

The 4-H Motto

"Learn to Do by Doing"



The 4-H Pledge

I pledge

*My **Head** to clearer thinking,*

*My **Heart** to greater loyalty,*

*My **Hands** to larger service,*

*My **Health** to better living,*

For my club, my community, and my country.

The 4-H Grace

(Tune of Auld Lang Syne)

*We thank thee, Lord, for blessings great
on this, our own fair land.*

*Teach us to serve thee joyfully,
with head, heart, health and hand.*

Published by

4-H Branch

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Check out our web site at: <http://www.4h.ab.ca> for an on line version of this resource.
Email info@4h.ab.ca Phone 310-0000 (Toll-Free Rite Line) then 780-422-4H4H (4444).

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Acknowledgements

Developed by the 4-H Provincial Advisory Committee(BAC)

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This Breeding Project Record Book is in its fourth edition (2012).

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ABOUT YOUR RECORD BOOK

Why do we keep records in 4-H?

- To record information about your animal.
- To record the work you have done.
- To record your club activities.
- To learn the importance of keeping accurate records in any business.
- So you can see the actual costs involved in completing your project. Without records, you cannot accurately tell how much of a gain or loss you have made on your investment.

What is involved in a good record book?

- **Completeness** - A good record book has all the required information completed.
- **Accuracy** - Your figures and information should be accurate and up-to-date. Be accurate when weighing your feed and your animal.
- **Neatness** - Neatness is important in your record book. We realize that you are working on your record book throughout the year and will do your best to keep your book neat.
- **Personality** - This is your record book. Be original and personal in the information you keep in your book. Add photographs, pictures, newspaper and magazine articles on you, your club, your project type and 4-H. Your record book will be important to you for many years.

This record book is flexible. Put these pages into your binder. You may want to add extra pages if you need more room. Check with your leader whether your club prefers to have additional information in your record book. Make this your personal record book.

Transportation Regulations

When you transport your livestock within Alberta, the regulations require the livestock to be accompanied by a completed Livestock Manifest. This means that when you transport your livestock from your farm to an event, or any club activity, the manifest must be completed before the vehicle leaves your property.

Livestock owners over the age of 18 are required to have a Premises Identification (PID) account. If you are boarding your animal at someone else's place you are still required to have your own PID account but you will use the landowners PID number on your manifests and other official forms.

All cattle must be ear tagged with a mandatory CCIA (Canadian Cattle Identification Agency) approved tag before being transported.

Looking for the record book on line?

On the 4-H Alberta web site, www.4h.ab.ca, click on Resource Log-In, under the category Livestock, this resource is available to be downloaded and saved as a PDF. In order to access this information you will need to log in using alberta4h (user name) and cleaver (password), both are case sensitive.

THE CREED OF THE 4-H STOCK KEEPER

I will:

1. Provide comfortable and sufficient quarters for my livestock.
2. Feed my livestock on time each day.
3. Provide animals with clean water at all times.
4. Keep my animals free from parasites.
5. Strive to keep my livestock in good health.
6. Learn as much as possible about the best methods of feeding and caring for livestock.
7. Strive to improve the breeding and quality of my livestock, and of the livestock in my community, from year to year.
8. Be kind to animals.
9. Always be a good sport in competition.
10. Keep an accurate record of my projects.
11. Strive to fulfill the basic requirements of being a 4-H Club Member.

I have read and agree to abide by this creed.

Signature _____

Date _____

ABOUT ME

My name _____

My address _____

My phone number _____ Premise ID _____

Email _____

ABOUT MY CLUB

Club name _____

Number of members _____ My club has been operating for _____ years

4-H district _____

4-H region _____

**Note: if this is your only project add in Club Activities from Market Beef Record Book (www.4h.ab.ca/resources/livestock/beef/individualrecordbookpages/recordofyourclubactivities)*

ABOUT MY BREEDING PROJECT

Name of animal _____

Date of birth _____

Purebred or Crossbred (circle) Breed _____

RFID eartag _____

4-H eartag or registered tattoo _____

Dam _____

Sire _____

Date purchased _____

Purchased from _____

Note: include registration certificate if purebred

HEIFER PROJECT

Your goal with your project this year _____

Value at October 1 (A) _____

Estimated value at September 30 (B) _____

Initial Weight _____ Date: _____

Achievement Day Weight _____ Date: _____

Heifer Show Record

Date	Show Attended	Class	Placing	Judge

HEIFER PROJECT PHOTOS

Include two photographs: one taken within one month of purchase and the second taken within two weeks of Achievement Day (label and include date). Add more pages as necessary.

