Goals and Strategies for Dairy Heifers

"What are Your Goals?"

1.

2.

By Larry Tranel

ISU Extension Dairy/Beef/Forage Field Specialist

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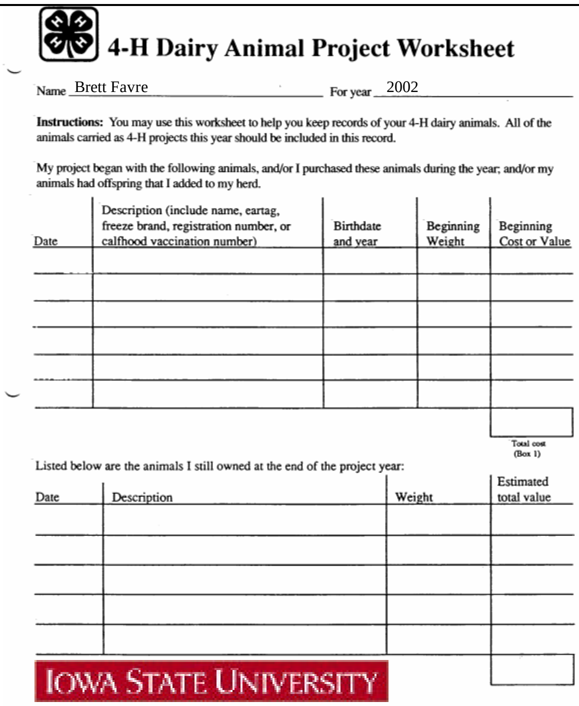
Dubuque, Delaware, Clayton and Buchanan Counties

4-H Dairy Project, February, 2002



4-H Dairy Animal Project Worksheet

Name Brett Favre For year 2002

Instructions: You may use this worksheet to help you keep records of your 4-H dairy animals. All of the animals carried as 4-H projects this year should be included in this record.

My project began with the following animals, and/or I purchased these animals during the year; and/or my animals had offspring that I added to my herd.

Date	Description (include name, eartag, freeze brand, registration number, or calfhood vaccination number)	Birthdate and year	Beginning Weight	Beginning Cost or Value

Total cost (Box 1)

Listed below are the animals I still owned at the end of the project year:

Date	Description	Weight	Estimated total value

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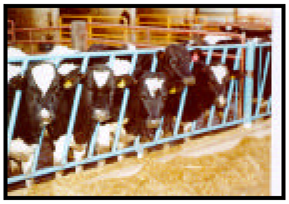
Goals For Your Dairy Project:

1. ***Fun-Learning***
2. ***Growth***
3. ***Profit***
4. ***Responsibility***
5. ***Achievement***
6. ***Friendship***



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Top Ten Heifer Development Strategies

11. Genetically Superior Sire

10. Not born a Calving Ease Score 3, 4, or 5.

9. Birth Weight from 66 to 99 Pounds.

8. IgG Level >1000 mg/dl (10g/l) 2-4 Hours After Birth.

7. Accelerated Milk Replacer Program?? Compensatory??

6. Weaned and Eating 1.5 lbs. Starter at 6 Weeks

5. All-In, All-Out Rearing. (social, health)

4. Stair-Step Growing Program

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Strategies (Cont)

