California Grazing Academy
April 29-30, 2016
UC Sierra Research and Extension Center Browns Valley, CA
This year’s Academy will feature an emphasis on Drought Planning

Fees and Enrollment:
$170.00 (includes meals, and course materials - some lodging available)
Limited sleeping space available — first come, first served (bring your own sleeping bag and towel). No walk-in registrations due to set-up needed for hands-on activities. Registration is available on line at http://ucanr.edu/survey/survey.cfm?surveynumber=16740, or complete the attached registration form.

NO REFUNDS.
Your check guarantees your space.

After completing the Academy, course participants will be able to:
• Assess the condition of the four basic ecological processes that determine ranch productivity.
• Assess soil health through determining: texture, stability, infiltration, rooting depth, and importance of soil microorganisms.
• Apply principles of time and stock density to improve pasture productivity and stock performance.
• Estimate carrying capacity.
• Apply principles of animal behavior to reduce stress.
• Determine the supplementation needs of grazing animals.
• Design a layout to efficiently use resources and apply controlled grazing principles.
• Understand the basics of developing a grazing plant.
• Immediately improve grazing management on your own ranch.
• Managing through drought.

For More Information
Contact Roger Ingram at the UC Cooperative Extension Office/Placer County, located at 11477 E Avenue, Auburn, CA 95603, call (530) 889-7385, or email at rsingram@ucanr.edu

WEB SITE: ceplacernevada.ucdavis.edu
I am writing this article on February 23, 2016. The 10-day forecast does not show precipitation predicted for the rest of February. Temperatures will continue to be unseasonably warm. The buildup of high pressure and warmer temperatures brings back nightmare memories from last year that resulted in below average precipitation for the forage year (October 1 - September 30) despite above average fall 2014 rains. One difference for this year is snow - current condition show around 99% of normal for the year to date and over 83% for year that ends April 1 (California Date Exchange Center, http://cdec.water.ca.gov/cdecapp/snowapp/sweq.action).

Grass needs moisture, sunlight, and warm soil temperatures to grow.

Rainfall

There are a lot of different ways to look at rainfall.

Rainfall – October 1, 2015- February 23, 2016

Rainfall totals since October at the Sierra Foothill Research and Extension Center (SFREC) total 17.23 inches, which is 84% of average. Rainfall totals in Auburn, California total 17.62 inches, which is 73.1% of average.

Rainfall – March 1, 2015- February 23, 2016

Another way to look at rainfall is by a rolling twelve-month total. Rainfall totals from March 1, 2015 - February 2, 2016 at SFREC total 19.85 inches, which is 68.8% of average. Rainfall totals for the same time period in Auburn, California total 21.14 inches, which is 61.9% of average.

Forage Production Year to Date – October 2015 – February 1, 2016

SFREC reported December forage production at SFREC was 330 lbs/ac or 72% of normal. January forage production showed a 30 lb increase 360 lbs/ac which is 72% of normal. This time last year forage production stood at 53% of normal. Last year’s forage production ended up at 72% of normal.

I have noticed grazing sheep, that if adequate residual was left in the spring to begin grazing in the fall (1,000 lbs/ac or more); the amount of grazing days per acre is 20-30% higher. I am seeing rangeland grazed in late winter-spring (less residual left) that is still not experiencing good grass growth. There is a saying that states “grass grows grass”. It means leaving more residual provides cover to protect against erosion, organic matter for the soil, and more consistent temperature and moisture conditions for germination. Generally speaking, there is greater benefit to leaving more residual than grazing forage real short.
Soil Temperature

The spring flush of growth typically will happen when soil temperatures approach 60 degrees. Soil temperatures below 50 degrees slows forage growth to a crawl. Soil temperatures between 50-55 degrees increase the forage daily growth, although overall growth is slow. Soil temperatures between 55-60 degrees increase the forage daily growth to a faster rate, although not quite as fast as when it reaches 60 degrees. Below is a monthly graph of the October 2010- September 2015 average soil temperatures and annual forage growth at SFREC.

SFREC germination occurred on November 1, 2015. The soil temperature at that time was 64 degrees and did not drop below 50 degrees until November 29th. Cold December weather dropped soil temperature to 44 degrees by December 31, 2015. Soil temperatures in 2016 have been fluctuating between the high 40’s and low 50’s. Cold December soil temperatures did play a role in slowing forage growth. Soil temperatures have climbed to 55 degrees at SFREC and 56 degrees in Auburn. The results has been a noticeable increase in growth rates.

