle.

The well developed cecum is the site of fiber digestion and is responsible for the horse classification as a non-ruminant herbivore. Horses are best able to digest higher quality forages when compared to ruminants. As in the rumen, fiber is broken down by microbes and converted to the volatile fatty acids (VFA's)

acetic, propionic, and butyric acids which can be utilized by the horse for energy. These energy sources do not represent the concentration of energy such as glucose, but nevertheless, are very important to the horse, furnishing approximately 30% of the digestible energy intake. For a more in depth look at forage utilization by the horse, grazing patterns, preferences, digestibility values, and definite reasons to consider forages the first step in the balancing the diet for horses will be discussed.

Behavior Associated With Food Consumption

Grazing clocks and extended observation watches have been utilized by researchers to determine what a horse does during the day. The relatively small stomach and energy needs of a large horse necessitates extended grazing periods. In a pasture grazing situation with forage readily available, horses grazed approximately 72% of a 24 period. In a similar study of horses grazing bermudagrass pasture, horses grazed 67% of the 24 hour period, but when

grazing lush ryegrass, only 57% of the 24 hour period was utilized for grazing. Presumably, enhanced bite size of the forage decreased grazing time of ryegrass. It is interesting to note that feral horses also spend approximately 75% of their time grazing forages. It has been estimated that a horse will consume between 2.0 and 2.5% of their body weight in forages during a 24 hour period.

From the above data, one may conclude that horses tend to be more continuous consumers of forage than ruminants. Yet stalled horses are usually fed twice during a 24 hour period. Consumption time for stalled horses has been reported to represent approximately 13 to 15% of a 24 hour period, depending on the amount of grain vs. hay. Horses fed only concentrates were 6 times more likely to chew wood and 2.5 times more likely to eat their feces.

A subsequent study established a direct correlation between length of consumption time and wood chewing. The less time a horse spent eating, the more likely the horse was to chew wood. It is true that pelleted

forages may ease a storage or availability problem associated with fresh forages. Yet, horse owners should be aware of the potential negative side effects such as wood chewing and coprophagy when horses are not fed long stem hay or grazed. Wood chewing has not been strongly associated with feeding cubed forages.

Court Rejects Complaint

ST. LOUIS - The U.S. Circuit Court of Appeals in St. Louis has rejected all aspects of USDA's complaint about IBP's buying practices in Kansas. The court reversed the portion of the ruling which said IBP should forego the "right of first refusal" that is part of its marketing agreement with certain Kansas feedlots. The court said the right of first refusal "has not had the actual effect of suppressing or reducing competition," and instead it is "an effort by IBP to have a more reliable and effi-