ESTRUS RECORD AND BREEDING

Detecting Estrus

Estrus, or the **heat period**, is the fertile period of the heifer. Estrus will vary from 18 to 24 days depending on the heifer. **Signs of estrus** may include temporarily going off feed, bawling frequently, standing to be rode by other heifers (true heat), will ride other heifers before and after heat, and may have a clear mucous discharge from her vulva after heat. **Ovulation** (releasing an egg) will occur 16 to 30 hours after the heifer begins to show signs of estrus. **A fetus** and eventually **a calf** will develop if the egg is fertilized by a bull's sperm. The heifer will repeat her estrus cycle in approximately 21 days if she does not become pregnant (egg is not fertilized).

Starting with the first time you noticed your heifer in heat, write down the months(s) and day(s)

On average, how many days were there in between?

What signs does your heifer show when she is in heat?

Breeding Information:

A heifer reaches puberty from seven to 14 months old. Her estrus cycle is approximately 21 days. A cow's gestation period is approximately 283 days (approximately 9 months). It takes 30 to 45 days for the cow's reproductive tract to recover from calving

Date bred (artificial) or first exposed to bull (natural) _____

Sire used (breed/name or tag/tattoo) _____

Expected due date or range _____

HEIFER FEED RECORD

Total Feed Cost

Add the total cost of feed from the following months to calculate your total cost of feed this year.

Total Feed Cost (C)

Important Feed Terms

- Nutrient** - needed for maintenance, growth, production and reproduction. Cattle require water, protein, energy, vitamins, and minerals.
- Ration** - the amount of feed required by the animal daily.
- Roughage** - high fibre feed. Examples: hay, silage, straw, green feed.
- Concentrate** - high energy feed. Examples: barley, oats, corn.
- Supplements** - good source of one or more nutrients.
- Feed Additive** - improves feed efficiency and rate of weight gain. *Example:* Rumensin

Example

Month: _____

Feed Type	Days Fed	Weight per Day (lbs)	Monthly Weight (lbs)	Cost per lb	Cost per Month
Barley	31	10	(31 days x 10 lbs) 310	\$0.08	(310 x \$0.08) \$24.80
Hay	31	12	372	\$0.05	\$18.60
Salt	31	0.2	6.2	\$0.09	\$0.56
Total Feed This Month			688.20	Total Cost This Month	\$43.96

Hint: If you need more space under feed type, put in items such as salt and supplements in "Project Related Costs".

Month: _____

Feed Type	Days Fed	Weight per Day (lbs)	Monthly Weight (lbs)	Cost per lb	Cost per Month
Total Feed This Month				Total Cost This Month	

Month: _____

Feed Type	Days Fed	Weight per Day (lbs)	Monthly Weight (lbs)	Cost per lb	Cost per Month
Total Feed This Month				Total Cost This Month	

HEIFER HEALTH RECORD

Include routine practices (e.g. vaccinations) and treatments for sickness and injury.

Date	Procedure or Problem	Treatment	Cost (\$)
Nov 15	Treatment	Ivermectin - 30 ml, topical	\$0.39
Total (E)			

How many teats does your heifer have? _____

RECORD OF MY HEIFER'S PROGRESS

Month	Comment - What did you accomplish with your project this month? (halter breaking, clipping, health, breeding, etc.)
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:

Month	Comment - What did you accomplish with your project this month? (halter breaking, clipping, health, breeding, etc.)
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:

REFLECTIONS ON MY HEIFER

1. What did you like about your heifer?

2. What did you dislike about your heifer?

3. What would you do differently with your heifer if you were starting the year again?

4. What was the most important thing you learned about your heifer?

5. Will you keep or sell this heifer? Will you use this heifer as a two year old cow project?

HEIFER PROJECT FINANCIAL SUMMARY

Value of heifer at September 30

(B, page 5)

(use sale price or estimated value)

(B)

Expense Record

Value at October 1

(A, page 5)

Total Feed Cost

(C, page 8)

Project Related Costs

(D, page 15)

Health Cost

(E, page 16)

+

+

+

Total Expenses

=

(F)

Profit/Loss Calculation

Value of heifer at September 30 (B) – Total Expenses (F) = Profit (+) or Loss (-)

	–		=	
(B)		(F)		

CLIPPING PAGE

Pictures, notes and clippings pertaining to your heifer project and your club. Add more pages as necessary. Include title and date.

