Our Profit is hiding in plain sight The areas I want to cover Selection for high butterfat cows (\$100-\$300) Lower maintenance cost of a cow if the rumen is fully developed as a calf (\$40-\$100/year) Increase in carcass value if you measure, breed and select for high carcass cutout (\$100 or more) (Extra pounds from a bull with a larger H/G) Calving in sync with Nature (green grass vs hay) Fetal programming and heifer fertility.

Inductive versus Deductive thinking

"The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift."

~Albert Einstein~

Start observing and thinking

I want you to go home and take a fresh look Work more with Nature and less with agribusiness **Would you rather fail conventionally or succeed unconventionally**

We cannot build a sustainable farm with unsustainable effort.

Understanding nature can't be ignored, replaced or explained technically

This talk is to encourage you to start using your God given Wisdom and Talents!

The importance of buttertfat

NOT with grain





The Milch Cow vs EPD's

"(B)y following the directions of M. Guenon, as laid down in the treatise, anyone can *tell with certainty* whether a cow is a good milker, or whether a heifer will become one, so that there need be no **<u>doubt</u>** as to the profit of raising an animal, and no chance of being taken in the purchase of one."

National tribute of the French Government Paris, September 17, 1848 **Calf Butterfat Statistics** (Gearld Fry) How many pounds of butter-fat does it take to produce a 450-475# calf

Average beef cow in America produces 160# fat a year

Average weaned calf from her weighs 450-475[#]

So 160 X 16 = 2560 oz divided by 300 days = 8.533 oz fat/day = 450-475# calf or 1.58# gain/day

Calf Butterfat Statistics (educated guess Gearld Fry) 200# butter-fat X 16 oz = 2# gain a day 250# butter-fat X 16 oz = 2.34# gain a day 300# butter-fat X 16 oz = 2.6# gain a day 350# butter-fat X 16 oz = 2.8# gain/day 400# butter-fat X 16 oz = 3# gain a day

Calf Butterfat Statistics

4/3/19 Vale Oregon Sale Barn 450 pound steer \$1.80/pound =\$810.00 600 pound steer \$1.65/pound =\$990.00 750 pound steer \$1.40/pound = \$1050.00 We can have our own "wild cow milking contest" or we can learn the butterfat indicators to look for as a baby heifer calf and/or on replacement heifer selection day or when buying in animals.







Estrogen shuts off Long bone growth In the front end of A female first



What if that cow has a blind quarter (mgt) or severely tilted udder (genetics)

Reduced BUTTERFAT and milk for the calf

Assume a 10% lower rate of gain as a calf = a \$75.00-\$100.00 lower selling price

Assume 20% lower rate of gain as a calf = a \$150.00 - \$200.00 lower selling price

We might have a blind quarter because we selected/bred for a large volume of milk, or overfed during early lactation ... causing mastitis and the resultant blind quarter

Butterfat in our animals

How much more would fluid milk be worth If the butterfat was .5% to 1% higher? Customers want Omega 3 fats Clean/Organic milk and beef products Epi-genetics to maximize a dairy cow's genetic potential **Mineral Rich Grass** ACV, sea salt, detox conditioner

Importance of development of Rumen Anibal Pordomingo The senior researcher at the National Institute of Agriculture Research of Argentina (INTA).

Had researched and found that the average beef cow in America only digested 55% of what she ingested. THEN he heard Gearld Fry talk.

He went back and looked over his data and found that **SOME** cows digested 70% of what they ingest. Hmmmmm...that means some were only digesting 40% of what they ingest!!!! Assume the average cow in your area costs \$454.54 to feed for a year (*use your own number*).

100% efficiency = \$250.00 of hay/grass to feed 70% efficiency = \$337.80 of hay/grass to feed 65% efficiency = \$384.60 of hay/grass to feed 60% efficiency = \$416.00 of hay/grass to feed 55% efficiency = \$454.54 of hay/grass to feed 50% efficiency = \$500.00 of hay/grass to feed 40% efficiency = \$625 .00 of hay/grass to feed

Times ten years in your herd!!!!!! We either BREED and DEVELOP for body condition or we FEED for body condition!!!

