



Oregon State University Extension Service

Central Oregon Agriculture

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2008 Oregon Hay King Contest Klamath Basin Hay and Forage Seminar

The 2008 Oregon Hay and Straw King Contest and Feed Fair will be held on Saturday, November 22 in Dairy, Oregon. The contest is sponsored By Oregon Hay and Forage Association (OHFA) in cooperation with Oregon State University Extension Service, and Oregon State University Agricultural Experiment Station. The contest will be hosted by the Klamath Basin Hay Growers' Association. Judging will begin at 9:00 a.m. and run until 4:00 p.m. (in a heated building and is free to attend). On Friday, November 21st, there will be a Hay and Forage Seminar held in Klamath Falls Oregon; running from 10:00 a.m. to 4:00 p.m. Lunch will be provided by Klamath Basin Hay Growers' Association.

The Oregon Hay King Contest is for people throughout the Pacific Northwest who want to sell or buy hay, straw, or other feedstuffs. The Contest will judge classes of alfalfa, grass, grass/legume mix, cereal, cereal/pea or vetch mix, timothy, and grass seed straw, within cutting classes.

Judging will run throughout the day and will be educational and entertaining for the new and seasoned producers and buyers alike, as well as to the general public. We will discuss the hay as we judge through the hay entries. There is much hands-on learning and discussion that occurs at these judging contests. The OHFA believes this is one of the best, if not thee most educational and unique judging contests, that is conducted in the United States.

The judging will be conducted by Glenn Shewmaker, U. of Idaho Extension Forage Specialist, Twin Falls, ID, and Dr. Mireille Chashine, U. of Idaho Extension Dairy Specialist, Twin Falls, ID. The bales will be judged on quality testing (RFQ score) and sensory evaluation. The quality testing will be predicted by NIRS at the Klamath Basin Research and Extension Center. There will be new hay quality parameters quantified in addition to the usual parameters tested.

Hay King winner's will receive plaques & prizes, and hay class cutting winners will receive prizes as well. All sizes of bales are eligible for competition. There will be space available for vendors should anyone wish to showcase their products – major or small. Please contact Dave Reed at (541) 882-3149 or Dave King at (541) 723-2202 for more information.

Hay King Contest Schedule

November 17th - Due date to Lab for all hay samples

November 21st - Klamath Basin Hay and Forage Seminar

November 22nd - Hay and Straw King Contest

7:30 am – 8:45 am — Bale Check-in and Entry Registration

9:00 am – Contest Begins

For more details on contest rules, application, and Forage Seminar, contact Mylen Bohle at (541) 447-6228 or go on line at: <http://oregonhaygrowers.com>.

Mylen Bohle

"Central Oregon Agriculture" is a monthly newsletter produced by the Central Oregon Extension offices and the Central Oregon Agricultural Research Center. The intent of this newsletter is to extend agricultural research-based information to solve problems, develop leadership and manage resources wisely. Please direct comments and changes to the mailing list to your local County Extension office listed below (all area codes are 541).

Central Oregon County Extension Offices:

Crook County Extension Service - Phone 447-6228, 498 SE Lynn Blvd., Prineville, OR 97754

Deschutes County Extension Service - Phone 548-6088, 3893 SW Airport Way, Redmond, OR 97756

Jefferson County Extension Service - Phone 475-3808, 34 SE D St., Madras, OR 97741

Warm Springs Indian Reservation - Phone 553-3238, 1110 Wasco St., PO Box 430, Warm Springs, OR 97761

Central Oregon Agricultural Research Centers:

Madras Site - Phone 475-7107, 850 Dogwood Lane, 97741

Powell Butte Site - Phone 447-5138, 8215 SW Hwy. 126, 97753

Extension Service & Experiment Station Web Sites:

Crook County: <http://extension.oregonstate.edu/crook>

Deschutes County: <http://extension.oregonstate.edu/deschutes>

Jefferson County: <http://extension.oregonstate.edu/jefferson>

Central Oregon Agricultural Research Centers, Madras & Powell Butte: <http://oregonstate.edu/dept/coarc/index.php>

Central Oregon Agricultural Extension Staff:

Rich Affeldt - Mint, Seed Crops and Weed Control, 475-3808

Mylene Bohle - Forage, Pasture and Cereals, 447-6228

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Steve James - Potatoes, 475-7107

Dana Martin - Small Acreage, 548-6088

Barbi Riggs - Livestock and Water Quality, 447-6228

Libby Rodgers - Ag. Program Assistant/Fire Prevention, 447-6228

Pam Wiederholt - Ag Newsletter Coordinator, 447-6228

The above individuals represent 8.50 full time equivalents devoted to extending agriculture information to producers. Many of the individuals, in addition to agriculture, have assignments in research, 4H/youth, administration and community resource education.