TWO YEAR OLD COW PROJECT

Your goal with your project this year _____

Value at October 1 (**B** from page 20)(**G**) _____

Estimated value at September 30 (**H**) _____

Condition Scoring

Determines the amount of fat covering on the animal. The numbers assigned are from **1-very thin** - hip bones and ribs can be seen, **2-lean** - can feel ribs, **3-good condition**, **4-over-conditioned** - folds of fat develop over ribs and around tail head, **5-fat** - blocky appearance, mobility impaired by fat.

Optimum Scoring at:

Pregnancy Testing - 3.0

Calving

- cows - 2.5 to 3.0

- heifers - 3.0

Breeding - 2.5 to 3.0

Condition Score at start of 4-H year and/or at pregnancy testing _____

Condition Score at calving _____

Condition Score at breeding _____

Two Year Old Breeding Information

Date bred - artificial or first exposed to bull (natural) _____

Sire used (breed,name/registration number or tatoo) _____

Expected due date and/or range _____

TWO YEAR OLD COW PROJECT PHOTOS

Include two photographs: one taken within the first two months of the two year old cow project and one of your project's calf (label and include date). Add more pages as necessary.

TWO YEAR OLD COW OFFSPRING RECORD

Offspring Information

Calf's name/Tag # _____ Birth Date _____

RFID # _____ Sex (heifer/ bull) _____ Weight at birth _____

Colour _____ Castration Date _____ Horns or polled (circle)

Calving Information - circle all that apply

Calving Ease Unassisted, Easy Pull, Hard Pull, C-Section











Presentation Not observed, Normal frontwards (two front legs and nose),
Normal backwards (two hind legs and tail)

Malpresentations Breech (backwards- tail but no legs), Upside down, One leg back,
Head back, Both front legs back

The Ideal Udder

An ideal udder is snugly attached, symmetrical and of moderate length with a strong median suspensory ligament. The quarters should be evenly balanced, with teats placed squarely under each quarter and point perpendicular to the ground. Teats should be medium in length and the diameter is consistent from the top to the bottom with the end of the teat being rounded.

Udder Score *

Teat Size				
				
1 – very large, balloon shaped	2 – large	3 – intermediate, moderate	4 – small	5 – extremely small
Udder Suspension				
				
1 – very pendulous	2 – large	3 – intermediate, moderate	4 – tight	5 – very tight

Circle the pictures that best describe your cow's teats and udder suspension. Udders should be scored within 24 hours of calving (at the same time birth weights are taken) scored on the weakest quarter.

*Used with permission from the Alberta Simmental Association. June 2012

TWO YEAR OLD COW DISPOSITION

Docility Scores

Circle the number that best describes your cow during processing

- 1 **Docile** - Gentle and easily handled. Moves slow during processing.
- 2 **Restless** - Quieter than average. May be stubborn during processing.
- 3 **Nervous** - Manageable, but nervous and impatient. Exits chute briskly.
- 4 **Flighty** - Jumpy, may bellow, continuous tail flicking, exhibits long flight distance.
- 5 **Aggressive** - Similar to 4, but with fearful, extreme agitation, and may exhibit attack behaviour.

What was your cow's disposition after she calved? _____

Two Year Old Cow and Calf Show Record

Date	Show Attended	Class	Placing	Judge

TWO YEAR OLD COW FEED RECORD

The amount of feed and nutrients the cow requires depends on her reproductive status - early pregnancy, late pregnancy, and lactating (producing milk).

