

Colorado Record Users Guide For Livestock/Horse e-Record

Colorado
State
University

Extension



2009-2010 4-H Year
Revised 4/2010

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Introduction for leaders and parents.

PRINT IN LANDSCAPE FORMAT

This guide has been prepared to assist you in completing the new Livestock/Horse Records. It provides instructions, suggestions and examples to aid you as you fill out your record. There are three age appropriate Records; thus some information in this guide may not apply to all records. Members are expected to complete as much of the record as possible on their own, however younger members will likely need assistance in understanding some of the concepts.

Members will want to fill out as much of the record as they can, as soon as they get their records. This will make less for them to do later in the year. **DO NOT WAIT TO DO YOUR RECORD BOOK AT THE LAST MINUTE!** Members should have enough time to do the record correctly. We believe that leaders or parents should counsel young members in the preparation of their records. These records are developed for the member to need only a minimal amount of leader assistance. *The member is responsible for the actual completion of the record.*

For the purposes of consistency in the examples used in this "User's Guide" we have elected to use market livestock examples. This way it is easier to track the various calculations and items through all the examples and to see how they interrelate.

Your record book is just that, a record of this year's work in your projects. We discourage the addition of extra items, but if you choose to add items, such as ribbons, pictures or newspaper clippings be sure they are securely attached.

These records are available to you in one of the three ways described below. **Along with the record you will need to acquire supplements for all breeding projects regardless of species.**

Online

You will access the website and download the required records and supplements yourself. You will not need any records from the Extension Office. The records are available on the Colorado 4-H Webpage:

www.colorado4h.org (Click the Project Resources & Record Books link on the right)

Paper

You may elect to receive all records and supplements for your projects from the Extension Office or via your club leaders at the appropriate costs.

CD

A Colorado 4-H Record CD containing all records and supplements for all 4-H projects will be available from your local extension office.

We hope that this User's Guide will help you in the teaching of record keeping. While this is a state wide Record there may be differences in how the records are handled from county to county. If you have questions or suggestions concerning issues that may not be covered in this guide, please contact your local Extension Office.

COVER

This is the easiest page in the record book! There is no reason why this page should not be completed when you receive or download your record.

Check to be sure you have the right book for your project. There are three age levels available:

- Junior: 8-10 years old December 31 of the past year
 - Intermediate: 11-13 years old December 31 of the past year
 - Senior 14-18 years old December 31 of the past year
- Begin this page by indicating what species of animal you have as a project by placing an X in all the appropriate boxes. If you have more than one project, you will have more than one box marked.
 - Clearly indicate the member's name, age, club on the cover.
 - Make sure your leader signs the cover upon completion of the record.
 - Indicate the year the project is completed; ie: year from Sept 1, 2007 to Aug 31, 2008 the year would be 2008.

PERSONAL GOALS

All three age groups have similar Personal Goals pages. Examples of life skills include:

- Decision Making
- Record Keeping
- Work with Different Types of People
- Respect others (people and animals)
- Use a Computer
- Successfully Complete a Project
- Responsibility
- Develop a Strong Work Ethic
- And many others!!!

List up to four such skills on the personal goals page. Good goals are measurable and attainable. For example: don't just say "Record Keeping", state a goal like "Improve my record keeping skills by updating my record book weekly". Remember these are your goals and you should give some thought as to how you will reach them.

PROJECT AGREEMENT

Be sure to sign and provide all appropriate dates. Be sure your leader or parents/guardian also sign the contract. The record book is not complete without these signatures.

HORSE IDENTIFICATION CERTIFICATE

This page is for horse projects only. Complete this page for each horse you have in your project. Pictures may be added instead of drawing in the markings.

LIVESTOCK PROJECT GOALS

As you start your project you need to think about the production goals related to your project. Below you will find some recommendations to help you with your goals. Not all members' goals will be alike. Livestock breeds, feeding programs and genetics affect the goals you set and the ability of your animal to meet these goals. As you progress through your 4-H career you will be more able to accurately estimate your goals, as you will have experience from previous years as guidelines. Goals should be attainable and measurable so that you can evaluate your progress at the end of the project. Use the charts below to help define your goals.

