



Improving Value in Market Cows and Bulls

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NM
STATE

Reasons for culling

- **Not pregnant**
- **Temperament**
- **Herd reduction**
 - **Limited forage resources**
 - Drought
 - Fire
 - **Labor shortage**
 - **Disease**



Cull cow and bull enterprise

- **Must look at culls as an enterprise**
 - How much profit can I capture from culls?
 - Culls can account for as much as 30% of annual income (Fuez, 1995)
- **What resources do I have available to cheaply manage culls**
 - **Feed**
 - Available pasture
 - Cheap commodities
 - **Infrastructure**
 - **Market opportunities**



Primary ways to increase value

- **Cows**

- Market at different times of the year
- Increase weight in thin cows
 - Increase value of cull cow based on condition
- Breed open cows outside of “normal” breeding season

- **Bulls**

- Increase weight



Cull cow grades

- **Commercial**: young cows that fall into C maturity (42 months or older) with primal cuts used in restaurants
- **Utility-Breaker**: BCS 6 to 9, sufficient marbling and muscling for primals to be used outside of ground meat
- **Utility-Boner**: BCS 5 to 9, moderate to heavy flesh and condition, strips and rounds are pulled
- **Cutter** – BSC of 4 to 5, thin to moderate flesh
- **Canner** - BCS of 1 to 3, thin emaciated with muscle loss

R. Gill, 2011



Price differentials

- From 2002 to 2021 (Dennis et al. 2022)
 - \$5/cwt premium for Breakers relative to Boners
 - \$5/cwt premium for Boners relative to Cutters
- NM Sale barn prices for 1st week of May

- By weight

lbs	\$/cwt	\$/hd
1065	\$ 96.00	\$ 1,022.40
1105	\$ 96.00	\$ 1,060.80
1120	\$ 95.50	\$ 1,069.60
1120	\$ 98.00	\$ 1,097.60
1150	\$ 94.00	\$ 1,081.00
1225	\$ 96.00	\$ 1,176.00
1275	\$ 94.00	\$ 1,198.50
1295	\$ 95.00	\$ 1,230.25
1295	\$ 96.00	\$ 1,243.20
1500	\$ 95.00	\$ 1,425.00
1775	\$ 94.00	\$ 1,668.50



Price differentials

- **Local Cow grade prices**
 - Averaged across NM sale barns for 1st week of May
 - Packer \$87 - \$103/cwt
 - Canner/cutter \$70 - \$90/cwt
 - Shelly cows \$10 - \$45/cwt
- **Cow preg status**
 - **Bred cows**
 - **Sale Barn - A**
 - Old bred \$625
 - Young bred \$1100
 - **Sale Barn - B**
 - Bred cows avg \$1,566.67 ± \$115.83



