



2020-2021 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 11th and no later than January 25th.

	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:

	Heifer #1	Heifer #2	Heifer #3
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:

	Heifer #1	Heifer #2	Heifer #3
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:

	Heifer #1	Heifer #2	Heifer #3
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:

	Heifer #1	Heifer #2	Heifer #3
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. What are the first two limiting essential amino acids for milk production in dairy cattle? _____
2. With regard to semen tank management, an accumulation of frost at the top of the tank indicates a rapid evaporation of what? _____
3. What is the most common ocular (eye) disease of cattle? _____
4. Cows produce a lot of saliva while chewing, which contains what substance that helps to reduce the acidity levels in the rumen? _____
5. Calves with scours primarily die as a result of what issue? _____
6. What is the name of the organization, abbreviated DCHA, that was formed to provide insights and opportunities to those raising dairy calves and heifers? _____
7. In young calves, _____ is the anatomical structure that sends milk from the esophagus to the abomasum.
8. What is the primary site of nutrient absorption in dairy cattle? _____
9. Lack of what nutrient will reduce milk production faster than any others? _____
10. What is the number one cheese type consumed in America? _____
11. What document establishes the standards for Grade A milk? _____
12. _____ is the term used to describe the boost in performance that is created due to the alleviation of inbreeding depression that occurs when crossbreeding is used.
13. Who regulates the federal milk marketing orders? _____
14. Aside from using a scale, what other tool might help you estimate a cow's bodyweight? _____

15. A dairy calf should consume what percent of their bodyweight in colostrum within the first 24 hours of life? _____
16. Abnormal feeding of calves can lead to extreme gas accumulation in the calf's stomach, otherwise referred to as _____.
17. What trait within the major breakdown of FRAME receives the highest point value on the PDCA Dairy Cow Unified Scorecard? _____
18. What country imports the most U.S. dairy products? _____
19. When scoring the body condition of a dairy cow, _____ is the highest possible score she could receive.
20. _____ is a condition that occurs when the abdominal wall of a calf does not close completely.

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 2020-2021 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 during champion drive on Friday, February 19th. Additional awards may be awarded to selected placings once donor funds have been confirmed.

1. Juniors must be in 4th grade as of September 1, 2020 and must not have completed 8th 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 2021 State Commercial Dairy Heifer Show.
3. Record keeping is from the date of purchase until no earlier than January 11th and no later than January 25th.
4. **All Commercial Dairy Heifer Record Book participants must be registered online by ag teacher/agent by close of business January 22nd on the Qualtrics platform: <https://tinyurl.com/GJNLS-Spring>**
5. **All participants must mail in their completed record books. These books must be received by close of business Tuesday, January 26th to the following address:**
4-H participants to Heather K. Shultz, Georgia 4-H, Hoke Smith Annex #321, 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 hand written 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
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
Sarah Loughridge, Youth Livestock Extension Specialist
Heather K. Shultz, Georgia 4-H Extension Specialist, Livestock Programs
Christa Steinkamp, Curriculum & Technology Director, Georgia Agricultural Education
Caroline Hinton, Georgia 4-H Extension Graduate Assistant, Livestock Programs

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 November 2020

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. Joe West, Interim Dean and Director