

Team Name _____ 2015 Block & Bridle Stockmens Contest – Senior Team Problem

You are planning to purchase feeder lambs and grow them out with the intention of direct selling freezer lambs. Your plan is to purchase 20 feeder lambs and develop them with a grain on grass program for 180 days with an expected daily gain of about 1/3 lb/d. Your plan is to buy 60lb lambs from a neighbor.

1. Your expected finished weight for the lambs is?

$1/3\text{lb/d} \times 180\text{d} = 60\text{lb gain} + 60\text{lb initial wt} = 120\text{ lb finished weight}$

120 Lbs

2. Your experience indicates that you spend an average of \$3.50/hd in veterinary treatment of lambs after delivery.

What is your total medicine expenditure for 20 lambs?

$\$3.50/\text{hd} \times 20\text{ head} = \70 total

\$70

3. If you use a stocking rate of 5 lambs/ac, how many acres of pasture should you have access to?

$20\text{ lambs} / 5\text{ lambs/ac} = 4\text{ acres}$

4 acres

4. Your parents have agreed to loan you 80% of your animal purchase cost. If you paid \$250/cwt, what is the amount of your operating loan?

$20\text{ lambs} \times (.6\text{ cwt} \times \$250) \times .8 = \$2,400$

\$ 2,400

5. If your lender charges you an annual interest rate of 5%, what is your interest cost?

$.05 \times \$2400 \times (.5\text{ year}) = \60

\$ 60

7. If you rent the pasture for \$30/acre what is your total pasture cost?

$4\text{ acres} \times \$30/\text{acre} = \120

\$ 120

6. If you feed 2.2% of bodyweight every day of a supplement that costs

\$240/ton, what is your total feed cost? **Average weight = $(120+60)/2 = 90\text{ lbs}$**

$(90\text{lb} \times .022 \times 180\text{ d} \times 20\text{ lambs}) / 2000 \times \$240\text{ ton} = \$855.36$

\$ 855.36

8. If the lambs dress 55%, how many total carcass lbs will you have to market?

$20\text{ lambs} \times 120\text{ lb finished wt} \times .55 = 1320\text{ lbs}$

1320 lbs

9. If the cost of the lambs, medicine, feed, pasture and interest represent 75% of your total variable costs, what is the carcass price (\$/lb) you need to receive to breakeven for your total variable costs?

$3000\text{ lamb cost} + 855\text{ feed cost} + 60\text{ interest} + 120\text{ pasture} + 70\text{ vet treatment} = \4105 cost
 $\$4105 / .75 = \$5473 / 1320\text{ lbs carcass weight} = \$4.14/\text{lb}$

\$4.15/lb

10. Historically you have had some trouble with coccidiosis in your sheep operation. Adding Deccox to the ration is a possible prevention strategy. How many grams of Deccox should be included per ton of supplement to achieve an daily intake of 22.7mg/cwt of body weight?

$\text{Average weight} = 90\text{ lbs}$
 $22.7\text{ mg/cwt target} \times .9 = 20.43\text{mg/d}$
 $20.43\text{ mg/d} / 1.98\text{ lb feed} = 10.32\text{mg/lb}$
 $10.32\text{ mg/lb} \times 2000 = 20637\text{mg/ton} / 1000 = 20.6\text{ g/ton}$

20.6
grams/ton