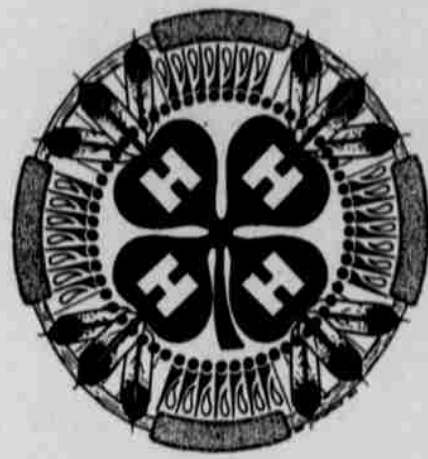


# The Clover Speaks



ARLENE

Tri-County Camp is almost here, there will be two camps this year. CAMP 1: Arrive at camp June 18 th from 1-2 pm and Depart June 21st CAMP 2: Arrive at camp June 22nd, from 1-2 pm and Depart June 25th

Tri-County camp is held in Crook County at Crystal Springs located 35 miles east of Prineville, Oregon, the drive to Crystal Springs is great. Call your OSU Extension Office to pick up a CAMP REGISTRATION. **HURRY AND SIGN UP FOR A REALLY FUN FILLED WEEK.**

Whats happening in the Warm Springs 4-H Program. Crystal Danzuka resigned as of April 10, 1995. The Warm Spring OSU staff

and Jefferson County OSU staff would like to wish Crystal the very best in the future and to thank her for all she accomplish for herself and the work she did in the 4-H program. The position is being advertised at this time. Warm Springs 4-H Wilderness Enrichment Camp registration forms will available starting May 31, 1995 at the Warm Springs OSU Extension Office located in the Education Office.

A list of 4-H Clubs and 4-H Leader:  
Girls Basketball 4-H Leader and Coach:  
Foster & Sandra Kalama and Luther Clements Boys Basketball 4-H Leader and Coach: Janice Gilbert-Gunshows

Co-Ed Basketball 4-H Leader and Coach: Melvin & Vanessa Wilkinson -Tewee Girls Basketball Team

4-H Leader and Coach: Joyce Suppah and Lorraine Suppah

Outdoor Cookery 4-H Leader: Neda Wesley

Cultural Club 4-H Leader: Violeta Vaethe Advance Beadwork 4-H Club: 4-H Leader Myra Shawaway

Rockin' 4-H Livestock 4-H Club: 4-Leader Community Members and Bob Pawelek

Warm Springs 4-H Rainbow Dancers: Joseph Tuckta and Myra Shawaway

Early Childhood Center 4-H Gardening Club: 4-H Leader: Sue Matters

Warm Springs 4-H Live Wire Production: 4-H Leaders: Carol Wewa & Anita Davis

SAR 4-H Cadet Program: 4-H Leader Raneva Dowty

GARDENING IN CENTRAL OREGON Would you like to know more about gardening? If you do MARK Tuesday JUNE 6, 1995 at 12:00 NOON on your calendar. Michael Bauer, Central Oregon Extension Horticulture Agent, will be at the Warm Springs 4-H Kitchen Area downstairs in the Education Building to present "GARDENING IN CENTRAL OREGON."

The presentation will be from 12 noon to 1 pm. Based on interest, additional presentation will be held at a later date.

LOCAL GARDENING NEWSLETTER AVAILABLE.

Residents of Warm Springs can now get a gardening newsletter specific to Central Oregon. High Desert Gardening, mailed to their home by Oregon State University Service.

The newsletter examines garden techniques, varieties and tips to help the local gardener in Central Oregon's unique climate, and is published April through October with a issue in January.

The Newsletter is edited by Michael Bauer, Extension Horticulture Agent for Central Oregon based in Redmond, Oregon

Warm Springs resident may obtain the newsletter by calling the Extension Office at 553-3238 and leaving your correct mailing address.

