

Repro School, August 2024
Central Florida Livestock Agents Group

The Economic Impact of Reproductive Efficiency

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Photo by UF/IFAS: Cat Wofford

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REPRODUCTION

One calf : One year
(365 Days)

Calve -> Lactation -> Rebreed -> Wean -> Gestation

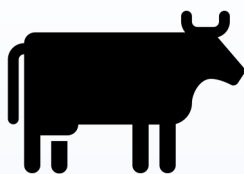
\$ \$ \$ \$ \$

How can we manage our cows economically??

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Importance of Efficient Reproduction

Timely Bred,
Healthy Cows



Consistent
Calf Crop



Happy
Rancher

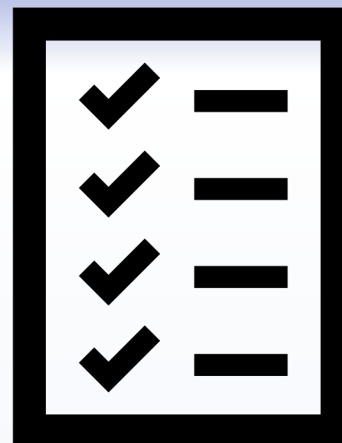


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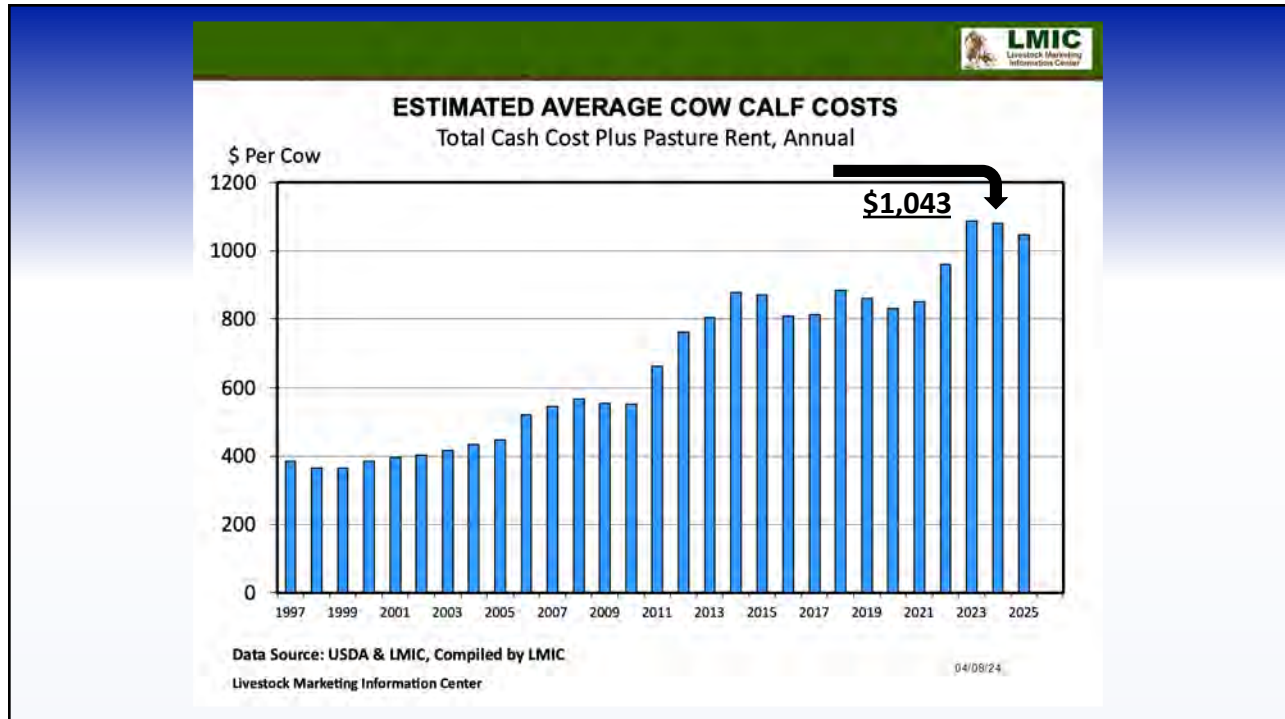
Where to Start