3. Feed an Ionophore (Rumensin or Bovatec).

2. Use Pasture (MIRG) to Reduce Feed Costs.

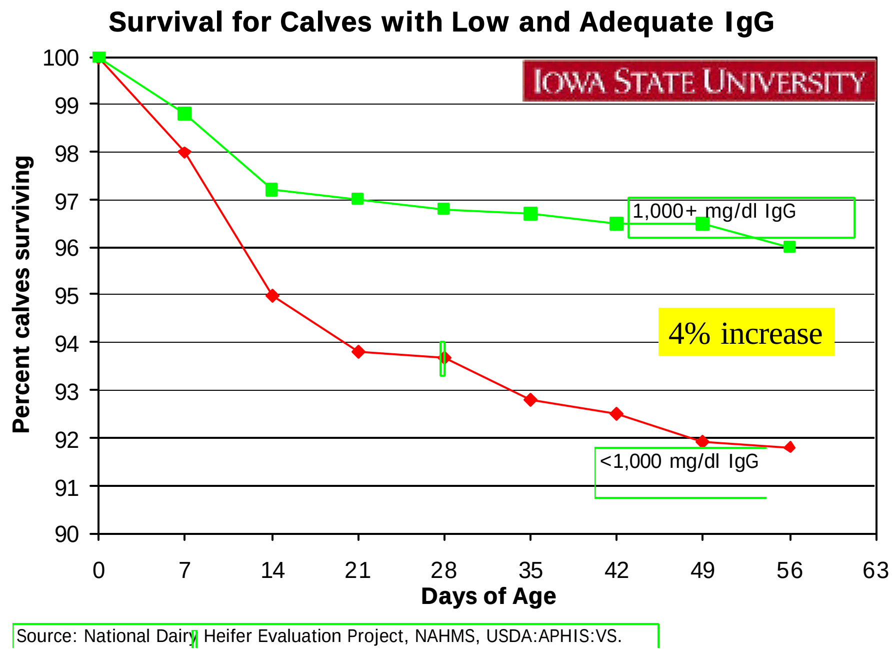
1. Heifer is 21- 24 Months at Calving,

Weighs 1360+ Pounds *Within One Week of Calving*

Has a Calving Ease Score of 1 or 2,

Plus Herdmates for Milk, Protien, Fat,

All Quarters and Teats (4) are Working.



Value of Decreased Death Loss

NAHMS's IgG Data Shows 4% less Death loss

4% * $200 Baby Calf = $8.00

4% * $400 Baby Calf = $16.00

What is the Value of an extra 15 minutes to get 4 quarts of

Colostrum into the Calf?

$32.00 Per Hour, Cha Ching!!

$64 Per Hour, Cha Ching!! Cha Ching!!

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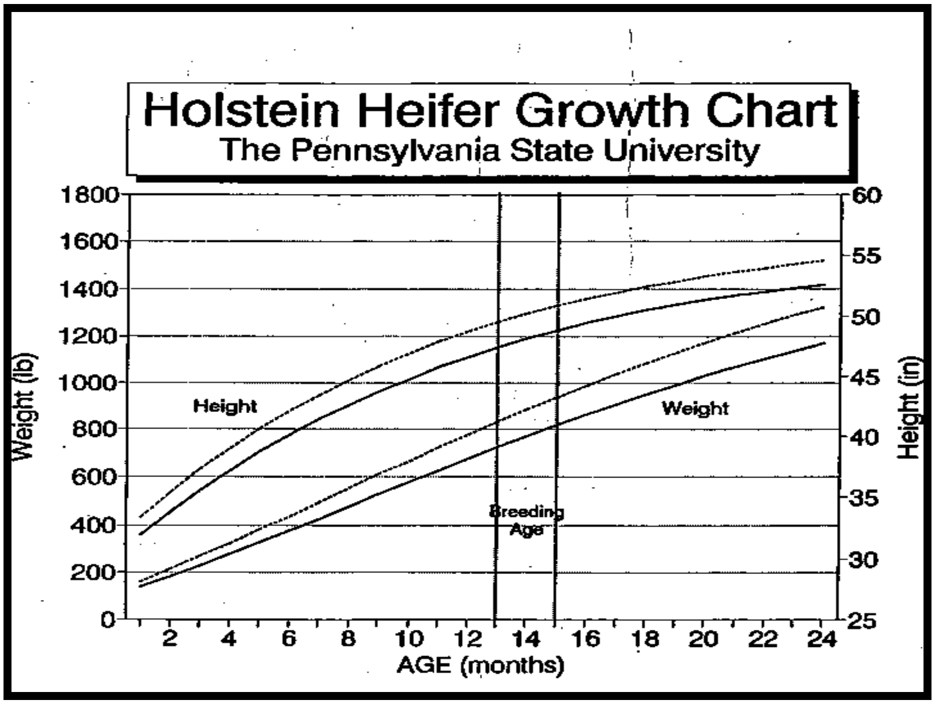
Holstein Heifer Growth Chart
The Pennsylvania State University
Weight (lb)
Height (in)
Height
Weight
Breeding Age
AGE (months)
1800
1600
1400
1200
1000
800
600
400
200
0
60
55
50
45
40
35
30
25
2
4
6
8
10
12
14
16
18
20
22
24


Jersey's are more
my size!