The Warm Springs 4-H Program would like to GAVE A BIG THANK YOU TO ALL THE GUYS AND GALS AT LES SCHWABS IN MADRAS FOR THEIR HELP WITH THE 4-H VAN

Information provided by:  
OSU Extension  
at Warm Springs  
1110 Wasco Street  
553-3238.

OSU Extension Staff:

Arlene Boileau ..... 4-H & Youth  
Bob Pawelek ..... Livestock  
Norma Simpson ..... Home Economics  
Crystal Winishut ..... 4-H Assistant  
..... Agriculture  
Clint Jacks ..... Staff Chair, Madras

The above individuals are devoted to extending research-based information from Oregon State University to the people of Warm Springs in Agriculture, Home Economics, 4-H Youth, Forestry, Community Development, Energy and Extension Sea Grant programs. Oregon State University, 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.

EDUCATION THAT WORKS FOR YOU

## Tips offered to prevent plant poisoning of livestock

By Bob Pawelek

Prevention of poisoning is much easier than curing poisoning, which has little chance of success anytime and almost none on the range.

Although management is not a complete solution to poisonous plant problems, in most instances it is all that is economically feasible. A few rules of good range and stock management, if carefully followed, will prevent most livestock losses.

>First, don't misuse the range so that it brings about the invasion of noxious weeds. If animals

are allowed to constantly graze the same pasture for months at a time, bare ground will become a perfect environment for poisonous plants.

>Avoid areas where poisonous plants are in the first place.

>Don't move animals hastily through an area where poisonous plants are present. Unhurried animals select a variety of forage and are less likely to consume toxic quantities of any plant.

>Animals forced to remain on the range

after they have utilized good forage species will turn to less desirable and often poisonous species.

>Before moving animals to a new pasture, feed them well.

>Always provide plenty of fresh water.

>Use salt. A salt shortage causes animals to eat plants not normally eaten.

>Graze with the kind of stock not poisoned by the plant in question. Some toxins are species-specific.

## As we grow older series: part 4—Helping older people eat properly, getting all their vitamins

by Norma L. Simpson

During the recent Inservice Training at Oregon State University, extension home economics agents learned about changes in our bodies as we grow older. Connie Georgiou, OSU nutrition professor outlined much of the research that we have needed for years to help older people eat properly and consider nutrient supplements when they are needed.

As we tried to make the articles less technical but more related to Warm Springs, the articles got longer and longer, so to cover the information as meaningfully as possible, the series grew and grew. I hope you find it useful to your important task with elders in your home.

The first article (Spilyay April 28) was about "Keys to Good Nutrition in Older Years and Current Recommendations for Energy You Eat and How You Use It." The second and third articles (Spilyay May 11 and June 8) were about "Changes in the Digestive System and Skeletal Systems and Nutrients Related to Them." This fourth article is about the Immune System and the Nervous/Cognitive System and the fifth article will be about the Cardiovascular System.

**THE IMMUNE SYSTEM:** In the past we talked about being immune to diseases because we had been vaccinated against them, or we had developed immunity because we had survived the disease. It is since we learned of the spread of cancer through the lymph systems and recognition of the AIDS virus and its impact on the immune system, that the general public started to learn how the immune system works. Now we need to learn that there are differences between older and young people.

**As we grow older, we have decreased circulating immune complexes.** You have heard the aerobics leaders talking about the importance of exercise to keep the circulation system working. Most of us may think that it means only the blood. But there are other fluids in our body that circulate, and that circulation slows down with age. When we check in the arm pit or in the

groin, we are checking for lumps in the lymphatic system. Lymphatic fluid carries the antibodies that fight disease in our body. By exercising, we improve the circulation of the lymph as well as the circulation of the blood. If we are in a wheel chair, we still need to find ways to exercise either in chair aerobics or by having someone help us to move all parts of our body as much as we can.