- ❖ Nutritional Requirements + Efficient Cows
- ❖ Know Your Costs
- ❖ “Controlled” Calving Season
- ❖ Aim to Increase Weaning Rates & Pounds Weaned
- ❖ Implement an Efficient Plan FOR YOU

RETURN ON INVESTMENT &
PLANNING AHEAD



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Know Your Costs

Year	*Variable Costs Per Cow
2017	\$610
2018	\$663
2019	\$645
2020	\$623
2021	\$639
2022	\$721
2023	\$816
2024	\$775

8-Year Total

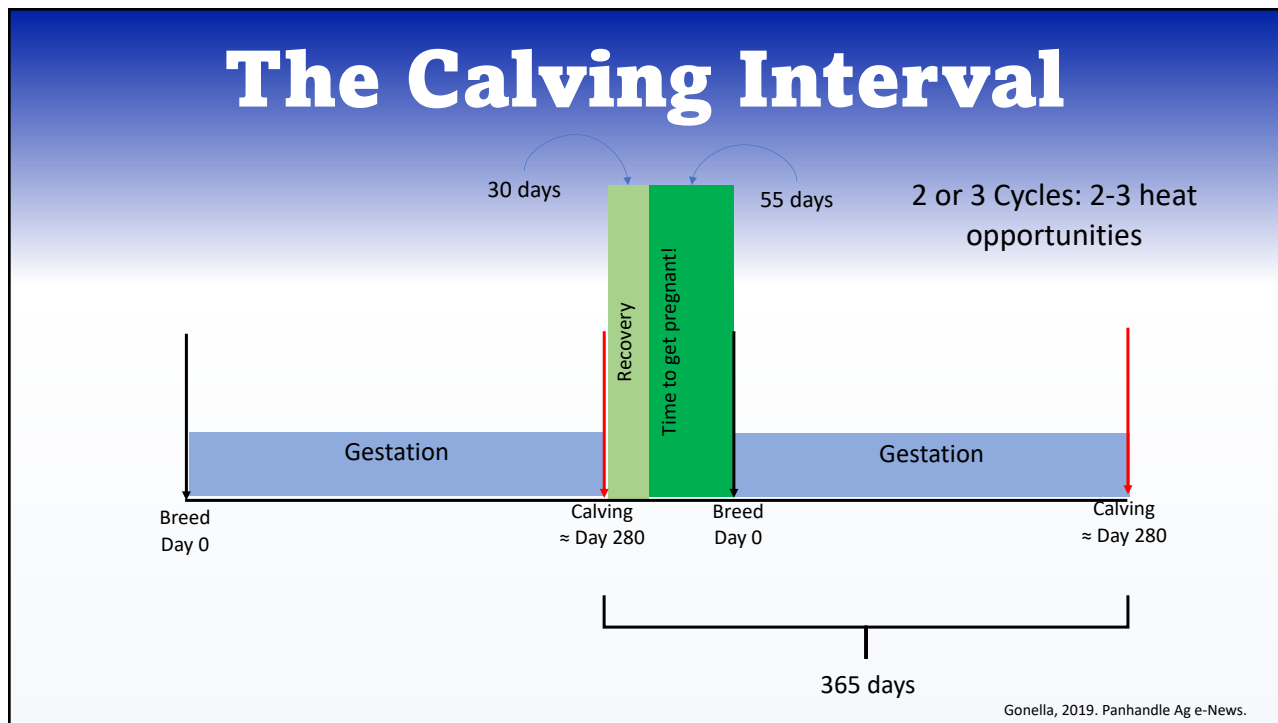
\$5,492/cow

Per-Year Average

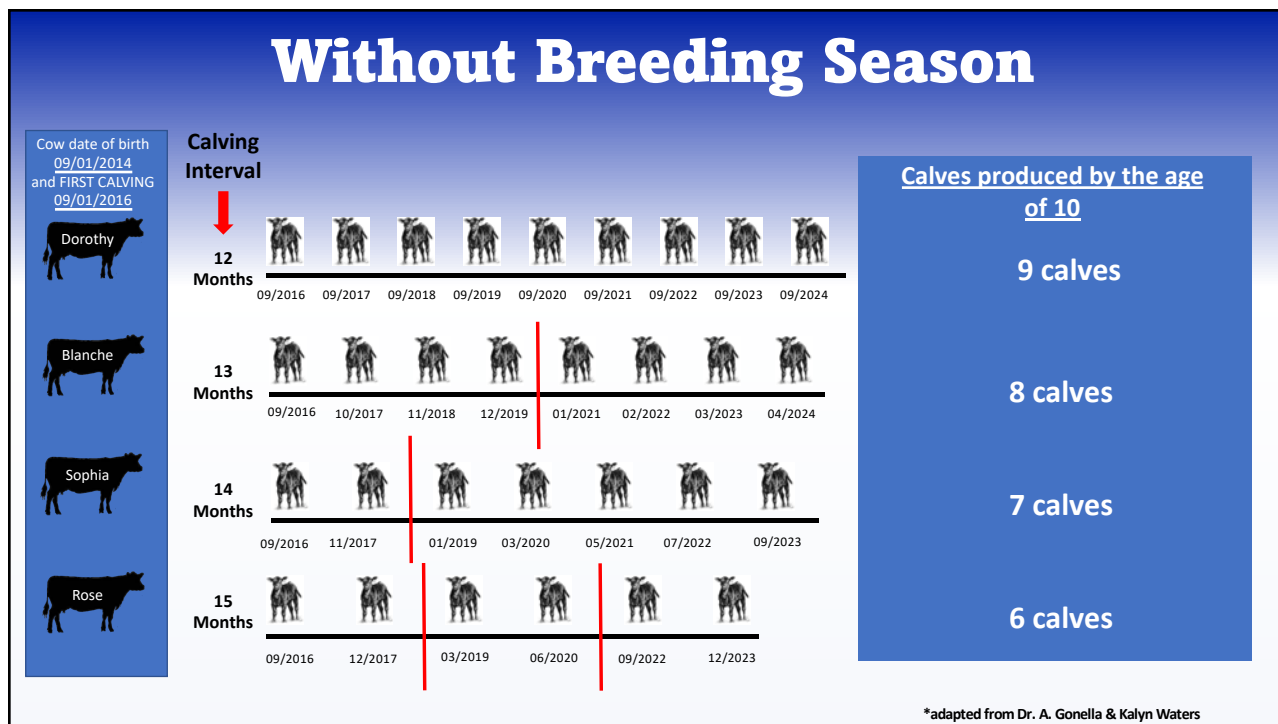
\$687/cow

*Removed land costs (~25%)