Body condition score

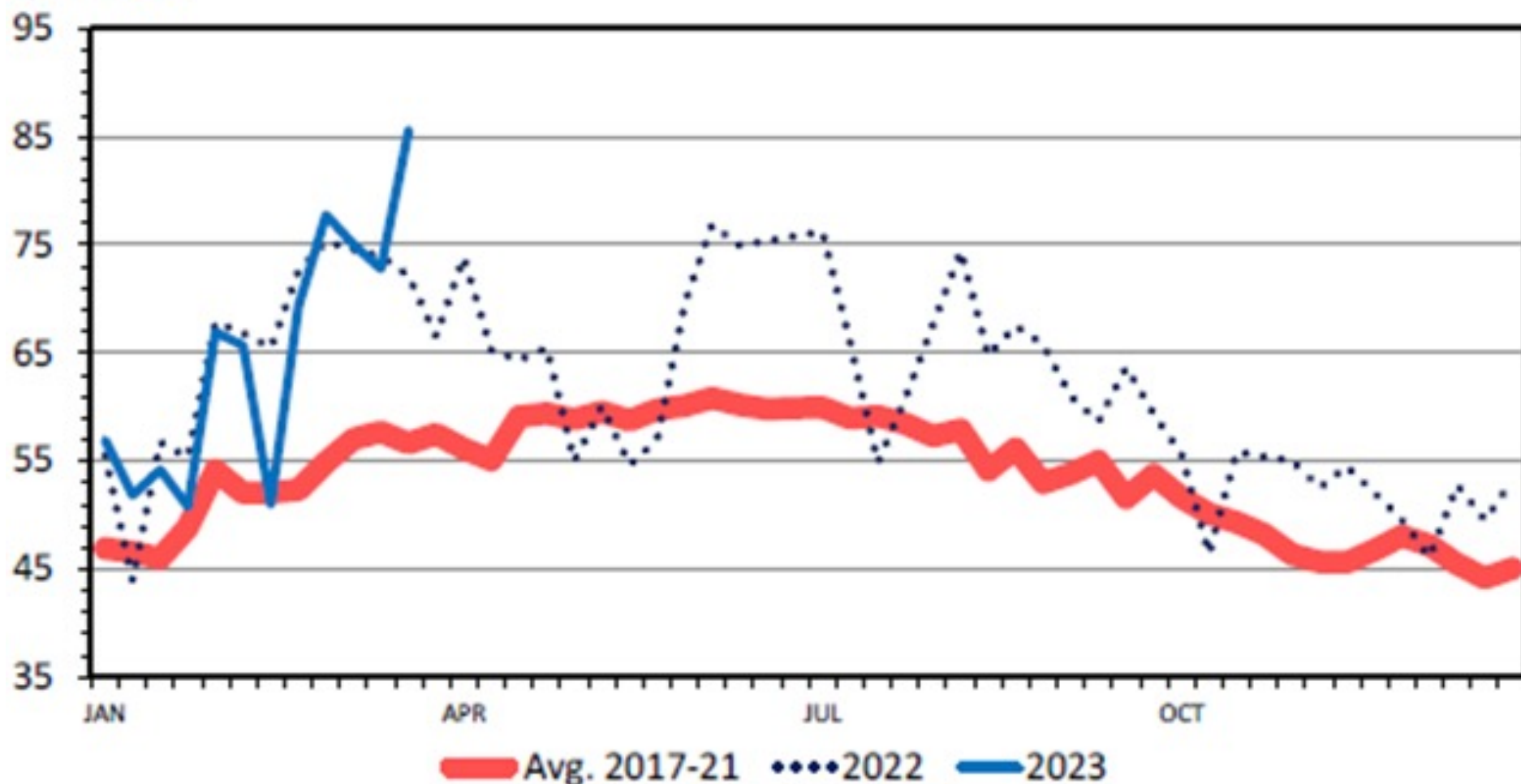
- **BCS change 7.1% of BW per BCS**
 - **1,200 lb at BCS 5 = a gain of 85 lbs to move to a BCS of 6**
 - **BCS 6 should be most valuable on a live basis (Apple, 1999)**
- **To move a cow that is a BCS 3 (1,030 lb) to a BCS of 6 (1,285 lb)**
 - **Needs to gain 255 lbs**



SLAUGHTER COW PRICES

Southern Plains Auction, 85-90% Lean, Weekly

\$ Per Cwt.



Data Source: USDA-AMS

Livestock Marketing Information Center

C-P-35
03/27/23

Scenario 1 – On pasture

- **Scenario – Wean in Oct and market in Feb**
 - **Move BCS 3 cow (1,030 lbs) to BCS 6 (1,285 lbs)**
 - **120 days to achieve**
 - **Requires an ADG of 2.12 lbs/d**
 - **October NM rangeland – ad libitum (~23 lbs)**
 - **6% CP and 53% TDN**
 - **Supplement options**
 - **20% Cube**
 - **32% Cube**
 - **Dried Distillers Grains plus Solubles**
 - **Alfalfa hay**



Scenario 1 – On pasture

Ingredient	\$/ton	\$/lb	Intake	ADG	Ration, \$/d	Days to gain 1 BCS	Feed COG
Range only (Oct)	40	\$0.02	23	0.7	\$0.56	86	\$0.80
Range + 20% Cube	380	\$0.19	7.5	2.1	\$1.95	30	\$0.93
Range + 32% Cube	550	\$0.28	8.7	2.1	\$2.92	30	\$1.39
Range + DDGS	350	\$0.18	7.3	2.1	\$1.81	30	\$0.86
Alfalfa LB only	220	\$0.11	23	0.9	\$2.53	68	\$2.81

Scenario 1 – On pasture

- **Considerations**

- **Cows gaining weight will increase forage intake**

- **Challenges**

- **Significant increases in the amount of supplement will replace forage due to rumen capacity limitations**
- **Weaning the calf will drop requirements considerably**
- **Feed conversion will be good in thin cows but will diminish as they grow due to body composition**
- **Energy is limited**
 - **Substitute a structural carbohydrate like soybean hulls**
 - **7 lbs of SBH for 2.1lb/hd/d @ \$1.19/d, COG \$0.56**



Scenario 2 – Drylot

Ingredient	\$/ton	\$/lb	Intake	ADG	Ration, \$/d	Days to gain 1 BCS	Feed COG
Grass hay	220	\$0.11	10.6				
Whole corn	232	\$0.11	9.6	2.1	\$2.28	30	\$1.09
Grass hay	180	\$0.09	10.6				
Whole corn	232	\$0.11	9.6	2.1	\$2.07	30	\$0.98
Grass hay	180	\$0.09	8				
Whole corn	232	\$0.11	15	3	\$2.47	21	\$0.82