Often it is appropriate to mention brand names of some commercial products; however, they are used only for the purpose of information. Extension does not guarantee or warrant the standard of the product, nor does it imply approval of the product to the exclusion of others.

Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Oregon State University Extension Service offers educational programs, activities, and materials without discrimination based on age, color, disability, gender identity or expression, marital status, national origin, race, religion, sex, sexual identity or expression, marital status, national origin, race, religion, sex, sexual orientation, or veteran's status. Oregon State University Extension Service is an Equal Opportunity Employer.

OSU Extension programs will provide reasonable accommodation to persons with physical or mental disabilities. Contact Pam Wiederholt at (541) 447-6228 to request reasonable accommodation.

GENERAL AG —

Plant Pathologist

Interviews at COARC

The Central Oregon Ag Research Center (COARC) will be interviewing three candidates to fill the Plant Pathology research

position that was vacated by Dr. Fred Crowe last year. Each of the three candidates will give a seminar that is open to the public from 10:30 to 11:30 am on November 10 through 12. The first candidate will speak on Monday, November 10 with other seminars to follow on Tuesday and Wednesday. The seminars will be held at COARC, 850 NW Dogwood Lane, north of Madras. The seminars will give you an opportunity to meet the candidates, ask questions of them, and weigh in on the selection process.



Rich Affeldt

35th Annual Hermiston Farm Fair & Trade Show

Hermiston Farm Fair & Trade Show is being held Wednesday, December 3 – Friday, December 5, the Hermiston Conference Center, 415 S. Hwy 395. The Farm Fair is an agricultural forum co-sponsored by OSU Extension Service, the Agriculture Committee of the Greater Hermiston Chamber of Commerce, and local agriculture-related businesses displaying their wares and services, both inside and outside the Conference Center.

The Potato Production Seminar will be held on the Main Stage all day Wednesday. Concurrently, we will hold Livestock and Forage Seminars, Fertilizer Seminar, and there will also be a session on Succession Planning for Farm Families. Thursday morning, water issues will be covered. Thursday will focus on pesticide issues, core program, and pesticide use reporting system. Friday morning is directed to pesticide information and core training. The livestock session will deal with winter feed costs.

There is a \$10.00 fee for attending the Core Program. All other sessions are free to attendees. No pre-registration is required. Oregon, Washington and Idaho pesticide recertification credits will be available, in addition to CCA credits. A full Farm Fair agenda with updates and pesticide credit hours will be available on our website by mid November. <http://oregonstate.edu/Dept/hermiston/index.php>

The Farm Fair is a great opportunity to gain knowledge and visit with friends and neighbors over a variety of freshly prepared refreshments courtesy of our local food processors. Come and treat yourself at the 35th Annual Hermiston Farm Fair.

Don Horneck and Phil Hamm/OSU Extension Service/HAREC

GENERAL AG —

Applications for the OSU Master Gardener™ Program in Central Oregon are now Available

The program targets individuals interested in becoming a trained volunteer who wants to learn and share research-based gardening information. Program starts with ten classes that meet on Saturdays (new this year) from 9 am - 4 pm, January 24 - April 11, 2009 at OSU Cascades Hall on the COCC campus in Bend and continues with hands-on training through September. Applications must be received no later than January 5th, 2009. Cost will be \$250.00 and includes tuition, text book and supplies. Scholarships are available. Only interested in classroom training? Ask us how? Call (541) 548-6088 or go on-line at <http://extension.oregonstate.edu/deschutes> for more information.

