

Drought serious obstacle of successful livestock management

Drought is a serious obstacle to successful range livestock management. Producers must understand how drought affects plants, grazing animals, livestock management and what options exist.

*Forage production is decreased dramatically. But, reductions are less on ranges in good and excellent ecological condition.

*Ability of perennial plants to recover after drought is closely related to their vigor before the drought and during the drought. Excessive grazing (more than 60 percent of current year's growth) decreases some plants' ability to recover. Moderate use (25 to 55 percent) does not seem to affect the recovery rate.

*Livestock numbers must be reduced according to forage supply. Yearlings should be marketed early while calves should be weaned early and fed at home, at another feedlot or

sold. Cull low-producing cows.

*Retaining a rotational grazing system during drought is recommended over continuous grazing. Periodic tests help plants maintain vigor. Plants are not able to regrow if grazed repeatedly.

*Concentrating more animals into a single herd is recommended over having several smaller herds. By having more animals in a pasture, the entire pasture will be grazed more uniformly, and more use will be made of the less-preferred plants.

*Supplement low-quality feed. Feed supplements can often be used to correct low forage quality. However, feed supplements are usually not an economical substitute for range forage.

*Try not to buy, or put up, weed-infested hay. The future cost of feeding weed-infested hay far outweighs its feed value in the short-run. If weedy hay must be fed — feed in an

area or holding pasture that is removed from streams, riparian and wooded areas. Be sure to keep your stock confined for several days after feeding the hay to prevent them from spreading viable seed through their digestive tract. Observe holding pastures and feeding areas closely and treat infestations.

*Try to take advantage of areas dominated with annual species. They should be grazed early in the season when their nutrient value is high and to allow grazing deferment on the higher condition range dominated with perennial plants.

*Graze crested wheatgrass early and longer than normal. It is one of our plants that is most tolerant of grazing.

*Keep cattle on subirrigated sites longer than usual. Fertilizer could be used to increase forage production on many of these sites. However,

fertilizer is a cash cost and soils should be tested before fertilizer is applied.

*If irrigation water is less than usual, concentrate it on your best-produced hay meadows and graze the remainder.

*Keep accurate cost data during normal years. Management decisions are easier to make if production costs during a drought year can be compared to the normal situation.

*It is essential to maintain adequate water for the livestock. Dry cows use less water than lactating cows and will graze farther from water. In some areas it may be possible to develop a spring or seep (a flow of 1/2 gallon per minute amounts to 720 gallons per day). The possibility of installing a larger storage tank and piping water to troughs should be considered. It may be necessary to install high pressure plastic pipe to carry water from a central source. Although expensive initially, pipelines will prove useful for a number of years. Hauling stock water is expensive. However, it may be a viable strategy in some situations.

*Do not restock until you are certain that your range has recovered.



Information provided by:
Warm Springs OSU
Extension Office
1131 Paiute Street
553-3238

4-H Calendar and Fair Dates

July 23-26 — Jefferson County Fair. Theme is, "Harvest & Heritage"
July 29 - Aug. 2 — Deschutes County Fair, theme is "Blue Jeans & Country Scenes"
August 9-14 — 4-H Wilderness Enrichment Camp at Trout Lake
August 12-16 — Crook County Fair, theme is "A Country Gathering"
August 20-23 — Wasco County Fair, theme is "Celebration Along the Barlow Road"
August 27-Sept. 7 — Oregon State Fair, theme is "We're Talkin' BIG"

Pinkeye may be transferred by several methods

Pinkeye is the common term for a condition described by veterinary pathology as Infectious Bovine Keratoconjunctivitis (IBK). This terminology describes a disease condition of cattle which is infectious in nature and causes an inflammation of the transparent cornea the sclera ("white") of the eyeball and the conjunctiva (inside lining membrane) of the lids.

A bacteria *Moraxella bovis* is the infectious agent usually involved. It may be transferred from cow to cow by several methods, especially by flies and specifically the face fly. The organism *M. bovis* may be carried by the face fly and remain viable for up to 3 days but it only survives for a few hours on the house fly. Some animals remain as inapparent carriers after they overcome the clinical signs of infection and later serve as a source of infection for a herd outbreak. Some immunity against *M. bovis* usually develops in an animal recovering from pinkeye but it is rather weak, of short duration, and apparently doesn't protect against other strains of *M. bovis*. Cows usually have more resistance to infection than calves.

Other disease conditions which must be differentiated from pinkeye include "red nose" (IBR Infectious Bovine Rhinotracheitis) and foreign bodies such as awns from June grass, or foxtail. The affected eyes will not heal until these foreign bodies are removed.

