



Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

County: \_\_\_\_\_ Club: \_\_\_\_\_

Years Enrolled in the Dairy Project: \_\_\_\_\_

### Permanent Identification Required:

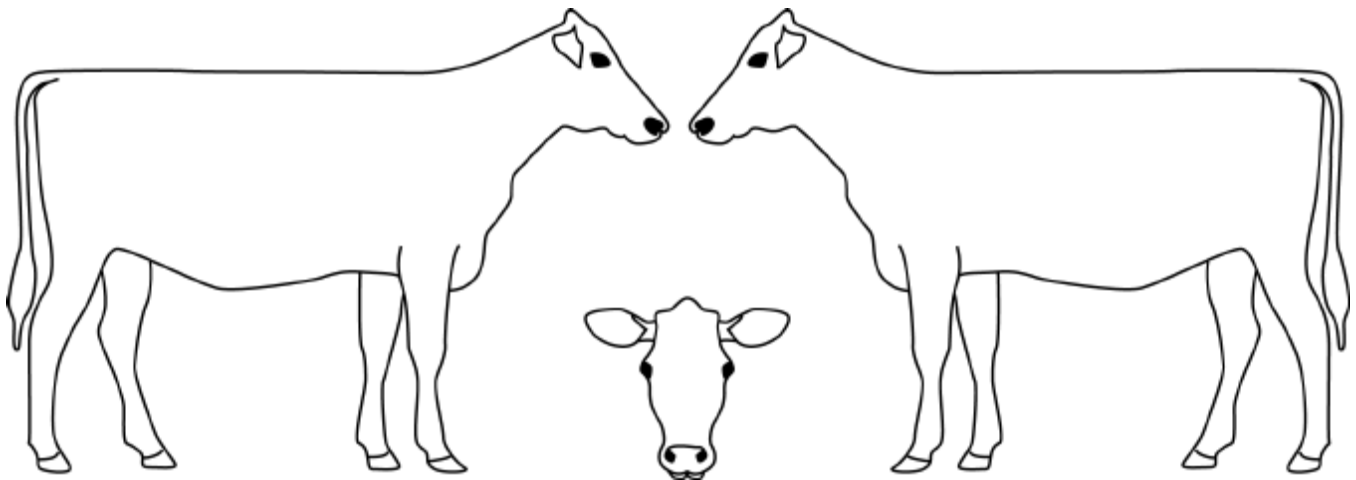
A diagram of color markings OR photographs is appropriate for breeds with distinctive color markings. Either RIGHT side OR LEFT side diagram or photo is acceptable. A tag, tattoo or freeze brand identifier is necessary when submitting a one-side sketch, breeds without distinctive color markings or animals identified solely by tag, tattoo or freeze brand.

### Diagrams:

Outline markings in BLACK INK. Clearly show the color markings of both sides and face.

### Photos:

The face, legs and switch must clearly show on each photograph.



Name: \_\_\_\_\_

Date of Birth: \_\_\_\_\_ Management or Barn ID No.: \_\_\_\_\_

Breed: \_\_\_\_\_ American ID or Breed Assoc. Tag Serial No.: \_\_\_\_\_

Electronic ID (RFID): \_\_\_\_\_ USDA Ear Tag No.: \_\_\_\_\_

Tattoo/Freeze brand (circle one) Right: \_\_\_\_\_ Left: \_\_\_\_\_

Please explain the advantages or disadvantages of the identification system used for your animal:

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Sire's Name: \_\_\_\_\_ Registration No.: \_\_\_\_\_

**Sire's Predicted Transmitting Ability**

Reliability	Lbs. Milk	% Fat	Lbs. Fat	Lbs. Protein	Dollars	Sire Summary Date

Dam's Name: \_\_\_\_\_ Registration or Ear Tag No.: \_\_\_\_\_

**Dam's Predicted Transmitting Ability**

Reliability	Lbs. Milk	Dollars	Date of Cow Ranking

What are the dam's milk production records? Which one is best? \_\_\_\_\_

Age	2x or 3x	Days (365 or less)	Milk lbs.	Fat %	Protein %	Protein	Data Collection Rating

From a pedigree perspective, what are the strengths and weaknesses of your animal's genetic background?

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Please explain the strengths and weaknesses in your calf's conformation and what led you to choose her for your fair project?

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**Health Record:**

Health records are important both in the management of the animal as well as responsible use of drugs and vaccines. Please list all vaccinations and treatments that were given to your heifer.

Date	Shot/Vaccine or Treatment Given	Reason

**Breeding Record:**

Reproductive information is needed to achieve maximum production and reproductive performance. Animal size and weight play important roles in determining the time for first breeding. Heifers should reach adequate size and weight according to the breed targets.

Range of Recommended Dairy Heifer Weights and Heights*						
Age	Holstein		Jersey		Guernsey	
	Weight (pounds)	Height (inches)	Weight (pounds)	Height (inches)	Weight (pounds)	Height (inches)
3 mo.	211-284	35-38	155-177	32-34	203-233	35-37
6 mo.	369-480	40-44	259-321	36-39	366-434	40-42
12 mo.	682-843	47-51	471-548	42-44	576-674	46-48
15 mo.	843-1067	49-53	565-640	44-46	740-866	48-50

\*Monitoring Dairy Heifer Growth. Jud Heinrichs and Brian Lammers, The Pennsylvania State University, 1998.