**As we grow older, we have decreased immunization responses.** When we get a flu shot as an older person, it may not be as effective as the same flu shot would be for a younger person. But if we do not get the flu shot, the ailment may turn to pneumonia which is much harder on older people.

Some foods and nutrients make a difference to our immune system. Foods that contain Vitamin B<sub>6</sub> are very important to the body. Vitamin B<sub>6</sub>, also called pyridoxine, is involved in the way the body uses protein foods and some what sugars and fats as they are metabolized. The good sources of Vitamin B<sub>6</sub> are meats and liver, whole grains like fortified oatmeal cereal, whole wheat bread, vegetables like spinach or baked potatoes, and fruits. The Recommended Dietary Allowance for Vitamin B<sub>6</sub> is 1.6-2 mg per day. Many people get less than they need from foods they eat. Be sure not to take overdoses, because large amounts more than 1 gram a day can lead to vitamin toxicity than can cause nerve damage.

**Need for Zinc:** Recommendation Dietary Allowance for zinc is 12-15 mg a day for this nutrient is needed in very small amounts. Fortunately, zinc is stored in many sites in the body. It's important for healing of wounds, maintaining senses of taste and smell and to prevent poor absorption of nutrients during digestion. There is some research that suggests that zinc reduces cholesterol in the blood.

**Zinc is widely distributed** in seafood, oysters, liver, milk, cheese, eggs and whole grains.

Under the guidance of women elders from Warm Springs, Oregon State University has tested for the zinc in traditional roots, dried cough, dried wild carrot or sawik are good sources of zinc. Barbecued kooonts is especially high in zinc.

**Oxidative damage** comes about when our cells are exposed to oxygen and suffer structural and functional damage. Beta Carotene, Vitamins E and C help prevent oxidation that causes these changes in cells.

**Vitamin E** helps protect cell membranes. We get Vitamin E in vegetable oils, nuts and seeds. In general older people require more Vitamin E.

**Vitamin C** protects molecules in our cells and body fluids from oxidative damage. We eat good supplies of Vitamin C in tomatoes, strawberries, oranges, grapefruit, lemons and limes, broccoli and cauliflower and potatoes. To prevent foods from darkening as we prepare them for canning or salads we use Vitamin C such as mixtures like Fruit Freeze or ascorbic acid tablets crushed and dissolved in water.

**Beta carotene** is the vegetable "precursor" of Vitamin A which changes into the active form of Vitamin A in the intestines. About two-thirds of the Vitamin A that is used in human nutrition comes from vegetables and fruits, such as yellow vegetables like squash, carrots, sweet potatoes, cantaloupe and papaya. The ability of the eye to adapt to light and dark is dependent on activities of beta carotene.

Beta carotene converted to Vitamin A affects the outer cells of the body, keeping them soft and performing their tasks in the skin, the eyes, the respiratory tract, the digestive tract, the urinary tract and the maintenance of good teeth and gums in later years.

Professor Georgiou told me today to stress how important it is for older people to eat those foods like carrots that reduce the oxidative damage in the body and to the foods.

NERVOUS/COGNITIVE SYSTEM

## New test kit available, weight guidelines to change in near future

**Cholesterol Test**

The May issue of the *Harvard Heart Letter* has a lengthy article about the new home medical testing devices. Those using diabetic testing kits are well aware of the advantage of the home kit vs the doctor's visit for the blood tests. Well another home testing kit, for cholesterol, was approved in the USA last year and should be in the drugstores during this summer.

**Weight Guidelines**

The Harvard Heart Letter also reminded us that the U.S. weight guidelines are expected to be revised downward to a more restrictive standard in the near future. At the moment, weight guidelines are still based on the 1959 Metropolitan Life Insurance Guidelines. So if

you are 5'5" woman you should weight between 116 and 130 pounds. Ouch! and a 5'10" man should weight between 146 and 160 pounds. Ouch!

The good news is that even if we reduce 5-10% of that weight, the loss could provide significant benefits, such as a decrease in blood pressure and cholesterol levels and therefore a reduction in the risk of heart attack.

