

# HIGH DESERT RANCH & FAMILY

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Winter 2008

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## A NOTE FROM THE NEW AGENT

When I accepted the position as the Rangeland and Livestock Extension Agent in Harney County many references were made by family members and some of my closest friends (I use the phrase loosely) to Mr. Kimball, usually followed by a prideful expression of satisfaction including uncontrollable laughter and knee-slapping that one only experiences when ribbing a “good” friend or sibling. You know...Hank Kimball as the.. the.. no, that's his cousin... he's the.. oh yes.. the Hooterville County Agent. I enjoy classic TV and a good episode of *Green Acres* just as much as the next guy, especially when compared to contemporary programming. However, Mr. Kimball is a little less than desirable role model to aspire to as a county extension agent and I can assure you that it is the furthest thing from what I have in mind. At least...I mean...oh yes...as to why I'm here... what was your question?!? On a serious note, I'm looking forward to the opportunities and challenges of my new position and hope to work with you in the near future. Don't hesitate to contact me with any questions or concerns you may have, or stop by the office and introduce yourself.

Dustin Johnson

Harney County Rangeland/Livestock Extension Agent



From the Staff at the Harney County Extension Office.

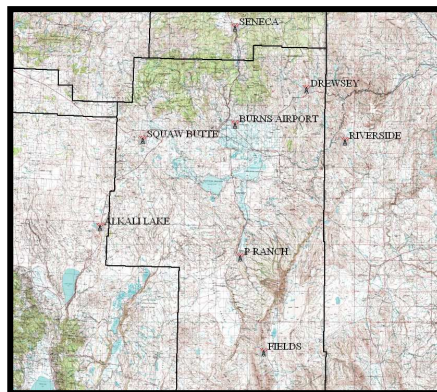
Dustin, Shana, Georgia & Crystal



# 2007 WATER YEAR STATS

As most of you know, the 2007 water year came to a close September 30. Thus, starts a new water year, and hopefully one with an adequate amount of perfectly timed moisture and few wild-fires. It's always the hope but seldom what actually happens. Considering this, I think it may be useful to revisit the 2007 water year and analyze some of the effects the current drought is having on agricultural industries in Harney County. Weather data (Table 1) from stations (Fig. 1) located throughout the County and neighboring counties indicate most areas experienced variably droughty conditions during 2007. Precipitation falling over Harney County averaged 67% of normal. To give this some perspective, the 2007 water year was between the second and eleventh driest on record, depending on the location of the weather station and its corresponding period of record.

Fig. 1. Location of weather stations



The important statistic, however, is mountain snow pack during the 2006-2007 winter was  $\leq 49\%$  of normal in Harney County. Snowmelt also occurred about four weeks earlier than normal. These factors combined to yield insufficient and poorly timed runoff creating a shortfall of flood irrigation water for meadow hay production. Meadow hay production was 0 to 80% of "normal" during 2007, depending on the amount and timing of irrigation water and whether or not it was harvested as hay or grazed. If we assume meadow hay production averaged 50% of the 2006 total (NASS 2006), 61,500 fewer tons were harvested in 2007. Market value of meadow grass hay increased approximately 33% over last year from \$87.50 to \$130.00/ton (USDA 2007), thus a 50% reduction in yield equates to a loss of nearly 8 million dollars in market value. However, costs to replace hay resulting from a lower production year have more relevancy than loss of market value. Unfortunately, attempts to estimate replacement costs become convoluted because of variable availability and costs of alfalfa hay and alternative feeds. Demand is high for all forages throughout the region and most prices (Table 2.) have followed suite with an average increase of 30% over last year.

Table 1. 2007 water year data for Harney Co.

