4-H Animal Science Lesson Plan

Facilities and Management Level 1



What's Your Plan?

Jim Wilson, Regional Youth Development Educator

Goal (learning objective)

Youth will analyze their particular circumstances to determine if they are adequately prepared to successfully raise a livestock project.

Supplies

- Flipchart (or paper)
- Markers
- Masking tape
- Pencils enough for group
- Calculators enough for small groups to share
- Copies of the 4-H Livestock Project Planning Worksheet (Handout 1) - enough for group
- Copies of the Seven Steps in Selecting Market Project Animals (Handout 2) enough for group

Pre-lesson preparation

- Obtain current prices for feeds (grains and hay) that members might choose to use by visiting local feed stores
- Secure realistic purchase and sale prices youth might expect related to this project - visit with your local 4-H Professional for suggestions
- Review the Introduction section of your Ohio Resource Handbook

Lesson directions and outline

Ask the group "Who has gone on a trip or family vacation? Did you just choose a place to go and suddenly you were there, or did you or your parents have to make several arrangements to insure an enjoyable experience? What were some of the things they needed to do before going on the trip?"

Emphasize there were several steps that had

to occur (where to stay, what to visit, how to get there, how much it will cost, etc.). The same is true in preparing for a successful 4-H livestock project experience.

Conducting the activity (DO)

Section A(20-30 minutes)

- 1. Have members brainstorm all the things or information they will need to know about in planning a successful livestock project. Have someone write responses on the flipchart or on separate pieces of paper and post on a wall. Note: if they are missing major segments from the worksheet, provide subtle hints. If some ideas are too vague, ask for more specificity.
- 2. After brainstorming, discuss and group all responses into categories.
- 3. Relate that selecting project animals is similar to one phase of planning a family trip you have to know where you're going and how to get there before you can start. Introduce the concepts from the Seven Steps in Selecting Market Project Animals. Encourage youth to discuss industry standards, average daily gain, plus preliminary and initial purchase animal weights.

Section B (30 minutes - contine as part of this meeting or finish up at next meeting)

- 4. Introduce the 4-H Livestock Project Planning Worksheet. Have each member work with their parent to complete the 4-H Livestock Project Planning Worksheet some individuals may need help with possible feed or animal prices.
- 5. Ask youth to share some of their ideas and results they came up when completing the worksheet.

What's Your Plan? Page 2

What did we learn? (REFLECT)

- Ask: What did you learn while doing these activities?
- Ask: Were the results what you had expected? Why or why not?
- Ask: What things, if any, will you need to do so you can be prepared for your project?

Why is that important? (APPLY)

- Ask: Why do you think project planning is important to have a successful experience?
- Ask: Where else might you use these planning skills in the future?

Resources

- Ohio State University Extension. (2011). Management Practices. *Beef resource handbook* (pages 1-1 to 1-3).
- Ohio State University Extension. (2008). Housing Facilities. *Goat resource handbook* (pages 5-10).
- Ohio State University Extension. (2011). Management Practices. *Sheep resource handbook for market and breeding projects* (pages 5-8).
- Ohio State University Extension. (2000). Space Requiremnts for My Market Hog. Swine resource handbook for market and breeding projects (pages 1-1 to 1-3).
- Wilson, J. (2014). Plan for Market Animal SUCCE\$\$
 Building on 4-H Fundamentals 4-H Livestock Project Planning Worksheet. University of Idaho Extension.
- Wilson, J. (2014). Seven Steps in Selecting Market Project Animals Thinking Backwards to Get Ahead. University of Idaho Extension.
- Wilson, J. (2014). 4-H Market Livestock Budget Template. University of Idaho Extension.

	CILITIES: WHAT'S YOUR PLAN – HANDOUT 1 H Livestock Project Planning Worksheet Member's Name:			
caı pu	is worksheet is designed to encourage communication while helping members and their parent(s) refully consider the various aspects and costs associated with a given livestock project – before rchasing an animal . Developing a project plan and budget increases the potential for member coess and in having a positive 4-H experience.			
Ge	neral Considerations:			
1.	What species do you want to take?			
2.	What type of project do you plan to take (<u>circle</u>): Market Breeding Pet			
	{If you selected the Market option, do you understand that the final result of this project is to finish an animal that will be sold, harvested and converted into food products?} Yes No			
3.	Have you read the project requirements for this specific project (<u>circle one</u>)? Yes No {If not, contact your leader or go on-line <u>extension.ag.uidaho.edu/kootenai</u> for a copy of the requirements}			
4.	How much time <u>each</u> day are you willing to commit to this project?			
5.	much money do you want to invest in this project? \$			
Fa	<u>cilities</u> :			
6.	Are all your facilities (listed below) adequate, or are improvements needed {inc. estimated cost}? Y N Shelter/barn:			
7.	Do you have facilities necessary to provide basic health care treatments (circle one)? Yes No			
8.	Do you have a veterinarian that works with your chosen species (<u>circle one</u>)? Yes No			
	{If not, you may want to seek out a veterinarian to help guide you in knowing what health care treatments your potential project animals should have received, and to assist in ongoing health care matters.}			
9.	What is your plan for disposing of animal waste (manure) / odor control:			