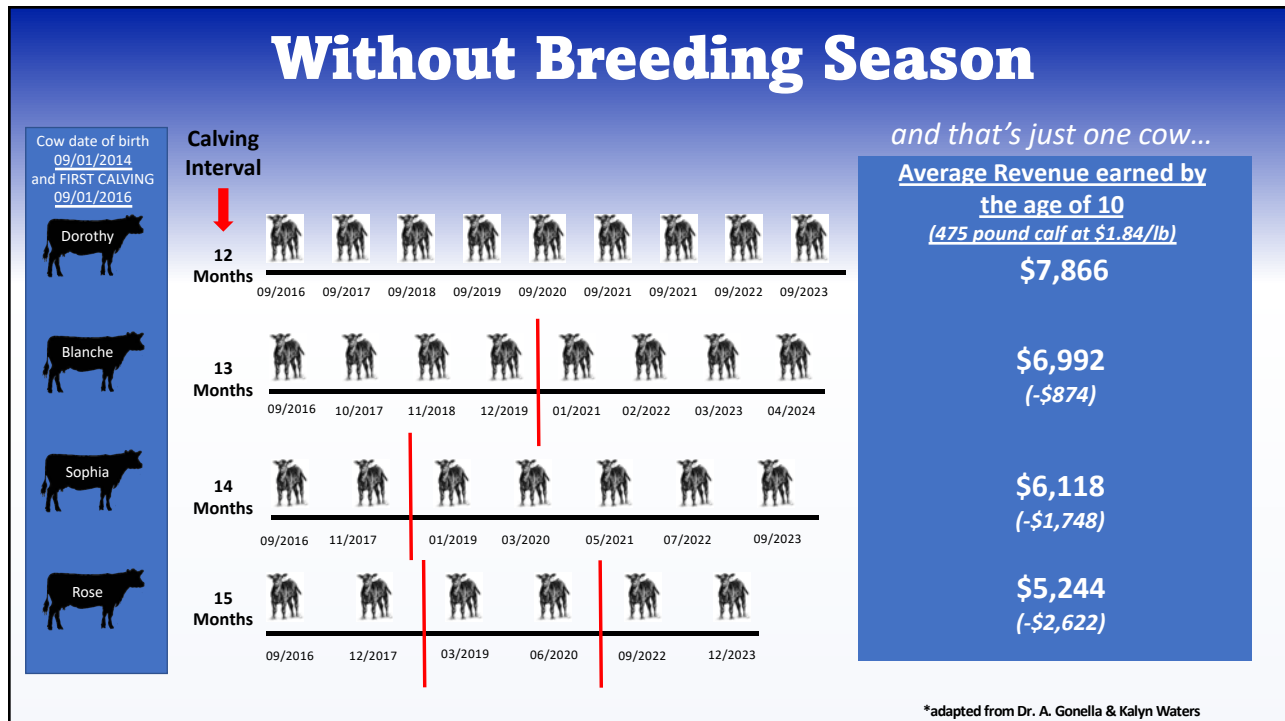
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Without Breeding Season

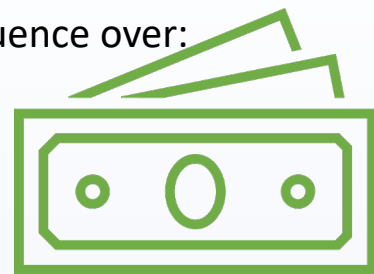
Cow	Calving Interval	*Total Variable Costs Per Cow	**Total Average Revenue	Total Average 8-Year Return
 Dorothy	12 months	\$5,492	\$7,866	\$2,374
Blanche	13 months	\$5,492	\$6,922	\$1,430
Sophia	14 months	\$5,492	\$6,118	\$626
Rose	15 months	\$5,492	\$5,244	-\$248

*does not include heifer development/purchase costs
**does not include sales from culls