Photoperiod

Photoperiod is the length of daylight plants and animals are exposed to sunlight. Photoperiod from November through January averages less than 10 hours per day and is the most limiting factor to
forage growth during winter. For example, if there is a winter period with adequate moisture and soil temperatures in the low 50’s, growth rates will remain slow as a result of short day lengths. As photoperiod increases to around 11 hours, forage growth rates increase. The spring flush coincides when photoperiod reaches close to 13 hours a day. Conversely, as photoperiod lengthens in late winter and soil temperatures rise, forage growth will be most limited by soil moisture. See the graph below to see the relationship of photoperiod on forage growth.

![Graph: Photoperiod and Forage Growth on Annual Range at SFREC]

**WE ARE STILL IN A DROUGHT!**

I would encourage you to assume drought conditions for 2016. I would recommend staying conservative with stocking rates. Some strategic destocking may be in order to consider if there is an extended dry period. I would think that March 1 and April 1 would serve as critical dates to consider further destocking to match carrying capacity (forage supply) with stock rate (animal demand).

**California Grazing Academy**

The California Grazing Academy is scheduled for April 29-30 at SFREC. Registration information is included with this newsletter. You will learn how to assess carrying capacity and project stocking rate. You will learn about grazing, drought planning, and soil health as well. The academy features hands-on experience grazing cattle and assessing ecosystem processes.
Federal Grazing Fee Upped to $2.11

The Federal grazing fee, which applies to Federal lands in 16 Western states on public lands managed by the BLM and the U.S. Forest Service, is adjusted annually and is calculated by using a formula originally set by Congress in the Public Rangelands Improvement Act of 1978. Under this formula, as modified and extended by a presidential Executive Order issued in 1986, the grazing fee cannot fall below $1.35 per animal unit month (AUM); also, any fee increase or decrease cannot exceed 25 percent of the previous year’s level. (An AUM is the amount of forage needed to sustain one cow and her calf, one horse, or five sheep or goats for a month.) The grazing fee for 2016 is $2.11 per AUM, as compared to the 2015 fee of $1.69.

The Federal grazing fee is computed by using a 1966 base value of $1.23 per AUM for livestock grazing on public lands in Western states. The figure is then adjusted each year according to three factors - current private grazing land lease rates, beef cattle prices, and the cost of livestock production. In effect, the fee rises, falls, or stays the same based on market conditions, with livestock operators paying more when conditions are better and less when conditions have declined. Thus, the grazing fee is not a cost-recovery fee, but a market-driven fee.


UC Cooperative Extension Cost Studies


There are several livestock cost studies that can serve as an information and planning resource for you in evaluating existing and new enterprises. The cost studies can be found at the link above. Here is a list of studies that might be of interest to you:

- 2010. Sample Costs for a Goats for Meat Operation
- 2012. Sample Costs for Finishing Cattle on Grass
- 2010. Sample Costs for Beef Cattle Yearling/Stocker Production – 300 head
- 2015. Sample Costs to Produce Pasture
- 2015. Sample Costs to Establish or Reestablish and Produce Pasture
- 2008 (Archive). Sample Costs for Beef Cattle Cow-Calf Production – 300 head
- 2005 (Archive). Sample Costs for an Organic Cow-Calf Operation

There are free downloadable publications available through UCANR Communication Services http://anrcatalog.ucanr.edu/

- 8398. Livestock Poisoning Plants of California
- 21626. Understanding Livestock Grazing Impacts
- 8500. Niche Beef Production
- 8315. Barbed Goatgrass
- 8021. Rangeland Management Series: Balancing Beef Cow Nutrients and Season
- 8022. Rangeland Management Series: Annual Rangeland Forage Quality
Beef cattle prices reached record highs in the first half of 2015 and then started to decline. While only a snapshot in time at one market, here is a comparison of prices at Shasta Livestock Auction for March 6, 2015 and February 19, 2016.

<table>
<thead>
<tr>
<th>Weight Class</th>
<th>3/6/15</th>
<th>2/19/16</th>
<th>Decline ($/CWT)</th>
<th>% Decline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Head</td>
<td>1766</td>
<td>1126</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Feeder Steers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>300-400</td>
<td>342.5</td>
<td>xxx</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>400-450</td>
<td>346</td>
<td>229.5</td>
<td>-116.5</td>
<td>-33.7%</td>
</tr>
<tr>
<td>450-500</td>
<td>320</td>
<td>218.5</td>
<td>-101.5</td>
<td>-31.7%</td>
</tr>
<tr>
<td>500-550</td>
<td>291.25</td>
<td>206.5</td>
<td>-84.75</td>
<td>-29.1%</td>
</tr>
<tr>
<td>550-600</td>
<td>262.5</td>
<td>197</td>
<td>-65.5</td>
<td>-25.0%</td>
</tr>
<tr>
<td>600-650</td>
<td>254</td>
<td>173.75</td>
<td>-80.25</td>
<td>-31.6%</td>
</tr>
<tr>
<td>650-700</td>
<td>225</td>
<td>165</td>
<td>-60</td>
<td>-26.7%</td>
</tr>
<tr>
<td>700-750</td>
<td>213</td>
<td>156</td>
<td>-57</td>
<td>-26.8%</td>
</tr>
<tr>
<td>750-800</td>
<td>210.75</td>
<td>xxx</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>800-900</td>
<td>195.75</td>
<td>141</td>
<td>-54.75</td>
<td>-28.0%</td>
</tr>
</tbody>
</table>