Amy Jo Detweiler

PEST & PESTICIDES —

New Label for Kocide 3000®

The DuPont fungicide/bactericide Kocide 3000® has a new label which does not preclude application via chemigation in aluminum systems. ManKocide, which is Kocide plus mancozeb, has been shown to be somewhat effective on Xanthomonas bacterial blight on carrot. Unfortunately, ManKocide cannot be chemigated through aluminum systems, which essentially limits chemigation use to steel or PVC. The new use for Kocide 3000® might make it useful in situations where only chemigation is feasible.

Rich Affeldt

Clover Mite Update

On October 27, Glenn Fisher, OSU Extension Entomologist, journeyed over from Corvallis, and we met in Tumalo to look at some different hay fields and determine what level the clover mite population in central Oregon is at this time of the year. We were fully expecting to find Clover mites. After looking through 2 fields in the Tumalo area, and one field in the Cloverdale area of Deschutes County, we did not find a single clover mite (Clover mites were in these fields last year). We found a few Winter grain mites. So we core-sampled some grass crowns in each of the fields and the samples were taken back to Corvallis and put into Burlesse Funnels to see if we could coax any mites out. All we found were Winter grain mites. We were hoping to find the Clover mites now, so we could try putting out some insecticides in the Fall and see if we could do any better than what we have been finding with spring treatments – which is nothing that works to date. In fact, our latest spring trial in 2008 found nothing that worked, again...So we think we will start

sampling the fields once a month and see if we can document when the Clover mite is starting activity so we can try a different timing of the insecticides. No Good News.

Mylon Bohle

SMALL ACREAGE —

Small Acreage Water & Weed Management Redmond Service Center, 625 SE Salmon Avenue, Redmond, OR

Tuesday, November 18, 2008, 2:00 PM – 4:00 PM
Saturday, December 6, 2008, 9:30 AM – 11:30 AM

WATER QUALITY ISSUES

Ellen Hammond/Oregon Dept. of Ag

- Irrigation water diversions
- Riparian streamside vegetation
- Manure and other wastes
- Sediment and nutrients in irrigation tail water

WEEDS IN CENTRAL OREGON

Dan Sherwin/ Deschutes Co. Weeds

- Problem pasture/hay land weeds and their control
- Noxious weed identification & their programs
- Cost Share Program
- Hay certification program

IRRIGATION WATER MANAGEMENT

Randall Brady

- Measuring soil moisture and Irrigation scheduling
- Optimizing use of irrigation water
- Minimizing erosion and runoff
- Sprinkler equipment maintenance

Sponsored by: Deschutes Soil and Water Conservation
District ~ Oregon Department of Agriculture ~ Deschutes
County Weed Program

Please RSVP to Debbe @ (541) 923-2204



SMALL ACREAGE —

2009 Living on a Few Acres (LOAFA) Conference

Saturday, March 14, 2009, 9:00 AM to 4:30 PM

Deschutes County Fairgrounds, Redmond, OR

Educational Classes: Attend a variety of workshops covering different topics such as: Pasture Management & Irrigation Techniques, Specialty Crops (raspberries, blueberries, strawberries, fruit trees, vegetables), Weed and Feed Toxicity, Pond Maintenance, Fencing for Livestock, Wildlife Habitats, Irrigation system maintenance, Animal First Aid, and more.

Trade Show: Visit with various equipment dealers, trade association representatives and people from agricultural agencies who can help you with your needs ranging from financial to operational and management.

Networking Opportunity: Talk to other land owners and exchange ideas. Make connections and develop marketing opportunities.

Featured Lunch Program: Sponsored by the Deschutes County Farm Bureau; includes a free lunch!

For more information contact: OSU Extension Service, Deschutes County, (541) 548-6088; ext 7957, or Email: dana.martin@oregonstate.edu

Dana Martin

2009 Oregon Farm School Scheduled for Spring 2009

This series of workshops will be presented by OSU Extension faculty, experienced farmers and other professionals. You will develop a farm plan and learn the fundamentals of crop production and farm business management for small farms. You will also meet people with similar interests.

For more information contact: OSU Extension Service, Deschutes County, (541) 548-6088; ext 7957, or Email: dana.martin@oregonstate.edu

Dana Martin

Oregon Small Farm News

Quarterly

We invite commercial farmers, small acreage owners, those with small farms and those who are thinking about farming in Oregon to subscribe to OSU Extension's 'Small Farm News'. "Topics focus on organic/biological farming, conventional farming, marketing methods and resources, land stewardship, and more."