Market Livestock

	Typical Weight Range	Recommended End Weights	Average Daily Gain Range	Typical Weight Gain	Feed Efficiency Feed/Pound of gain
Beef	1050 to 1400	1200 to 1300	2.0 to 4.0/day	2.5 to 3.5/day	6.0 to 10 lbs
Lambs	90 to 140	110 to 130	.2 to 1.0/day	.4 to .6/day	6.0 to 10 lbs
Swine	220 to 270	240 to 260	1.5 to 2.2/day	1.6 to 1.9/day	2.5 to 3.5 lbs
Goats	50 to 120	80 to 110	.25 to .35/day	.25 to .30/day	6.0 to 10 lbs

Breeding Beef

Typical Range

Percent cows bred / Cows exposed to bull	85-96%
Percent calves weaned / Cows exposed to bull	80-95%
Average 205 day weaning weight	480-600 lbs.
Average yearling weight	700-1150 lbs.

Dairy

Typical Range

Percent cows bred / First service	60-80 %
Average at first calving	24-30 months
First lactation production	16,000-22000 lbs
Peak milk production	80-120 lbs

Breeding Swine

Typical Range

Percent gilts pregnant on first service	80-94 %
Number of pigs weaned per litter	5-12
21 day litter weight	120-180
Average days to 250 pounds	140-175

Breeding Sheep

Percent ewes bred / Ewes exposed to ram
Lambing rate
Weight at weaning (8 weeks)
Wool per head / birth weight

Typical Range

80-95%
100-150%
50-70 lbs
8-12 lbs

Breeding Goats

Percent Nannys Bred/Nannys exposed to Buck
Kidding rate
Peak Lactation
Weaning weight
Age at Harvest

Typical Range

80-95%
100-130%
16-22 lbs
40-60 lbs
140-200 days

Turkeys

Percent of birds raised to market weight
Weight of hens at 16 weeks
Weight of toms at 16 weeks
Feed fed / pound of live bird produced

Typical Range

80 to 90%
12-16 lbs
17-20 lbs.
3.2 to 3.8 lbs

Chickens

Percent of chicks raised to production or market
Age at first production
Peak production eggs produced/hen fed
Feed fed / dozen eggs produced
Weight at 55 days
Average days to 4 pounds
Feed fed / Pound of live bird produced

Typical Range

92-96%
20-24 weeks
80 %
4 lbs
4 lbs
50 days
2.5-3.0 lbs

Rabbits

Average litter size
Age at first kindling
Percent young raised to market age
Weight at 4 months
Fur quality - % Premium quality pelts

Typical Range

4-6
4 months
90 %
4 lbs
50%

ANIMAL PURCHASE RECORD

Enter all animals purchased after the beginning date of your project. Market animals should be entered either in the inventory or in the expense record, **but not both**. If you own market animals the day you begin the project, they will be in your inventory at the beginning of your project year. If you purchase them later, record them as an expense. Your inventory from the previous year lists all the equipment, animals and other assets you own when you start your project. The inventory from the end current year serves the same purpose when you complete your project. Value each item at the price you paid or at the estimated selling price.

You will also need to “charge” the purchase to a project. You will actually be entering the cost of the animal in two columns. This will allow you to total your livestock purchases for all projects and for each individual project.

ANIMAL PURCHASE RECORD

Enter the cost of all project animals that you purchase during your project year. If an animal is owned at the beginning of the 4-H year the animal should be listed in inventory at the beginning year date and not here. More pages may be added as needed.

					Proj: Mkt Beef	Proj: Breeding Beef	Proj: Mkt Swine	Proj: Horse
Date	Animal	Seller	Weight	Cost	\$	\$	\$	\$
1/06/05	Steer	Ranchers, Ltd	600	735.	735.00		---	
4/15/05	2 Pigs	ABC Show Pigs	135	210.00			210.00	
4/20/05	pig	Portly Pigs	80	120.00			120.00	
7/15/05	Heifer #1	Mr. Smith	500	500.00	---	500.00		

INCOME RECORD

List all income including, sale of livestock, show premiums, stable work, jackpot winnings, sale of tack, lessons given and any other income in this section. Enter the value of items used at home as income. If you have animals on inventory as of Aug 31 of last year and you sell during the current project year (Example: Steer sold Oct 15) they should be entered here. Make sure you enter the income in the Income column and the specific project column that sold the product or received the income.

INCOME RECORD

List all income here including sale of livestock, show premiums, stable work, jackpot winnings, sale of tack, lessons given, etc. If an animal is owned at the end of the 4-H year, the animal should be listed in inventory at the year end date and not here. More pages may be added as needed.

