



LO/Operator: \_\_\_\_\_

County: \_\_\_\_\_

Date: \_\_\_\_\_

**B. WORKSHEET FOR USE WITH THE ROTATIONAL STOCKING METHOD**

**STEP 1a. Estimate the Forage Demand:**

The forage demand is the amount of forage dry matter (DM) required to feed a group of livestock for one day. It is calculated based on the rule of thumb that grazing animals require an amount of forage DM equal to about 2.5 to 3.0% of their body weight per day. For lactating animals and growing stock, use 3.0% of body weight. For all other classes of livestock, except equine and pigs, use 2.5% of body weight. For equine, use 5.0% and for pigs, use 2.0%.

<u>Average Weight/Animal</u>		<u>Lbs DM/Head/Day</u>		<u># of Animals</u>		<u>Forage Demand</u>
0.00	x	.025-Not Lactating	=	0.00	x	0
						= 0.00
<i>Unadjusted Daily Forage Demand</i>						= <u>0.00</u>
						<i>Lbs/Dm/Day</i>

**STEP 1b. Adjust Daily Forage Demand as a result of supplemental feed use by deducting the pounds of supplemental feeds from the daily forage demand:** If supplemental forages are provided, they are substituted on a pound for pound basis. If supplemental grain is fed, the substitution rate is one pound of grain equals .5 pounds of forage.

<i>Lbs of Forage:</i>	<u>0.00</u>	(x 1)	=	<u>0.00</u>	<i>Forage Supplement</i>	
<i>Lbs of Grain:</i>	<u>0.00</u>	(x .5)	=	<u>0.00</u>	<i>Grain Supplement</i>	
	0.00	-		0.00	=	<u>0.00</u>
<i>Unadjusted Daily Forage Demand</i>				<i>Forage + Grain</i>		<i>Adjusted Daily Forage Demand</i>

**STEP 2. Select Residency Period:** 1.00 Days

**\*\*NOTE\*\*** One half to 1-day residency periods are recommended for lactating dairy cows. Residency periods of 2 to 7 days may be used for all other livestock. To maximize harvest efficiency, use shorter residency periods.

**STEP 3. Estimate the Forage Supply:**

This is the amount of forage dry matter that is estimated to be available for grazing after a 15-day growth period in the spring and a 30-day growth period in the summer and fall.

-----Forage Availability Estimates-----

<i>Hay Yield - Tons/DM/Acre/Year:</i>	5.5	5.0	4.5	4.0	3.5	3.0	2.5
<i>Forage Availability - Lbs/DM/Acre/Rotation:</i>	2200	2000	1800	1600	1400	1200	1000

**\*\*NOTE\*\*** These values are for planning purposes only. They reflect average yields for pastures rated **EXCELLENT** on the resource inventory and data page when growing conditions are not limiting, soil fertility is maintained to soil test recommendations, and pH is not less than 5.8. For pastures rated **GOOD**, reduce yield by 0.5 T/A; for pastures rated **POOR**, reduce yield by 1.0 T/A. Use the above table to convert hay yields in Tons/DM/Acre/Year to Forage Availability in Lbs/DM/Acre/rotation.

Soil Map Symbol	1	2	3
Number of Acres	1 <u>0.00</u>	2 <u>0.00</u>	3 <u>0.00</u>
Forage Supply	1 <u>0.00</u>	2 <u>0.00</u>	3 <u>0.00</u>
Lbs/DM/Acre/Rotation			

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**B. WORKSHEET FOR USE WITH THE ROTATIONAL STOCKING METHOD *cont***

**STEP 4. Determine Paddock Size by Major Soil Type:**

Paddock size is based on meeting the forage demand of the livestock for the designated residency period.

	<u>Forage Demand</u>	÷	<u>Forage Supply</u>	=	<u>Acres Required/day</u>	x	<u>Residency Period</u>	=	<u>Paddock Size (ac.)</u>
1.	0.00	÷	0.00	=	0.00	x	0.00	=	0.00
2.	0.00	÷	0.00	=	0.00	x	0.00	=	0.00
3.	0.00	÷	0.00	=	0.00	x	0.00	=	0.00

**STEP 5. Determine the Number of Paddocks:**

$$\frac{30}{\text{Residency Period}} = 30.00 + 1 = \frac{31.00}{\text{Number of Paddocks}}$$

**STEP 6. Total Number of Acres Needed:**

Uses the average paddock size of the most prevalent soil types to calculate.

$$\frac{0.00}{\text{Paddock Size}} \times \frac{31.00}{\text{Number of Paddocks}} = \frac{0.00}{\text{Acres Needed}}$$

**\*\*NOTE\*\*** During spring and early summer, only about 40 to 60% of the planned acres will be required for grazing. The remaining 40 to 60% should be mechanically harvested or planned to be grazed by another group of livestock following their own prescribed grazing management plan.

**STEP 7. Evaluate the Balance Between Forage Supply and Forage Demand:**

$$\frac{0.00}{\text{Number of Acres Available}} \div \frac{0.00}{\text{Number of Acres Needed}} = \underline{\hspace{2cm}}$$

**\*\*NOTE\*\*** This number **MUST** equal 1 or greater to ensure an adequate balance between the forage supply and the forage demand. If it does not, you must identify the appropriate management actions required to balance the forage supply with the forage demand (i.e., increase supplementation, increase the number of acres, or reduce animal number).