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Growing Strategies

How Can You:

Increase BW gain + 18.6% (2.1 vs 1.77)

Decrease Daily Feed -28% (19.5 vs 24.97)

Increase Growth Efficiency (10.89 vs 7.2%)

Increase Milk/Day 1st Lactation 21% (66.3 vs 54.6)

Increase Milk/Day 2nd Lactation 15% (65.4 vs 56.8)

Over 4 Lactations + 10% Lactation Milk Yield

Cha Ching, Cha Ching, Cha Ching!

?

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Stair Step Nutrition

System

6 to 11 Months Pre puberty

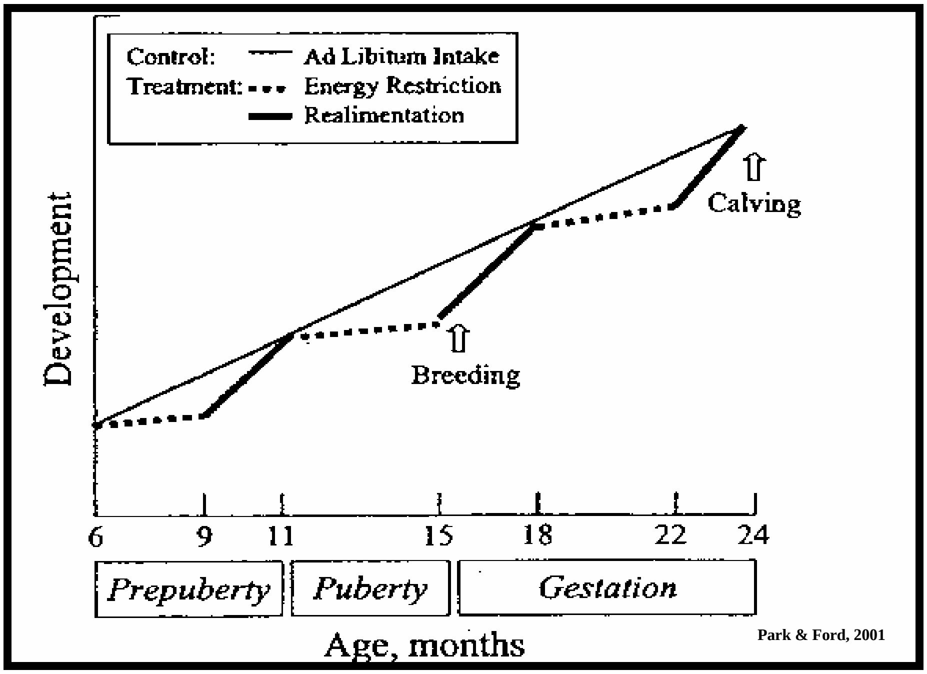
11 to 15 Months Puberty

15 to 24 Months Gestation

3-2, 4-3, 4-2

Producer Testimony, Jay Hansen, Hudson, IA

“This thing works!”



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Stair-Step

(Park & Ford 2001)

Rations

Control: Ad-Lib. - 12% CP, 1.06 Mcal/lb ME

Restricted: 70%DMI of Controls - 17% CP, 1.06 Mcal/lb ME

Compensatory: Ad-Lib. - 12% CP, 1.38 Mcal/lb ME

One Phase 4-2

Pre-calving Advantages & Increased Milk?