Date	Item	Income From	Weight or Quantity	Income	Proj:	Proj:	Proj:	Proj:
					Mkt Beef	Breeding Beef	Mkt Swine	Horse
					\$	\$	\$	\$
3/15/05	2004 Steer Calf #401	Sale Barn	780	810.00		810.00		---
4/25/05	Ranch Work	Joe Farmer		50.00				50.00
8/15/05	Fair Premiums	County Fair	5	100.00	30.00	25.00	25.00	20.00
8/20/05	Steer	Fair Sale	1270	1270.00	1270.00			
8/21/05	Pig 251	Fair Sale	276	450.00			450.00	

COMPARISON OF MARKET VS FAIR PRICE – Intermediates and Seniors only:

This section is to help members evaluate their project realistically without the advantages of the Fair premium sale. It helps to realize the contribution of the buyers at these sales. Market values should be the cash price paid for market animals at the time of sale. If you do not have a market animal that is sold through a fair, you do not need to fill out this section. Please indicate this by placing "N/A" in the first column.

COMPARISON OF MARKET VS. FAIR PRICES

Use this chart for market projects to evaluate your project(s) based upon actual market animal prices.
(use only for animal sold through fair sales)

	Total All Projects:	Proj: Mkt Beef	Proj: Breeding Beef	Proj: Mkt Swine	Proj: Horse
A. Actual Price Per Head Received	1720.00	\$1270	N/A	\$450.00	
B. Fair Floor Price or Actual Market Price		\$0.85		\$0.55	
C. Weight of Animal (in lbs)		1280#		270	
D. Total Market Value of Animal (B x C)		\$1088.00		\$148.50	
E. Difference in Value (A – D)	483.50	182.00		\$301.50	

FINANCIAL SUMMARY

The Financial Summary reflects your overall profit or loss. Whether you made a profit, loss, or broke even on your project(s) this year, it is important that you complete this page. If your figures were correct in the Inventories, Income Record and Expense Records, it is a simple matter of transferring your totals to the proper areas in the Financial Summary.

Follow the instructions making sure to accurately transfer the numbers. Check addition and subtraction for correctness.

FINANCIAL SUMMARY

This page will allow you to check your profit or loss for each project, and all projects combined. NOTE: The beginning and ending inventory values are ONLY ENTERED for all projects, not an individual project.

	Total All Projects:	Proj:	Proj:	Proj:	Proj:
F. Ending Inventory	5038.00				
G. Income	2980.00	1300.00	835.00	775.00	70.00
H. Total Income (F + G)	8018.00	1300.00	835.00	775.00	70.00
I. Beginning Inventory	4115.00				
J. Livestock Purchase Expense	1565.00	735.00	500.00	330.00	0.00
K. Feed Expense	1655.28	365.14	624.15	286.78	379.21
L. Non-Feed Expense	327.73	82.35	121.50	35.24	88.64
M. Total Expenses (I + J + K + L)	7663.01	1183.49	1245.65	652.02	467.85
N. Profit/Loss (H - M; negative denotes loss)	354.99	117.51	(410.65)	123.01	(397.85)
O. What would you have made with out a fair sale? (N - E; if Applicable)	(128.51)	64.43	(410.65)	178.49	(397.85)

FEED NUTRIENT VALUES

Complete this page for at least one project (may be required for each project in some counties). However, you are encouraged to complete the page for all projects! You may attach labels from all rations fed.

Attach labels from all complete rations and supplements you were feeding at the completion of your project. If you feed a mixed ration attach the formula and the labels from the supplements that were added.

Answer each question using the attached label for your answers.

PROTEIN IN YOUR RATION – SENIORS

Balanced rations are an important part of getting your animals to gain quickly and efficiently. The ration analysis page in the Senior Record Book will guide you through the process of checking your ration to see if it meets your animal's protein requirements to perform optimally.

Only protein requirements are looked at on this page; it is a major nutrient of your ration. Water, energy vitamins and minerals are also extremely important to an animal's performance.

For the purpose of this record you need only analyze one of the project rations that you use during the year. **However, you must complete one full ration analysis for each project!**

The quality of feed ingredients varies and the information provided is based on averages. If you have an actual feed analysis, use your information instead of the information in the Feed Composition Table below. In cases where you feed a complete ration formulated by the feed company, you may be unable to get the exact ration formula; but will have to use the complete ration as a whole. Read the feed tag to get that ingredient amount.

