

Cull Cow Considerations

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Normal culling (100 head herd example)

- Old 5 hd
 - Broken Mouth
 - Smooth Mouth
 - Open 5-10 hd
 - Udder Issues 1 hd
 - Sorry Calf/Lost calf 1 hd
 - Feet and Leg Issues 1 hd
 - Eye Issues 1 hd
 - Disposition Issues 1 hd
 - Disease 1 hd
 - Very Thin
 - Unthrifty
 - Difficulty Calving
- 15-20% culled per year

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Normal culling (15-20% of herd annually)

- Old 32%
- Broken Mouth
- Smooth Mouth
- Open 33%
- Udder Issues 2.7%
- Sorry Calf 3.6%
- Disease 0.3%
- Eye Issues 1.8%
- Feet and Leg Issues 2.9%
- Disposition Issues 3.6%
- Need Money 14.6%

Reason for culling %, adapted from USDA 2008

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Cow Age - No cookbook on when to cull cows.

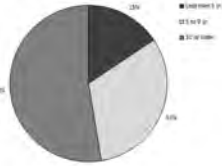
• Examples

- Cull any open cow over the age of 7
- Cull any cow over the age of 10
- Cull any cow over the age of 14



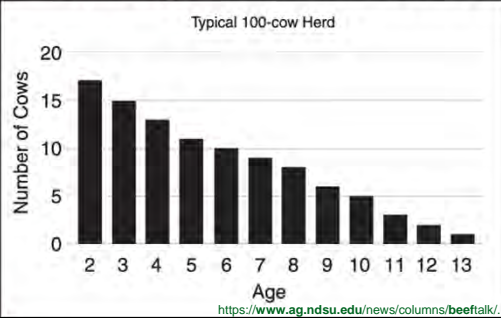
- Case by case basis
- Ranch by ranch basis

- I propose a **CULL** and **PROBATION** designation



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Cow Age Distribution



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Twenty-one year old F₁ Brahman-Hereford cow with eighteenth calf at the East Texas Pasture Laboratory, Lufkin. Lifetime average adjusted 205 day weaning weight of her calves was 505 lbs.

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Cow Age - Value of longevity on cow herd

- Shortening the generation interval drives the purebred business
- Generation interval turnover is way overrated in commercial beef production
- The breakeven age on a cow is generally between age 6-7
- A cow that will be productive till she is 15 will make me money!
 - Heifers are expensive
 - Heifers are less productive

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Cow Longevity

Breed	Age
Angus	10.3
Hereford	9.8
Brahman	9.7
Angus x Hereford	11.7
Brahman x Angus	14.7
Brahman x Hereford	13.2

Texas - Rohrer et al., 1988a

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Cow Herd Distribution		
Dickinson Research Extension Center		
Age	Number of Cows	Average Weaning Weight per Cow (lbs.)
Two	56	530
Three	48	573
Four	44	581
Five	30	627
Six	44	620
Seven	32	599
Eight	7	643
Nine	16	607
Ten	16	582
Eleven	1	534
Twelve	1	No calf weaned

In my observation some of the smallest calves come from old cows....

she needs to raise a calf significantly larger than a heifer will or be gone!

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Cow Longevity- Are they really productive to an OLD AGE?

Brahman x Hereford Cows Mated to Simmental Bulls

Age	Weaning Wt.
3-12 years	565
12-17 years	569

Texas - Gaertner et al., 1992

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Open - Should you cull a cow for being open?

- Might not be her fault
 - Late calf
 - Bull fertility?
 - Poor BCS as a result of bad winter
 - Parasite load?
- Reproduction is lowly heritable
- Generally I will give her one free skip and say it was my fault.
 - But she is now on **PROBATION**
- The second time she is open it is her fault!

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Should you cull a cow for raising a sorry calf?

- Might not be her fault
 - Calf got sick
 - Calf had poor sire
 - Calf was late born
 - Calf had difficult birth and slow start
- Don't have to weigh calves to know this
 - Leave sorry calves in the pen overnight.
 - Dam will be at the pen in the morning.
 - Identify her and put her on PROBATION

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Udder issues-Does cow udder quality affect calf growth?