"Some are eating half as much as others" Don Faulkner If I have **thirty-eight** 1000 pound cows eating 4% of their bodyweight, that is 1500 pounds of feed. If I have **fifty** 1000 pound cows consuming 3% of their bodyweight, that is 1500 pounds of feed. If I have seventy five 1000 pound cows consuming 2% of their bodyweight, that is 1500 pounds of feed.

WHICH COW DO YOU WANT?

Nutritional Requirements for Development

Grow frame (bones)

Build muscle mass (carcass cut-out) Build and place fat cells in developing heifers Butterfat is a bypass protein (*does not have to be ruminated*)

Only cows that have the genetics for butter-fat can fully develop the rumen on calves weaned at 10 months and give the best return on the grass you grow

Abundant/clean/mineral-rich Nutrition = Genetic Expression



Well developed rumen

Partial And no development



Developing that Rumen



"A leap-of-faith"

"Arizona Strip Grazing"

What does that look like on my farm

40-45% utilization 65-70% Utilization

Cow weighs 150-200 pounds less in the spring She can not support a calf at her side over winter

5-10-15% open cows to be culled every year Has the "Revers wedge" look Weigh 100 pounds less in spring average Supports a calf at her side all winter Higher percentage of cows breeds back every year. Big belly

Developing Dairy heifers on Grass

It costs \$780 to develop on grass to first lactation It costs \$1300 to develop on a TMR On the other end Heifers developed on grass produced` an average of 2000 more pounds of , milk a year Both groups were producing that milk on a TMR

Structural correctness



Near Perfect Form Utilization of Grass High Muscle Mass High Reproductive Performance





What defines a Fertile Bull-Shoulders and Testacles

Highly fertile bulls get 80% of cows pregnant first 21 days of breeding season

Highly fertile bulls impregnate 50-60 cows in 45 days Grain-raised bulls have more abnormal sperm cells than Forage-raised bulls resulting in **early** term loss of pregnancy (Dr. Richard Saacke) The Glandular function of that the sire (from your best cows) will be passed to his offspring. HUGE added value to the ranch!!!

At 6 months this calf weighed 72% of mother, weaned at 9.5 months and 6 weeks later she had her next calf.



Find a superior bull to start

Nourish him well (epi-genetics ... more later) Choose superior females from your herd Choose <u>males</u> who equal or <u>exceed dad</u> to go back into the herd.

For rapid improvement, breed "the best to the best, regardless of relationship" Robert Bakewell circa 1760 This "ties up" those positive genes in their offspring.

Guard against any and all negative traits.

Heart Girth vs. Top line (terminal animal)

For every 1" the top line is larger than heart girth ... you loose 37 pounds of red meat For every inch the heart girth is larger than the top line ... you gain 37 pounds of red meat Comparing two fat steers, one a minus 2" and the other plus 2" Both animals weighed within 20 pounds of each other live.

25 years ago...there was \$400.00 more product on the2" plus table.

And each 2" plus girth – one less pound of grain foreach pound of gainDr. Michael McDonald

Extra value from each additional inch of Heart girth in the bull Assume a 4" plus H/G in the bull over your cows

Calves should be 2" larger H/G than last year (*an average between the bull and your cows*)

Breeding 30 cows for 4 years (tootsie roll bull could breed 50-60)

Assume 110 weaned calves

You keep 20 replacements over this time (you should keep more of this easy keeping type and perhaps a bull or two)

That leaves us 90 calves to finish on grass @ 74 extra pounds/finished animal because of the 2" additional H/G

74 pounds of red meat on each X 90 head = 6,660 extra pounds

6,660 pounds X \$6.00/pound = \$39,960 extra meat to sell.

Looks to me like each extra inch of heart girth from a bull is worth about \$10,000 in a grass finishing operation.