Issues also include a calendar of upcoming events and a variety of resources of interest. To take a look at Oregon Small Farm News, go to <http://smallfarms.oregonstate.edu> and click on the newsletter icon. Subscriptions for the online publication are free.

The OSU Small Farms Program also offers an extensive website at: <http://smallfarms.oregonstate.edu/>. The website provides university research-based information and publications for commercial farmers, beginning farmers, as well as small acreage landowners. There is information on current events in the Pacific Northwest, as well as on livestock, pastures, crops, soils, marketing, technical reports and links to upcoming conferences and workshops.

Dana Martin

CEREALS & FORAGES —

Using Grass Seed Straw As Livestock Feed

The Oregon State University Extension Service is warning livestock owners about potential problems if they use certain types of grass seed straw to replace hay in livestock feed. The most significant problem, researchers say, is that turf varieties of tall fescue and perennial ryegrass may contain endophytes, which produce toxins that are harmful to livestock at high concentration levels.

Due to a regional shortage of hay this fall, livestock owners may turn to grass seed straw as a reasonably priced alternative for livestock forage. When the grass seed straw comes from unknown fields, however, it should be tested for the toxin level. It can then be mixed with other feeds, if necessary, to dilute the toxin to a safe level in the total ration.

Another problem is that grass seed straw may be lower in protein and energy than grass hay, depending upon many factors and the species of grass. Without proper supplementation, a diet of grass seed straw can lead to nutritional deficiencies, and the effects of endophyte toxins are even more severe in malnourished animals.

Endophyte is a fungus that lives within the grass plant and benefits the plant by producing toxins that help fend off insects, diseases and grazing animals. Endophyte is transmitted through the seed, so a plant does not become infected from its neighbors. An endophyte-free grass variety will remain endophyte-free.

Different species of endophyte infect tall fescue and perennial ryegrass. The primary toxin produced in tall fescue constricts the blood vessels and reduces circulation to the body extremities. This interferes with the animals' ability to regulate body temperature in cold weather, causing a condition called "fescue foot," characterized by lameness and swelling in the legs, followed by tissue death at the tips of tail or ears and sloughing of the hooves.

See CEREALS & FORAGES: Grass Straw, Page 5

Cereals & Forages: GRASS STRAW

Continued from Page 4

Symptoms of fescue foot appear after 10 to 20 days of feeding on endophyte-infected tall fescue. Extreme cold increases the severity of the problem.

Horses are especially prone to developing serious reproductive abnormalities from endophytes in tall fescue, including failure to come into heat, early-term abortions, difficult births, retained placentas, poor udder development with little or no milk production and poor foal survival.

The primary toxin produced in perennial ryegrass causes a condition known as "ryegrass staggers" that can develop into severe tremors, incoordination and falling down. Symptoms of ryegrass staggers appear after seven to 14 days of feeding on endophyte-infected perennial ryegrass, but unlike with tall fescue, these symptoms disappear after the straw is removed from the diet.

All hay and pasture varieties produced in Oregon are endophyte-free or have very low levels. However, newer turf varieties are particularly high in endophyte because turf breeders have selected for the pest-resistant qualities that endophyte-infected plants have, qualities that reduce the need for pesticides while growing a lawn. These turf varieties make up most of the acreage of grass seed production. No endophyte problems have been found with orchardgrass, bentgrass, or fine fescue straws.

When asked if there are safe levels of endophyte toxins for livestock, Morrie Craig, a professor in the OSU College of Veterinary Medicine, said that experiments have determined threshold levels below which clinical disease is not seen. "These thresholds refer to the level of toxin in the total diet, not in single feed components," Craig said. Forages with higher toxin levels may be fed safely, as long as they are diluted with other feedstuffs, he added.

Threshold levels of the tall fescue endophyte "ergovaline" are 400-750 parts per billion (ppb) for cattle; 500-800 ppb for sheep; and 300-500 ppb for horses, except for mares in the last 60-90 days of pregnancy, when the threshold is zero. Threshold levels of the perennial ryegrass endophyte "lolitrem B" are 1,800-2,000 ppb for cattle and sheep. No threshold levels of this endophyte have been determined for horses.

