4-H Agent Use: Feel free to review and use as needed, I’m sure it is not perfect and I welcome any improvements you can make - let me know how you made it better so I can do so as well! Please note that some of the reference numbers used were derived from Adams County Fair records so you may need to change those to be relevant to your county.

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**Market Animal Budget Plan**

How much should I spend on my project animal(s) this year? How many project animal(s) should I purchase this year? By completing the following worksheet, you will learn to make informed decisions about how much your project will cost and how you can strive for profit. This worksheet is modeled based on market values of animals rather than typical 4-H Livestock Sale income which can be significantly higher than market value. It is important for 4-Hers to recognize the realities of producing market animals in today’s industries, as well as the importance of securing a buyer.

1. **Complete a separate Market Animal Budget Plan for each species you plan to raise:**

This market plan is for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Estimate how much money you will need to spend to build or improve animal housing for your market animal this year and list it on the budget table under “Expenses - Animal Housing Improvements – Total Expense” (A)**
2. **Estimate how much money you will need to spend on new animal equipment your market animal this year and list it on the budget table under “Expenses - New Animal Equipment – Total Expense” (B)**
3. **Estimate how much money you will need to spend on health care for your market animal this year and list it on the budget table under “Expenses - Health Care – Total Expense” (D-F)**
4. **Calculate how much feed your animal will need using averages provided below or your own numbers:**

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| --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_lbs\_ |
| (How much weight your animal needs to gain) | (Average Feed efficiency rate) | (Total Feed: How much feed you sheep will need) |

1. **Calculate how much of that feed is grain/concentrate vs. Hay/roughage, then list both in the budget table under “Feed Expenses” (G) & (K):**

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| --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_lbs\_\_ |
| Total Feed | (Percent of feed that should be grain) | Pounds of grain per sheep **(G)** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_lbs\_ |
| Total Feed | (Percent of feed that should be hay/roughage) | Pounds of hay per sheep **(K)** |

1. **Calculate the price per pound of a feed labeled for your market animal (remember, some bagged feeds are complete ration feeds that include roughage, others are only concentrates and roughage must be supplied separate). List your values in the budget table under “Feed Expenses” (H)&(L).**

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| --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ÷ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Cost of bag of concentrate/grain feed | Pounds of feed in bag | Cost per pound of concentrate **(H)** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ÷ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Cost of bale of hay/forage | Pounds of feed in bale | Cost per pound of hay/forage **(L)** |

1. **Calculate your estimated income based on market values and ideal sell weight provided below and list that income in the budget table (O-Q).**

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| --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Sell Weight | Average market value | Market Value Income Animal 1 **(O)** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Sell Weight | Average market value | Market Value Income Animal 2 (if applicable) **(P)** |

1. **Calculate how much money you have available to purchase project animals and still “break even” (expenses are equal to income):**

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| --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Total Income | Total Expense | Funds available for animal purchase (at break even point) |

|  |
| --- |
| **Estimated Project Expenses:** |
| Expense Type | Pounds/units needed per animal | Price per pound/ unit | Number of Animals | Total Expense |
| Animal Purchase Cost(s) | Follow instructions on the worksheet to learn what price you should consider purchasing animals based on your estimated expenses and income | tbd |
| Animal Housing Improvements |  | n/a | n/a | n/a | **(A) $ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| New Animal Equipment | (halters, clippers, trailer etc.) | n/a | n/a | n/a | **(B) $ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Health Care | (vaccinations etc.) | n/a | **\_\_\_\_\_\_\_****(D)** avg. Vaccination costs per animal | **\_\_\_\_\_\_\_****(E)** | **(F)** **$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(D) x (E) = Total **(F)** |
| Feed (per animal) | Grain/ Concentrates | **\_\_\_\_\_\_\_\_\_****(G)** from #6 calculations | **\_\_\_\_\_\_\_\_****(H)** research feed costs | **\_\_\_\_\_\_\_****(I)** | **(J) $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**[(G)x(H)] x (I) = Total **(J)** |
| Hay/Roughages | **\_\_\_\_\_\_\_\_\_\_****(K)** from #6 calculations | **\_\_\_\_\_\_\_\_\_\_****(L)** research feed costs | **\_\_\_\_\_\_\_****(M)** | **(N) $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**[(K)x(L)] x (M) = Total **(N)** |
| Total Expenses |  |  |  |  | **$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(add column together- (A+B+F+J+N) = Total Expenses |
| **Estimated Project Income: (Market Value)** |
| Animal Market Sale Value | Animal 1 | **(O)****$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Animal 2 (if applicable) | **(P)**  **$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| Total Income (Market Value) |  | **$ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(O+P) = Total Income |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Species** | **Feed Efficiency (how many lbs. of feed required to gain 1 lb.)** | **Average daily gain (how many lbs. Animal will gain per day)** | **How much weight your animal needs to gain: (Buy or weigh in weight- sell weight)** | **Percent of feed that should be grain/concentrate:** | **Percent of feed that should be hay/roughage:** | **Avg. Market value (from last 3 years at ADCO Fair)** |
| **Sheep** | 4lbs feed:1 lb gain | .75lbs | Avg. 130lbs – 50lbs = 80lbs gained | 75% = .75 | 25% = .25 | $1.38/lb |
| **Beef** | 6lb feed: 1lb gain | 2.80lbs | Avg. 1250lbs-825lbs = 425lbs | 75% = .75 | 25% = .25 | $1.13/lb |
| **Goat** | 7.5lb feed: 1lb gain | .33lbs | Avg. 70lbs-35lbs | 70% = .70 | 30% = .30 | $1.85/lb |
| **Swine** | 4lb feed: 1lb gain | 1.8lbs | Avg. 270lb – 60lb = 210lbs | 100% = 1 | 0% = 0 | $.52/lb |

**Reflect/Apply Questions:**

1. What is your budget for buying market animals this year if you want to at least break even (calculation #9)( this may be zero or low for 4-H projects using market value)?

$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many market animals do you plan to buy/raise this year? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Do you plan to spend above your break-even budget for market animals this year? And if so, what are your plans to increase your income above market value?
3. What are some differences between larger scale livestock producers and 4-H producers that makes it possible for larger scale producers to make profit on market price?
4. Why do you think most 4-H animals sold at 4-H Livestock auctions tend to sell for 4x-20x higher than market value?
5. There is opportunity to increase market livestock project profits in 4-H; mark which of these practices are ETHICAL/Good Practices with an E, and those that are UNETHICAL/Poor Practices with a U.

 E/U

* 1. \_\_\_\_\_ Meet requirements to sell 1 animal at ADCO Fair 4-H Livestock Sale
	2. \_\_\_\_\_ Feed my animal less or poor quality food (kitchen garbage etc.) to reduce my costs
	3. \_\_\_\_\_ Spend less on my project animal when I purchase it, or breed/produce my own market animal
	4. \_\_\_\_\_ Purchase a sick or small/runt animal because it is cheaper
	5. \_\_\_\_\_ Secure at least one buyer BEFORE Fair who plans to attend the livestock sale (or private treaty) to purchase my animal