



RECORD BOOK

Florida 4-H Dairy Record Book

Name:		
Parent's Name:		
Mailing Address:		
City:	State:	Zip Code:
Age:	Jr., Int., Sr.:	Date of Birth (mm/dd/yyyy):
Grade in School:	School Name:	
Name of 4-H Club:		
Name of 4-H Club Leader:		
Name of 4-H Agent:		
County:		

I hereby certify that, as the owner of this project, I have personally been responsible for the care of this (these) animal(s), kept records on this project, and completed this record book.

_____ Date
Member's Signature

I/We, the parent(s), certify that my/our child has completed this project and this record book.

_____ Date
Parent/Guardian Signature

I certify that the above-named individual is an active member of the _____ 4-H Club in _____ County. I verify that this record book has been completed by the student and is an accurate representation of the project.

_____ Date
4-H Club Leader Signature

_____ Date
UF/IFAS Extension 4-H Agent Signature

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General Information

Your 4-H Dairy Project

This project record will help you and others see what you have learned about your dairy project animal(s). It will also serve as a way to teach others how to develop an outstanding project.

Primary Objectives of the Dairy Project:

- Become aware of the scope and economic significance of the dairy industry.
- Acquire skills in dairy production through ownership and care of dairy animals.
- Learn marketing, processing, distribution, and use of dairy products.
- Learn and practice principles of cleanliness and sanitation as applied to the production and care of dairy products.
- Learn the nutritive value of dairy products and promote their use.
- Appreciate contributions and applications of scientific research to the dairy industry.
- Develop sportsmanship, cooperation, decision-making, and public speaking skills through participation in demonstrations, tours, judging, and/or exhibits.

To find additional resources to help you with your project, visit <http://www.4-h.org/resource-library/curriculum/>.

The Dairy Cattle Skills for Life series is a set of three levels of project guides that are filled with activities and information that can help you increase your knowledge of dairy cattle. These include *Cowabunga!*, *Mooving Ahead*, and *Rising to the Top*.

Also visit http://articles.extension.org/mediawiki/files/1/13/Monitoring_Dairy_Heifer_Growth.pdf for *Monitoring Dairy Heifer Growth*, an excellent publication from Penn State University.

The *Dairy Goat Skills for Life* series is a set of three levels of project guides that are filled with activities and information that can help you increase your knowledge of dairy goats. These include *Getting Your Goat*, *Stepping Out*, and *Showing the Way*.

*****Note: Make additional copies of pages as you need them*****

Individual Animal Identification

Breed: _____

Birthdate: _____

Tattoo: _____

Registration Number: _____

Ear Tag Number: _____

Date Acquired: _____

Name of Breeder or Previous Owner: _____

Address of Breeder or Previous Owner: _____

Pictures of Dairy Animal (Insert photos or outline drawings of your dairy animal.)

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Right Side Photo

Frontal Photo

Left Side Photo

Make copies of this page as necessary.

Pedigree

Enter the name and registration number. Make copies of this page as necessary.

The form consists of four rows of boxes connected by lines to represent a pedigree chart. Each row has a box on the left and two boxes on the right.

- Row 1:** A box on the left contains the text "Sire Name" and "Registration Number". Two lines connect it to two boxes on the right. The top box contains "Paternal Grand Sire" and "Registration Number". The bottom box contains "Paternal Grand Dam" and "Registration Number".
- Row 2:** A box on the left contains the text "Dam Name" and "Registration Number". Two lines connect it to two boxes on the right. The top box contains "Maternal Grand Sire" and "Registration Number". The bottom box contains "Maternal Grand Dam" and "Registration Number".
- Row 3:** An empty box on the left. Two lines connect it to two empty boxes on the right.
- Row 4:** An empty box on the left. Two lines connect it to two empty boxes on the right.