The Endophyte Service Laboratory at Oregon State University tests forage samples for the level of ergovaline or lolitrem B endophytes. The cost is \$40 per sample for either test

For information on sampling for endophytes and a more complete discussion of endophyte toxicity, see the article: "Alert to Livestock Owners: Be Aware of Endophyte When Using Grass Seed Straw to Replace Hay in Livestock Feed" at http://extension.oregonstate.edu/yamhill/pdf/alert_to_livestock_owners_07.pdf

(This article was edited for this Newsletter)
**Peg Herring, Susan Aldrich-Markham, Gene Pirelli and
 Morrie Craig**

Small Grains Technology Workshop

The Wasco County Soil and Water Conservation District, Natural Resources Conservation Service, Oregon State University Extension Service and Ag-TEQ are hosting The Mid-Columbia Small Grains Technology Workshop to be held December 8th from 8:00 am to 3:30 pm, at the Discovery Center in The Dalles. This workshop will focus on new technologies for producers of small grains. Program topics will include:

- Tailoring Technology for Individual Farm Needs
- Spray Application Technology
- Calculating Real Fertilizer Needs and Split Applications
- Using Optical Sensing and Electrical Conductivity Technologies to Manage Nitrogen.

There will also be two breakout sessions in the afternoon that will focus on Local Technology Incentives and Practical Applications of Technology.

There is no charge for this workshop but pre-registration is required for the two afternoon breakout sessions by Friday, December 5th, with the Wasco County Soil and Water Conservation District at (541) 298-8559 extension 3. Pesticide hours have been applied for.

Brian Tuck/OSU Wasco County Extension Service

PNW Grains Conference

The Oregon / Idaho Grains Conference and state annual meetings will be held December 10-12 in Coeur d'Alene, ID. Keys to Success 2008 – Partnerships, Education, and Networking. \$245 for early registration or \$330 for late registration (after Nov. 17). This conference is sponsored by the Idaho Grain Producers Association, and Oregon Wheat Growers' League. You can register online at www.idahograin.org or call OWGL at 541-276-7330.

Mylon Bohle

Dormant Alfalfa Herbicide Timing

Fall is here and Winter is on its way. Producers who are growing clean alfalfa hay might want to seriously consider applying their dormant alfalfa herbicide treatments this Fall, after the plants are dormant. The last 6 or 8 years or so, we switched from late winter /early spring herbicide applications on our alfalfa trials at COARC, to Fall applications. We have been getting excellent weed control with Fall applications, and we have not had to deal with any spring burn down of alfalfa that one has to accept, if the herbicide application is done too late in the spring.

See ALFALFA HERBICIDE, Page 6

Cereals & Forages: ALFALFA HERBICIDE

Continued from Page 5

In some alfalfa herbicide trials in the 1990's at COARC, it was documented that if the timing was too late in the spring (for whatever the reason), a producer might be giving up as much as a half of ton of alfalfa hay per acre, because of the burn down to the growing foliage. When that happens, it is growing season time (and yield) lost and you can never get it back. The other interesting find from those trials, was that the negative herbicide effect carried over into the 2nd cutting with another loss in yield of about a fifth to a quarter of a ton of hay per acre.

If you have applied your herbicides to your dormant alfalfa in the late winter/ early spring for years, or have never applied in the Fall, you might want to try this on a few fields and compare them to your fields that are spring applied. We have been adding 0.5 lb a.i. of paraquat or gramoxone to the mix (with whatever main herbicide you are using) and are getting excellent weed control.

Mylene Bohle

Soft White Winter Wheat Response to Nitrogen

With the lower prices for wheat and nitrogen fertilizer prices at an all time high, paying close attention to the cost of fertilizer and the response we obtain, makes sound business sense. Following is a table that presents yield and protein data from a soft white winter wheat response to three nitrogen rate trials conducted from 1995 to 1997 at the COARC, Madras.

While the yields may vary from year to year when comparing yields to N rates, once you have achieved 10.5% protein with soft white winter wheat, you have generally achieved highest yield. The three years the trials were run, produced very different results. In 1995, 1996, and 1997 there was 211, 45, and 32 lb/ac of nitrate nitrogen in the top two feet of soil, respectively. The data are presented with both applied and soil N total for the N rate. The highest yield achieved (152 bu/ac) out of the 3 years, was at 10.5% protein.