What are potential sources for purchasing your project animal(s)?		
Animal Purchase / Feed Projections		
{Completing the "Thinking Backwards to Get Ahead" worksheet		in determini
purchase and projected final weights for market project anima	_	1
A) Dusingted Dynahona Waight (lbs.)	Animal 1	Animal 2
A) Projected Purchase Weight (lbs.)	<u> </u>	<u> </u>
B) Estimated Purchase Price (total \$/hd)	\$	\$
C) Estimated Final Weight (lbs.)		
D) Projected Weight Gain (lbs.) $// \{C - A = D\}$		
Feed Conversion Ratio (avg. lbs. feed needed to produce 1 lb.		
gain)		
Beef = 6 lbs Sheep (.75 ADG) = 4 lbs Swine = 4 lbs		
Goat = 7.5 lbs Sheep (.50 ADG) = 6 lbs		
E) Estimated Pounds of Feed Needed		
{Feed Conversion Ratio value x Projected Weight Gain }		
(1) Estimated Cost for Grain	\$	\$
{Est. Feed Needed x % ration from Grain x Cost/lb of		
Grain} (2) Estimated Cost for Hay	\$	\$
{Est. Feed Needed x % ration from Hay x Cost/lb of Hay}	٦	٦
F) Total Estimated Feed Costs	\$	\$
Ty Total Estimated Feed costs	7	7
rkoting		
rketing:		
Do you plan to market any of your project animals this year (circle of	one)? Yes No)
If yes, how (<u>circle</u>)? Stock Sale Private Treaty Classifi	ed Ad Oth	or
if yes, now (<u>circle</u>): Stock sale Frivate freaty Classifi	eu Au Otti	CI
Who are some prospective buyers you might contact?		

FACILITIES: WHAT'S YOUR PLAN - HANDOUT 2

Seven Steps in Selecting Market Project Animals

"Thinking Backwards to Get Ahead" by Jim Wilson, UI Area 4-H/Youth Extension Educator

1. Determine the projected proper finished weight your project animal needs to be.

Industry standards:

Beef = 1,100 - 1,400 lbs. Swine = 240 - 290 lbs. Sheep = 110 - 135 lbs. Goats = 60 - 90 lbs.

2. Estimate the average daily gain (ADG) that you will achieve from weigh-in to Fair. {<u>Note</u>: while some Fairs do not require a specific ADG, maintaining efficient gains can improve final product quality and project profitability.}

Industry standards:

Beef = at least 3.0 lbs./day Swine = at least 1.8 lbs./day Sheep = at least 0.6 lbs./day Goats = at least 0.35 lbs./day

3. Use a calendar to determine the number of days from your preliminary weigh-in to Fair weigh-in (the feeding period); do not include the day of the initial weigh-in in your count. For this example, the following data was used:

Beef = 136 days Swine = 90 days Sheep = 59 days Goats = 59 days

 $\begin{tabular}{ll} \underline{Note} : State 4-H Policies recommends the following length of feed periods: \\ Beef = 130-150 \ days & Sheep = 55-65 \ days \\ Swine = 80-100 \ days & Goats = 55-65 \ days \\ \end{tabular}$

4. Multiply the number of days in the feeding period (step 3) by the estimated average daily gain (step 2) - {note: you can adjust the ADG based on past experience}. This gives you the number of pounds your animal would gain during the feeding period. Subtract this from the projected finished weight range (step 1) to estimate how much your animal should weigh at preliminary weigh-in.

Beef: $136 \text{ days x } 3.0 \text{ ADG} = 408 \text{ lbs. gain} \rightarrow \text{Preliminary weigh-in target} = 692 - 992 \text{ lbs.}$ Swine: $90 \text{ days x } 1.8 \text{ ADG} = 162 \text{ lbs. gain} \rightarrow \text{Preliminary weigh-in target} = 78 - 128 \text{ lbs.}$ Sheep: $59 \text{ days x } 0.6 \text{ ADG} = 35 \text{ lbs. gain} \rightarrow \text{Preliminary weigh-in target} = 75 - 100 \text{ lbs.}$ Goats: $59 \text{ days x } 0.35 \text{ ADG} = 21 \text{ lbs. gain} \rightarrow \text{Preliminary weigh-in target} = 39 - 69 \text{ lbs.}$

- 5. Determine the number of days from date of purchase to preliminary weigh-in.
- 6. Estimate the average daily gain that will be achieved from date of purchase to preliminary weigh-in.
- 7. Multiply the number of days to the preliminary weigh-in (step 5) by the estimated average daily gain prior to weigh-in (step 6). Subtract that total from your projected preliminary weigh-in target weight range (step 4). The resulting figure then provides you with an estimated weight range for your project animal at the time of purchase.

Remember: Plan Now to Avoid Disappointment Later!