Linear measurement score

Meat-to-bone ratios

<u>**2.0**</u> approximately a 55% ratio = 385# = <u>\$2310</u> Longest time to finish

2.5 approximately a 59% ratio = 413# = \$2478
3.0 approximately a 63% ratio = 441# = \$2646
3.5 approximately a 67% ratio = 469# = \$2814
4.0 approximately a 71% ratio = 497# = \$2982
4.5 approximately a 75% ratio = 525# = \$3150 Shortest time to finish

Assuming direct marketed animal @ \$6.00/pound ~~700 pound carcass

When to calve ... a beef thing

"Our **calves were small** compared to the calves produced from the conventional calving season and would have brought us **\$50-100 less** than if we were fall calving. But **we lowered production costs by nearly \$300/cow** by eliminating the hay feeding and cow depreciation.

(By calving-out of season we could use other people's late calving and open cows they were culling as our replacements). Not making a profit would have been like trying to fall out of a boat and not hit water."

Dick Diven, Low Cost-Cow Calf

Late calvers don't work



Calving when grass is green

Spring grass is high in Potassium. Potassium is antifreeze for the grass Potassium helps prevent dystocia Manganese is vital for fertility Bulls go in when NATIVE grasses are producing seed heads Manganese is in seeds (watermelon and grapes?) Grazing ENERGY vs. Protein will result in more pregnancies

Cows/heifers must be "ON-THE-GAIN" or "GRAZING ENERGY" to breed back

• Taken from Factors Affecting Calf Crop

LEVEL OF FEED		No or	DAILY INTAKE OF		HEIFERS SHOWING HEAT AFTER CALVING BY:			No. of HEIFERS	
ENERGY	PROTEIN	HEIFERS	TDN	DIG. PROTEIN	60 DAYS	90 DAYS	120 DAYS	BECOMING PREGNANT	
High High High Medium Medium Medium Low Low Low	High Medium Low High Medium Low High Medium Low	$ \begin{array}{r} 10 \\ 10 \\ 10 \\ 11 \\ 11 \\ 12 \\ 8 \\ 10 \\ 12 \\ \end{array} $	$\begin{array}{c} 1b.\\ 15.6\\ 14.8\\ 11.4\\ 9.4\\ 10.4\\ 9.1\\ 5.6\\ 5.8\\ 5.6\end{array}$	lb. 2.06 1.18 0.40 1.92 1.38 .50 1.86 1.20 .46	no. 8 5 3 7 5 5 0 0 1	no. 9 8 6 8 10 6 0 0 1	no. 9 9 9 10 10 7 0 0 2	$ \begin{array}{r} 10 \\ 9 \\ 10 \\ 11 \\ 10 \\ 10 \\ 10 \\ 0 \\ 1 \\ 4 \end{array} $	

• Ian Mitchell-Innes ... "wiping the dust off"

GROUP I GROUP II GROUP III GROUP IV PERCENT COWS SHOWING HEAT BY: June 1, 1962 July 1, 1962 August 1, 1962

For definition of Groups, see Table 30.

	NO. COWS PREGNANT								
GROUP	GROUP I NO.	No. ACTATING COWS	22nd day of breeding season	43rd day of breeding season	100th day of breeding season	SETTLED FIRST SERVICE			
Pasture only	I	13	1	1	7	% 45			
Dry lot (equal gains to									
pasture)	II	12	0	0	6	36			
recommendations Pasture	s) III	13	0	5	11	62			
(supplemented)	IV	11	5	6	9	73			

For definition of Groups, see Table 30.

A dung beetle walks into a bar... "Is this stool taken?" According to a study that was done several years ago in Wyoming, the weaning weight difference between calves born in February and calves born in June was only 43 pounds.

What do you think it costs to produce those extra 43 pounds during the winter?

We are feeding a cow that is... Is trying to lactate Using stored forage that is lower quality than your spring grass And costs more to put into a bale. With May/June calving individual weaning weights are lower ... however Less sickness and death loss calving in sync. $\sim 3\%$ You get a higher percentage to breed back on time every year = more calves $\sim 5\%$ With the two factors alone, they are actually weaning MORE TOTAL POUNDS The calves are worth MORE PER POUND. Dick Diven ... Low Cost Cow/calf 100 head @ 557 pounds 55,700 @ \$1.62=**\$90,234** 92 head@600 = 55,200 pounds \$1.55 =**\$85,560**

Waddington's Epigenetic Landscape

Inter-uterine Environment At the point of conception and during gestation Mineral-Rich When do we wean, **Toxin-Free** What do we feed,

Poor

Fetal Programming





Basically, a major economic advantage a year and a half after being born, although no differences were apparent when they were newborn calves!