Yield potential will vary between producers and fields. In 1995, the check was the highest yielding fertility rate, but we had overshot our nitrogen requirement based on soil residual N (because of previous crop and cultural practice). In 1996, the second to highest N rate achieved biological high yield at 10.5% protein. In 1996, yield was still increasing with the high rate of N, and protein content was at 9.3%; the required rate of N was not achieved to optimize yield.

Every producer may have a different economic yield that they will be trying to achieve. Hopefully this data will help to optimize economic yield.

Table. 1995-1997 yield and protein response of 'Stephens' Soft White Winter Wheat to different nitrogen fertility rates at the COARC, Madras, OR.

Year	Trial N Rate (lb/ac) >	0 N (lb/ac)	40 N (lb/ac)	80 N (lb/ac)	120 N (lb/ac)	160 N (lb/ac)
1995	Yield (bu/ac)	114	92	97	84	94
	Protein (%)	12.6	12.6	12.3	12.7	12.8
	N Rate (lb/ac)*	211	251	291	331	371
1996	Yield (bu/ac)	107	122	145	152	126
	Protein (%)	7.8	8.2	9.2	10.5	10.6
	N Rate (lb/ac)*	45	85	125	165	205
1997	Yield (bu/ac)	44	73	86	108	119
	Protein (%)	8.1	7.7	8.1	8.7	9.3
	N Rate (lb/ac)*	32	72	112	152	192

* N Rate (lb/ac) total N available which includes soil nitrate N (2 feet depth) + applied N

> Trial N Rate (lb/ac) > is the lb of ammonium nitrate N applied as treatments (across the top of the table)

Mylene Bohle

LIVESTOCK —

Body Condition Score Descriptions

Body Condition Score (BCS) is a system for cattle that was created at Colorado State University in 1975 by R.W. Whitman. This scoring system ranges from 1 to 9 (1=emaciated; 9=obese). Weight gain or loss of about 75 lbs results in an increase or decrease in one body condition score. In the industry, both in research and in production, this scoring system has become a standard for which we visually appraise the nutritional status of the animals.

BCS Description of Body Condition Scoring (BCS)

- 1 Severely Emaciated. Bone structure of shoulder, ribs, back, hooks and pins is sharp to the touch and easily visible. Little evidence of fat deposits or muscling.
- 2 Emaciated. Little evidence of fat deposition but some muscling in the hindquarters. The backbone feels sharp to the touch.
- 3 Very thin, no fat on ribs or brisket, and some muscle still visible. Backbone easily visible.
- 4 Thin, with ribs easily visible but shoulders and hindquarters still showing fair muscling. Backbone visible.
- 5 Moderate to thin. Last two or three ribs can not be seen unless animal has been shrunk. Little to no evidence of fat in brisket, over ribs or around tailhead.
- 6 Good smooth appearance throughout. Some fat deposits in brisket and over tailhead. Ribs covered and back appears rounded.
- 7 Very good flesh, brisket full. Fat cover is thick and spongy and patchiness is likely. Ribs very smooth.
- 8 Obese, back very square, brisket distended, heavy fat pockets around tailhead. Square appearance.
- 9 Rarely observed. Very obese. Animal's mobility may actually be impaired by excessive fat.

The optimum score is 5. There are dangers associated with scores equal to or less than 3 and likewise of scores equal to or greater than 8. Cattle have a priority in how they allocate the nutrients they ingest. The cow's first priority is to maintain her own body weight, followed by lactation and growth (in young cows) and finally reproduction. When a cow is short on nutrients, her ability to reproduce is the first biological function that suffers and is also the last function to recover.

During the course of the year an animal, particularly a mother cow, fluctuates in BCS. Her BCS may be a 4 after calving and prior to spring green-up but can rapidly increase to a BCS 5 prior to the breeding season if adequate forage is available. A cow may lose condition as the quality of the forage decreases and the lactation demand and gestation pulls nutrient requirements to support that biological state of production. This natural change in body condition is often referred to as *weight cycling*. Documenting BCS at different production stages allows researchers and producers to evaluate management practices in regards to nutrition.

Production Period Management

Late Lactation - Depending upon current forage availability, supplementation and/or a modified (2 months prior to weaning) weaning strategy may be necessary. Wean thin cows, especially thin, young and older cows.