<u>Weather Station</u>	<u>Normal (inches)</u>	<u>2007 (inches)</u>	<u>2007% of Normal</u>
Burns			
Airport	10.5	8.7	83%
Burns			
Junction	8.6	6.5	76%
Drewsey	10.5	6.7	64%
Riverside	9.7	4.7	49%
Seneca	12.7	8.4	67%
Alkali Lake	8.1	5.7	70%
P Ranch	11.0	8.5	77%
Squaw Butte	<u>11.1</u>	<u>5.7</u>	<u>51%</u>
<b>Average</b>	<b>10.3</b>	<b>6.9</b>	<b>67%</b>

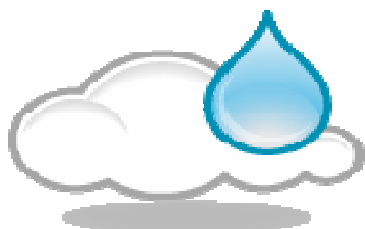


Table 2. Hay prices gathered by USDA in late August, 2007

<b>Horse-quality alfalfa hay:</b>		<b>Price/ton</b>
Idaho		\$120-160
Oregon		\$135-165
Washington (Columbia Basin)		\$145-170
<b>Premium-quality alfalfa hay:</b>		<b>Price/ton</b>
Idaho		\$130-150
Nevada (northern)		\$140
Oregon (Crook County)		\$150-160
Oregon (Lake County)		\$150
Washington (Columbia Basin)		\$150
<b>Good-quality alfalfa hay:</b>		<b>Price/ton</b>
Idaho		\$120-147
Nevada (northern)		\$120-135
Oregon (Lake County)		\$135-140
Washington (Columbia Basin)		\$130
<b>Fair-quality alfalfa hay:</b>		<b>Price/ton</b>
Idaho		\$100-120
Nevada (northern)		\$110-135
Oregon (eastern)		\$115
Washington (Columbia Basin)		\$125
<b>Orchard Grass hay</b>		<b>Price/ton</b>
Oregon (premium)		\$175-190
<b>Timothy hay:</b>		<b>Price/ton</b>
Washington (Columbia Basin)		\$150-190
<b>Straw:</b>		<b>Price/ton</b>
Washington (Columbia Basin)		\$60-65

Dustin Johnson, Harney County Range/Livestock Extension Agent

# INEXPENSIVE WAYS TO WINTER YOUR COWS



In a recent Cattle-Fax® survey of 550 producers in 39 states, the annual cost to carry a cow averaged \$366. When cow cost was compared by region, we had the highest. The annual costs by region were Southwest - \$380, Southeast - \$328, Southern Plains - \$359, Midwest - \$366, and Northwest - \$399. The primary reason for our greater costs is the 1.5 to 3.0 tons of hay normally fed to mature cows during the winter feeding period. Feed costs accounted for 62% of the total annual cow cost. This number will be greater for 2007 given the value of meadow hay and alfalfa this year. This is a major disadvantage compared with other areas of the country. Consequently, our ability to compete with other regions of the United States may depend on how effectively we can reduce winter-feed costs while maintaining acceptable levels of performance. In this article I will summarize some management alternatives that can reduce winter-feed costs.

## *Rake-Bunch Hay*

Rake-bunching is a system in which hay is cut and then raked into small piles (80 to 120 pounds), and left in the field. The forage is then strip-grazed using New Zealand type electric fences throughout the winter. The Eastern Oregon Agricultural Research Center conducted approximately 10 years of research evaluating rake-bunch as an alternative to feeding traditional baled hay during the winter. On average, cows wintered on rake-bunch came out of the winter in as good a body condition as traditional hay fed cows and did not require supplements or additional hay. In addition, cow winter feed cost associated with rake-bunching was \$30 to \$40 less than if baled hay was fed.

## *Winter Grazing*

To effectively use winter grazing a producer must “stockpile”, or defer grazing of irrigated pasture and/or native range to the fall/winter. Because the forage will be dormant and low-quality, some form of supplementation will most likely be necessary to maintain acceptable performance of late-gestation cows. In addition, there are other drawbacks of winter grazing. These include maintaining adequate access to cows and pastures to allow for supplementation, maintaining water availability throughout the winter (even though cows can use snow effectively), and keeping a supply of harvested

forage nearby for severe weather events. During mild to average winters, winter grazing can decrease annual winter feed costs by \$20 to \$30 per cow. Nevertheless, the economic benefit to winter grazing is lost during severe or “hard” winters.