The following example will walk you through a ration for your project.

Obtaining protein percentage of your ration.

For our example we will use a simple ration consisting of the following:

Oats	200 lbs.
Corn	300 lbs.
Protein Supplement 35 % Protein	100 lbs.
Total Mixed Ration	600 lbs.

- Enter the ingredient and amount in the ration in the ration formula table.
- Calculate the total pounds of your mixed ration. In this example the total amount of the ration formula is 600 pounds.
- From the table lookup the percentage of protein in the ingredient. Corn is 9.5%, Oats is 11%
And the protein supplement is 35%
- Multiply the protein percentage by the amount of the ingredient in the ration to find the pound of protein in the ration supplied by that individual ingredient. (Example: $300 \times 9.5=28.5$)
- Total the protein in all ingredients. (Example: $28.5+22+35=85.5$)
- To calculate the percentage of protein in the total ration, divide the total protein supplied by all ingredients (E) by the total pounds of the mixed ration (B) and multiply by 100.

$$(85.5 \div 600 = 14.25)$$

Ration Formula				
Ingredient	Amount (Pounds)	Protein Percent	Protein supplied by ingredient in Pounds (Amount x Protein %)	Percent Protein of Ration (Total protein supplied by ingredients/total pounds of all ingredients)
Corn	300	9.5	28.5	
Oats	200	11	22.0	
Sup	100	35	35.0	
Total	600		85.5	14.25%

Correctly answer the questions based on your ration.

Use the following table to provide the amount of protein in your ration ingredients.

PROTEIN IN YOUR RATION

The following is an example for using a complete ration containing 18% protein..

	A	B	C	
Ingredient	Amount (weight)	Protein (Percentage)	Protein supplied by ingredient in weight (Amount x Protein %) (A x B)	Percent Protein of Ration (Total protein supplied by ingredients ÷ total pounds of all ingredients)
Ration 1234	100lbs	18%	18 lbs.	(Total of C ÷ Total of A)
Total	100 lbs.		18 lbs	18%

Protein Table

Data below is for medium quality feeds on an as fed basis. This information is provided for you as an estimate of feed values. If you have actual analysis, use it in place of this data. If your feed is not listed here, visit with your Extension Office or with your local livestock nutritionist to get ingredient information. IF YOU FEED A COMPLETE RATION THIS INFORMATION IS ON THE LABEL

Ingredient	Protein (Percent)
Alfalfa Pellet (dehy)	15-18
Alfalfa/Grass Hay	12-14
Barley	11-13
Brewers Grain Wet	25-28
Corn	9-10
Corn Silage	2.5-3.2
Corn Stalks	6-7
Cottonseed Hulls	4-4.5
Cottonseed Meal	38-42
Grass Hay	6-8

Ingredient	Protein (Percent)
Milo	10-12
Oat Hay	8-10
Oats	11-13
Sorghum (Sudex) Hay	7-10
Sorghum Silage	2.5-3.0
Soybean Meal	40-45
Wheat	11-14
Wheat Hay	6-9
Wheat Silage	3-4

NRC Recommendations for Livestock

(Recommendations for horse are in the project manual)

For any animal to perform well and grow as expected, its ration or daily food intake must meet the requirements of essential nutrients. Water, Energy (Carbohydrates and Fats), Protein, Vitamins & Minerals are important in the proper growth and development of your animal. Is your ration balanced to provide all of the nutrients required for optimum gain and performance?

Protein is one of the most important nutrients for livestock production but energy, vitamins and minerals should not be overlooked. The following worksheet will deal only with protein for simplicity. "Dry Matter" refers to all feeds adjusted to 10% moisture. "As Fed" means the actual moisture content in your feed at the time you feed it. All requirements are minimum estimations; NRC Requirements should be referred to for more specific recommendations based on weight and age.

(The following are suggestions and may not fit your feeding program exactly.)