Weaning - Pay particular attention to young cows weaning their first calf and cows beyond their prime age; they are most likely to be thin at this time.

100 Days Before Calving - Last opportunity to gain body condition. This would be a good time to separate thin cows from cows in good condition and increase feed to thin cows.

Calving - If cows are thin, a change in the feeding program is needed. It is expensive to increase condition on cows after calving.

Breeding Season - If cows are thin at this time, additional supplementation and/or implementation of an early weaning strategy may be necessary.

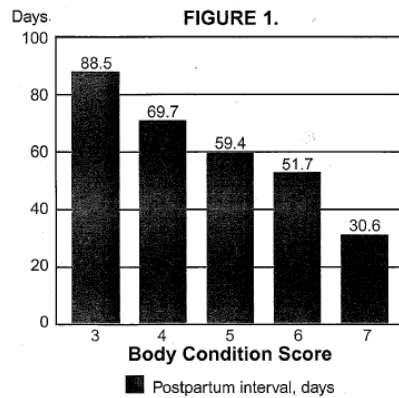
Barbi Riggs

LIVESTOCK —

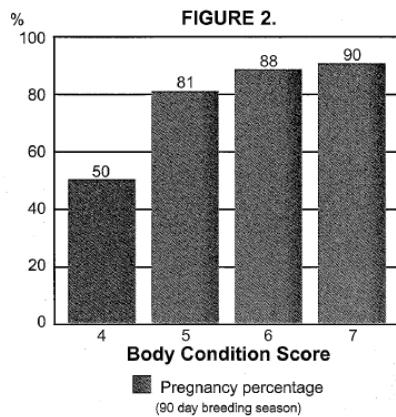
Body Condition Score and Reproduction

Body condition score has a strong influence on reproduction of the cow herd. One of the most important relationships of BCS and reproduction is the influence it has on postpartum interval (PPI). Cattle need to maintain a PPI of 60 days or less in order to have a calf every year and remain an economic asset to the ranch. It has been noted by South Dakota State University that cattle should be in BCS of 5 at calving in order to have the best chance of maintaining an acceptable PPI. Pregnancy percentages are also affected by the condition of the cow at calving. Cows that have at least a BCS of 5 have more acceptable overall pregnancy rates than those lower in BCS.

Effect of Body Condition Score at Calving on Postpartum Interval and Pregnancy Percentage

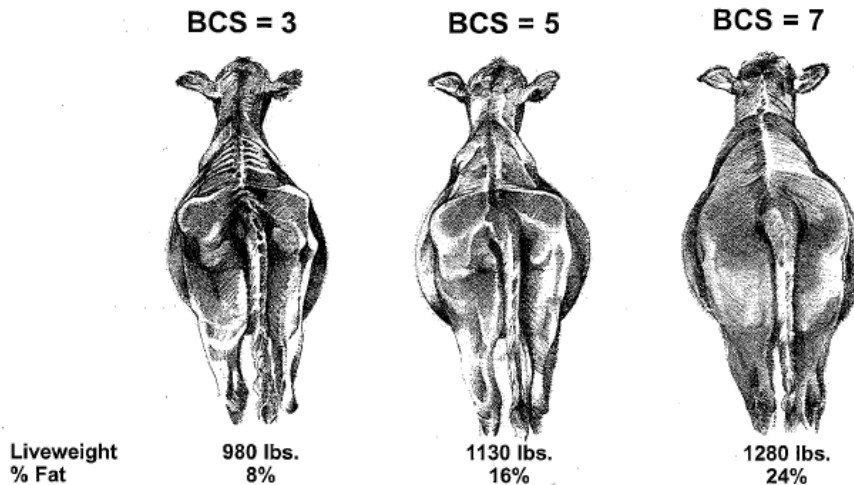


Houghton et al., 1986. Purdue University



Selik et al., 1986. Oklahoma State University

Cows naturally weight cycle, meaning they fluctuate in weight according to forage quality and quantity during the seasons and biological state. Fluctuation is fine, as long as cows are not allowed to drop below BCS 4 for extended periods of time and cows have adequate time to put on weight and BCS prior to calving and breeding season. Next month I will give you more information on weight cycling.