## *Grass Seed Straw*

Grass seed straw is a byproduct of Oregon’s grass seed industry. In general, grass seed straw is slightly lower in nutritional quality, on a crude protein basis, than most meadow hays and superior to most cereal grain straws. When used as the major component of the diet, grass seed straw usually does not have the digestible protein and/or energy to support optimal performance in late-gestation beef cows. Therefore, as with winter grazing, grass seed straw will normally require some form of supplementation. Also, a few varieties of some particular species of grass seed straw (primarily tall fescue and perennial ryegrass) can contain alkaloids, which can cause animal health and/or neurological concerns if the alkaloids are present in high concentrations. Consequently, the first step in feeding potentially high-alkaloid grass seed straw is to have it tested for alkaloids (contact your local extension agent for information on testing grass seed straw for alkaloids). Table 1 lists the estimated maximum acceptable levels of alkaloids (ergovaline and lolitrem B) in the diet of cattle and sheep. These values can be used to minimize the chance of causing clinical symptoms of fescue toxicosis and perennial ryegrass staggers when feeding alkaloid containing grass seed straw. As a result, grass seed straw should be tested for forage quality, and potentially alkaloids, by a certified lab prior to purchase and/or use as a forage source for ruminants. Depending on purchase price and delivery cost, use of grass seed straw in place of meadow hay can decrease winter feed costs from \$5 to \$45 per cow.

Table 1. Estimated alkaloid maximum acceptable levels (parts per billion; ppb) for ergovaline and lolitrem B in cattle and sheep

<i>Species</i>	<b>*Ergovaline (ppb)</b>	<b>Lolitrem B (ppb)</b>
Cattle	400-750	1800-2000
Sheep	500-800	1800-2000

\*Level is environmentally dependent and decreases in colder weather.

*Limit feeding*

If forage and hay prices are high due to limited availability, producers should consider limit feeding grain to cows. The basic principle is to feed corn, barley, or some other grain source and a supplement in just enough quantity to meet the cows' requirements for a targeted level of performance. Also, a small amount of forage (usually meadow hay or alfalfa) is fed in order to keep the rumen healthy. The program is referred to as limit feeding because the amount of grain fed is much less than the amount of hay or grass normally fed (1 pound of grain normally replaces 1.5 to 2.0 pounds of forage) and the cows will be hungry. However, skill and **extreme caution** is required by the herd manager because limit feeding can result in health disorders and/or death due to acidosis, bloat, and founder. Be sure and contact a ruminant nutritionist or extension agent prior to initiating a limit feeding program. However, if carried out properly during periods of limited forage availability, limit feeding can decrease winter feed costs by up to 50% compared with traditional hay feeding.

*Early Weaning*

Most cattle producers wean at approximately 7 months of age, which is usually late October or early November for spring-calving herds. Gains of both cows and calves are often poor by late August; particularly during years of poor forage quality (less than 4% CP in the diet). We have weaned calves around 140 days of age (approximately August 1) since 2000 at the Eastern Oregon Agricultural Research Center in Burns. This has routinely increased cow body condition score (BCS; 1 to 9 scale; 1 being thin and emaciated and 9 being overly obese or fat) by one full score and weight by almost 120 pounds compared with traditional weaned cows entering the winter feeding period (November 1). Consequently, the traditional weaned cows have increased winter feed costs (about \$30) compared with the early weaned cows because of the extra feed needed to get them to a comparable body condition score by calving.

*Split the cow herd into low and adequate BCS groups*

One of the most cost effective winter feeding strategies is to split the cowherd into groups based on BCS. This can be a hassle depending on resource (pasture and labor) availability; however, it is worthwhile if planned properly. It is recommended that the cowherd be split into at least two groups, one containing cows with adequate/heavy BCS (5 and above) and one containing cows with

low BCS (4 and less). By grouping cows based on BCS, a cow/calf producer can strategically provide better quality feed to the thin cows to increase their BCS and potentially decrease the quantity of feed provided to the heavy BCS cows.

