

Livestock Notes



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Humboldt/Del Norte County**

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Inaugural Edition

Welcome to the inaugural edition of the Humboldt – Del Norte Livestock Notes. Since I took this position as Livestock/Natural Resources Advisor I have been trying to think up of the best ways to serve and communicate with the livestock/natural resources clientele in the region. Therefore, after meeting and speaking with many of you, I decided to put together a newsletter, as one way to stay in touch.

It is my intention for this newsletter to be an avenue for me to communicate and let people know about projects currently being done, and any new projects on the horizon. I also will be printing articles that will be of interest, concerning new information or research being performed in the areas of livestock, rangeland management, pastures management, and overall natural resources issues.

However, I would also like to hear from you. If you have any questions or concerns that you would like get more information on, learn more about, or would like to submit an article for this newsletter, please do not hesitate to contact me.

In order to help stay more connected I have also created a new Humboldt – Del Norte Livestock/ Natural Resources website. This website will have information relating to various projects that I am working on, as well as new information available regarding my program area. I also have links for you to connect to that hopefully are helpful to you for your operation. Additionally, if you have information that you would like to be added to the website please let me know. The address for the website is: www.ucanr.org/humdnlivestocknatres

Overall, I would like this newsletter and website to be informative and helpful for you all as a resource of information to help you with your operation.



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Sincerely,

Smaller Cows or Fewer Cows?

Cooperative Extension, University of California, Davis

Jim Oltjen, Specialist, Department of Animal Science

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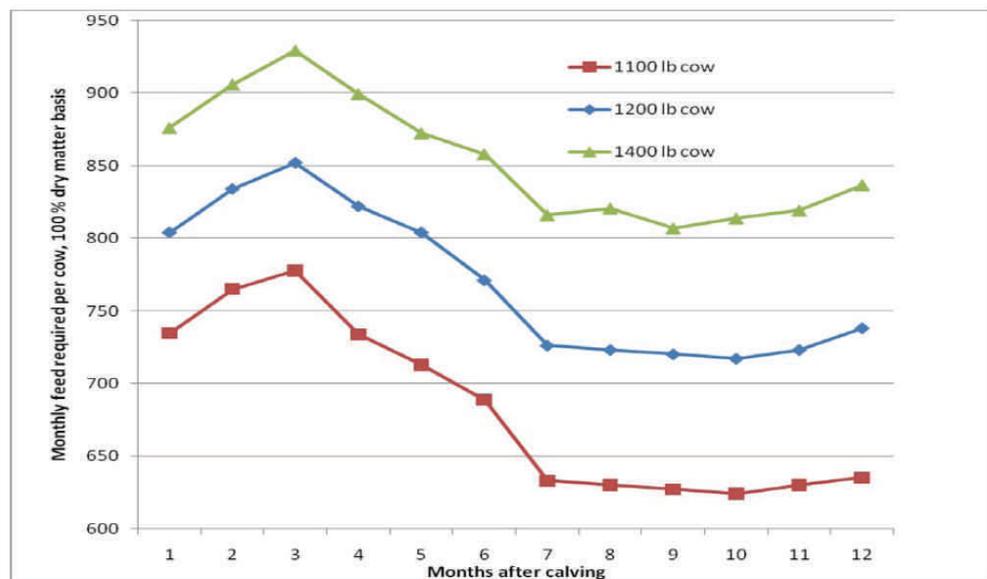
A hot topic among beef producers is methods to reduce feed demands and costs. Cost of feed has risen dramatically, drought has reduced feed supply as well as restricted irrigation water supply, and generally land for cattle feed has shrunk over the years. Some producers desire increased amounts of forage for their weaned calves to increase their selling weights in response to predicted demand for heavier in-weights for feedlots. One approach to creating more feed for weaned calves, when feed is restricted, is to reduce feed demands for cows. Others want more forage to convert into hay for the high hay market. Whatever the reason, with current conditions, a reasonable response by beef producers is to consider reducing herd size so less feed is required, or raising smaller cows that require less feed. Each option has different outcomes and consequences. We have made some comparisons of those options to demonstrate the differences.