Growth Record Summary

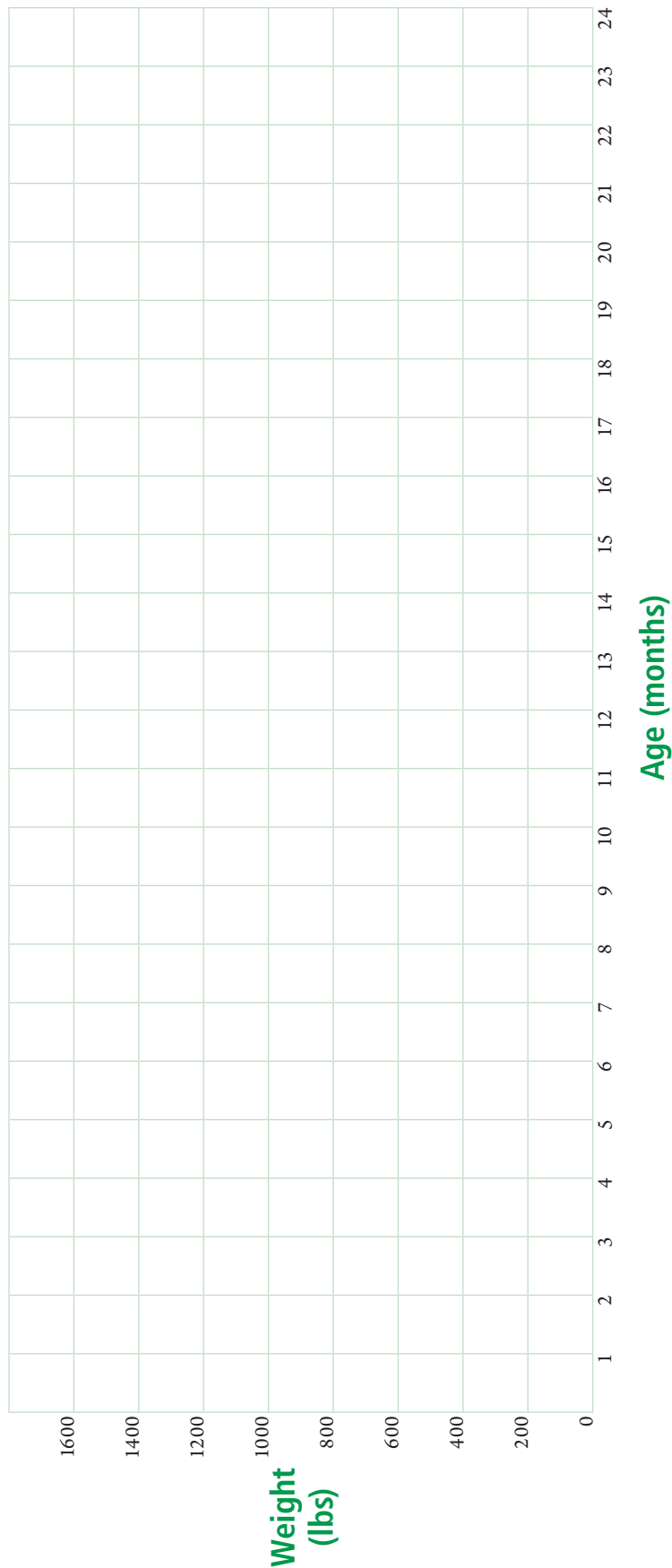
Fill this out monthly to keep track of your animal's growth; use growth charts (Appendix A) for the appropriate breed to compare your animal's breed recommendations.

Age (months)	Weight (pounds)	Height at Withers (inches)	Heart Girth (inches)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			

Dairy Heifer Growth Chart

Use this chart to keep track of your heifer's growth and compare to her breed average.

Use this information to make a decision on an appropriate time to breed your heifer.



Animal Inventory

Animal Name or Number	Sex	Birthdate	Breed	Beginning Value	Ending Value	Comments	Change in Value
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
							\$
Totals				\$	\$		\$

- To calculate the Change in Value, subtract the Beginning Value from the Ending Value.
- To calculate the Total Beginning Value, add all the numbers in the Beginning Value column.
- To calculate the Total Ending Value, add all the numbers in the Ending Value column.
- To calculate the Total Change in Value, add all the numbers in the Change in Value column.
- Animals that are purchased during the project will be recorded as a non-feed expense.
- The beginning inventory value will be blank on this page.
- Enter the ending value for all animals in the project at the end of the year.
- Note born, purchased, sold, or deceased animals in the Comments column.