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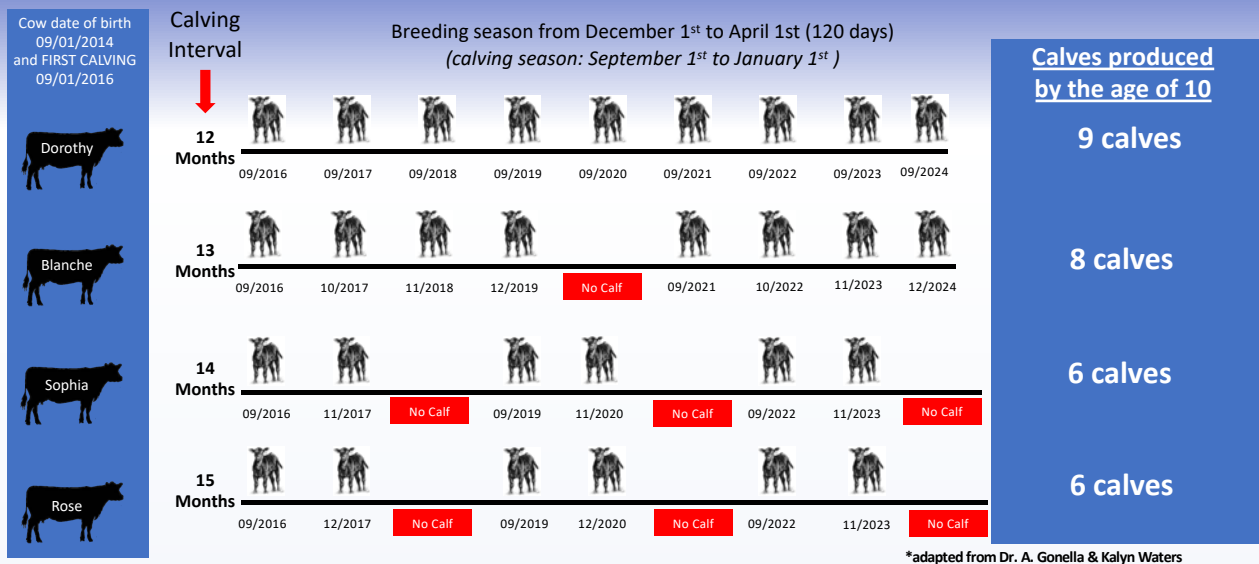
Controlled Breeding Season (pt.1)

- ❖ More variables that can be “controlled” by a producer:
 - ***Monitor when efficient cows get bred*** *(time of year)*
 - ***Monitor length of the breeding/calving season***
 - Trying to get more cows bred early in the season
 - Sell a more uniform calf crop
- ❖ Controlling these variables enables more influence over:
 - ***Pregnancy Rates***
 - ***Weaning Rates***
 - Weaning Weights

