



2023-2024

# Commercial Dairy Heifer Record Book

\*\*\*\*\*

Name:		Jr. (4th-8th grade) Sr. (9-12 grade):
School Name:	Age:	Grade:
Address:		
City:	State:	Zip:
Phone:	County	
Name of 4-H Club or FFA Chapter:	Years in 4-H or FFA:	

4-H or FFA Member's Signature:
Parent or Guardian's Signature:
Agent's Signature (4-H): OR
Teacher's Signature (FFA):

**SECTION I -- 35 POINTS**  
**RECORDS FOR YOUR COMMERCIAL DAIRY HEIFER**

\*\*\*\*\*

**Heifer Information:** You must have a beginning weight and a starting date. The ending weight and date for these records must be no earlier than January 11<sup>th</sup> and no later than February 9<sup>th</sup>.

	Heifer #1	Heifer #2	Heifer #3
Heifer's Name:			
Heifer's Ear Tag or Tattoo Number:			
Breeder's Name and Address:			
Heifer's Breed or Color			
Heifer's Birth Date			
Total Days on Feed			
Beginning Withers Height & Date			
Ending Withers Height & Date			
Beginning Weight & Date	A.	A.	A.
Ending Weight & Date	B.	B.	B.
Total Weight Gain (B-A)	C.	C.	C.



## SECTION I cont'd

**NOTE:** If multiple animal records are kept, determine calculations per animal number (#1 – #3). Pay special attention to questions that require calculations for individual animals versus total group of animals. (Example –records for one Heifer vs. records for three Heifers).

### 3. Other Costs:

	<b>Heifer #1</b>	<b>Heifer #2</b>	<b>Heifer #3</b>
Cost or Value of Animal	F.	F.	F.
Minerals, Vitamins, Salt and Other Feeds Not Listed in Question 2	G.	G.	G.
Veterinary Costs -- Vaccines, dewormers, Lice Controls, Blood Work	H.	H.	H.
Entry Fees, Trucking, Show supplies, and Other Costs	I.	I.	I.
Total Costs (F+G+H+I)	J. \$	J. \$	J. \$
Total Feed and Other Costs (E+J)	K. \$	K. \$	K. \$

### 4. Income:

	<b>Heifer #1</b>	<b>Heifer #2</b>	<b>Heifer #3</b>
Prize Money Won With This Heifer	L.	L.	L.
Prize Money Won in Showmanship with this Heifer	M.	M.	M.
Total Income (L+M)	N. \$	N. \$	N. \$
Total Spent (K)	O. \$	O. \$	O. \$

### 5. Performance Record:

	<b>Heifer #1</b>	<b>Heifer #2</b>	<b>Heifer #3</b>
Total Weight Gain (from question 1)	P.	P.	P.
Total Days on Feed (from question 1)	Q.	Q.	Q.
Average Daily Gain (P / Q)	R.	R.	R.
Feed per pound of gain (D / P)	S.	S.	S.
Cost per pound of gain (E / P)	T.	T.	T.
Frame Growth (Final Withers height – Starting Withers Height)	U.	U.	U.

## SECTION II -- 20 Points

### 6. Your Time with Your Project:

	<b>Heifer #1</b>	<b>Heifer #2</b>	<b>Heifer #3</b>
Hours Spent General Care (Daily Feeding, Watering, etc.)	V.	V.	V.
Hours Spent Working with Animal/Practicing (Walking, Setting Up, etc.):	W.	W.	W.
Hours Spent Preparing for Show (Washing, Clipping, Combing, etc.):	X.	X.	X.
Hours Spent Elsewhere (Artificial Insemination, etc.)	Y.	Y.	Y.
Total Number of Hours Spent With Project (V+W+X+Y):	Z.	Z.	Z.

(a) Explain why protein and TDN content of a feed are important.

---

---

---

---

---

---

---

---

Select one of your heifers and complete this section.

(b) What is the breed(s) or composite characteristics of your heifer? What advantages does this breed(s) or composite characteristics possess? What characteristics does this animal possess that made you select it?

---

---

---

---

---

---

---

---

(c) If you could change anything about your heifer, what would you change to make her a better show animal?

---

---

---

---

## SECTION II cont'd

(d) When you show this animal how would you compensate for the above described faults?

---

---

---

## SECTION III -- 20 POINTS

1. If a heifer calf weighs 80 pounds at birth, approximately how much should she weigh at weaning? \_\_\_\_\_
2. What is one of the two most prevalent protozoal diseases in young calves? \_\_\_\_\_  
\_\_\_\_\_
3. Drinking milk after eating spicy food can help soothe the mouth thanks to the specific, milk component called \_\_\_\_\_.
4. On the Purebred Dairy Cattle Association Evaluation card, inattentiveness or failure to respond to the judge quickly would be considered a \_\_\_\_\_ discrimination.
5. Important in milk digestion for the calf, the \_\_\_\_\_ of the ruminant animal's stomach has a much lower pH than the rumen and is often referred to as the "true stomach".
6. In 2022, Georgia ranked \_\_\_\_\_ for total milk production in the U.S.
7. Outside of the U.S., which country buys the most U.S. dairy products?  
\_\_\_\_\_
8. In the U.S., what is the most widely used forage in dairy cattle rations? \_\_\_\_\_
9. A dairy cow can lose water through manure, urine, milk, sweat and \_\_\_\_\_.
10. In dairy herds, pneumonia is most often not the result of cold weather or drafty environments but instead caused by \_\_\_\_\_.
11. What is the primary site of nutrient absorption in dairy cattle? \_\_\_\_\_
12. Without having a scale, what tool might help you most accurately estimate bodyweight in heifers? \_\_\_\_\_
13. Under normal environmental conditions, calves are considered to have a fever when their body temperature rises above \_\_\_\_\_ degrees F.