Species	Weight (Pounds)	Average Daily Gain	Dry Matter Fed (lbs)	Protein (Percent)
Calves (2.5-3.0 lbs/day gain)	<300	3.0	16	15
Calves (2.5-3.0 lbs/day gain)	300-500	3.0	18	14
Calves (2.5-3.0 lbs/day gain)	500-700	3.0	23	13
Yearlings (2.5-3.0 lbs/day gain)	700-1000	3.0	24	12.5
Yearlings (2.5-3.0 lbs/day gain)	>1000	3.0	24	12
Beef Cows Lactating	900-1200	0	32	16
Beef Cows Dry	900-1200	0.5	24	11
Dairy Cows- Lactating	1000-1400	0	55	15
Dairy Cows Dry	1100-1500	0.5	30	12
Lambs	60-80	0.65	2.9	14.5-16
Lambs	80-90	0.5	3.5	12-16
Lambs	Over 90	0.5	3.5	12-16
Ewes - Lactating	150-200	0	6.6	14.5
Ewes - Dry	150-200	0.05	3.0	10
Swine - Market	50-100	1.3	3.5	20
Swine - Market	180-260	1.7	4.8	18
Swine - Market	110-180	2.0	7.0	16
Swine - Market	180-260	2.4	8.4	14
Swine - Sows	400	0.5	4.5	12
Goats	45	0.25	2.2	9-10
Goats	65	0.25	2.95	9-10
Goats	90	0.25	3.45	9-10
Does - Lactating	90-125	0	4.5	12-13
Does - Dry	90-125	0	3.2	9-10
Chickens -Broilers				18-22
Chickens - Laying				18
Turkeys				22-28
Ducks				15-22
Geese				15-20
Rabbits				14-17
Mature Horse -Maintenance	1000			6
Working Horse -Light Work	1000			7
Working Horse -Moderate Work	1000			9
Pregnant Mare	1000			8
Lactating Mare	1000			13
Junior Horse	1000			10

FEED CHANGE RECORD

It is extremely important to keep accurate records of the kind and amount of feed you are feeding your animals. Market livestock require changing rations during the year from grower to finishing rations. Breeding livestock require changes in feed rations to compensate for differing nutritional requirements during growth periods, periods of high production, or during pregnancy and lactation. Accurate records of these changes (dates and amounts of changes) will help you in subsequent years by giving you guidelines for your feeding program.

Record all feeding changes for your animal or groups of animals here. This will include changes in the ration formulation and amounts that you are feeding. Attach additional sheets for different groups of animals.

FEED CHANGE RECORD

You must complete this page for each animal or group of animals that are fed alike. Enter the amount of feed that your animal(s) eat each time you change the type or amount of feed. **If your ration does not change you should make entries every other month indicating the amount being fed.** (Insert pages as needed.)

Project: Market Beef			
Date	Ration	Amount Fed	Reason For Change
1/05/05	Grass Hay	18#	
1/08/05	Steer ration	5#	Start on Feed
1/08/05	Grass Hay	15#	Start on Feed
1/15/05	Steer Ration	8#	Increase Energy in Ration
1/15/05	Grass Hay	12#	Increase Energy in Ration

HEALTH RECORD

Routine practices for disease, injury and prevention may be included. This includes such items as dehorning, branding, docking, clipping of needle teeth, vaccinations, worming, spraying for flies and so forth. **USE AN ADDITIONAL HEALTH RECORD FOR EACH PROJECT.** Attach additional pages if necessary.

The treatment record is required as part of your project under the Meat Quality Assurance. You should track any health related information in this record. It is very unlikely that you will have no entries in this section. You should list insect and parasite control, growth implant programs, any shots or vaccinations given, and use of any special or medicated feed additives. Vaccination records provided to you by the producer could be entered here as well. Also, if you feed any feed containing medications they should be listed here. Cost associated with health care should be included in Other Expense Record.

DO NOT FORGET TO SIGN THIS PAGE!

PERFORMANCE SUMMARY

This page should be filled out continually throughout the project. In order to economically feed and manage your project animals, you must monitor their weight and performance throughout the project. For the larger species, you should be weighing animals at least monthly (feel free to weigh them more often). If you do not have beginning weights use an estimated weight for your calculations.

For many of these calculations, this is where the Julian Calendar can be useful to determine the number of days between events!

Each age group (junior, intermediate, and senior) have different requirements for their performance summary. Use the appropriate formulas and examples to help you measure your animal's performance.

Average Daily Gain (ADG) = Gain for that period ÷ Number of days for that period

Example: A calf weighs 710 lbs on Jan 5 and on Mar 5, the same calf weighs 915 lbs.