For our comparisons, we use a herd of 100 cows and only a small difference between cow size; mature weights of 1,100 or 1,200 pounds. We are not suggesting that 1,100 or 1,200 pounds is the ideal cow size. We are looking at a difference in size, in this example 100 pounds. Producers may want to weigh a few cows to determine their

actual weight. We are only comparing cow size, so in this example milk production is the same for all the cows. Cows of 1,100 pounds mature weight will consume between 70

for this example we can estimate the annual average cost at the hay equivalent of \$80 per ton (this would be a mixture of pasture and supplement). Therefore the 1,100

(Figure 1)



and 100 pounds less dry matter feed each month (NRC, 2000) than 1,200 pound cows of equal milk production (Figure 1). Annually the smaller cow will consume about 1,192 pounds less of hay equivalent feed. The required quality of the

feed is the same since they both produce the same amount of milk. The amount of feed consumed varies due to their size differences.

pound cow will consume about 1,192 pounds less feed, costing \$48 less, e.g. $(\$80/2000) \times 1,190 = \47.69 (Table 1). For a herd size of 100, the smaller cows require about 60 tons less hay equivalent feed and at \$80/ton basis about \$4,768 dollars less in feed. Specific dollar values will vary.

If instead of reducing cow size we wanted to reduce the herd size (keeping the same size cows), but we wanted to reduce the feed level to the same feed level as smaller cows, we would need to reduce to about 88 cows (88.42 cows). A herd size of about 88 head of 1,200 pound cows would require about the same amount of feed as 100 cows of 1,100 pound (Table 1).

Whatever the reason, with current conditions, a reasonable response by beef producers is to consider reducing herd size so less feed is required, or raising smaller cows that require less feed.

The cost of feed varies throughout the year depending on source but

Smaller Cows or Fewer Cows? (continued)

Perhaps the first and most obvious consequence of this type of change would be lighter weaning weights or fewer calves sold. Smaller cows with similar milk production and muscling to heavier cows will generally be smaller frame size and wean a smaller calf. This can be estimated (NRC, 2000) and for our purposes steers calves at 9 months of age are estimated weighing 655 for 1,100 pound cows and 682 for 1,200 pound cows are used. The difference is 27 pounds.

We can calculate the weight of sale calves and income based on a 90 percent calf crop and \$1.10 per pound sale price, 50 percent heifers at 5 cents discount, 50 pound lighter weaning weight for heifers and 15 percent replacement heifer retention rate. Based on these estimates changing to smaller cows shows an increase in income over feed cost of about \$2,348, while changing to a smaller herd is almost the opposite with a reduction of about \$2,000 annually (Table 1).

The smaller herd size with the same size cow would be a reduction in income over feed costs but income would decline more than the reduction in feed costs. The

smaller herd size is probably not as deleterious as shown here because other costs that are “per head based” would likely decline and could account for the roughly \$20

per head difference.

Based on these estimates it would appear that smaller cows offer some potential for reducing feed costs while not significantly lowering income. There are some other unintended consequences and additional alternatives.

Mature cows of 1,200 pound size generally have finished steers calves of about 1,180 pounds. If the dressing percent is 61 percent then

pounds and a carcass weight of 640, which is on the light side. There could be price discounting, which could easily wipe-out any feed cost savings: the proverbial rock and a hard place.