The xxx means there was no cattle sold in that weight class. Prices are listed as dollars per hundred weight (CWT). The average price decline from about a year ago was $77.53 CWT which represents a 29.1% decline. Feeder heifers showed a steeper decline.
The average heifer price decline from about a year ago was $93.78 CWT which represents a 36.4% decline. Remember, this is only a snapshot in time and prices for February 19th were higher than the week before.

Most likely, prices you receive on cattle sold in 2016 will be lower than what you received in 2015.

Cattle Inventory - the following is taken from the USDA semi-annual cattle on inventory reports released January 29, 2016 (http://usda.mannlib.cornell.edu/usda/current/Catt/Catt-01-29-2016.pdf)

**January 1 Cattle Inventory Up 3 Percent**

All cattle and calves in the United States as of January 1, 2016 totaled 92.0 million head. This is 3 percent above the 89.1 million head on January 1, 2015.

All cows and heifers that have calved, at 39.6 million head, are 3 percent above the 38.6 million head on January 1, 2015. Beef cows, at 30.3 million head, are up 4 percent from a year ago. Milk cows, at 9.32 million head, are up slightly from the previous year.

All heifers 500 pounds and over as of January 1, 2016 totaled 19.8 million head. This is 3 percent above the 19.3 million head on January 1, 2015. Beef replacement heifers, at 6.29 million head, are up 3 percent from a year ago. Milk replacement heifers, at 4.82 million head, are up 2 percent from the previous year. Other heifers, at 8.71 million head, are 3 percent above a year earlier.

All Calves under 500 pounds in the United States as of January 1, 2016 totaled 14.1 million head. This is 4 percent above the 13.5 million head on January 1, 2015. Steers weighing 500 pounds and over totaled 16.3 million head, up 4 percent from one year ago. Bulls weighing 500 pounds and over totaled 2.14 million head, up 2 percent from the previous year.

Calf Crop Up 2 Percent

The 2015 calf crop in the United States was estimated at 34.3 million head, up 2 percent from last year’s calf crop. Calves born during the first half of 2015 were estimated at 24.8 million head. This is up 2 percent from the first half of 2014. The calves born during the second half of 2015 were estimated at 9.50 million head, 28 percent of the total 2015 calf crop.

Cattle and calves on feed for the slaughter market in the United States for all feedlots totaled 13.2 million head on January 1, 2016. The inventory is up 1 percent from the January 1, 2015 total of 13.0 million head. Cattle on feed, in feedlots with capacity of 1,000 or more head, accounted for 80.2 percent of the total cattle on feed on January 1, 2016. This is down 1 percent from the previous year. The combined total of calves under 500 pounds and other heifers and steers over 500 pounds (outside of feedlots) is 25.9 million head. This is 5 percent above one year ago.

Implications

Beef cattle numbers are increasing and more heifers are being retained. This is an indicator of increasing supply which could result in downward pressure in price. This means you should do both an economic and financial analysis to assess the impacts of lower prices on profitability. Increased understanding of this impact can point you to strategies to lessen the impact. Are there strategic ways to reduce direct costs without impacting production in the form of number of calves born or weight gain? Examples might include becoming more intensive with grazing management which would improve forage utilization and provide periodic rest for plants between grazing; or switching the calving season to match forage supply with the timing of calving. Both of these strategies would serve to reduce hay feed costs and improve enterprise margins. If you would like some help figuring out alternatives or have other questions, please call Roger Ingram at 530-889-7385 or email at rsingram@ucanr.edu.
UPCOMING EVENTS

Contact Roger Ingram at (530) 889-7385 or rsingram@ucanr.edu to register or if you have questions. Check website for updated information at ceplacer.ucdavis.edu

Shepherding School
Lambing on Pasture Field Day
March 5, 2016
Auburn, CA 95603
8:30-Noon
http://ceplacer.ucanr.edu/?calitem=309126&q=36980

Lambing on pasture is a positive alternative to barn lambing systems. At this field day, you’ll learn about ewe and lamb nutrition, handling newborn lambs, developing a record-keeping system, and dealing with lambing problems (birthing problems, inclement weather, predators, etc.). Participants should wear clothes appropriate for outdoor work in late winter weather! A flyer is included with this newsletter.