Gain for that period = 915 – 710 = 205 lbs

Number of days for that period = 59 days

ADG = 205 lbs gained in the period ÷ 59 days in period = 3.47 lbs gained per day

Cost Per Pound of Gain = Total cost of Feed in the period ÷ Pounds Gained in the Period

Example: \$122.80 ÷ 205 pounds gained = \$.599 per pound of gain

Feed conversion is amount of feed fed per pound gained

Feed Conversion = Total Feed Fed in Period ÷ Pounds Gained in the Period

Example: 1575 pounds of feed ÷ 205 pounds gained = 7.683 fed/pound of gain

PERFORMANCE SUMMARY

(Not applicable to members enrolled in horse project only)

Complete one performance summary for EACH MARKET ANIMAL OR GROUP OF ANIMALS FED ALIKE. It is important to periodically evaluate your animal's performance during the project. The factors of greatest importance to producers include: average daily gain (ADG), feed conversion, cost per pound of gain, and breakeven price. You will want to monitor these factors regularly throughout your project. This will allow you to properly assess your feeding and health programs.

Weigh Date	Weight	Lbs Gained	No. Days Since Last Weight	ADG	Pounds Feed Fed	Cost of Feed Since Last Weight	Cost Per Pound of Gain	Feed Conversion
1/05/05	710	***** (This is the beginning weight, so you do not fill out the rest of the first line) *****						
3/05/05	915	205	59	3.47	1575	122.80	.599	7.683

INVENTORY

Inventory is a list of items that you have at any point in time. For the purposes of the 4-H Record these dates will be the beginning and end of the project year. For this reason there is one inventory sheet in the Livestock Horse Record. Due to the crossover of equipment you will not need to inventory your items by project. For simplicity, only the total inventory for all projects will be used in the financial summary.

Project Inventory Date - August 31, Current Year

If first year members have not yet acquired equipment and etc. they just put zero in the beginning inventory and in the financial summary. Your first year the first column would be your beginning inventory.

The Inventory should show all animals, equipment, feed remaining at the end of the project, and items purchased that are still on hand. Use fair market value on livestock. Any livestock remaining at the end of the project year should be listed on inventory and shown as income in the year they are sold. Breeding Livestock may increase or decrease in value as they mature and age. Estimate the value of these animals for inventory purposes.

Families may share equipment among family members. When this is done, show only your share in inventory such as; 1/3 of the value of a \$300 blocking chute as \$100.

In the example below inventories are recorded for the project year 2009-2010. Inventory under the column will be the beginning inventory for this project year. Inventory under the Ending column is the ending inventory for the project year and beginning inventory for the 2010-2011 year. Inventory should be carried forward and inserted in your future record books. You will need to copy the ending inventory and use it as your beginning inventory for next year.

Items received as gifts during the year should be shown on your ending inventory and not in expense or income.

Beginning Inventory First Year

Ending Inventory First Year becomes Beginning Inventory for the Second Year

Item	Beginning		Ending	
	Date <u>September 7 2009</u>		Date <u>Aug 31, 2010</u>	
	Quantity	Value	Quantity	Value
Angus Cow #526	1	\$ 1250.00	1	\$ 1200.00
Steer Calf	1	\$580.00	0	\$0
Horse –Ole Paint	1	\$1500.00	1	\$1600.00
Blocking Chute	1	\$350.00	1	\$325.00
Blower	1	\$285.00	1	\$270.00
Pig Feed	1	\$150.00	1	\$140.00
Brush	2	\$15.00	2	\$14.00
Swine Ration	125 lbs	\$14.00	0	\$0
Heifer #501	1	\$525.00	1	\$850.00
Heifer Calf	1	\$750.00	1	\$1050
		\$		\$
		\$		\$
		\$		\$
		\$		\$
		\$		\$
		\$		\$
Totals:		\$		\$

4-H Activity Log

This section is designed for members to record 4-H or project related information that is not recorded anywhere else in this record book (demonstrations, community service, shows etc.). On this page you need to 1) describe what you did and what you learned at your club or project meetings, 2) record other project-related activities and requirements you completed during the year as a group or even at home on your own, and/or 3) record information about your exhibit.

Date	Meeting, Field trip, Demonstration, Community Service, Event, Etc.	Number of Participants	What did you learn or do?
<i>Examples</i> <i>June</i>	<i>County Fair</i>		<i>Exhibited a horse, calf & lamb. Learned new showmanship skills.</i>
<i>May 1,</i>	<i>Spring Cleaning at fairgrounds</i>	<i>17</i>	<i>Cleaned fairgrounds for spring show.</i>

List all activities related to your project and your 4-H experience. Activities may be listed in as much detail as you see fit.