Research from Texas A&M has shown cows with a BCS of 4 or less at calving and breeding will not breed back fast enough to maintain a 365-day (one calf a year) calving interval. This results in one of two scenarios – open cows at weaning and/or an extended calving season. Also, compared with thin cows, cows with a BCS of 5 or greater have improved calf health, survivability, and weaning weights. The bottom line is that thin cows cost cow/calf producers money (Table 2). A reduced pregnancy rate, resulting in fewer calves to sell at weaning, is responsible for the largest reduction in net income.

Table 2. Lost net income per thin cow (BCS 3 or 4) compared to a cow with a BCS of 5

Cow BCS	Calf price per hundredweight				
	\$80	\$90	\$100	\$110	\$120
BCS 4	52	64	76	88	100
BCS 3	100	124	148	172	196

*Summary*

The ability of the Western cow/calf producer to compete effectively with other regions of North America will depend on management strategies that emphasize profit margins and efficiency rather than weaning weights. The information provided in this article just touches on the potential alternative management strategies available to beef cow/calf producers to lower winter feed costs. Each producer must evaluate his/her ranches resources and determine what may work for that unique operation.

Many of the management strategies suggested above involve some form of supplementation and, therefore, diet formulation. I encourage you to see publication EM 8883 (Beef Cattle Nutrition Workbook) available in your county Extension office or at <http://extension.oregonstate.edu/eesc/> (click on Publications and Multimedia Catalog and then enter 8883 in the Search entire catalog box and click on Go) to assist in formulating diets and deciding on a winter feeding strategy. If you have any questions, or want some assistance in evaluating your feeding program, drop by the Eastern Oregon Agricultural Research Center or give me a call at 541-573-8910.

David W. Bohnert, Eastern Oregon Agriculture Research Center, Burns

# EPA TO CONDUCT AERIAL INSPECTIONS OF CONCENTRATED ANIMAL FEEDING OPERATIONS

The Environmental Protection Agency (EPA) will be conducting aerial inspections of winter feeding areas in eastern Oregon this winter. During its fly-over inspections, the EPA will be looking for livestock congregation areas with high potential for adversely impacting water quality as the result of winter feeding practices. According to an EPA representative, a follow-up on-the-ground visit from the EPA would occur when aerial inspections indicate animals have direct access to live surface water or when it is readily apparent that there is drainage from congregation areas to live surface water. The EPA defines a Confined Animal Feeding Operation (CAFO) (<http://cfpub.epa.gov/npdes/afo/cafofinalrule.cfm>) differently than the narrower definition employed by the Oregon Department of Agriculture ([www.oregon.gov/ODA/NRD/docs/pdf/cafo\\_gnlpmt.pdf](http://www.oregon.gov/ODA/NRD/docs/pdf/cafo_gnlpmt.pdf)). The following criteria are used by EPA to define a CAFO and describe operations that will be targeted for follow-up onsite inspections:

You have been notified by EPA or ODA that your operation has been designated as a CAFO, OR

Your Operation is  $\geq$  300 head of beef cattle,

AND

- You confine animals for at least 45 days in a 12-month period, AND
- There's no grass or other vegetation in the confinement area during the normal growing season.

Water quality concerns related to winter feeding areas include overland flow or direct deposit of “pollutants” (i.e. fecal material) into live surface water. The best way to avoid a follow-up onsite inspection by EPA is to evaluate current winter feeding practices and proactively make adjustments as needed. The following worksheet should help you determine your water quality “risk” for winter feeding areas. For each issue listed in the left column of the worksheet, read across to the right and circle the statement that best describes conditions on your ranch. Leave blank any categories that don't apply. Any issue in which you circled a “High Risk” response may indicate the need for a management change to address the water quality issue. “Moderate” and “Moderate-High” risk responses suggest the potential exists for water quality issues that may or may not need addressed with a change in management. Please contact either the Harney County Extension Service or the Soil and Water Conservation District if you have questions or are in need of technical advice.