Date Range	Feed Type	Amount	Cost
Oct 1-Nov 30 (2 months)	pasture	free choice	\$20 x 2 months = \$40.00
Dec 1-Jan 31 (62 days)	hay and barley	30 lbs/day = 1800 lbs hay +5 lbs/day = 310 lbs barley	1800 lbs x \$.05 = \$90.00 310 lbs x \$.08 = \$24.80
Total (I)			

RECORD OF MY TWO YEAR OLD COW'S PROGRESS

Month	Comment - Describe any changes (condition, attitude, calving) to your cow and any training you did with your cow or calf this month.
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:

Month	Comment - Describe any changes (condition, attitude, calving) to your cow and any training you did with your cow or calf this month.
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:

REFLECTIONS ON MY TWO YEAR OLD COW

1. What did you like about your cow? _____

2. What did you dislike about your cow? _____

3. What would you do differently with your two year old cow if you were starting the year again?

4. What was the most important thing you learned about your cow? _____

5. Will you keep or sell this cow? Will you use this cow as a three year old cow project for next year?

TWO YEAR OLD COW PROJECT FINANCIAL SUMMARY

Value of cow at September 30

(H, page 23)

+ (H)

Estimated value of calf at September 30

(market or sale value)

+

Total Value of cow/calf unit

= (L)

Expense Record

Value at October 1

(G, page 23)

Feed Cost

(I, page 27)

Total Project Related Costs

(J, page 28)

Total Health Cost

(K, page 29)

+

+

+

Total Expenses

= (M)

Profit/Loss Calculation

Value of two year old cow & calf at September 30 (L) – Total Expenses (M) = Profit (+) or Loss (-)

(L) – (M) =

CLIPPING PAGE

Pictures, notes and clippings pertaining to your Two Year Old Cow project and your club. Add more pages as necessary. Include title and date.

THREE YEAR OLD COW PROJECT

Your goal with your project this year _____

Value at October 1 (**H** from page 33) (**N**) _____

Estimated value at September 30 (**O**) _____

Condition Scoring

Determines the amount of fat covering on the animal. The numbers assigned are from **1-very thin** - hip bones and ribs can be seen, **2-lean** - can feel ribs, **3-good condition**, **4-over-conditioned** - folds of fat develop over ribs and around tail head, **5-fat** - blocky appearance, mobility impaired by fat.

Optimum Scoring at:

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Calving

- cows - 2.5 to 3.0

- heifers - 3.0

Breeding - 2.5 to 3.0

Condition Score at start of 4-H year and/or at pregnancy testing _____

Condition Score at calving _____

Condition Score at breeding _____

Three Year Old Breeding Information

Date bred - artificial or first exposed to bull (natural) _____

Sire used (breed/name/registration number or tatoo) _____

Expected due date and/or range _____

THREE YEAR OLD COW PROJECT PHOTOS

Include two photographs: one taken within the first two months of the three year old cow project and one of your project's calf (label and include date). Add more pages as necessary.

THREE YEAR OLD OFFSPRING RECORD

Offspring Information

Calf's name/Tag # _____ Birth Date _____

RFID # _____ Sex (heifer/ bull) _____ Weight at birth _____

Colour _____ Castration Date _____ Horns or polled (circle)

Calving Information - circle all that apply

Calving Ease Unassisted, Easy Pull, Hard Pull, C-Section











Presentation Not observed, Normal frontwards (two front legs and nose),
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The Ideal Udder

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Udder Score *

Teat Size				
				
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Udder Suspension				
				
1 – very pendulous	2 – large	3 – intermediate, moderate	4 – tight	5 – very tight

Circle the pictures that best describe your cow's teats and udder suspension. Udders should be scored within 24 hours of calving (at the same time birth weights are taken) and scored on the weakest quarter.

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EVALUATING PERFORMANCE OF THREE YEAR OLD COW

Pregnancy (not open) is one factor in deciding whether to keep a cow for the following calving season. Other reasons are: birth weight and calving ease of the calf, weaning weight of calf, disposition of the cow, udder and teat scoring, and condition of the cow's feet. Describe in detail the reasons why you should **keep** or **cull** your cow.