Feed Record

Month	Milk or Replacer		Concentrate Mix		Hay		Other Feeds		Date Feed Weighed
	Pounds	Value (\$)	Pounds	Value (\$)	Pounds	Value (\$)	Pounds	Value (\$)	
Totals		\$		\$		\$		\$	
						Year's Total Feed Expense			\$

To calculate the total, add all the values that correspond to that column.

Ration Record

Refer to your feed label for the information to complete this page.

Milk or Milk Replacer

% Protein: _____

% Fat: _____

Main Ingredient: _____

Medicated: Yes No

Cost per Pound: \$ _____

Feed (Concentrate Mix)

% Protein: _____

% Fat: _____

Main Ingredient: _____

Medicated: Yes No

Cost per Pound: \$ _____

Juniors: Complete one Feed Records page for all animals by month.

For cows kept at a dairy, write the exchange value of milk for feed.

Intermediates: Complete one Feed Records page **per animal group** (Calves, Heifers, Cows).

For cows kept at a dairy, write the exchange value of milk for feed.

Seniors: Complete one Feed Records page **per animal group** (Calves, Heifers, Cows).

For cows kept at a dairy, determine average feed values.

Weigh feed one day each month. Calculate pounds consumed and total value of feed consumed per month.

Refer to Appendix B to complete Feed Records.

Lactation Record

Animal Name or Number: _____

Registration or Ear Tag Number: _____

Breed: _____

Date of Birth: _____

Freshening Date: _____

Month	Avg. Daily Milk Produced (lbs.)	% Fat*	Lbs. Fat*	% Protein*	Lbs. Protein*	Value of Milk
				Total Milk Value:		\$

What was Florida’s average milk price for the most recent year (look up on the internet)? \$ _____

1. To calculate the total, add all the values that correspond to the Value of Milk column.
2. Make copies of this page as needed.

*Not required. Only fill in if information is available from the dairy.

Animals Sold

Date	Name(s) or Number(s) of Animal(s) Sold	Amount Received
	Total Received	\$

- To calculate the Total Received, add all the values that correspond to the Amount Received column.
- Animals sold should have a value of 0 on your ending inventory.

Other Income

Date	Description	Amount Received
	Total Received	\$

- To calculate the Total Received, add all the values that correspond to the Amount Received column.
- Record any money given to you to support your project by sponsors, parents, etc.

Financial Summary

Expenses

Beginning Animal Inventory: _____

Beginning Equipment Inventory: _____

Veterinary and Health Costs: _____

Breeding Costs: _____

Feed Costs for ALL Animals: _____

Show Expenses: _____

Non-Feed Expenses: _____

Total Expenses: _____

Receipts

Ending Animal Inventory: _____

Ending Equipment Inventory: _____

Show Receipts: _____

Value of Milk Produced: _____

Value of Animals Sold: _____

Other Income: _____

Total Receipts: _____

Profit/Loss: _____

Total Receipts - Total Expenses = _____

Project Pictures

Pictures should show the beginning and end of your project as well as skills you learned. There should be five to eight pictures. Include a caption with each photo. The caption should tell a story and explain what you are doing and why you are doing the things shown in the photo. Pay attention to spelling and grammar.

Project Pictures Cont.