WINTER FEEDING AREAS				
ISSUE	HIGH RISK	HIGH-MODERATE RISK	MODERATE-LOW RISK	LOW RISK
<b>Is there direct drainage to waterways?</b>	Livestock are next to or in the water, so direct drainage is likely.	Livestock are not located directly along the water, but drainage/slope from feeding areas goes directly to surface water.	Most surface runoff from feeding areas runs over/through vegetation before any potential for reaching waterways.	There is no direct discharge from feeding areas into water. Feeding areas are more than ¼ mile from surface water.
<b>What is provided as a watering source for the livestock?</b>	There is uncontrolled access to the water body. Livestock have access to full reach of surface water.	There are designed access points available for livestock to use.	Off-site water sources are available, but they are located in the riparian area close to the water body.	Off-site water tanks are available and are located far enough away from the water body to eliminate direct discharge, and they are used over 90% of the time by livestock over the water body itself.
<b>What level of use is allowed for the winter feeding area's standing vegetation?</b>	There is no limit to how much vegetation the livestock are allowed to consume during the dormant season.	Less than 15% of the growth from the previous growing season is left following dormant season use.	15 to 25% of the growth from the previous growing season is left following dormant season use.	More than 25% of the previous growing seasons growth is left as standing stubble to initiate next years spring growth and to dissipate runoff and high water flows.
<b>Where is winter feeding area located in relationship to water bodies?</b>	Supplemental feed is located less than 100 feet from the water body along with shelter.	Supplemental feed is located between 100 and 300 feet of the water body.	Supplemental feed is located greater than 300 feet from the water body.	Supplemental feed is located ¼ mile or more from the water body to encourage animals to use more of the pasture and to avoid direct discharge into the water body.

<b>Winter Feeding Areas Continued...</b>				
<b>Are winter feeding areas managed to minimize site effect?</b>	The feeding area is the same location every year and/or located within 50 feet of a water body.	Two to three feeding sites are used alternately through out the feeding season.	Feeding area is relocated every 2 to 3 weeks, but sights are used every year	The feeding area is located on a hillside, hilltop, or at least ¼ mile away from a water body and sites are moved at least weekly through out the feeding season.
<b>Where are sheltered areas located?</b>	There is one sheltered area which is located along a water body and largely consists of woody vegetation.	There are more than one sheltered areas along the water body where dense vegetation provides shelter.	Man-made shelters are provided but are located in permanent sites away from water.	Portable shelters are provided and moved at least every 2 weeks or natural shelters are available as feeding sites are rotated.
<b>How is manure concentration managed on the feeding area?</b>	Livestock are fed in small areas so manure concentration is high and no distribution is done during non-feeding season.	Livestock are not encouraged to use the whole pasture so manure tends to be concentrated in small areas near water or shelter. Harrowing of feeding site is done each spring.	Livestock are fed over a large enough area that manure concentration is distributed or manure is removed and mechanically spread or harrowed, and feeding sites are not noticeable 1 month into the growing season.	Livestock are fed over a large enough area so livestock act as the distribution mechanism with no manure build up noticeable 1 month into the growing season.
<b>What is the slope of the wintering area?</b>	Steep slope (>15%)	Fairly steep (10-15%)	Moderate slope (5-10%)	Shallow slope (<5%)
<b>What is the flooding hazard in the feeding area?</b>	Winter feeding area is in the streams normal 2-year flood plain.	Winter feeding area is in the stream 10-year flood plain.	Winter feeding area is in the stream 25-year flood plain.	Winter feeding area is not in the stream 100-year flood plain.
<b>Does surface runoff water from areas other than the feeding site has access to winter feeding and bedding areas?</b>	Upslope runoff water runs directly through the feeding and bedding areas into a water body.	Runoff water from feeding area is partially diverted away from the water body, but no diversions are used to manage feeding area run-in.	Upslope run-in water is diverted away from the winter area so feeding area runoff is managed separately.	No potential upslope run-in water passes through the feeding site.
<b>What is the location of the winter feeding area to water wells?</b>	A water well is located in or next to the winter feeding area.	A water well is located within 100 feet of the feeding area, or is down slope from the feeding area.	A water well is located between 100 and 200 feet of the feeding area.	All water wells are more than 200 feet from feeding area and are up slope.
<b>How long are the animals in the winter feeding area?</b>	> 5 months	3-5 months	1-3 months	< 1 months
<b>Is there a buffer zone between the feeding area and the water body?</b>	There is no buffer zone.	There is residual annual vegetation cover of 30 feet between feeding area and water bodies.	There is perennial vegetation and or aftermath of 30 feet or more between feeding area and water bodies.	There is a perennial vegetated buffer zone at least 50 feet wide.
<b>Does any manure distribution occur?</b>	There is no distribution of manure.	Manure is distributed by mechanically, and feeding site may be vegetated, but is still noticeable at the end of growing season.	Manure is well distributed and not noticeable at the end of the growing season.	Manure is distributed and not noticeable 1 month into the growing season.