Registration information will be posted soon at:
http://ucanr.edu/sites/placernevadasmallfarms/

California Grazing Academy and Soil Health
April 29-30, 2016
Sierra Foothill Research and Extension Center
Limited dorm lodging and camping available

This two-day school features hands-on experience with electric fencing, cell design, controlled grazing, soils, ecology, range nutrition and supplementation, grazing and drought planning, and monitoring. A flyer is included with this newsletter.

Pasture Walk
June, 2016
Auburn, CA

Information coming soon.

Beginning Farmer/Rancher Academy
April 8-9, 2016
11477 E Ave
Auburn, CA 95603

The beginning farmer/rancher academy will help develop an action plan of next steps in creating your business. Topics covered include: understanding your market, important considerations in getting started, farm tour, marketing channels, farmers’ market tour, economic and financial planning overview, evaluating capital purchases, and action planning.

Roger Ingram
County Director, Placer and Nevada Counties
Livestock & Natural Resources Advisor
2016 Lambing on Pasture Field Day

WHEN: Saturday, March 5, 2016
TIME: 8:00 AM to Noon
WHERE: Auburn, CA
COST: FREE

The workshop will be held in the field. You will see ewes with lambs and get hands-on experience processing lambs. This field day features a pasture lambing system.

Topics to be Covered

- Pasture Lambing System
- Dealing with Lambing Problems
  - Birthing
  - Predators
  - Weather
- Processing Lambs
  - Identification and marking system
  - Tail docking and castration
- Developing a record keeping system
- Ewe and lamb nutrition

Participants should wear clothes appropriate for outdoor work in late winter weather!

How to Register

Register on line at: [http://ucanr.edu/survey/survey.cfm?surveynumber=16950](http://ucanr.edu/survey/survey.cfm?surveynumber=16950)

Sponsored by:

[UCCE](http://ucce.ucdavis.edu)
[CE Place](http://ceplacernevada.ucdavis.edu)

WEB SITE: ceplacernevada.ucdavis.edu

The University of California Division of Agriculture & Natural Resources (ANR) prohibits discrimination or harassment of any person in any of its programs or activities (Complete nondiscrimination policy statement can be found at [http://ucanr.org/sites/anrstaff/files/107778.doc](http://ucanr.org/sites/anrstaff/files/107778.doc)).

Inquiries regarding ANR’s equal employment opportunity policies may be directed to Linda Marie Manton, Affirmative Action Contact, University of California, Davis, Agriculture and Natural Resources, One Shields Avenue, Davis, CA 95616, (530) 752-0495.
Register:
Complete this form, mail with your check payable to University California, Regents, to:
Roger Ingram
California Grazing Academy
11477 E Ave.
Auburn, CA  95603
OR, visit our website: http://ceplacernevada.ucdavis.edu and follow the links.

Location:
UC Sierra Research & Extension Center, Browns Valley, CA

What types of animals do you graze or manage?

How many head: ____________________________  On how many acres: ___________________________

It is the policy of the University of California (UC) and the UC Division of Agriculture & Natural Resources not to engage in discrimination against or harassment of any person in any of its programs or activities (Complete nondiscrimination policy statement can be found at http://ucanr.edu/sites/anrstaff/files/187680.pdf )

Inquiries regarding ANR’s nondiscrimination policies may be directed to Linda Marie Manton, Affirmative Action Contact, University of California, Davis, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1318.
Fees and Enrollment:
$170.00 (includes meals, and course materials – some lodging available)
Limited sleeping space available — first come, first served (bring your own sleeping bag and towel). No walk-in registrations due to set-up needed for hands-on activities.
NO REFUNDS. Your check guarantees your space.

About The California Grazing Academy
The California Grazing Academy is a unique and exciting program emphasizing practical application of controlled grazing principles to improve the environment and increase ranch profit. This challenging course consists of a minimum of lecture and a maximum of hands-on experience.

After completing the Academy, course participants will be able to:
1. Assess the condition of the four basic ecological processes that determine ranch productivity.
3. Apply principles of time and stock density to improve pasture productivity and stock performance.
4. Estimate carrying capacity.
5. Apply principles of animal behavior to reduce stress.
6. Determine the supplementation needs of grazing animals.
7. Design a layout to efficiently use resources and apply controlled grazing principles.
8. Understand the basics of developing a grazing plant.
9. Immediately improve grazing management on your own ranch.
10. Managing through drought

For More Information
Contact Roger Ingram at the UC Cooperative Extension Office/Placer County, located at 11477 E Avenue, Auburn, CA 95603, call (530) 889-7385, or email at rsingram@ucdavis.edu

Complete the registration form on the reverse and include your check payable to UC REGENTS to:
Roger Ingram
California Grazing Academy
11477 E Ave.
Auburn, CA 95603

OR
An on-line registration form is available at ceplacernevada.ucdavis.edu – Just follow the link to Livestock and Natural Resources and then to California Grazing Academy.