There is a relatively simple solution to this dilemma: a way to have reduced feed costs while still producing ideal size market animals. It is much simpler than recording data for age and source verification. Breed the mature cows to a larger

(Table 1)	1,100 pound cow, 100 head	1,200 pound cow, 100 head	1,200 pound cow, 88.42 head	Difference between 1,100 & 1,200	Difference between 1,200 cows: 100 or 88 head
Total annual feed dry matter basis, lbs./cow	8,191	9,264	9,264	-1073	
Total annual feed on hay equivalent basis, lbs./cow	9,101	10,293	10,293	-1192	
Total annual feed cost/cow @ \$80 basis	\$ 364	\$ 412	\$ 412	\$ (47.69)	
Feed required for the herd (hay equivalent basis)	910,111	1,029,333	910,137	-119,222	-119,197
Feed costs for the herd (size as indicated)	\$ 36,404	\$ 41,173	\$ 36,405	\$ (4,769)	\$ (4,768)
Estimated 9 month weaning wt of steers, lbs/hd	655	682	682	-27	0
Number of steers sold	45	45	39.78	0	-5.2
Number of heifers sold	38.25	38.25	33.82	0	-4.4
Total \$ from steers	\$ 32,423	\$ 33,759	\$ 29,850	\$ (1,337)	\$ (3,909)
Total \$ from heifers	\$ 24,298	\$ 25,383	\$ 22,443	\$ (1,084)	\$ (2,939)
Total calf sales	\$ 56,721	\$ 59,142	\$ 52,293	\$ (2,421)	\$ (6,849)
Total sales minus feed costs	\$ 20,316	\$ 17,968	\$ 15,888	\$ 2,348	\$ (2,081)

the carcass weights would be about 720 pounds. This is a desirable carcass weight. Cows of about 1,100 pounds would be expected to produce steer calves finished at 1,050

frame size bull to produce intermediate frame size calves that will have the desired carcass weight.

Smaller Cows or Fewer Cows? (continued)

Producers could also use EPDs for growth and carcass traits to select bulls for growth and larger carcass traits for this specific breeding scheme (terminal sires). Another alternative might be to use a different bull breed for these terminal crosses. For example, Charolais bulls on adult English-breed type cows. Always sell all of these calves, steers and heifers. Only use the growth-type (larger frame size) bulls on mature cows that have grown out to avoid calving problems and don't use much larger bulls. Note that feed use will be slightly higher for these cows (stimulated to produce more milk by larger calves), and actual forage intake by the larger calves before weaning. Use younger females to develop replacement heifers. These will be bred to bulls to produce replacements that grow into adults with mature size of 1,100 pounds.

Producers often don't have control over feed costs nor the desired carcass weight. But they do have control over breeding decisions. There are good cattle in all breeds of varying mature size. Using this type of system, called terminal sires, requires discipline, self-confidence, and long range planning. But it is something that can proactively be accomplished. In many cases younger females are already being bred to different bulls than mature adults. A terminal sire system would just make those breeding

plans more specific. From this example, smaller cows clearly reduce feed costs, but may have reductions in sales that wipe-out any gains. A terminal sire program could allow smaller cows, for feed savings while still for most of the herd, production of highly desired calves.

The root of the feed cost issue is animal maintenance expenditures. Some producers have attempted to select for improved cow efficiency by comparing the cows output (the calf

weaning weight alone for improving efficiency.

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Actual feed intake and feed efficiency has been examined in more detail with the advent of computer assisted feeding stations. Research has shown that a series of

measurements can be made to calculate a residual feed intake, (RFI). This value is defined as the actual feed intake minus the expected feed intake and may be a better value than feed to gain ratio or conversion. RFI is more independent of growth rate, size and maturity of the animals. Australia and Canada have been using RFI, while it is just beginning to be used in the U.S. In the coming years, there may be opportunities to improve efficiency by selection using RFI. RFI could be used in conjunction with smaller cows to find those animals that are inherently more efficient in the use of nutrients.

Historically, when feed conditions are not limiting, larger cow mature size has generally been more profitable. More recently conditions have changed and feed conditions seem to be trending more and more towards limitations that may be conducive to smaller cow size. This must be balanced with the demands from others in the beef production chain that tend to favor larger carcasses. During tough times producers can also take a good look at problem cows. It is always a good time to remove cows that may have at best only a hope of raising a calf or that favorite cow that needed to be shipped 2 years ago.



weight) to her own weight. Her own weight reflecting the amount of feed required. This ratio has been shown to be no better than selecting for

AMS Notice: “Naturally Raised” Marketing Claim

On January 16, 2009, the USDA’s Agricultural Marketing Service (AMS) placed a Notice in the Federal Register establishing a voluntary standard for a “naturally raised” marketing claim. Once the standard becomes effective, livestock producers may utilize AMS’s voluntary, third-party verification services to provide validity to “naturally raised claims, and in certain cases, they may have access to markets that require AMS certification.