## SUSTAINABLE WINTER FEEDING PROGRAMS...

In recent years, livestock production practices have come to the forefront of public scrutiny because of the perception of having high potential to impact neighboring communities and the general public. Environmental and health concerns associated with winter feeding areas and livestock production include the following:

- Concentration of livestock in feeding or confinement areas for extended periods may lead to localized accumulation of manure and excessive nutrients. This can result in the potential for nutrients and micro-organisms (bacteria and parasites) to run off into adjacent surface waters.
- Manure can contain bacteria such as E-Coli, including the 0157:H7 strain that causes human diarrhea, fever, vomiting, kidney failure and sometimes death. It can also contain Cryptosporidium and Giardia parasites that can cause serious gastrointestinal sickness, diarrhea and weight loss in both humans and animals.
- Wildlife and fish habitat can be adversely impacted by high livestock densities, trampling of stream banks, and runoff into surface waters.

A sustainable wintering system provides the necessities of livestock production — food, water and shelter — in a way that balances production efficiencies, profitability, and environmental stewardship. The ideal wintering system should be feasible, promote herd health, and environmentally sustainable.

### *Production Benefits of a Sustainable Program*

- Costs associated with spreading and distribution of manure will be greatly reduced.

- Livestock will be more comfortable in an environment where they are not stressed. The result will be less animal health problems and better performance.
- Cost of hauling feed will be reduced when you use on-pasture sources such as stockpiled forage and rake bunched hay.
- Manure provides major soil building benefits, and when animals are allowed to use marginal land at appropriate rates, manure can lead to higher productivity.

### *Strategies for Maintaining a Sustainable Wintering Site*

Consider utilizing more of your land base. If you increase the size of the wintering area and provide more land to utilize the manure, the likelihood of accumulation is less while the benefits to growing forage is greater. Remember that animal density, available land base, and length of time on a particular area go hand in hand. Vegetation cover growing over the entire wintering area the following summer is a good indicator that livestock and manure distribution was adequate.

Remove and spread manure build-ups. This often includes manure from bedding, watering, feeding and other high-use areas.

Consider a system that keeps animals moving. Moving livestock frequently is ideal but rarely feasible. Once or twice a winter is much better than no movement at all. Even rotating between wintering locations annually will help manage manure build-up and can help to prevent repeated heavy utilization of any one area. Portable or permanent fencing can be

be used to control and direct feeding, control animal distribution and density, encourage better field rotation, protect sensitive areas, and enhance manure distribution. Electric fence technology has greatly improved over the years and is easily used year round. If you can't move the site, consider moving bedding and feeding areas as often as possible, in order to spread manure and retain vegetation cover.

Consider a different approach to winter feeding. It would be difficult for me to be prescriptive here because each ranching operation is unique. However, you may consider utilizing a program that takes the animals to the feed, and not the feed to the animals. This might involve stockpiled (standing or rake bunched) forage early in the winter, followed by supplemental bale feeding on pasture. Consider storing a portion of your feed supplies in key areas throughout your land base where they can be accessed and fed on different feeding grounds than traditionally used. You'll help spread manure and retain vegetative cover, plus there are potential savings on labor, fuel and equipment use.

Look into watering options. You'll be surprised at the innovations out there, at their cost, and how they can make your wintering site more portable. A reliable water supply is essential — especially if you choose to take advantage of a greater land base. New technology can eliminate the need for electricity to keep water troughs from freezing or remote pastures, you can utilize new solar, wind-powered, self starting, or nose pumps.

Create buffers around sensitive areas. Permanent vegetation around water bodies will help to protect them.

There is a wide variety of sources of information available for many of the topics discussed here. Please contact me for additional information or questions.