Blowing dust and ultraviolet radiation from sunlight may cause enough irritation to initiate pinkeye in a herd and if combined with a face

fly infestation can result in an explosive herd outbreak.

The clinical signs of infection include wetness of the face due to excess "tearing" from the affected eye, squinting of the eyelids, reddening of the conjunctiva and the occurrence of an ulceration on the transparent cornea which results in a discoloration or loss of transparency of the cornea. Blood vessels may also become evident within the cornea. The specific signs evident depend on the stage to which the disease has progressed.

Research is continuing, in an attempt to develop a vaccine that would protect cattle from IBK. Some attempts have been partially successful but no commercial vaccines are currently available. The various strains for *M. bovis* presents problems which must be overcome.

Preventive efforts should generally be directed toward controlling dust and flies. Corals or fields may be wet down to reduce dust or shelter provided. Approved pesticides can be used in dustbags or backrubbers for self-application by the animals. These devices work best if placed so the cattle are forced to use them daily. Pesticides can also be used as a "feed through" larvicide. It passes through the animal without being absorbed and exerts its effect, after it passes out in the manure, against the larvae which develop from eggs laid in the fresh manure. Ear tags, containing an insecticide, are also available to aid in fly control.

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against the bacteria involved. Ear tags, containing an insecticide, are also available to aid in fly control.

The goals of treatment are to protect the eye and provide a localized antibacterial which can act against the bacteria involved. Eye protection could be achieved by bandaging, but is very difficult, so other methods are used. Applying a patch over the eye with adhesive to stick it to the hair works well and a piece of denim applied with rubber cement is usually adequate. The eyelids can be closed by suturing, or the third eyelid (nitratating membrane) can be pulled across the eye and sutured in position. Each of these methods protects the eye from sunlight, dust, and flies, and prevents their interference with the healing process.

The challenge in using antibacterial products is to get one to remain in the eye for a sufficient period of time. The tearing process will wash any free medication out of the eye in a matter of hours so if the eye is just treated topically the medication should be repeated at least every 12 hours and preferably more often in order to be most effective.

A subconjunctival injection is a good method for providing an extended period for medication from each treatment. The animal's head is well restrained, the upper eyelid is rolled back and approximately 1 ml. of an antibiotic or antibiotic and cortisone mixture is injected with a syringe and needle. The needle is directed under the most superficial layers of membrane covering the white of the eyeball (sclera) or the inside of the upper eyelid. The medication is gradually absorbed from this site over the next 2-3 days and provides a constant source of medication. One treatment is often sufficient but can be repeated if necessary.

The eye of the bovine species has great healing power and can repair much damage that may occur to it. When the excess tearing has stopped it usually indicates the repair process is well underway. Further treatment is generally not required but a long period of time may be needed for the body to repair previous damage and replace scar tissue.

Take caution when dealing with pest control

The familiar cry, "carpenter ants are eating my house!" is a misnomer, says Jack DeAngelis, Oregon State University (OSU) Extension entomologist.

"Carpenter ants don't eat wood," he says. "They only nest in it." The large black or red ants survive mainly on aphid honeydew, a sticky, sweet liquid secreted by aphids, living on plants near an ant nest. The ants may often "tend" the tiny plant-sucking aphids, much like shepherds tend their flocks.

Carpenter ants may enter a house via the telephone, television or electrical cables, especially if they pass

near trees that harbor aphids. "This is a good reason not to plant shrubs right next to your house," he advises.

To make their nests, carpenter ants scrape out sound, dry wood, wall voids, tree stumps, attic insulation or anything else that can be made into a cavity. They can wreak havoc on a house, causing thousands of dollars of damage.

If homeowners see small sawdust piles or trails of large ants leading into a dwelling, perhaps through a crack or under siding, or hear scraping sounds of worker ants as they enlarge the nest inside a wall, they can be pretty sure they have a carpenter ant infestation.

DeAngelis recommends that carpenter ant control be best left to competent pest control operators, sometimes called "exterminators".

"They have access to products that home owners don't and they have the experience necessary to locate nests."

DeAngelis offers some advice when dealing with a pest control operator:

* Contact as many companies as possible and interview them. If

that's probably not good if you live in an older metropolitan neighborhood near a busy artery," said Hart.

Emissions from leaded automobile fuels, now being phased out, are Oregon's major source of lead pollution in residential areas, according to Hart. Use of unleaded fuels has reduced the danger of lead accumulation in soils in new neighborhoods near busy streets. Chips from leaded paint also could elevate lead levels in soil near a house, he noted.

"The finding in a small sampling of lead soil tests from urban areas in Oregon range from 44 to 390 ppm (parts per million)," said Hart. Samples in one study of agricultural

soils averaged 11 ppm.