Economic results

- **Scenario 1**
 - **Using NM May Cull cow values**
 - $1030 \times \$0.96 = \988.80
 - $1285 \times \$0.96 = \$1,233.60$
 - Difference = **\$244.00 added value**
 - **Ration costs**

Range +	Ration cost/d	Feed cost/120d period
20% cube	\$1.95	\$234
32% cube	\$2.92	\$350
DDGS	\$1.81	\$217



Scenario 3 – Breed opens??

- **After preg check – turn in bulls with opens and market as bred cows**
 - **If weaned in October and resumption of cyclicity begins shortly due to:**
 - **Loss of lactational energetic demands if thin**
 - **More time if fertility is problematic for the year**
 - **120 period has potential for at least 5 cycles**
 - **Better to limit bull exposure to achieve at least a 2nd trimester pregnancy**
 - **Challenges – Oct 15th wean**
 - **Thin cows may take 30 d to resume estrus**
 - **Will resume Nov 14th.**
 - **60 d breeding starting around weaning means bulls are pulled on Dec 14th**
 - **Sale barn preg check is minimum of 60 d preg**



Comparison – hold opens

Market Scenario 1: Sell all cows using slaughter cow prices from USDA AMS Market Reports

Economic variable:	2015/2016		2016/2017		2017/2018	
	Thin	Moderate	Thin	Moderate	Thin	Moderate
Average cow value at weaning (\$/hd)	719.56	886.85	632.98	691.09	691.18	844.34
Feed costs (\$/hd)	296.93	214.19	245.47	184.50	202.81	176.17
Labor cost (\$/hd)	57.40	24.89	48.76	48.76	41.67	41.67
Operating Capital at 5.5% APR (\$/hd)	3.94	2.84	3.25	2.45	1.91	1.66
Total cost (\$/hd)	358.27	241.92	297.48	235.71	246.39	219.50
Sale value in spring (\$/hd)	918.51	919.78	825.47	832.34	770.61	781.40
Net return (\$/hd)	-159.32	-208.99	-104.99	-94.46	-166.96	-282.44

- **Cows were retained for 165 days after weaning**



Lira and Biermacher, 2019

Comparison – Rebreed opens

Market Scenario 2: Sell Yr. 1 bred cattle < 6 yrs of age via video auction, sell all other bred and open cows at Oklahoma City National Stockyards

Economic variable:	2015/2016		2016/2017		2017/2018	
	Thin	Moderate	Thin	Moderate	Thin	Moderate
Average cow value at weaning (\$/hd)	719.56	886.85	632.98	691.09	691.18	844.34
Feed costs (\$/hd)	296.93	214.19	245.47	184.50	202.81	176.17
Labor cost (\$/hd)	57.40	24.89	48.76	48.76	41.67	41.67
Breeding bull cost (\$/hd)	28.27	10.80	13.28	11.70	25.99	15.99
Pregnancy test (\$/hd)	6.00	6.00	6.92	6.92	6.73	6.73
Operating Capital at 5.5% APR (\$/hd)	4.39	3.07	3.58	2.75	2.22	1.87
Total cost (\$/hd)	392.99	258.95	318.01	254.63	279.42	242.43
Sale value in spring (\$/hd)	1509.92	1433.76	861.90	971.13	940.16	909.55
Net return (\$/hd)	397.37	287.96	-89.09	25.41	-30.44	-177.22

- Cows were retained for 165 days after weaning
- 60 d breeding season



Lira and Biermacher, 2019

Cull Bulls

- **Avoid light muscling bulls**
- **Yearling bulls that do not pass BSE**
 - **Castrate and allow to heal or drop off if banding**
- **Market with as much muscling as possible/reasonable**

	Range \$/cwt		Average
Sale Barn A			
Packer bulls	90.00	114.50	102.25
Feeder bulls	70.00	90.00	80.00
Cutting bulls	100.00	185.00	142.50
Sale Barn B			
Packer bulls	100.00	114.00	107.00
Feeder bulls	77.00	87.00	82.00



Conclusions

- **On a live basis, BCS 6 cows are most profitable (Apple, 1999)**
- **Whereas 7 and 8 would have a more desirable carcass if sold directly to packer (Apple, 1999)**
- **Target a BCS of 5 for thin cows**
 - **Feed costs and time may diminish returns**
- **Target a BCS of 6 for heavier muscled**