*Dustin Johnson, Harney County  
Range/Livestock Extension Agent*

## MEDUSAHEAD INVASION, IMPLICATIONS, AND MANAGEMENT...



Medusahead invasion of western rangelands is at a cross-road, either an aggressive effort to prevent its invasion of new areas is initiated, or millions of acres will be lost. Medusahead (*Taeniatherum caput-medusae* (L.) Nevski) is an aggressive, exotic, annual grass invading rangelands in the western United States. Large expanses of sagebrush steppe in Intermountain West have been invaded by medusahead or are threatened by its invasion. However, the amount of land infested by medusahead is currently small relative to the area it could potentially invade in the future. The rapid spread of medusahead is a serious management concern because the invasion of medusahead reduces grazing capacity by 50 to 80%, degrades wildlife habitat, alters nutrient cycling, and decreases biodiversity. Medusahead replaces desirable vegetation by competition, suppression, and increasing fire frequency. Once established, medusahead can effectively out-compete desirable vegetation for soil nutrients and water. Medusahead litter has a slow decomposition rate allowing it to build up over time and suppress desirable plants. The build up of medusahead litter also increases the quantity and continuity of fine fuel, which can increase fire frequency to the detriment of desirable vegetation.

Temporary control of established monocultures of medusahead can be achieved with herbicides, but revegetation is often unsuccessful and expensive in the Intermountain West. Revegetation is often unsuccessful because climatic conditions rarely favor seedling establishment and in a short period of time medusahead returns to dominate the site. Resources would be better spent controlling new infestations of medusahead and preventing it from spreading. Prevention has been demonstrated to be more effective than revegetation after weed invasion. Prevention of medusahead invasions needs to focus on three factors: 1) preventing medusahead seeds from dispersing to new locations, 2) increasing the resistance of desirable plant communities to medusahead invasion, and 3) searching for and eradicating new infestations. Medusahead seeds have long barbed awns that facilitate dispersal by vehicles, humans, wildlife, and livestock. Decreasing human, animal, and vehicle contact with medusahead when its seeds can be dispersed would limit its spread. If medusahead seeds are dispersing into areas not invaded, the ability of the plant community to prevent medusahead from becoming established is critical. Plant communities that are resistant to medusahead invasion have higher densities of large perennial bunchgrasses and less cheatgrass. Preventing spread and increasing desirable plant community resistance to invasion will reduce the establishment of new medusahead infestations, but successful medusahead management will still require searching for and eradicating new infestations. Searching for and controlling new weed infestations is a more effective strategy than trying to control large infestations.

Medusahead invasion is a serious threat to livestock producers and everyone who enjoys natural landscapes and outdoor activities. Efforts to prevent medusahead from expanding in Harney County could protect hundreds of thousands of acres. Treating medusahead may seem expensive per acre, but when all the acres that are protected by treating an infestation are considered the price is much more reasonable. Harney County's Cooperative Weed Management Area (CWMA) has successfully acquired grants in the past for cost-sharing medusahead and other weed control pro-

jects. Information about possible cost-sharing opportunities can be directed to Harney County Weed Coordinator, Jesse Barnes at 573-8385. For additional information about medusahead contact Kirk Davies at 573-4074.

*Kirk Davies, Rangeland Scientist,  
USDA – Agricultural Research Service,  
Eastern Oregon Agricultural Research Center*

## **RANCH SUCCESSION & ESTATE PLANNING WORKSHOP**

The OSU Extension Service, Austin Family Business Program & Oregon Cattlemen's Association are holding a two part workshop on "Ties to the Land: Succession & Estate Planning for Livestock Producers." Speakers will include prominent estate planning advisors, a legal expert, a CPA and a farm/ ranch business management advisor. Topics will be what do you want to happen?, goals of all parties, is equal fair?, getting it together, communication among family members, inventory of legacy, business analysis and much more. The first workshop will be held at the Burns District BLM Office Conference Room, 9:30 a.m. to 3 p.m. on Wednesday January 30th. Those interested in attending should pre-register by January 15th. A \$50 registration fee is required, payable at the first workshop and each family is assigned a trained coach to help them complete the plan in the next year. For more information contact Dustin Johnson at the Harney County Extension Office, 573-2506.