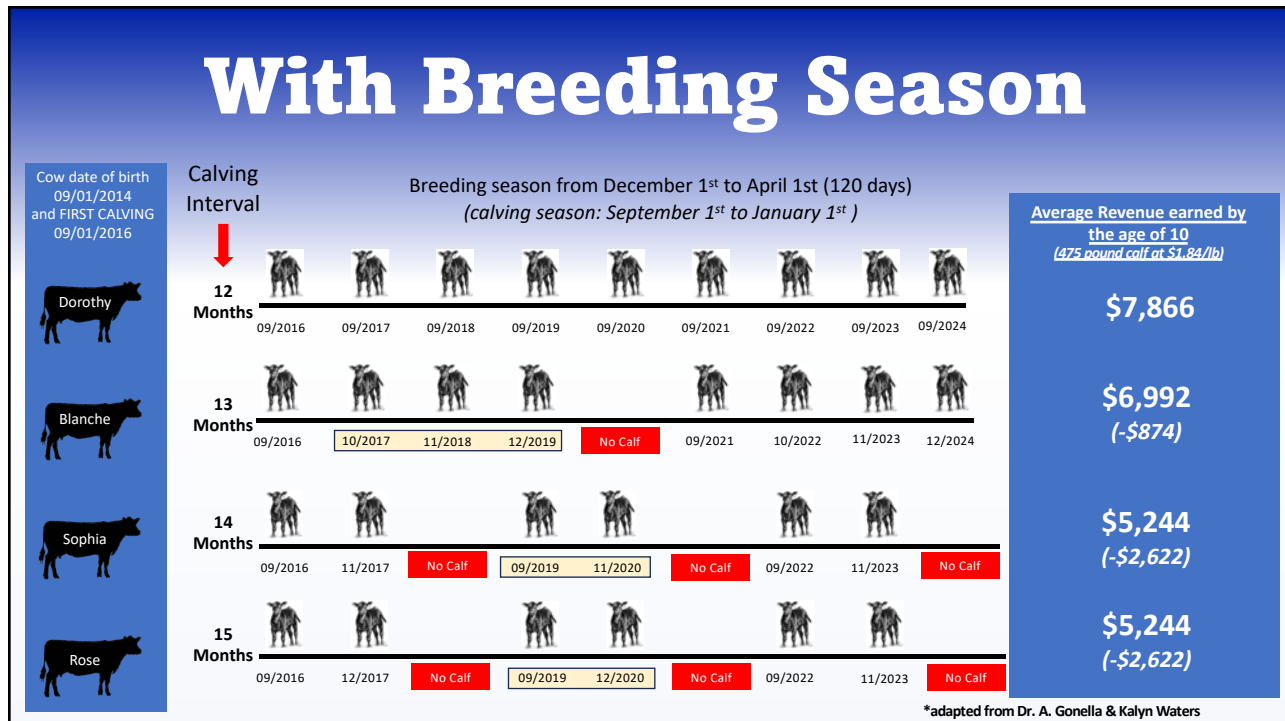


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With Breeding Season



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With Breeding Season

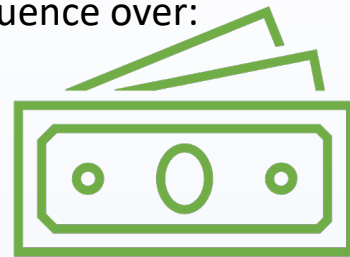
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*does not include heifer development/purchase costs
**does not include sales from culls

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Controlled Breeding Season (pt.2)

- ❖ More variables that can be controlled by a producer:
 - When cows get bred (time of year)
 - Length of the breeding/calving season
- ❖ **Trying to get more cows bred early in the season**
- ❖ **Sell a more uniform calf crop**
- ❖ Controlling these variables enables more influence over:
 - Pregnancy Rates
 - Weaning Rates
 - **Weaning Weights**



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Controlled Breeding Season

Comparison example

❖ 80% weaning rate = 80 calves

Calves Sold In Each Weight Class (July 2024 steer prices)

Group	320 lbs	365 lbs	420 lbs	465 lbs	520 lbs	Avg. \$ /lb & lbs Weaned
\$/lb	\$4.02	\$3.95	\$3.22	\$2.87	\$2.75	
Non-Uniform	16	16	16	16	16	418
Uniform	0	0	26	26	28	470

Group	Revenue	Avg. Calf Revenue/Cow	Difference
Non-Uniform	\$109,522	\$1,095	\$ 4.00/cow \$ 378 total
Uniform	\$109,900	\$1,099	

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Controlled Breeding Season

Comparison example

❖ 80% weaning rate = 80 calves

Calves Sold In Each Weight Class (October 2019 steer prices)

Group	320 lbs	365 lbs	420 lbs	465 lbs	520 lbs	Avg. \$ /lb & lbs Weaned
\$/lb	\$1.75	\$1.59	\$1.53	\$1.42	\$1.29	
Non-Uniform	16	16	16	16	16	418

Group	Revenue	Avg. Calf Revenue/Cow	Difference
Non-Uniform	\$49,824	\$498	\$ 30.00/cow
Uniform	\$52,657	\$527	\$ 2,833 total

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Calving Distributions (120-day season)

Table 4: Differences in Calf Value Over 120-day Breeding Season (Revenue)

Day of Breeding Cow become Pregnant	30	60	90	120
Birth Weight (lbs)	75	75	75	75
Average Daily Gain (lbs)	2.25	2.25	2.25	2.25
*Weaning Weight (200 days start of calving season)	525	457	390	322
**Calf Value at Weaning (\$/lb)	\$2.43	\$2.57	\$2.98	\$3.18
Calf Value at Weaning (\$/head)	\$1,275	\$1,174	\$1,162	\$1,023
Total Value Difference (\$/head)	\$ 0.00	\$101	\$ 113	\$ 252

*All calves weaned on a set date and marketed as a group.