	Good Udder	Bad Udder
Weaning weight	446	451
# cows	1742	223

This is true as long as a calf can nurse unassisted within 6 hours.
Cows with udder issues should be on PROBATION

Beard et al., 2018

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The decision to cull a cow is not always identical to the decision on when to market a cull cow

- She may go on your short list to cull but the market may not be right to sell her. What are your options?
- Depends a little on reason for culling.....IF that reason is OPEN then
 - Keep her till spring and sell her to the packer/market
 - Feed her to improve condition
 - Move her to a terminal herd/group with all cows for sale immediately

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Cull cows don't always have to go to slaughter

- Place with a bull for 60-120 days
- Sell bred cows in spring in higher market

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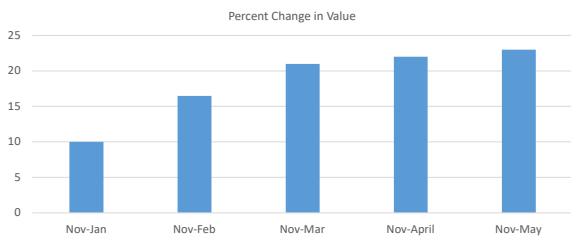
Thoughts on Marketing Cull Cows

- Straight to the packer
 - You stand the condemnations, trim loss, bruise loss, downers etc
 - Paid on carcass value
 - Different standards for different plants
- Livestock market
 - Commission
 - Probably the best bet for most producers



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Seasonal cow prices



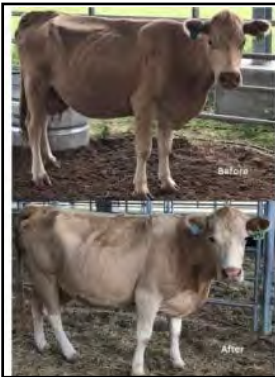
Adapted from OSU Extension Peel and Doye 2017

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Other considerations

- Tax implications to moving income to next year if you hold cows over
- A second calving season with cows on **PROBATION** can simplify management.
 - She gets an ear notch and a Charolais bull the rest of her productive life

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Flip This Cow!
Dr. Matt Hersom

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Used Pickup

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Flip this Cow

	In wt, lbs	In BCS	Out wt, lbs	Out BCS	DOF	Gain, lbs	ADG lb/d
Summer	985	3.1	1229	5.3	93	244	2.6
Fall	951	2.7	1147	4.8	84	196	2.3

Adapted from Hersom personal communication

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Flip this Cow

	In value, \$	In \$/lb	Out value, \$	Out \$/lb	COG \$/lb	Feed Cost \$	Profit \$/hd
Summer	593	.60	738	.60	.46	108	37
Fall	464	.49	721	.63	.49	94	164

Adapted from Hersom personal communication

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Does cow age affect feeding performance?

	3-4 yr old	5-6 yr old	7-8 yr old	9+ yr old
ADG d 0-14	.04	-1.46	-4.41	-3.92
ADG d 15-28	6.6	6.3	6.9	5.2
ADG d 0-54	4.3	3.7	2.9	2.2

Sawyer et al., 2004

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Effects of feeding cows on carcass traits

	0 days	42 days	84 days
ADG lb/d	0.0	.81	2.2
BCS	4.9	5.4	6.0
Carcass wt, lb	505	576	684
DP, %	47.7	53.4	54.8
REA, sq in	10.0	11.2	12.2
Fat, in	.09	.16	.37
Fat color	5.0	3.9	2.8

Stelzleni et al., 2006

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Can you feed/flip cows on hay and supplement?

	Hay	Hay plus molasses	Hay plus citrus pulp
Hay intake	35	31	29
Supplement	0	6.4	5.0
ADG, lb/d	1.0	1.6	1.5
Weight gain	114	182	171
Cost, \$/hd	173	228	202
COG, \$/lb	1.52	1.25	1.18

Need roughly a 10\$/cwt gain in cow value just to breakeven

Adapted from Brown updated with current prices, 1988

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- Feeding/Flipping Cows
- Requires cheap forage that you have no other use for
 - Still need supplement
 - Longer duration of time
 - Cheap, dependable feedsource to put them on full feed
 - Consider test weighing cows at 28 days and selling non performers

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Pitfalls to feeding cull cows

- Disease
- Underlying issues that are not visible
- Previous toxic plant
- Parasite load
- Really old cows
- Death loss (can be 10%)
- Social structure



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Feeding Cull Cows Suggestions

- Short feeding periods (45-60d) optimize feed conversion and body weight gain
- Younger thin cows may have better gain
- Cheapest weight gain occurs from BCS 2.5 to 4.5
- Open cows have fairly low maintenance requirements
- Older cows may have greater mortality (5-10%)
- Profit is highly dependent on upward shifts in market (fall to spring)
- Profit is also highly tied to cheap and underutilized feed resources
- Consider implanting cows with growth implant
- To capitalize on improved carcass traits sell direct to packer

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Current uptick in feed prices will likely not make feeding/flipping cull cows profitable in the short term!