Herd & Sproff, 1986

IRRIGATION —

Total Crop Water Use for 2008

Table. 2008 total estimated Crop Water Use or Evapo-transpiration (ET) Summary for Madras, Powell Butte, Bend, and Christmas Valley, OR Agrimet weather stations.

Crop	2007 Madras 2440 ft. (in)	2007 Powell Butte 3200 ft. (in)	2007 Bend Agrimet 3650 ft. (in)	2007 Christmas Valley 4360 ft. (in)
ETr	49.0	45.1	38.8	40.7
Alfalfa Peak	45.5	40.0	35.8	36.8
Alfalfa Mean	39.1	34.4	30.7	31.9
Pasture	30.7	27.1	24.3	25.6
Grass Hay Peak	42.2	39.2	33.5	36.4
Grass Hay Mean	38.7	35.9	30.7	33.7
Lawn	37.2	32.8	29.3	31.2
Bluegrass Seed	15.4	15.0		
Winter Grain	21.0	21.0	17.5	24.6
Spring Grain	23.9	20.4	20.3	22.2
Spring Grain	24.6	22.6	20.7	22.2
Spring Grain	23.5	21.6	19.7	20.9
Field Corn	24.2	19.5	16.8	
Sugar Beet	29.9			
Garlic	28.8	27.3		
Potato	22.2	16.3		
Carrots	9.0			
Carrots 2	16.1			
Peppermint	29.4	22.8		
New Mint	27.8	23.7		
Strawberry	29.3	26.8	24.3	28.0
Blueberry	39.8	35.7	31.9	
Trailing Berries	22.9	21.1	19.3	
Apple	31.9	27.9	24.6	
Wine Grape	23.0	20.2	17.7	
Concord Grape	26.7	23.7	20.6	
Safflower	23.9			
Poplars 1 year	19.2	16.7	14.6	
Poplars 2 year	30.0	26.2	23.0	
Poplars 3 year & Plus	36.4	31.9	28.1	

Mylon Bohle

Wheat Marketing Meeting

The Wheat Marketing Meeting will be held at 8:00 a.m. on Thursday, November 13th at the COARC in Madras, OR. These marketing meetings are usually held on the 2nd Thursday of each month. This meeting is sponsored by the Oregon Wheat League.

For more information contact the Madras Research Center (COARC) at (541) 475-7107.

Mylon Bohle

Central Oregon Agriculture Calendar



November

- 11 - 13 Alfalfa Intensive Training Seminar. National Alfalfa and Forage Alliance. Reno, NV. Information (509) 585-6798 or www.alfalfa.org.
- 13 Wheat Marketing Meeting, Madras, OR (see article page 9).
- 18 Small Acreage Water and Weed Management Workshop, Redmond, OR (see article page 3).
- 20 Malheur County Alfalfa Forage Day. Ontario, OR. Steve Norberg at (541) 881-1417.
- 21 Klamath Basin Forage Day. Chanda Engel at (541) 883-4590 or (541) 883-7131.
- 22 2008 Oregon Hay King Contest, Dairy, OR (see article front page).
- 27 Thanksgiving Holiday
- 28 COARC and County Extension Offices Closed for Thanksgiving Holiday.

December

- 2-4 California Alfalfa & Forage Symposium and Western Alfalfa Seed Conference, San Diego, CA. Learn more at alfalfa.ucdavis.edu/+symposium/2008/.
- 5 35th Annual Hermiston Farm Fair & Trade Show (see article page 2).
- 6 Small Acreage Water and Weed Management Workshop, Redmond, OR (see article page 3).
- 8 Small Grains Technology Workshop, The Dalles, OR (see article page 5)
- 8-9 Oregon Seed Growers League Annual Meeting, Salem Convention Center, Salem, OR. William Young, III, PhD, (541) 737-5859.
- 10-12 Oregon/Idaho Grains Conference and Oregon and Idaho Wheat Associations Annual Meetings (see article page 5).

January

- 14-15 Washington State Hay Growers Convention, Three Rivers, Convention Center, Kennewick, WA. Information www.wa-hay.org/covention/.

February

- 3-4 Idaho Hay and Forage Conference, Burley, ID. Glenn Shewmaker at (208) 736-3608.

March

- 14 Living On A Few Acres Conference (see article page 4).