** Monthly average prices for Florida steers (November 2022 – July 2024)

*Dr. Angella Gonella, Kalyn Waters, & Hannah Baker

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SCENARIOS: Variable Expense Returns/Cow

- 50 head beef cow herd of “Dorothys”
- 88% weaning rate (44 calves)
- Average \$/lb = \$2.79 *(calculated from November 2022-July 2024 average of wt. classes)*
- **Different Calving Distributions:** *(% born in each 30-day period)*
 - 25-25-25-25**
 - 40-25-20-15**
 - 45-30-15-10**

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Calving Distributions: 25-25-25-25

Month 1:
9 calves



525 pounds

Month 2:
9 calves



457 pounds

Month 3:
9 calves



390 pounds

Month 4:
9 calves



322 pounds

Average Weaning Weight: 424 pounds

Average Revenue/Calf: **\$1,182**
 Total Average Revenue: **\$51,993**
 Average Revenue/Cow: **\$1,040**
 Average Expense/Cow: **\$775**

**Average
Return/Cow:
\$265**

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Calving Distributions: 40-25-20-15

Month 1:
18 calves



525 pounds

Month 2:
11 calves



457 pounds

Month 3:
9 calves



390 pounds

Month 4:
6 calves



322 pounds

Average Weaning Weight: 453 pounds

Average Revenue/Calf: \$1,263
Total Average Revenue: \$55,578
Average Revenue/Cow: \$1,112
Average Expense/Cow: \$775

**Average
Return/Cow:**
\$337

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Calving Distributions: 45-30-15-10

Month 1:
20 calves



525 pounds

Month 2:
13 calves



457 pounds

Month 3:
7 calves



390 pounds

Month 4:
4 calves



322 pounds

Average Weaning Weight: 465 pounds

Average Revenue/Calf: \$1,297
Total Average Revenue: \$57,085
Average Revenue/Cow: \$1,141
Average Expense/Cow: \$775

**Average
Return/Cow:**
\$367

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Comparison of All Scenarios

Return to Variable Expenses for a 50 Head Florida Beef Cow Herd with a 120-day calving season			
Weaning Rate	72%	80%	88%
Calving Distribution			
25-25-25-25	\$ 76	\$ 170	\$ 265
40-25-20-15	\$ 125	\$ 231	\$ 337
45-30-15-10	\$ 155	\$ 261	\$ 367

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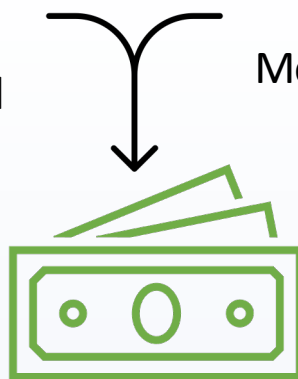
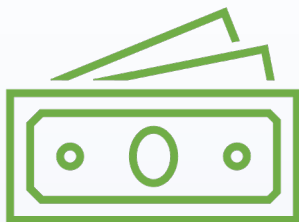
Why We Want Efficient Cows:

Consistent Pregnancy &
Higher Weaning Rates

Born Early in the Season

=
More Calves to Sell

=
More Pounds to Sell



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Key Takeaways

- Weaned calves (**revenue**) are not possible without efficient reproduction (**expenses**).
- Reproduction starts with a solid nutrition plan!
- Increasing weaning rates & weaning weights (calving season) will increase chances of a higher return to expenses.

Invest in your cows, but make sure they are **"GOOD" cows.**

"Good genetics cannot outwork bad nutrition."

Manage your herd economically by making decisions that can positively influence control factors.

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QUESTIONS???

MAY GOD BLESS YOUR STEWARDSHIP!!!

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or
863-374-7051

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