

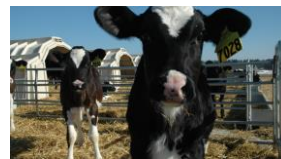
Raising Dairy Heifers on Pasture

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Get a Handle on the Big 3 Expenses on a Dairy Farm



1. Feed

1. Feed

2. Labor

2. Replacements

3. Replacements

3. Labor

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How can you reduce your replacement rearing costs?

1. Only raise as many as you need
2. Reduce age at weaning? (Double birth weight)
3. Increase growth rate
4. Breed at younger age to reduce age at first calving
5. Utilize more economical feed sources

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Will Grazing Help Reach Goals?

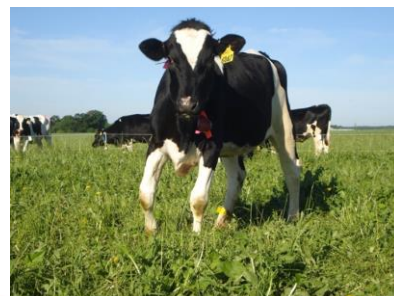
1) Double Birth Weight at Weaning -- ?

2) Calve at 22-23 Months (+1.8 lbs ADG)

3) Healthier (60% < DA's, Metritis, Ketosis, Dystocia, Injury)

4) Good Milk Producer (+1,913)

5) Lower Costs (12-20%)



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Rotational Grazing = More Milk, Healthier Animals, Less Cost so:
What's Not to Like?



Different Labor Needs, Management, Weather, Consistency,
Fencing/Watering System, Grazing Skills, Bloat, Cattle Escaping

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Temporary Fencing is Effective and Efficient



Pigtail
Step in
Posts

Polywire
& Reel

Single
Strand

Before / After

2-3 minute job
to move a fence

Residue is Crucial!

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To maximize use of pasture resources and to distribute manure most evenly, the use of both a front fence and a back fence is used. The front fence allows a smaller amount of forage to be grazed reducing waste and the back fence help distribute manure in a smaller area.

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Pastures setup without machinery using steel stake corners in case needed to reset. Replaced with wood.



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What species provides the best quality and quantity of forage?

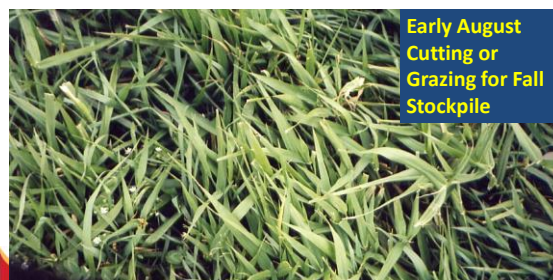


What species provides a more uniform level of production?

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Can stockpile good quality forage



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Stockpiled Reed Canarygrass @ 24% protein

	Continuously grazed paddocks	Rotationally grazed paddocks	Feedlot raised
# animals	20	21	21
DA's	3	2	7
Difficult calving	2	3	5
Metritis	0	0	1
Ketosis	2	0	3
Skeletal injury	0	2	2

Chester-Jones, H., M. Rudstrom, and L. Torbert. MN

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NY Study: Health Benefits of Grazing Heifers

Farm 1	Animals	Treated	Calving Ease
Grazed	25	6	1.26
Confinement	25	12	1.6
Farm 2			
Grazed	25	0	1.62
Confinement	25	12	1.75

Benson, A.Fay, Cornell, 2009

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Are there production benefits to grazing dairy heifers?

	Pasture raised	Confinement raised	
Yearlings			
n	54	61	P value
ADG	1.97	1.86	<0.05
First lactation milk production			
n	37	45	
ME milk, lb	25,328	23,415	<0.05

Posner and Hedtke, 2012, CIAS Research Brief #89

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Reducing costs of raising heifers by grazing

Stage of heifer growth	200-700 lb	700-850 lb	850-calving
Feed and Labor, \$/day*			
Confinement	\$2.18	\$2.76	\$3.69
MIG	\$1.30	\$1.50	\$1.50
Difference	\$0.88	\$1.26	\$2.19
X 150 grazing period	\$132	\$189	\$329

*costs based on 2008 feed and labor costs
Benson, 2012. Cornell Cooperative Extension

200 days x 1.50 = 300 days actual on pasture = double the difference per heifer!
50 heifers calving/yr X \$400/heifer = \$20K
Total costs saving of 12-20% per heifer!!

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ISU Extension Dairy Team Heifer Costs Per Day 2019								
Heifer Weight Lbs.	WI Data 2013 Base Yr			Estimated for 2019				
	2013 Cost	2013 Feed	2013 Other	2019 Slide	2019 Cost	2019 Feed	2019 Other	2019
200	\$2.15	\$1.20	\$0.95	\$0.10	\$1.79	\$0.74		\$1.05
300	\$2.30	\$1.32	\$0.98	\$0.10	\$1.90	\$0.82		\$1.08
400	\$2.45	\$1.44	\$1.01	\$0.10	\$2.00	\$0.89		\$1.11
500	\$2.60	\$1.56	\$1.04	\$0.10	\$2.11	\$0.97		\$1.14
600	\$2.75	\$1.68	\$1.07	\$0.10	\$2.22	\$1.04		\$1.18
700	\$2.90	\$1.80	\$1.10	\$0.10	\$2.33	\$1.12		\$1.21
800	\$3.15	\$1.92	\$1.23	\$0.20	\$2.54	\$1.19		\$1.35
900	\$3.45	\$2.04	\$1.41	\$0.25	\$2.82	\$1.26		\$1.55
1000	\$3.65	\$2.16	\$1.49	\$0.15	\$2.98	\$1.34		\$1.64
1100	\$3.80	\$2.28	\$1.52	\$0.15	\$3.09	\$1.41		\$1.67
1200	\$3.95	\$2.40	\$1.55	\$0.15	\$3.19	\$1.49		\$1.71
Feed	62% of 2013 costs			Other Costs 10% Higher				

by Larry Tranel, Dairy Field Specialist, NE/SE Iowa

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Per Acre Returns to a Pasture Heifer Enterprise:

Costs	Value of Gain/lb.>	\$1.50	\$1.00
Fencing: \$75 per acre over 15 years		\$5	\$5
Water: \$40 per acre over 10 years		\$4	\$4
Fertilizer: Only heifer manure was used			
Seed: \$80 per acre over 10 years		\$8	\$8
Land Rent: \$300 per acre		\$300	\$300
Lane: \$50 per acre over 10 years		\$5	\$5
Grain: (1 lb x 210 days x 1.68/head)		\$44	\$44
Labor: (4.5 hours/acre x \$10/hour)		\$45	\$45
Total Expenses Per Acre:		\$361	\$361
(Gain 1.8 pounds/hd/day, 2x moves, 1.8 hd/acre)			
Return to Management:		\$539	\$239
Return to Labor/Management per acre:		\$584	\$284

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