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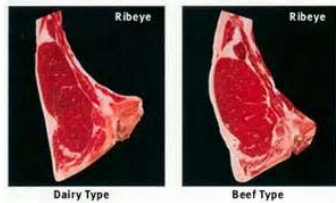
“Can value be added to Holstein bull calves?”

Michael J. Baker, PhD
Beef Extension Specialist
Cornell University



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Adding value?



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Nutrient requirements of Holstein steers					
Body weight	Min. NEg Mcal/lb	Total Protein % in DM	DIP % of CP	Ca % of DM	P % of DM
Calf starter	.54	18	50	1.0	.7
220 lb	.46	17	50	1.0	.7
330 lb	.46	16	50	.8	.6
440 lb	.46	15	55	.6	.5
550 lb	.46	14	55	.5	.4
660 lb	.46	13	60-65	.5	.4
770 lb - market	.58	12	60-65	.5	.4

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Composition of diets fed in Trial 1			
Item	Period 1		
	H	M	L
	% of Diet		
Ingredient			
Alfalfa silage	40.4	22.1	7.0
Dry, shelled corn	48.3	57.7	65.0
Soybean meal	7.6	15.4	22.0
Mineral pack [†]	3.7	4.8	5.9
Chemical analysis			
DM	59.7	70.2	80.6
CP	16.8	18.1	19.1
[†] Contains 1200 g monensin per ton			

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Composition of diets fed in Trial 1			
Item	Period 2		
	H	M	L
	% of Diet		
Ingredient			
Alfalfa silage	8.9	9.0	9.0
Dry, shelled corn	80.5	81.3	81.9
Soybean meal	5.5	4.7	4.1
Mineral pack [†]	5.0	5.0	5.0
Chemical analysis			
DM	81.5	81.5	81.5
CP	12.0	11.6	11.4
[†] Contains 1200 g monensin per ton			

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Feeding systems			
Item	H	L	P
Period 1			
ADG, lb	3.3 ^c	3.8 ^d	2.0 ^e
End weight, lb	858 ^c	924 ^d	664 ^c
Period 2			
ADG, lb	2.1 ^c	1.7 ^d	2.4 ^e
DM intake, lb	20.6 ^c	19.2 ^d	21.3 ^c
DMI/gain	22.3 ^c	25.6 ^d	19.2 ^e
Ainslie et al., 1992a			

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Feeding systems			
Overall	H	L	P
ADG, lb	2.6 ^c	2.6 ^c	2.3 ^d
DM intake, lb	18.7 ^c	18.1 ^d	-
DMI/gain	16.1 ^c	15.4 ^c	-
Days on feed	345 ^c	322 ^d	413 ^e
Final weight, lb	1274 ^c	1221 ^c	1228 ^c
Ainslie et al., 1992a			

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Return to capital			
Item	Yardage		
	0.20	0.30	0.40
Trial 1			
High silage	56	29	1
Medium silage	55	30	5
Low silage	56	31	6
Trial 2			
High silage	70	37	4
Low silage	71	40	9
Pasture	135	96	57
Ainslie et al., 1992b			



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Stocker grazing programs

- To pasture by 250 - 350 lb
- Prior to pasture limit ADG to 2.0 lb
- Off pasture by 650 - 700 lb
- Expected ADG 1.5 – 2.0 lb



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Background on stored forage

- Goal: market high quality forage
- 50% corn equivalent, 50% forage
- To background by 250 - 350 lb
- Prior to background
limit ADG to 2.0 lb
- Off background
by 650 - 700 lb
- Expected ADG 1.5 – 2.5 lb





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High grain finish

- At least 70% corn equivalent
- Corn can be fed whole at weaning when roughage is <10%
- Whole corn/commercial pellet
- HMC preferred to 650 lb
- DSC 650 lb to market
- Limit HMC to 1/3 of final ration



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Final comments - feeding programs

- High forage to 750 lb did not affect
 - Carcass grade
 - Cutability
 - Weight at low Choice
- ADG should be ≥ 3.0 during finishing period
- Feed ionophore throughout





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Final comments - profitability

- In every scenario, pasture is most profitable
 - Reduced feed cost in growing period
 - Improved (11 – 17%) feed efficiency in finishing period
- Alfalfa HCS needs to be valued at <\$34/t to optimize return



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Basic information

Purchase date	Jan/01/16
Expected sale date	May/30/16
Initial weight, lb	350
Sale weight, lb	650
Purchase price, \$/100 lb	146
Sale price, \$/100 lb	118
Days on feed	150
Average daily gain, lb/d	2.00
Overall feed conversion	6.51



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Cost analysis

Animal purchase, \$/hd	511
Feed cost, \$/hd	169
In trucking cost, \$/hd	7.00
In processing cost, \$/hd	15.00
Yardage cost, \$/hd	37.50
Interest on animal, \$/hd	11.55
Interest on feed, \$/hd	1.91
Sales cost, \$/hd	15.00



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Cost analysis

Total costs, \$/hd	767.65
Gross sales, \$/hd	767.58
Net return, \$/hd	-0.07
Feed cost/gain, \$/lb	0.56
Total cost/gain, \$/lb	0.85
Sale break even, \$/100 lb	118.01
Purchase break even, \$/100 lb	145.98



Profit analysis

Sale Price	Purchase Price (\$/lb)						
	1.43	1.44	1.45	1.46	1.47	1.48	1.49
1.10	-43.66	-46.83	-50.01	-53.18	-56.36	-59.53	-62.71
1.11	-37.76	-40.93	-44.11	-47.28	-50.46	-53.63	-56.81
1.12	-31.86	-35.03	-38.21	-41.38	-44.56	-47.73	-50.91
1.13	-25.95	-29.13	-32.31	-35.48	-38.66	-41.83	-45.01
1.13	-20.05	-23.23	-26.40	-29.58	-32.75	-35.93	-39.10
1.14	-14.15	-17.33	-20.50	-23.68	-26.85	-30.03	-33.20
1.15	-8.25	-11.43	-14.60	-17.78	-20.95	-24.13	-27.30
1.16	-2.35	-5.52	-8.70	-11.88	-15.05	-18.23	-21.40
1.17	3.55	0.38	-2.80	-5.97	-9.15	-12.32	-15.50
1.18	9.45	6.28	3.10	-0.07	-3.25	-6.42	-9.60
1.19	15.35	12.18	9.00	5.83	2.65	-0.52	-3.70
1.20	21.26	18.08	14.91	11.73	8.55	5.38	2.20
1.21	27.16	23.98	20.81	17.63	14.46	11.28	8.11
1.22	33.06	29.88	26.71	23.53	20.36	17.18	14.01
1.23	38.96	35.78	32.61	29.43	26.26	23.08	19.91
1.23	44.86	41.69	38.51	35.33	32.16	28.98	25.81
1.24	50.76	47.59	44.41	41.24	38.06	34.89	31.71
1.25	56.66	53.49	50.31	47.14	43.96	40.79	37.61
1.26	62.56	59.39	56.21	53.04	49.86	46.69	43.51
1.27	68.47	65.29	62.12	58.94	55.76	52.59	49.41