How tall is your calf at the withers?

Age	Wither Height in Inches
3 mo.	
6 mo.	
12 mo.	
15 mo.	

When was the first breeding initiated and why?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What bull did you select to breed your heifer to? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What traits of your animal are you trying to improve in the next generation with this mating?

\_\_\_\_\_

\_\_\_\_\_

Calculate the Pedigree Type-Production Index for the resulting offspring. (Add the TPI of the service sire and the CTPI of your heifer and then divide by 2.) PTPI estimates the genetic potential of young animals.

Expected PTPI: \_\_\_\_\_

## **Economic Considerations:**

Every 4-H member should have a good estimate of what the costs will be to purchase and raise a calf until she is ready to have her first calf. *Feed costs* account for 60% of the total cost of raising a heifer calf from birth to first calving. Additional costs include *labor and management costs*, *fixed costs* including housing and equipment, and *variable costs*, including veterinary, bedding, interest and death loss.

Calculate the cost of raising your calf from birth to weaning.

How many days will your calf be fed milk or milk replacer before it is weaned?

For example: A calf is fed milk for 6 weeks.

$$6 \text{ weeks} \times 7 \text{ days/week} = 42 \text{ days on liquid feed}$$

<b>Item</b>	<b>Average Cost \$/Day*</b>	<b>Example: Sample 4-H calf is fed 42 days (6 weeks)</b>	<b>Figure the cost for raising your calf using the average costs</b>
<b>Liquid Feed</b> (A calf will drink 1 lb. of milk powder mixed in a gallon of water or 8 lbs. of milk each day.)	.61/day	\$25.62	
<b>Calf Starter</b> (A calf should consume 1-2 lbs. of starter per day prior to weaning)	.35/day	\$14.70	
<b>Forage</b>	.03/day	\$1.26	
<b>Bedding</b>	.10/day	\$4.20	
<b>Veterinary</b>	.15/day	\$6.30	
<b>Death Loss</b>	.08/day	\$3.36	
<b>Interest</b>	.06/day	\$2.52	
<b>Labor Management</b> (It takes approximately 9 minutes each day to feed and care for a calf)	1.19/day	\$49.98	
<b>Calf Housing</b>	.19/day	\$7.98	
<b>Calf Equipment</b>	.02/day	\$0.84	
<b>Total Cost</b>		\$116.76	

\**Economic Cost and Labor Efficiencies Associated with Rearing Dairy Herd Replacements on Wisconsin Dairy Farms Research Report.* Pat Hoffman, UW-Extension Dairy Management Specialist.

Calculate the cost of raising your heifer from weaning to first calving.

At what age will your heifer enter the milking herd? \_\_\_\_\_

How many days after weaning will your heifer be fed before she enters the milking herd?

For example: A heifer enters the milking herd at 24 months of age.

24 months x 4 weeks/month = 96 weeks

96 weeks – 6 weeks (period of time fed before weaning) = 90 weeks

90 weeks x 7 days/week = 630 days on feed

Item	Average Cost \$/Day*	Example: Sample 4-H heifer is fed 630 days	Figure the cost for raising your heifer from weaning to first calving using the average costs.
<b>Feed</b>	.95/day	\$598.50	
<b>Bedding</b>	.04/day	\$25.20	
<b>Veterinary</b>	.05/day	\$31.50	
<b>Breeding</b>	.04/day	\$25.20	
<b>Electrical and Fuel</b>	.05/day	\$31.50	
<b>Interest</b>	.05/day	\$31.50	
<b>Death Loss</b>	.01/day	\$6.30	
<b>Labor/Management</b> (It takes approximately 9 minutes each day to feed and care for a calf.)	.21/day	\$132.30	
<b>Manure Storage</b>	.03/day	\$18.90	
<b>Housing</b>	.14/day	\$88.20	
<b>Equipment</b>	.04/day	\$25.20	
<b>Total Cost</b>		\$1014.30	

\*Economic Cost and Labor Efficiencies Associated with Rearing Dairy Herd Replacements on Wisconsin Dairy Farms Research Report. Pat Hoffman, UW-Extension Dairy Management Specialist.

What is the total cost of raising your dairy heifer from birth to first calving?

$$\frac{\quad}{\text{Cost of calf raising}} + \frac{\quad}{\text{Cost of heifer raising}} + \frac{\quad}{\text{Market value of calf at birth}} = \frac{\quad}{\quad}$$

For the example animal, the total cost to raise the heifer is:

$$\frac{\$116.76}{\text{Cost of calf raising}} + \frac{\$1,014.30}{\text{Cost of heifer raising}} + \frac{\$200 \text{ calf value}}{\text{Market value of calf at birth}} = \frac{\$1,331.06}{\quad}$$