Corn at \$5.67/bu

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Will the Central Beef Plant reopening affect any of this?

- Might be more demand for FL cows?
- Might have more demand for fed cows?

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Current market conditions

- Arcadia Market Report
 - Boner cows 1100-1900 lbs \$75/cwt
 - Lean cows 850-1200 lbs \$57/cwt
 - Low DP cows 800-1100 lbs \$47/cwt

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Example one

PROBATION

- 3 year old preg checked in the fall
 - Open
 - Raised an acceptable calf
 - BCS 3.5
 - Wt 1000 lbs
 - Value in November \$57/cwt= \$570/hd
- ADG 3 lbs/d x 60d=180 lbs weight gain
 - BCS 4.5
 - Wt 1180 lbs
 - Value in February \$75/cwt= \$885/hd
- Increase in value \$315/hd /180 lbs= \$1.75/lb value of gain

KEEP

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Example two

- 6 year old preg checked in the fall
 - Open
 - Never missed
 - Raised an acceptable calf
 - BCS 4.0 barely
 - Sound mouth
 - No defects

KEEP

PROBATION

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Example three

- 13 year old preg checked in the fall
 - Open
 - Never missed
 - Raised an acceptable calf
 - BCS 3.5
 - Missing two teeth
 - No defects

CULL

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Example four

- 14 year old preg checked in the fall
 - Bred
 - Missed once as a 4 year old
 - Raised an acceptable calf
 - BCS 4.5
 - Short solid mouth
 - No defects

KEEP

PROBATION

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Example five

- 16 year old preg checked in the fall
 - Bred
 - Missed once as a 8 year old
 - Raised a below average calf
 - BCS 3.0
 - Broke mouth
 - arthritis

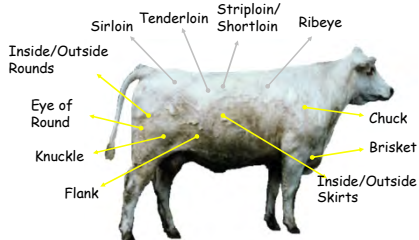
CULL

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A good record keeping system is going to be essential to make culling work

- Cows identified
- Individual cow history
- Like the idea that she will carry that history with her
 - Ear mark
 - Brand
- A good culling program will
 - Simplify management
 - Improve cowherd productivity
 - Improve fertility
 - Over time find the cattle that work best for your operation

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⇒ Retail meat markets, steak cutting companies, family restaurants, airlines and commissaries

➔ Pre-cooked entrees, jerky, marinated fajita meat, corned beef, roast beef, pastrami and other products

National Market Cow and Bull Beef Quality Audit (NCBA/CSU, 1999)

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Not All Packing Plants Are Created Equal

- Some packers will market as much as 75% of the carcass as whole muscle cuts
- Other packers will specialize in producing only boneless manufacturing beef
 - 90% lean, 10% fat (90/10) price/value \$217/cwt
 - 85% lean, 15% fat (85/15) \$182/cwt
 - 65% lean, 35% fat (65/35) \$92/cwt
 - 50% lean, 50% fat (50/50) \$45/cwt

USDA AMS 1/15/2021

Ideal cull cow BCS is 4.0. All the muscle with minimal fat

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Percent of Plants Fabricating Subprimals from Cow and Bull



Primal Region	% of Plants
Rib	100
Loin	100
Round	85.7
Flank	85.7
Chuck	57.1
Brisket	14.3

Reported as % of plants that submitted fabrication information

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What's the defect?

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If you wouldn't want your kids or grandkids to eat it, don't sell it!

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Culling and Marketing Considerations

- | | | | |
|-----------------------|--------------|----------------------|------------------|
| • Smooth Mouth | CULL | • Old >12 yr | PROBATION |
| • Feet and Leg Issues | CULL* | • Open first time | PROBATION |
| • Eye Issues | CULL* | • Broken Mouth | PROBATION |
| • Disease | CULL* | • Udder Issues | PROBATION |
| • Very Thin | CULL* | • Sorry Calf | PROBATION |
| • Unthrifty | CULL* | • Difficulty Calving | PROBATION |
| • Disposition Issues | CULL | | |
| • Open second time | CULL | | |

*Sell directly to the packer

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SELL **PROBATION** COWS WHEN

- Market is elevated
- Drought forces herd liquidation
- To someone that wants them worse than you
- Need Money

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