Grazing ... Dr. Lee Manske

When 25% of the grass tiller leaf area is removed during the first grazing period, 140% of the leaf weight removed is replaced by the compensatory growth processes.

When 50% of the grass tillers leaf area is removed during the first grazing period, **only 70% of the leaf weight** removed grows back.

When 25% of the grass tillers leaf area is removed during the first grazing period, the **<u>quantity</u>** of secondary tillers increases 40% during that same growing season **and increases 64% to 173% during the second growing season**.

Ian Mitchell-Innes has the same idea. *"Wiping the dust off the solar collector"*

What do those numbers mean

40% increase in grass growth this year!!! versus 30% lower grass growth this year. 64%-173% increase in growth next year!!! versus 63% to 144% decrease in growth next year This will allow for growth from weaning to finish with the produced meat reaching the highest quality grade and yield grade of the animals genetic potential at around 18 to 24 months of age with the costs per pound of weight gain at less than that of grain-fed **b**eef.

The amount of Biology in the soil will increase or decrease based on which grazing practice we choose.

Mineral poor grass and hay

How much more grass and hay does a cow eat when it is lacking minerals and digestibility (lignified). What stage of growth is the feed

As forages increase in maturity, there is an increase in lignin content. Lignin is not digested by the rumen microbes.

Raw Apple Cider vinegar enzymes help the cow digest more of the feed placed in front of her.

Horizon Organic in Twin Falls Idaho used ACV and increased their butterfat .04%. Digestible fiber is what most effects butterfat production.

THE SIGNIFICANT PROBLEMS WE HAVE CANNOT BE SOLVED AT THE SAME LEVEL OF THINKING WITH WHICH WE CREATED THEM.

Solve the problems our "Mechanical Mind" has created

We need to use our

"Organic Mind" to

Change our focus from production to PROFIT by mimicking nature

What would happen if instead of fighting nature, we worked with nature ... if we tried to help nature do what comes naturally?

Nature selects animals to fit the environment and so should we.

Nature fits the reproductive cycle of her animals to match the forage cycle. So should we.

•The cow that calves when the Potassium content is high in spring grass is more likely to rebreed when the •Manganese level is high in her diet

Things to take home

- Today is the best time to see the cows that are the most adapted on your farm
- Think about these areas and how they apply to your dairy or beef herd
- Perhaps you will see different challenges and <u>opportunities on your farm</u>
- If I came to your farm I would only see a "snap-shot" of what is going on...however, the visit will help you break through not being able to see what you have been looking at.
- Your eyes, brain and wisdom are what are going to enable to you to make changes that will profit your farm and your family

All calves were left on their mothers for 10.5 Months

I used the "Quiet Wean" nose tongs and left them with their mothers for one week after placement Transitioned with the "grass fats" group from the "better hay" and AVC Products to spring grass once the spring grass reached an 8" height. 3 Steer calves were less than 17 months of age. Bred to superior bull **685, 698, 775 (avg. 719 hanging**

weight)

2 Heifer calves were less than 16 months of age, out of "Mr. Clean" **661, 688 (avg 669 hanging weight)**

Selecting high butterfat cows (\$100-\$300) The difference in keeping cost of a cow if the rumen is fully developed (**\$80-180**) The difference in direct market carcass value if you linear measure, (\$200 ++) Calving in sync with Nature (smaller calf with lower costs that sells for more per #) How we graze effects total grass production (40% more grass vs 30% less total grass production)

Opportunity

Is like a train arriving at the station Some people get off Other people get on The train leaves the station

And THAT opportunity is no longer available

Tailor Made Cattle: Have tape...Will Travel



Steve Campbell

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