Appendix A: Growth Charts

Suggested Weights and Heights for Breeding Age Heifers

Breed	Body Weight (pounds)	Wither Height (inches)	Hip Height (inches)
Jersey	525–575	43–45	45–47
Ayrshire	700–750	46–48	48–50
Guernsey	700–750	46–49	48–51
Milking Shorthorn	750–800	46–48	48–50
Holstein	750–800	48–50	50–52
Brown Swiss	750–800	48–51	50–53

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Range of Recommended Jersey Heifer Weights and Heights

Age (months)	Weight (pounds)	Height (inches)
1	93–108	29–32
2	122–146	30–33
3	155–177	32–34
4	183–217	34–36
5	233–278	35–38
6	259–321	36–39
7	303–362	38–40
8	335–412	39–41
9	373–436	40–42
10	391–483	40–42
11	428–499	41–43
12	471–548	42–44
13	500–571	43–45
14	535–602	44–45
15	565–640	44–46
16	583–661	45–46
17	609–696	45–47
18	639–753	45–47
19	651–769	46–47
20	698–813	46–48
21	719–827	47–48
22	758–860	47–49
23	760–878	48–49
24	790–893	48–50

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Range of Recommended Holstein Heifer Weights and Heights

Age (months)	Weight (pounds)	Height (inches)
1	130-135	31-33
2	177-189	33-35
3	226-244	35-37
4	275-299	36-39
5	323-354	38-40
6	372-408	39-42
7	420-463	41-43
8	469-518	42-45
9	518-572	43-46
10	566-627	44-47
11	615-682	45-48
12	664-737	46-49
13	712-791	47-49
14	761-846	47-50
15	858-956	49-51
16	858-956	49-51
17	931-1026	50-52
18	956-1065	50-52
19	1007-1086	50-52
20	1053-1174	51-53
21	1086-1191	51-54
22	1150-1284	51-55
23	1279-1300	52-57
24	1247-1393	52-57

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Range of Recommended Guernsey Heifer Weights and Heights

Age (months)	Weight (pounds)	Height (inches)
1	122-143	31-33
2	166-193	33-35
3	203-233	35-37
4	255-299	37-38
5	299-354	38-41
6	366-434	40-42
7	384-448	41-43
8	433-503	42-44
9	482-568	43-47
10	511-588	44-46
11	574-662	45-47
12	576-674	46-48
13	643-756	46-48
14	696-803	47-49
15	740-866	48-50
16	779-899	49-51
17	830-950	50-52
18	864-1001	50-52
19	900-1015	51-52
20	914-1046	51-53
21	967-1112	51-53
22	996-1123	52-54
23	1025-1177	52-54
24	1026-1178	52-55

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Range of Recommended Ayrshire Heifer Weights and Heights

Age (months)	Weight (pounds)	Height (inches)
1	131-154	31-32
2	177-205	32-34
3	223-256	34-36
4	269-307	36-38
5	315-357	37-39
6	360-407	39-41
7	405-457	40-42
8	450-506	41-43
9	494-554	42-44
10	538-602	43-45
11	581-650	44-46
12	624-697	45-47
13	666-743	46-48
14	707-789	46-48
15	748-834	47-49
16	787-878	48-49
17	826-922	48-50
18	864-965	48-50
19	901-1007	49-50
20	937-1049	49-51
21	972-1089	49-51
22	1006-1129	50-52
23	1039-1168	50-52
24	1070-1206	50-52
25	1101-1244	51-53

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Range of Recommended Brown Swiss Heifer Weights and Heights

Age (months)	Weight (pounds)	Height (inches)
1	134-163	32-34
2	187-223	34-36
3	240-283	36-38
4	293-343	37-40
5	345-403	39-42
6	396-462	40-44
7	447-521	42-45
8	498-580	43-46
9	548-637	44-48
10	597-694	45-49
11	645-750	46-50
12	693-805	47-51
13	739-859	48-52
14	785-912	49-52
15	829-963	49-53
16	872-1013	50-54
17	914-1061	50-54
18	955-1107	51-55
19	994-1152	51-55
20	1032-1194	52-56
21	1068-1235	52-56
22	1103-1273	52-56
23	1136-1309	53-57
24	1167-1343	53-57
25	1197-1374	53-57

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Range of Recommended Milking Shorthorn Heifer Weights and Heights

Age (months)	Weight (pounds)	Height (inches)
1	128–160	31–32
2	175–210	33–34
3	223–262	34–36
4	272–315	36–38
5	320–370	37–39
6	369–425	37–41
7	418–482	40–42
8	467–539	41–43
9	515–596	42–44
10	564–653	43–45
11	611–709	44–46
12	658–765	45–47
13	705–820	46–47
14	750–874	46–48
15	794–926	47–49
16	838–977	47–49
17	880–1025	48–50
18	920–1071	48–50
19	959–1115	49–50
20	997–1155	49–51
21	1033–1192	49–51
22	1066–1226	50–51
23	1098–1256	50–52
24	1128–1281	50–52
25	1155–1303	51–52

Chart from “Monitoring Dairy Heifer Growth” Penn State College of Agricultural Sciences.