The Naturally Raised standard is as follows: “Naturally Raised” - Livestock used for the production of meat and meat products that have been raised entirely without growth promotants, antibiotics (except for ionophores used as coccidiostats for parasite control), and have never been fed animal (mammalian, avian or aquatic)

by-products derived from the slaughter/harvest processes, including meat and fat, animal waste materials (e.g., manure and litter), and aquatic by-products (e.g., fishmeal and fish oil). All products labeled with a naturally raised marketing claim must incorporate information explicitly stating that animals have been raised in a manner that meets the following conditions: (1) no growth promotants were administered to the animals; (2) no antibiotics (other than ionophores used to prevent parasitism) were administered to the animal; and (3) no animal by-products were fed to the animals. If ionophores used only to prevent parasitism were administered to the animals, they may be labeled with the naturally raised marketing claims if that fact is explicitly noted. Product labels that include the voluntary

“naturally raised” marketing claim would have to be submitted to the Food Safety and Inspection Service’s Labeling Program and Delivery Division (LPDD) for approval. FSIS will require processors to provide “substantiation” of the claim at the time of label approval application. Also, the Notice clearly states that the AMS “naturally raised” marketing standard “is independent of and distinct from FSIS label approval policies governing use of natural claims with regard to post-harvest processing. The naturally raised claim pertains only to pre-harvest livestock production practices.” AMS will be working with FSIS on a forthcoming Federal Register document to develop a coordinated approach to defining labeling terms such as “natural” and “naturally raised.”

Humboldt Del-Norte Counties Weed Management Area’s Biannual Meeting

The Humboldt Del-Norte Counties Weed Management Area’s (HDNWMA) will be hosting a Biannual Meeting on Wednesday, February 25, 2009, from 10:00 am – 1:00 pm at the Humboldt County Agricultural Center in Eureka. There is no cost to attend this event.

The HDNWMA is a consortium of partners including county, state and federal agencies, non-profit organizations, and individuals who are interested in noxious weed management in Humboldt and Del Norte counties. Biannual meetings

give members and interested parties an opportunity to learn more about the HDNWMA and about what we can do for each other in the control of invasive, noxious weeds.

This meeting will feature Beth Dominick, Regional Service Representative with California Certified Organic Farmers. She will present “Weed Control in Organic Systems,” including sections on approved products, organic documentation requirements and common weeds in Humboldt County.

Your attendance and participation expands the successes of the HDNWMA. Please mark your calendar for Wednesday, February 25, 2009, from 10:00 am – 1:00 pm for this informative meeting on noxious weeds. The meeting will be held at the Humboldt County Agricultural Center, 5630 South Broadway, Eureka.

Space is limited so please RSVP by February 18, 2009 to wmacordinator@co.humboldt.ca.us or call (707) 407-8111. Refreshments will be provided.

Calendar of Events

Date	Event	Time	Location
February 11-12	Future Forests II: Maintaining Healthy and Productive Working Forests on the North Coast	Wed: All Day Thurs: 8:30 am-3 pm	Ferndale Fairgrounds
February 19	Sowing the Seeds of Farm Succession Conference: Part II	8 am—4 pm	River Lodge Conference Center, Fortuna
February 25	Humboldt Del-Norte Counties Weed Management Area's (HDNWMA) Biannual Meeting	10 am—1 pm	Humboldt County Ag Center, Eureka
March 7	Humboldt Del-Norte Counties Cattlemen's Spring Meeting	2:30 pm	Ferndale Fairgrounds
April 21-23	Dairy Herdsman Short Course	8 am—5 pm	Tulare

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