A quick sampling of private soil testing laboratories in Oregon shows they charge homeowners from \$25 to \$50 to test the soil for lead, the OSU Extension specialist added.

Hart said homeowners with small children who find soil levels exceeding 200 ppm should consider installing a barrier of some sort, such as putting mulch or a few inches of uncontaminated soil over the contaminated soil.

In June, Oregon's Department of Environmental Quality plans to release proposed guidelines for lead levels in residential and industrial sites, said Hart.

Flea control program recommended for pet owners

Fleas have been the bane of every dog and cat owner at one time or another. Adult fleas are external parasites of warm blooded animals. They will just as happily bite aunt Mary's ankle as Rover's backside. Adult fleas must obtain a blood meal to develop completely - just like mosquitoes. Their bite often results in swelling and prolonged itching.

Notice that in the description above I referred to adult fleas as the biters. Immature or larval fleas look like small white worms. They don't bite but instead feed on hair, shed skin, dried blood, etc. in the animal's bedding or your carpet.

Here's the flea control program I recommend; all steps are important, if you skip any, fleas will be a recurring problem. This is pretty much an "all weekend project."

(1) Vacuum rugs, drapes and furniture "thoroughly" using a vacuum cleaner in good working order and a fresh dustbag - pay particular attention to areas where pets sleep. Discard the dustbag outside because it contains fleas, flea larvae and eggs that may re-infest the house. This is probably the most important step. You might easily spend all day doing a thorough job here.

(2) Treat rugs, drapes and furniture and (and any outdoor sleeping areas like a dog house) with one of several flea sprays that contain Methoprene or fenoxycarb as one of the active ingredients, according to label instructions. The spray may contain other insecticides like Dursban, but it "must" contain methoprene or fenoxycarb to be maximally effective. Both compounds are insect growth regulators that act by disrupting larval development - non-biting larvae never develop into adults and eventually die. Both are virtually non-toxic to humans and pets and are long-lasting, up to seven months by some reports. The downside is that they are slow acting, so often the spray products contain other faster acting materials. One of the common names for methoprene is Precor - but there are others. A line of products that contain fenoxycarb is called TechAmerica - ask your vet for details.

(3) Dip or shampoo your pet with a good quality flea shampoo at the same time as steps 1 and 2, then again in a few weeks when you notice fleas on the pet's coat.

Flea collars do pretty well at keeping "ticks" off the front half of

dogs; however, they don't have much value against fleas - especially if the home is infested. Use them only as the last line of defense. Incidentally, ticks on dogs, not cats, can be controlled with dusts containing carbaryl insecticide.

Aerosol foggers or bombs have become a popular way for homeowners to dispense insecticides. The idea is (at least if you believe the advertisers) that the aerosol somehow penetrates into cracks and crevices that you couldn't reach by other means. In fact, bombs do a poor job of coverage because they essentially throw the insecticide into the air, and where it settles, on exposed surfaces, is all that's treated. Liquid formulations, carefully applied with some type of pressure applicator, will achieve much better coverage and might even be less expensive.

A note of safety: While the approach outlined above is relatively safe, be sure to follow product instructions. Also, fleas left untreated can be a health threat to you and your pet. Dogs and cats both have died from the irritation and infection of flea bites. Fleas also transmit some pretty deadly diseases.

Lastly, some of you may have encountered a group of products available through vet clinics that are applied as a few drops between the dog's shoulder blades (one trade name is ProSpot). These are actually systemic insecticides that circulate in the dog's blood stream and poison biting fleas. While I'm sure that this drastic of a measure is warranted in some instances, it must surely be hard on the dog. I recommend you approach flea control as outlined above and leave this method as only a last resort. Remember, these products won't stop fleas from biting you, and you can't use them on cats.

Be sure to read and follow the pesticide product label. The label is the final word on what does or does not constitute a legal and safe application.

Salmon macaroni salad

8 Ounces elbow macaroni
1 small onion, finely chopped
1/4 cup chopped parsley
1 cucumber, sliced
1 pint canned salmon, drained and flaked
salt and pepper to taste
1/2 tsp. dry mustard
1/2 cup mayonnaise or yogurt

Cook macaroni according to package directions. Drain and rinse with cold water. Combine macaroni with remaining ingredients except salad greens. Line large salad bowl with crisp salad leaves and empty salad into center. Serves 6.