## Protect yourself from the sun

maintain the proper balance in a older person's diet to supply energy, to store energy and to build other complex carbohydrates like DNA and substances that detoxify the body.

Implications of nutrients intake for older people were briefly mentioned during the April training session at Oregon State University. Professor Georgiou stressed the roles of Zinc and Vitamins B<sub>6</sub> and B<sub>12</sub> and folate as they relate to the Nervous/Cognitive System. We have already looked at Vitamin B<sub>6</sub>, but have yet to look at Vitamin B<sub>12</sub> and Folate.

**Vitamin B<sub>12</sub> and Folate (or folic acid)** are important in maintaining an alert mind, and preventing mental depression. Meats, dairy products and eggs are rich sources of Vitamin B<sub>12</sub>. This vitamin requires an "intrinsic factor" which we produce in our stomachs, for its absorption. If not enough of this "factor" is present, supplements are administered by injection.

**Folate (or folic acid or Vitamin B<sub>9</sub>)** is associated anemia here on the reservation.

While you hear a lot about Folic acid when there is a pregnancy in the family it also is a problem with some elderly. Anemia is also evident when poor diets are eaten. When elderly eat well balanced meals the food will provide the folic acid along with the other Vitamin B complex in adequate amounts for older people. Foliates are found in raw fruits and vegetables, especially green leafy vegetables.

While the majority of the information in this article comes from the outline and presentation by Professor Georgiou and suggestions she made, some I have gleaned local nutritionists and from the *Nutrition and Diet Therapy* 5th edition text by Sue Rodwell Williams to fit the needs of elders of Warm Springs.

Next week we will continue this series AS WE GROW OLDER, with information about changes the Cardiovascular system and how nutrition is related to older people.

## Tips on care and selection of a good cow horse

By Bob Pawelek

In the beef industry, the role of the cow horse is one built on tradition. This important role is still obvious today, easily recognized by the large numbers of ranch horse sales, cattle rides here on the Warm Springs Reservation and throughout the eastern side of the Cascades, and of course, rodeos.

A good cow horse has to be ready to use on a moment's notice, and the beef industry requires a well-broke horse that is sound, able to handle the work, easy to maintain and free of problems that prevent the horse from being used. To effectively keep and use horses on any cattle operation, there are some important management areas that must be given attention.

Horses must be 1) fed correctly, 2) conditioned to handle the work load, 3) sound and properly shod or trimmed (preferably shod for work on the biscuit-scab lands) and 4) on a good herd health program, as outlined recently in this column.

Working cow horses will require between

25 percent and 100 percent more energy than a non-working horse. These energy requirements can usually be met by providing grazing or hay, along with a concentrate feed. The amount of daily feed depends on the size of the horse, the amount of work being done and the energy in the feed.

Total daily intake of forage and grain combined will usually range from 1.5 percent to 2.5 percent of the horse's body weight (15 to 25 pounds for a 1,000-pound horse). At least 7.5 pounds of this daily feed should be grazing or top-quality hay. When the daily grain intake is over 0.5 percent of body weight (5 pounds for a 1,000-pound horse), horses should be fed in two separate feedings about 12 hours apart.

Cow horse feeds should normally contain between 10 percent and 14 percent crude protein, and urea SHOULD NOT be used as a nitrogen source. Horses apparently can tolerate urea at about the same levels as cattle, but urea serves very little benefit for horses and is best left out of the diet. Although some cattle feeds can be fed safely to horses, be careful and avoid such feeds as Rumensin or Bovatec.

When a particular horse is in very thin condition or when a horse is working extremely hard, the use of fat-supplemented diets might prove beneficial. Adding up to 10 percent added fat makes the diet more energy dense and provides a good fuel source. However, remember, whenever one makes additions to diets, such additions should be gradual. Horses need a few weeks to adjust to supplemental fat as a source of energy.