Grazing Dairy Heifers on Alfalfa

MN, 145 Day Trial, similar gains on pasture/in feedlot

(received energy supplement and bload guard, similar gain and BCS of 3.5

	Feedlot	72hd	Pasture	70hd
Feed Cost	$7,636.15	$0.73	$2,804.92	$0.28
Labor	$2,675.25	$0.26	$815.63	$0.08
Machinery	$3,429.00	$0.33	$1,296.09	$0.13
Health Costs	$360.00	$0.03	$432.00	$0.04
Facilities	$1,000.00	$0.10	-	
Fencing, water			$810.53	$0.08
Pasture Charge			$1,912.50	$0.19
Death Loss (one bloat, one lightning)			$1,550.00	$0.15
Total	$15,101.01	$1.45	$9,621.71	$0.95

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4-H Dairy Animal Project Worksheet

Name Brett Favre For year 2002

Instructions: You may use this worksheet to help you keep records of your 4-H dairy animals. All of the animals carried as 4-H projects this year should be included in this record.

My project began with the following animals, and/or I purchased these animals during the year; and/or my animals had offspring that I added to my herd.

Date	Description (include name, eartag, freeze brand, registration number, or calfhood vaccination number)	Birthdate and year	Beginning Weight	Beginning Cost or Value
1/20/02	Jr Calf, Packer, 19Y	1/10/2002	99 lbs	$250
1/20/02	Summer Yearling, Snowball, 106Y	8/12/2001	415 lbs	$750

Total cost (Box 1)

Listed below are the animals I still owned at the end of the project year:

Date	Description	Weight	Estimated total value
10/1/02	Jr. Calf, Packer, 19Y	572 lbs.	$950
10/1/02	Summer Yearling, Snowball, 106Y	887 lbs.	$1200

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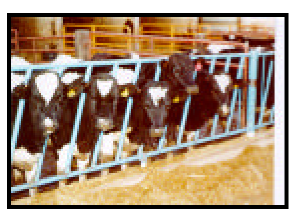

Table 2. Economic cost and labor required to rear heifers on Wisconsin dairy farms with less than 75-150 cows.

Item	Unit	Average	Herds (n=23) Minimum	Maximum	Std. Dev.
Economic Cost by Category					
Feed	$/heifer	$662.88	$438.18	$1,107.40	$144.24
Bedding	$/heifer	26.28	0.00	121.60	36.49
Veterinary	$/heifer	32.52	6.69	181.74	37.75
Breeding	$/heifer	25.50	7.31	58.32	13.33
Electrical and Fuel	$/heifer	35.76	26.76	41.94	3.65
Interest	$/heifer	33.27	23.95	52.89	10.01
Death Loss	$/heifer	9.28	0.00	54.00	15.29
Labor	$/heifer	109.69	53.92	182.50	42.88
Management	$/heifer	122.29	0.00	83.88	18.07
Manure Storage	$/heifer	30.97	6.38	125.82	28.22
Housing	$/heifer	119.46	6.69	304.48	82.97
Equipment	$/heifer	26.32	0.00	69.90	21.92
Total Cost (without calf)	$/heifer	1,123.18	781.82	1,559.09	188.82
Calf Cost	$/calf	244.78	191.22	332.86	38.97
Total Cost (with calf)	$/heifer	1,367.96	1,036.60	1,836.40	199.44
Feed, Variable, Labor and Fixed Cost					
Feed Cost	$/heifer	$662.88	$438.18	$1,107.40	$144.24
Other Variable Cost	$/heifer	139.25	66.90	258.63	54.53
Labor/Mgt Cost	$/heifer	121.98	53.92	258.63	53.14
Fixed Cost	$/heifer	176.75	19.14	380.60	98.19
Feed Cost	% total cost	60.3%	51.2%	73.5%	60.4%
Other Variable Cost	% total cost	12.6%	6.9%	23.0%	4.7%
Labor/Mgt Cost	% total cost	11.1%	4.9%	20.0%	4.0%
Fixed Cost	% total cost	15.9%	2.3%	30.4%	8.2%
Labor/Management Efficiency					
Labor/Mgt Required	days/year	81.9	24.2	205.9	43.6
Labor/Mgt Required	hrs/heifer	7.4	3.2	15.5	3.5
Labor Efficiency	heifers/hr	60.3	23.5	113.1	27.4
Labor Efficiency	hfrs/man/day	482.1	188.4	905.2	219.3
Other					
Calving Age	months	24.7	23.0	28.0	1.2
Days on Feed	days	690.6	638.0	791.0	38.1