Appendix B: Feed Records

Use the following information to help you complete your Feed Records page.

POUNDS OF FEED: This value represents the pounds of feed consumed by one animal on the date the feed was weighed, multiplied by the number of days in the month.

Example: 5 pounds of concentrate mix were weighed and consumed on March 5.

5 pounds x 31 days = 155 pounds of concentrate consumed in March

VALUE OF FEED: This figure represents the average total value of pounds of feed consumed per animal per month.

Example: If the feed cost \$14.00/50 pounds, and you fed 155 pounds, you would calculate the value of the feed as follows.

$(\$14.00 \times 155 \text{ lbs.}) / 50 \text{ lbs.} = \43.40

OR

$(\$14.00 / 50 \text{ lbs.}) = \$0.28 / \text{lb.} \times 155 \text{ lbs.} = \43.40

DATE FEED WEIGHED: Select a day each month to weigh the pounds of the different types of feed consumed by your animal(s) and record this date in the appropriate column.

YEAR'S TOTAL FEED EXPENSE: This figure represents the sum of the columns of pounds of feed consumed per month and the value of the feed consumed per month.

PRICE USED PER POUND OF FEED: This figure should represent the price per pound of feed used when calculating the value of each feed ingredient.

Example: If feed costs \$14.00/50 lbs., the cost is \$0.28/lb.

Appendix C: Depreciation

Depreciation is the annual reduction in value of an item due to use, wear, age, or a combination of these factors. For an item to be depreciable, it must be owned, have a useful life greater than one year, have a finite and determinable life, and have productive use in the business. In agriculture, examples of depreciable items are buildings, vehicles, machinery, equipment, fences, other land improvements, and breeding livestock. Items that are not depreciable are real estate, market livestock, crop inventories, and supplies.

Calculating depreciation is a simple process; however, it becomes complicated because items depreciate at different rates depending on use, condition, and other factors.

For Juniors

When calculating depreciation, you will use a 10% per year depreciation of the original purchase cost for the items you will still have at the end of the project. This includes items you had at the beginning of the project as well as items purchased during the current calendar year.

Example: If you purchased a grooming chute for \$800.00, the value of that chute would be 10% less at the end of the year.

$$\$800.00 \times 0.1 = \$80.00$$

The beginning value is \$800.00 and the ending value is \$720.00.

$$\$800.00 - \$80.00 = \$720.00$$

For each year you own this grooming chute, it will depreciate by \$80.00.

For Intermediates and Seniors

There are three common methods of depreciation: straight line, declining balance, and sum-of-year's digits. For your record book purposes, you will use straight line depreciation. This method gives you a constant depreciation value for each year. The formula is:

$$(\text{Original Cost} - \text{Salvage Value}) / \text{Useful Life}$$

Some terms to know:

Original Cost: The price paid for the item.

Salvage Value: Expected market value of the item at the end of 5 years.

Useful Life: Number of years the item is expected to be used.

What is an item's useful life?

5 years: Vehicles, purchased breeding cattle, computers

7 years: Most farm machinery and equipment, fences

10 years: Single-purpose structures

20 years: General purpose buildings

Example: If you purchased a grooming chute for \$800.00 with a salvage value of \$400.00 and a useful life of 7 years, you would calculate the depreciation as follows.

$$(\$800.00 - \$400.00)/7 \text{ years} = \$57.14/\text{year}$$

With straight line depreciation the annual depreciation for the grooming chute would be \$57.14 each year.