

Cow Herd Inventory and Hay Supply Decision Aide

(hay and herd inventory balance.xls)

Initial mature cow inventory (B3) – number of mature cows in inventory at the start of the decision process. (modifiable)

Average body weight (B4) – average weight of mature cows. (modifiable)

Number of cows to sale (B6) – number of head out of the initial inventory you will consider selling (change this number to modify marketing, do not change the number of cows in the initial inventory). (modifiable)

Expected market value (B7) – the amount expected to receive per head or cow/calf pair sold. (modifiable)

Date hay feeding begins (B9) and ends (B10) – calculates the number of days remaining through the decision period. (modifiable)

Expected intake (B13) – Used to calculate total intake based on the initial inventory minus the number of cows expected to sale. (modifiable)

Expected feeding waste (B14) – adjusts total hay requirement for feeding waste. Hay intake is based on 88% dry matter hay. (modifiable)

Amount of suppl typically fed (B16) – The amount of supplement typically fed does not add additional cost to the decision because it is already accounted for in the expected gross margin. However, if this value or this value plus the value for “Additional supplement expected with purchased hay compared to produced hay” exceeds 0.3% of body weight, then a substitution ratio of 1 lb supplement replaces 0.8 lb hay is calculated into the total hay requirements. (modifiable)

Total hay required (B18) – Calculated hay supply needed based on previous inputs. (calculated)

Initial bale inventory (B20) – number of bales on-hand and cost already accounted for in the expected gross margin. (modifiable)

Bale weight (B21) – Quantity to calculate total pounds of hay on-hand. (modifiable)

Total hay on hand (B23) – total supply of hay calculated from the number of bales and weight of bales in inventory. (calculated)

Budgeted gross margin (I4) – the gross margin (income minus expenses per animal unit) for the initial mature cow herd inventory. For more information read University of Arkansas, Cooperative Extension Service publication (MP 413) *Cow-calf Enterprise Budget* . (modifiable)

Number of animal units (I5) – the number of animal units on the farm. This number is multiplied with the expected gross margin to determine how much expected return could be used to help cover purchased hay or substitution grains and byproducts. (calculated)

Budgeted gross margin available (I6) – This is the total gross margin available that could be used to cover purchased hay or substitute grains and byproducts. Before allocating these funds to purchased feeds, consider any costs that may not be included in your gross margin such as overhead costs. (calculated)

Additional revenue from cow liquidation – the amount of income generated from selling extra cows to deal with a hay shortage. (calculated)

Additional supplement expected (I10) – the amount of supplement above that which is normally incurred due to purchasing off-farm hay. The cost of this feed is deducted from the total potential funds available. (modifiable)

Cost of additional supplement (I11) – the cost of the additional supplement purchased on a per ton basis. (modifiable)

Additional supplement cost (I12) – the total cost for additional supplement over the winter feeding period. (calculated)

Purchased hay price (I15) – price of hay purchased off-farm and does not reflect hay in the initial bale inventory. (modifiable)

Cost to purchase hay deficit (I16) – the hay deficit (TOTAL HAY REQUIRED – TOTAL HAY ON HAND) converted to a ton basis and multiplied with the purchased hay price. (calculated)

Hay supply (days) (K19) – number of days the current hay supply is expected to meet. (calculated)

Hay shortfall (days) (K20) – number of days between the total days during the planning period and the hay supply (days). (calculated)

Cows to market to avoid purchasing additional feedstuffs (K21) – calculated from the hay shortage and the expected intake per cow for the total days. As the number of cows or pairs are allocated to sale increases, the number of cows predicted as necessary to market will decrease. Also, as the amount of supplements increases to the point it reduces hay required, the number of cows predicted as necessary to market will decrease. (calculated)

Remaining gross margin/au after hay purchase (K22) – reflects the total potential funds available minus the cost to purchase the hay deficit divided by the number of remaining animal units. (calculated)

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