Ranges in Costs

- ***Costs in raising heifers vary dramatically***
- ***Per head/per day rates around $1.35-$1.50 per day are common with about a $0.10 slide upward to account for additional feed but $0.05 slide or less downward***
- ***Labor efficiency and feed management are definitely the biggest keys to reducing costs without sacrificing gain.***

Feed Costs:	$/Unit	Birth-3 months		3 to 12 months		12 to 24 months		Summary Birth-24	
Forage, as fed	$85/ton	138 lbs.	$5.87	2970 lbs.	$126.23	10092 lbs.	$428.91	13200 lbs.	$561
Corn grain	$2.25/bu	3 bu	$6.75	14 bu.	$31.50	4 bu.	$9.00	21 bu.	$47.25
Soybean Meal	$_____	50 lbs	_____	100 lbs.	_____	20 lbs.	_____	170 lbs.	_____
DiCal	$_____	5 lbs	_____	25 lbs	_____	30 lbs	_____	60 lbs.	_____
TM Salt	$_____	2 lbs	_____	22 lbs	_____	25 lbs	_____	49 lbs	_____
Milk Replacer	$_____	40 lbs	_____	-------		-------		-------	
Variable Costs									
Bedding	$80/ton	250 lbs	$10	400 lbs	$16.00	350 lbs	$14.00	1000 lbs	$40.00
Vet and Med			$9.74		$6.00		$8.00		$23.74
Breeding							$25.00		$25.00
Supplies									
Fuel, Oil									
Other Costs									
Fixed Costs									
Buildings									
Equipment									
Livestock Interest									
Death Loss									
Labor Charge									
Calf cost									

It's important to ACCURATELY estimate or measure your feeds and gains!

Record of Expenses

My feed record is (include feed grown on family farm):

Date Purchased	Type of feed (milk, milk replacer, silages, pasture, hay, grain mix or TMR)	% DP*	% CP*	% ADF*	$/ lb. (Total cost ÷ pounds)	Pounds	
1/20	Milk Replacer						
1/20	Hay						

*DP = Digestible Protein
CP = Crude Protein
ADF = Acid Detergent Fiber
(The above to be taken from a feed analysis)

Total feed cost (Box 3)

My other expenses (veterinarian, registration fees, bedding, insurance, show supplies and fees, interest, etc.) are:

Date	Item or expense	Cost

Total cost (Box 4)

2

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Feed Costs are the single biggest cost in raising a heifer so calculate them

Record of Income

Total Milk Sales During the Year Were:

Date	Lbs.	$/cwt	(net value) Value	Date	Lbs.	$/cwt	(net value) Value

Total (Box 5)

During the year I sold the following animals:

Date sold	Description	$/lb. (Net sale ÷ final weight)	Final weight	(Net sale) Amount of check

Total weight (Box 6)

Other income (premiums) I received:

Date	Item	Income

Total other income (Box 8)

3

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Record of Income

- ***Keep Receipts for record-keeping***
- ***For heifers, know the pounds of gain/day during various stages!***

Financial Summary

Profit or Loss Statement

Total Expenses		Total Income	
Value of animals at beginning of my project	(From Box 1 on P. 1)	Value of milk sales	(From Box 5 on P. 3) +
Feed cost	(From Box 3 on P. 2) +	Value of animals sold	(From Box 7 on P. 3) +
Other expenses	(From Box 4 on P. 2) +	Value of animals on hand at end	(From Box 2 on P. 1)
(Add numbers from Boxes 1,3,4) Total expenses	(Box 9) =	Other income	(From Box 8 on P. 3)
		Total income (Add numbers from Boxes 2, 3, 7, 8)	(Box 10) =
		Total expenses	(Box 9)
		Profit or Loss (Box 10 minus Box 9)	

Prepared by Ron Orth, Extension Dairy Specialist; Jeff Johnson, former 4-H Program Assistant; and Deb Hall former 4-H Youth Development Specialist.

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In the End

- ***Did you reach your goals?***
- ***Did you have fun--learning?***
- ***What did you learn to record in your record books?***
- ***Hope it was worth the work!***