14. To support their energy requirements for milk production in early lactation, cows will mobilize what body tissue? \_\_\_\_\_
15. What joint in the rear leg is used to evaluate the correctness of a heifer's rear leg set?  
\_\_\_\_\_
16. The loss of what mineral in feces is the main cause of dehydration in scouring calves?  
\_\_\_\_\_
17. In what year was the Georgia Dairy Youth Foundation officially incorporated? \_\_\_\_\_
18. Calf starter should contain what percent crude protein? \_\_\_\_\_
19. Name one of the three, accepted methods to dehorn or disbud dairy calves.  
\_\_\_\_\_
20. Lack of what nutrient will reduce milk production faster than any others? \_\_\_\_\_

## SECTION IV -- 20 POINTS

Write a story about your 2023-2024 Commercial Dairy Heifer Project, including this year's most significant experience. Juniors' (4-8 grade) stories should be a minimum of  $1\frac{1}{2}$  pages and Seniors' (9-12 grade) stories a minimum of  $2\frac{1}{2}$  pages. Any of the following outline may be used as a guide. (The outline is just a suggestion)

### SAMPLE STORY OUTLINE

#### I. Introduction

- a. Tell what type, breed, weight, etc., of heifer you got, and why you chose a heifer as your project.
- b. Tell why you chose the heifer you did – cost, breed, breeder, past successes, etc.
- c. In choosing your dairy heifer, did you conduct any research, if so, explain.

#### II. Body

- a. Were there things you wish you had known prior to this project, if so, what were they?
- b. Day-to-Day Care: briefly describe what your daily care consisted of – where your heifer lived, feeding routine, exercise, etc. including some of the Good Production Practices you used in raising your heifer.
- c. What was your most significant experience? What did you learn about yourself and/or your heifer? Was there anything that surprised you about this project?

#### III. Summary

- a. What would you change or do the same the next time you begin a dairy heifer project? For example: different feed, different breed, age of heifer you would start with, etc.

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---

---







**Supporting Material (two pages only) 5 POINTS**

(Pictures-with caption, newspaper articles, etc., that support your Dairy Heifer project)

**Supporting Material (continued)**

# Instructions for Completing 2023-2024 Commercial Dairy Heifers Record Books

The record books will be evaluated by a committee of 4-H and FFA Jr. Livestock supporters. The top five Junior and Senior Record Books will be recognized at the beginning of the State Commercial Dairy Heifer Show on Friday, February 23<sup>rd</sup>. Additional awards may be awarded to selected placings once donor funds have been confirmed.

1. Juniors must be in 4<sup>th</sup> grade as of September 1, 2023, and must not have completed 8<sup>th</sup> grade. Seniors are grades 9-12.
2. All entries must be from bona-fide 4-H or FFA members for the current year. All commercial dairy heifers that have a record book completed for must be entered in the 2024 State Commercial Dairy Heifer Show.
3. Record keeping is from the date of purchase until no later than February 9<sup>th</sup>.
4. All Commercial Dairy Heifer Record Book participants must be registered online by ag teacher/agent by close of business February 2<sup>nd</sup> on the Qualtrics platform: <https://tinyurl.com/24GJNLSRB>
5. ***All participants must mail in their completed record books. These books must be received by close of business February 9<sup>th</sup> to the following address:***
  - 4-H participants** to Jade Andrews Haston, Georgia 4-H, 331 Hoke Smith Annex, Athens, GA 30602.
  - FFA participants** to Ben Lastly, 316 Poultry Science, University of Georgia, Athens, GA 30602.
6. The record book is complete. No additional pages are allowed. Do not submit record books in notebooks or binders. You may use construction paper for the two Supporting Materials pages, but they must be 8 ½" X 11". Use only one side of the pages for your Support Materials.
7. All signatures must be obtained on the front of the record book. If the record book does not have all required signatures, the record book will automatically be disqualified and will not be evaluated for awards.
8. Records must be handwritten by the member.
9. Plagiarism is not allowed. If an entry is suspected of plagiarism, it will be disqualified and ineligible for awards.
10. A County 4-H club or FFA Chapter can enter no more than seven (7) record books in each division of each species.

---

Produced in Cooperation with

Billy Hughes, Program Manager, Georgia Agricultural Education  
Ben Lastly, Georgia FFA Executive Secretary

Federal law prohibits discrimination on the basis of race, color, national origin, gender, or disability, in educational programs or activities receiving federal financial assistance. Employees, students, and the general public are hereby notified that the Georgia Department of Education does not discriminate in any educational programs or activities or in employment policies on these bases. Inquiries regarding the application of these practices may be addressed to the Georgia Department of Education, Twin Towers East, Atlanta, Georgia 30334, (404) 656-2800.

Prepared by

Dr. Jillian Bohlen, Associate Professor, Animal & Dairy Science  
Carole Knight, Georgia 4-H Animal Science Programs Specialist  
Christa Steinkamp, Curriculum & Technology Director, Georgia Agricultural Education

The Cooperative Extension Service offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, sex or disability.

An Equal Opportunity/Affirmative Action Organization Committed To a Diverse Work Force  
Animal and Dairy Science

---

Departmental Publication AS 106 Revised August 2023

---

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, The University of Georgia College of Agricultural and Environmental Sciences and the U.S. Department of Agriculture cooperating.

Dr. Nick Place, CAES Dean and Director