

GRAZING PLANNING CALCULATIONS

by Cheryl Cesario, 802-388-4969 ext. 346, cheryl.cesario@uvm.edu

November 2018

Use this spreadsheet to calculate animal dry matter demand, estimated paddock sizes and overall acreage needs. Balance the herd's dry matter demand with available acreage. Varying the grazing occupancy period (frequency of moves) and the variability of estimated forage availability can greatly change the resulting paddock size and acreage needed.

SAMPLE:

1	Type of grazing livestock	Dairy cows
2	Number of grazing livestock	50
3	Average body weight of grazing livestock	1200 pounds
4	Estimated dry matter intake (DMI) as a % of body weight	3%
5	Calculate daily DMI for a single animal (line 3) x (line 4)	36 pounds
6	Calculate DMI for the herd (line 2) x (line 5)	1800 pounds
7	Occupancy period (<i>use 0.5 for 12 hour moves</i>)	1 day
8	Estimated available forage dry matter in pounds per acre	1200 pounds
9	Calculate estimated paddock size [(line 6) / (line 8)] x (line 7)	1.5 acres

		May	June	July	August	September	October
10	Estimated paddock recovery period	18	24	30	36	42	60
11	Calculate estimated number of paddocks needed [(line 10)/ (line 7)] + 1	19	25	31	37	43	61
12	Calculate total acres needed for grazing (line 9) x (line 11)	28.5	37.5	46.5	55.5	64.5	91.5

Template for your own calculations:

1	Type of grazing livestock	
2	Number of grazing livestock	
3	Average body weight of grazing livestock	
4	Estimated dry matter intake (DMI) as a % of body weight	
5	Calculate daily DMI for a single animal (line 3) x (line 4)	
6	Calculate DMI for the herd (line 2) x (line 5)	
7	Occupancy period (<i>use 0.5 for 12 hour moves</i>)	
8	Estimated available forage dry matter in pounds per acre	
9	Calculate estimated paddock size [(line 6) / (line 8)] x (line 7)	

		May	June	July	August	September	October
10	Estimated paddock recovery period	18	24	30	36	42	60
11	Calculate estimated number of paddocks needed [(line 10)/ (line 7)] + 1						
12	Calculate total acres needed for grazing (line 9) x (line 11)						

Project Leader
 Jeff Carter,
 Agronomist
Agronomy Outreach
 Cheryl Cesario
 Merritt Gleason
 Jonas Hastings
 Rachel Orr
 Nate Severy
 Kristin Williams
 Kirsten Workman



Champlain Valley Crop, Soil and Pasture Team | 23 Pond Lane, Suite 300 | Middlebury, VT 05753-1189

802-388-4969 or 1-800-956-1125 (toll-free in Vt.) | cvcrops@uvm.edu

uvm.edu/extension/cvcrops



CULTIVATING HEALTHY COMMUNITIES

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Burlington, Vermont. University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status. Any reference to commercial products, trade names, or brand names is for information only, and no endorsement or approval is intended.

COLLEGE OF AGRICULTURE AND LIFE SCIENCES