Body condition and fitness are important. Cow horses that are thin will give out more quickly than those in moderate condition. And, horses carrying excessive body fat may have a harder time regulating body temperature. The best conditioning program is one that gets the horse in moderate condition and allows plenty of time and exercise for fitness prior to actual

work.

Exercise should be similar to the kind of work a cow horse does, and increasing workloads should happen gradually. Bone will rework itself in response to exercise, but little skeletal strength will be achieved by a horse that receives exercise only while grazing or walking around in a corral. On days when horses are not worked, free exercise can help decrease the chances of azoturia or "Monday morning sickness," as I have heard it described.

Cow horses are often ridden on a variety of terrains, especially here at Warm Springs, and special attention should be given to hoof care. Horses that are shod usually should be reset every four to eight weeks and a knowledgeable farrier can help keep the horse's feet in shape for the work being done. Owners should keep in mind that it often takes two or more shoeings to regain a uniform, balanced hoof after a horse has been turned out without shoes for a period of time. Moisture balance is also important to prevent a dry, cracked hoof or an excessively wet, thrushy-type hoof. Pick up the feet regularly to catch any hoof changes before a problem occurs.

The teeth of a cow horse are important because they obviously impact how well a horse eats and wears a bit. Horses that hold their heads sideways while eating or that slobber large amounts of feed may need to have their teeth floated. And some horses will have wolf teeth located just in front of the molars that interfere with bit placement and affect the horse's response to rein pressure while being ridden.

A healthy cow horse that is being fed well, is in adequate body flesh and has been conditioned for the level of work required, will be an asset to the cattle operation. These horses will be more enjoyable to ride and more effective in serving their purpose in the cattle industry.

Dec. 21, 1993

## Stockman's roundup: Livestock agents meet

findings by university researchers. Some ongoing work has excellent potential for use by the stockman.

**Gene Transfer**

Nuclear transplantation—a high fallutin term that means a gene from one animal can be transferred to another. It has implications for curing diseases like pinkeye, increasing wool production in sheep, enhancing meat tenderness, and even increasing populations of endangered species.

Some of the earlier nuclear transplantation work was done by transferring multiple nuclei of a goat into the unfertilized egg of a ewe. The result was not a sheep-goat cross, but an animal with clearly discernable characteristics of both animals. For instance, the animal had patches of both wool and mohair. It had the head of a sheep but the horns of a ram.

**Immunocastration**

Dr. Tom Adams of UC Davis, in an effort to address animal welfare, reported findings of replacing physical castration of bull calves with a vaccine.

The result of the new Anti-GnRH (gonadotropin releasing hormone) vaccine alleviates the pain and subsequent stress experienced by traditional castration. It interrupts testicular function painlessly, while allowing the calf to put on pounds of beef

without the downward spiral in feed efficiency.

The vaccine is given at 3 months of age. It is not yet on the market, however, as much more work must be done before it can be approved by the FDA. It's my opinion that this new vaccine will be a benefit to stocker calf producers and to feedlot managers, as peripheral results suggest that vaccinated calves fight less among each other, again increasing feed efficiency.

**BVD Virus**

Much progress has been made in understanding Bovine Viral Diarrhea. It continues to be one of the most complex infectious diseases that ranchers and veterinarians face. Some problems ranchers face when finding weak calves or "dummy calves" might be attributed to this virus. A program of complete herd vaccination at a minimum of twice per year is now being recommended for heifers and mother cows.

**The Grazing Manager**

The Grazing Manager is a new software from Texas A&M University which helps the stockman make decisions about grazing rotation. It's a common sense approach to designing a grazing plan, assisting the rancher to make full use of the range while sustaining rangeland health.



by Bob Pawelek  
OSU Livestock Agent

Exciting new research is being conducted in livestock management and health. Some thirty Livestock Extension Agents from Oregon, California, Nevada and Idaho met at UC Davis earlier this month to review