Three Year Old Cow and Calf Show Record

Date	Show Attended	Class	Placing	Judge

RECORD OF THREE YEAR OLD COW'S PROGRESS

Month	Comment - Describe any changes (condition, attitude, calving) to your cow and any training you did with your cow or calf this month.
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:

Month	Comment - Describe any changes (condition, attitude, calving) to your cow and any training you did with your cow or calf this month.
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:
	Member:
	Leader:

REFLECTIONS ON MY THREE YEAR OLD COW

1. What did you like about your cow? _____

2. What did you dislike about your cow? _____

3. What would you do differently with your cow if you were starting the year again?

4. What was the most important thing you learned about your cow? _____

5. Will you keep or sell this cow? _____

THREE YEAR OLD COW PROJECT FINANCIAL SUMMARY

Value of cow September 30

(O, page 35)

+ (O)

Value of calf September 30

(market or sale value)

+

Total value of cow/calf unit

= (S)

Expense Record

Value at October 1

(N, page 35)

Total Feed Cost

(P, page 39)

Total Project Related Costs

(Q, page 40)

Total Health Cost

(R, page 41)

+

+

+

Total Expenses

= (T)

Profit/Loss Calculation

Value of three year old cow & calf at September 30 (S) - Total Expenses (T) = Profit (+) or Loss (-)

(S) - (T) =

CLIPPING PAGE

Pictures, notes, and clippings pertaining to your Three Year Old Cow Project and your club. Add more pages as necessary. Include title and date.

MARKING GUIDE HEIFER PROJECT

Section A	Date marked (Club to determine one time during year)	Total Marks	Comments
The Creed of the 4-H Stock Keeper (page 2)		/1	
About Me/My Club/My Breeding Project (page 3)		/3	
Heifer Project & Show Record (page 5)		/4	
Photos (page 6)		/2	
Estrus Record and Breeding (page 7)		/4	
Project Related Costs (page 15)		/4	
Health Record (page 16)		/4	
Reflections (page 19)		/10	
Financial Summary (page 20)		/5	
Clipping Page (optional) (page 21)		/2	
Total Section A		/39	

Heifer Record Book - Section B - Marking Date (# of times determined at club level)	Feed Record * (page 8-14)	Record of Heifer's Progress (page 17-18)	Total Marks	Comments
November 13	2/3	1/1	4/5	Deduction for math error in grain per day fed
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
Achievement Day to Sept 30	/3	/1	/4	
Total Section B			/	

Section A ____ + Section B ____ = ____ / ____

* Calculation errors are not cumulative

MARKING GUIDE TWO YEAR OLD COW PROJECT

Section A	Date marked (Club to determine one time during year)	Total Marks	Comments
Two Year Old Project (page 23)		/4	
Photos (page 24)		/4	
Offspring Record (page 25)		/5	
Udder Score (page 25)		/4	
Disposition (4) Show Record (2) (page 26)		/6	
Project Related Cost (page 28)		/4	
Health Record (page 29)		/4	
Reflections (page 32)		/10	
Financial Summary (page 33)		/5	
Clipping Page(optional) (page 34)		/2	
Total Section A		/42	

Section B - Marking Date (#of times determined at club level)	Feed Record * (page 27)	Record of Two Year Old's Progress (page 30-31)	Total Marks	Comments
November 13	2/3	1/1	3/4	Deduction for math error in grain per day fed
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
Achievement Day to Sept 30	/3	/1	/4	
Total Section B			/	

Section A ____ + Section B ____ = ____ / ____

* Calculation errors are not cumulative

MARKING GUIDE THREE YEAR OLD COW PROJECT

Section A	Date marked (Club to determine one time during year)	Total Marks	Comments
Three Year Old Project (page 35)		/4	
Photos (page 36)		/4	
Offspring Record (page 37)		/5	
Udder Score (page 37)		/4	
Evaluating Performance (page 38)		/4	
Show Record (page 38)		/2	
Projected Related Costs (page 40)		/4	
Health Record (page 41)		/4	
Reflections (page 44)		/10	
Financial Summary (page 45)		/5	
Clipping Page (optional) (page 46)		/2	
Total Section A		/42	

Three year Old Record Book - Section B - Marking Date (#of times determined at club level)	Feed Record * (page 39)	Record of Three Year Old Cow's Progress (page 42-43)	Total Marks	Comments
November 13	2/3	1/1	3/4	Deduction for math error in grain per day fed
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
	/3	/1	/4	
Achievement Day to Sept 30	/3	/1	/4	
Total Section B			/	

Section A ____ + Section B ____ = ____ / ____

* Calculation errors are not cumulative