Patio salmon potato salad

1 pint canned salmon
1 lb. can small potatoes drained and diced
1/4 cup minced green onions
1/4 cup chopped dill pickle
1/2 cup chopped cucumber
1/2 cup chopped celery
1 Tbsp. minced parsley
1/2 cup mayonnaise

1 tsp. lemon juice
salt and pepper to taste
Drain salmon, reserving liquid. Flake salmon and mix with potatoes, onions, pickle, cucumber, celery, and parsley. In a small bowl combine mayonnaise, lemon juice, reserve salmon liquid, pepper and salt to taste. Pour over salmon mixture and mix well. Serves 4.

Intense heat makes watering critical

This summer's early record-breaking heat is creating challenges for the home vegetable gardener. Many Oregon gardeners, accustomed to cooler, wetter springs, have just recently planted tomatoes, beans, corn, cucumbers and summer squash. These young plants are especially susceptible to devastation from hot dry conditions, according to Ray McNeilan, Oregon State University (OSU) Extension home gardening agent.

"A healthy plant is 75 to 90 percent water, which is used for the plant's vital functions, including photosynthesis, support and transportation of nutrients and sugars to various parts of the plant," says McNeilan.

If plants get hot and dry enough to wilt for several days, they will probably suffer irreparable damage.

McNeilan recommends that vegetables be watered an average of about one inch of water a week until September. During hot, dry spells, they can use up to two inches per week.

"It is critical to water corn, tomatoes, cucumbers and summer squash when they are in the first few weeks of development or after transplanting, or during development of flowers

and fruits," says McNeilan.

The OSU Extension Service Master Gardener Program recommends some summer watering strategies:

* Apply water at about one-half inch per hour to avoid run-off, unless the soil has exceptionally good drainage. Test your rate of sprinkler application by placing small cans around and checking the water level in the cans after 15 minutes.

* Water in the morning to avoid wet leaves in the evening to prevent foliar diseases.

* Place oscillating sprinklers above crop level to avoid water being blocked by plants.

* Place drip hoses right along side the row to be watered, because water does not move well laterally throughout the soil.

* Less frequent, deep watering is better than shallow, infrequent watering. Soak the soil to a depth of five to six inches. Dig into the soil to see how deep into the soil profile you have been watering. Depending on your soil type, this requires about two-thirds gallon for each square foot or about 65 to 130 gallons per 100 square feet.

Meat & Poultry Hotline available 24 hours a day

Callers to the U.S. Department of Agriculture's Meat and Poultry Hotline can now receive food safety information 24 hours a day thanks to the Hotline's new automated information system.

Installed this February, the system allows callers to select from an extensive list of pre-recorded food safety messages. As always, Hotline home economists and registered dietitians will be available during business hours (10 a.m. to 4 p.m. weekdays) to personally answer questions and to speak to callers who do not have touch-tone phones.

The new system should allow more callers to reach the Hotline. Last year 40 percent of the Hotline's some 95,000 calls were received after business hours. Additional phone lines have been added to accommodate more callers.

How will the new system work? Let's say you just discovered some food buried in the back of your freezer and want to know if it is still safe. A call to the Hotline would introduce you to the Food Safety Information System and ask you to select from two lists of four topics each.

Since you want information about

frozen foods you would choose the Safe Storage message, which gives information about refrigerated, frozen and shelf-stable food. At the end of this message, if you wish, you may choose another topic or, if it is during business hours, you may speak to a home economist.

To make the Hotline's information system as "user friendly" as possible, a consumer may press "0" at any point during business hours to speak to a home economist. "The new system will enable us to serve many more consumers, and will give

Enrichment camp set for August 12

It is time to sign up for the 4-H Wilderness Enrichment Camp to be held at Trout Lake, Sunday, August 9 to Wednesday, August 12, 1992. Anyone who has completed the third, fourth, or fifth grades can sign up, and must sign up before July 31, 1992 at 5:00 p.m.

For more information call 553-3238 or pick up registration forms at the Extension Office.

Conserve water in the kitchen

Water is often wasted in the kitchen, but water shouldn't be conserved at the expense of cleanliness, cautions Carolyn Raab, Oregon State University Extension foods and nutrition specialist. It's important to wash your hands before beginning food preparation. Wash hands, cutting boards and utensils after handling raw meat, poultry, seafood and eggs.

You can conserve water in the kitchen by keeping these tips in mind, says Norma Simpson, Oregon State University Extension agent in Warm Springs.

* If it takes awhile for tap

water to warm up (or cool down), fill tea kettles, quart jars, or other containers while you wait. Then recycle that water for food preparation, house cleaning, or plant watering.

* Save 25 gallons of water by turning off the tap when you wash dishes. According to the American Waterworks Association, only 5 gallons of water will be needed if dishes are washed and rinsed in pans in the sink rather than under running water.

* Wash raw fruits and vegetables in a pan of water rather than under running water. Then use the water to rinse dirty dishes before washing them.