4-H STORY

Write a story about your 4-H experience. The following questions may help you in composing a story related to your project.

It should include the following information in story format:

- * Include any interesting experiences you have had during the year
- * Why did you choose each project?
- * Did you meet your personal and project goals?
- * Did anyone help you?
- * What did you like the best about 4-H?
- * What would you do differently?
- * How will you use what you learned this year to improve next year?
- * What results, difficulties or challenges did you have?

Length and Format Guidelines

You can type or hand write your story. If you hand write the story, use pencil or ink on lined white notebook paper. If a typewriter or computer is used to write the story, use plain white paper with no smaller than 12 point font. Leave a wide enough margin so the story can be read if inserted into a report cover.

Limit your story to a maximum of two (2) pages specifically related to your projects!

Attach your 4-H story at the end of the project record.

PROJECT PICTURES

A minimum of four pictures is required that demonstrates the progress of the project. Additional photos can be added. Pictures must be project specific and each picture should have a caption that describes what is occurring in the picture.

BACKUP YOUR 4-H RECORDS!

With the introduction of all electronic records it is essential that members, parents and leaders develop good file backup habits in order to avoid potential loss of Record files and project information.

With today's computers, it is relatively easy to create backup copies of your 4-H Record files. It is as simple as copying either the files themselves or the entire file folder where they reside to some type of removable media. The trick is to do it regularly and to then remove the media to a place that is secure and away from the computer where the original project Record files are kept.

How regularly? A very simple rule of thumb when considering when to backup your project Record files is: How much information are you willing to reenter to get your records back to the point where they are now? I think that answering this question honestly will give you a clue on how often to back up. The key is **to actually do it!** Don't procrastinate! Do it today!

Where to put the backup copy? Getting your project e-record files off of your computer's hard drive is the first thing. That way if the hard drive crashes, your records are safe! In most cases that would be all that you need to do... but ... What would happen if your house was damaged in a disaster and your backup was destroyed? You would be out of luck unless you put your backup in an entirely different location ... which is what a lot of businesses do! Maybe take your backup to a relative's house or maybe ask your parents to take your backup disk and secure it at work. Maybe e-mail your backup files as attachments to a **trusted** friend or relative and have them save them for you!

Rule of threes! If you physically remove your backup copies to a different location, you will need three copies of your e-Record files ... the original on your computer's hard drive, a "stored backup" at a separate location and a second "in transit" backup (this is the most recent copy that replaces the "stored backup" when you do incremental backups during the course of the year). The "in transit" copy gets left at the remote location and the "stored backup" comes back to be used as the new "in transit" copy!

You have several options as to the media used when backing up your e-Record files. Some of these options are better than others.

Most computers have the old 3.5 inch floppy disk drives and using them for file backup is better than nothing ... barely better than nothing! The old floppy disks are limited in the amount

of data that they can hold (no more than 1.44 meg. of space) and they are notoriously prone to failure at the most inopportune of times!

The same things apply to Zip Disk technology. The only thing better about the Zip Disks is that they have larger capacities. However, they too are prone to failure (maybe not as bad as floppy disks but the possibility is still there). With Zip Disks and floppy disks you need to be careful to keep them away from magnetic sources and they are susceptible to failure due to heat and cold.

CD-R disks are great for archiving files. By their nature, they are designed to be written to only once. At the end of the 4-H year, 'burning' your final 4-H project e-Records to a CD-R disk and then storing them in a cool dry place is an excellent way to keep a permanent copy of your records. However, because you can only write to them once, using CD-R media for multiple backups during the course of the year for active project e-Records would be impractical.

A better option is to backup your e-Record files to CD-RW disks or to use the new USB flash drives (also known as "thumb drives" and several other brand names). Both these technologies allow you use the media over and over by simply copying over the old files with the new ones and the capacities of these drives are more than enough for all your project e-Record files! Both media are very hardy in nature and can take quite a bit of abuse before they fail.

In conclusion, using technology to help 4-H members keep their project records is the right way to go! The majority of members have access to computers either at home or at school and they should be encouraged to use them to complete their 4-H projects ... however a bit of common sense should be used when using computers for record keeping. Keeping computers free of viruses and spyware is critical as is making sure that important files are backed up regularly!

ALL RECORDS AND SUPPLEMENTS CAN BE ACCESSED ON LINE AT:

http://www.colorado4h.org/project_resources/livestock-projects/livestock_projects.shtml