## SUSTAINABLE WINTER FEEDING WORKSHOP

Dr. David Bohnert, Oregon State University Livestock Nutritionist, and Dustin Johnson, Harney County Rangeland/Livestock Extension Agent, will be presenting a focused workshop on sustainable winter feeding systems. Program components will emphasize information and strategies for operating a winter feeding system that is economically, environmentally and socially sustainable. Winter feed costs represent the primary source of economic hardship to Intermountain Region livestock producers and is likely the dominant threat to the sustainability of the western cow/calf industry. In addition, livestock production practices have come to the forefront of public scrutiny because of the perception of having high potential to impact water quality. The program will outline strategies for reducing winter feed costs. The program will also include approaches to winter feeding management that contribute to economic, environmental and social sustainability of the ranching operation. The workshop will be held at the Eastern Oregon Agricultural Research Center on Tuesday, December 18<sup>th</sup> from 2-5 p.m. and at the Fields School on Friday, December 21<sup>st</sup> from 2-5 p.m. For more information please contact Dustin Johnson at the Harney County Extension Office, 573-2506.

## PESTICIDE APPLICATOR CORE TRAINING:

Private pesticide applicators in Harney County who need CORE re-certification credit will be able to participate in CORE training March 6, 2008. The CORE presentations will be held at the Eastern Oregon Agricultural Research Center and will last from 8:00 a.m. until noon. Those interested in attending the CORE training session should **pre-register at the Harney County Extension Office by February 28, 2008** .

## STRANGLES

The name sounds much worse than the disease really is! Technically the disease is a bacterial infection ( Strep. equi) that causes abscesses of the lymph nodes. It primarily affects the lymph nodes below the jaw, but can affect any lymph node in the body. Strep equi is specific to horses and cannot be spread by other animals. This bacterium is highly contagious. It is spread through nose to nose contact or shared water sources. It can survive 3-4 weeks in water sources.

**Signs:** Once your horse has been exposed to the bacteria it can take anywhere from 2-6 days for the signs to show up. The first sign your horse is infected with the strangles bacteria is a fever spike and lack of energy. Horses will develop a discharge from their nose that will become thick and yellow to greenish and they may develop a cough. Then your horse will develop the abscesses in the lymph nodes. Generally you will see and feel very hard, lumps under the jaw or in the throat latch area. It takes about 7-10 days for the abscesses to rupture and begin draining. Problems arise when the abscesses become so big they cut off the air way, so the horse has difficulty breathing. When this happens it is an emergency and you need to call your veterinarian. The course of this disease generally takes around 23 days.

**Treatment:** The best thing to do is supportive care for your horse to ensure they continue to eat and drink. You can warm pack the abscesses to help them drain. If you have specific questions it's best to call your veterinarian.

**Prevention:** There are 2 vaccines on the market, however they are somewhat controversial. Both vaccines do not prevent disease; they only lessen the severity should your horse become infected. You should consult your veterinarian before giving any strangles vaccination. Once your horse has had strangles, they build up a natural immunity to the bacterium, which can last for several years.

There was a good article written in *The Horse* magazine for November 2007 about strangles, you can access this article at [www.TheHorse.com](http://www.TheHorse.com).

Dr. Katy Paul MS DVM



*OSU Harney County Extension Service*  
*High Desert Ranch & Family Newsletter*  
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**CALENDAR:**

**November:**

- 30 Harney County Stockgrower’s Annual Meeting, for more info call the Harney County Extension Office @ 573-2506**

**December:**

- 18 Winter Nutrition Workshop - EOARC 2-5 p.m.**
- 21 Winter Nutrition Workshop—Fields 2-5 p.m.**

**January:**

- 15 Pre-register for Succession & Estate Planning 573-2506**
- 30 Ranch Succession & Estate Planning Workshop—BLM Conference Room**

**February:**

- 28 Pre-register for Pesticide Applicator CORE Training 573-2506**

**March:**

- 6 Pesticide Applicator CORE Training—Eastern Oregon Agriculture Research Center**