Conclusions

- **Old cows will be difficult to increase sale weight (loss of teeth, lower efficiency)**
- **There is inherent risk in directly marketing to packer and producers should sell cull cows at auction (Gill, 2011)**
- **Crippled cattle should go directly to packer, rest should go through auctions**



Conclusions

- **Conversion of yellow fat to white fat typically takes 50 to 90 d depending on level of corn or hay (Harrison et al., 1978)**
- **Incorporation of ionophores can improve performance but adds cost**
- **Spring calving cows that lose calves should be marketed as soon as possible to benefit from spring prices (Gessner et al., 2020)**
- **CHEAP BUT GOOD feeds**

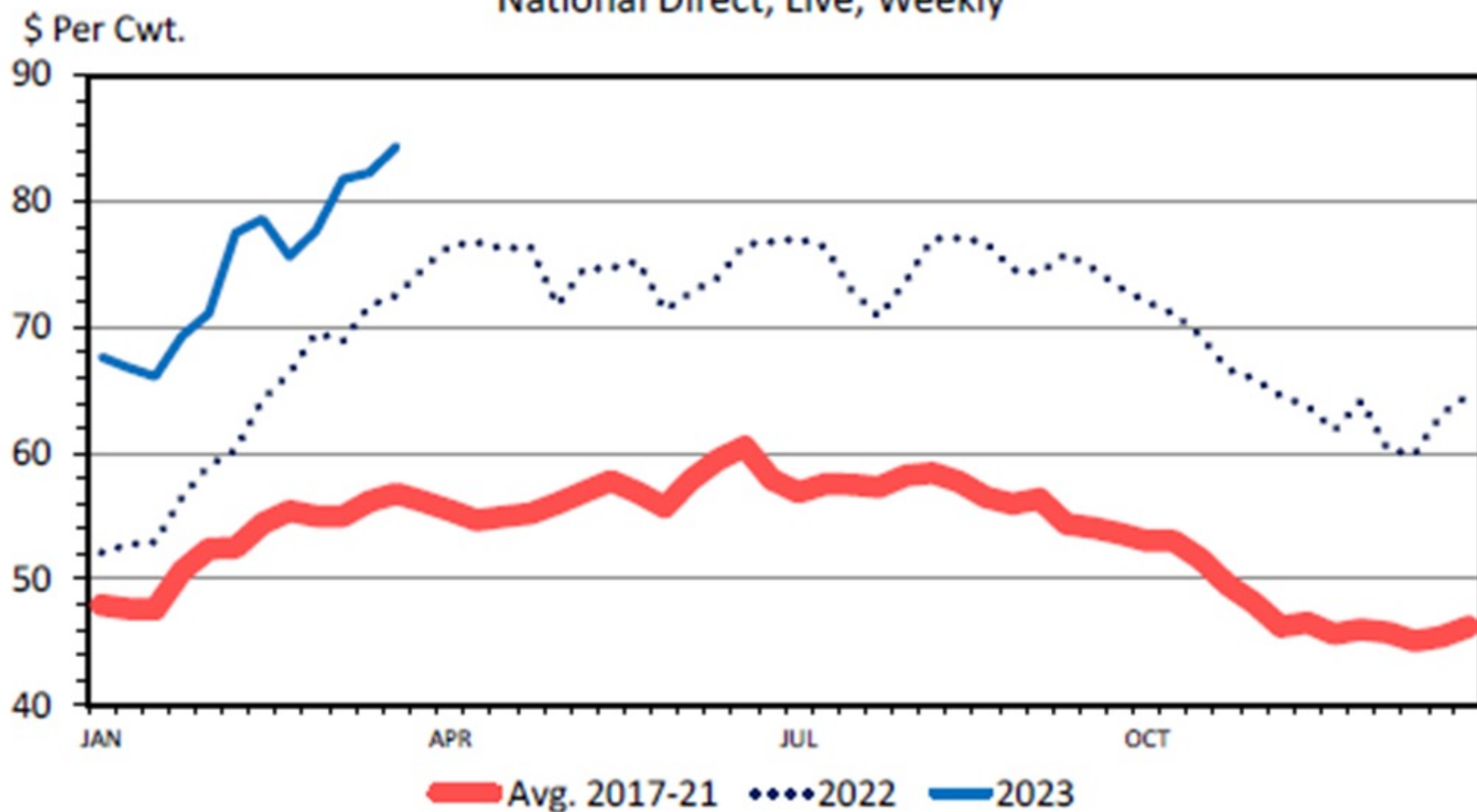




Questions
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CUTTER COW PRICES

National Direct, Live, Weekly



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