**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Farm \_\_\_\_\_\_\_ date PASTURE CALCULATION WORKSHEET**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Find your stocking rate** (long term carrying capacity of farm) | Spring | Summer | Fall |
| 1 | **Type of livestock** (example: sheep, dairy cows, heifers)Breed matters! |  |  |  |
| 2 | **Number** of **animals** in group |  |  |  |
| 3 | Estimated total **daily dry matter requirement per animal** See table for % of body weight due to type, breed, age |  |  |  |
| 4 | If supplemental feed is fed, how much dry matter per animal is fed from hay, silage, grain or **other non-pasture feeds**? |  |  |  |
| 5 | **Dry matter** to be **provided from pasture per animal**(total intake required less non-pasture feed fed)Line 3 – line 4 If nothing other than pasture is fed, line 5 and line 3 will be the same |  |  |  |
| 6 | Calculated total **dry matter intake for Group** Line 2 x line 5 =  |  |  |  |
| 7 | Estimated forage **dry matter available per acre** |  |  |  |
| 8 | Calculated **paddock size required for 24 hours**(required amount divided by total available per acre)Line 6/line 7 =  |  |  |  |
| 9 | Line 8 x 43,560 sq ft/acre = **area required per day in sq ft.** Typically, more important in strip grazing than in taking a known field and dividing into equal parts. |  |  |  |
| 10 | **Net paddock size**Line 9/the width of typical length of electronet (50’, 100’, 82’, 164’) used by the farmer or width of the grazing cell or pasture |  |  |  |
| \* | **Stock density** refers to the number of cows per acre(Line 2 x average weight) /Line 8 or Line 16 if grazing period is more than 24 hours |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **24 hour Occupancy Period** | May | June | July | Aug | Sept | Oct |
| 11 | Estimated **pasture recovery period** in days |  |  |  |  |  |  |
| 12 | ***Number of paddocks assuming 24 hours of occupation*** *= (Line 11 + 1 day)* |  |  |  |  |  |  |
| 13 | ***Paddock size per 24 hours*** *Line 8* |  |  |  |  |  |  |
| 14 | ***Calculated total number of acres needed for the grazing rotation with 24 hr occupation*** *(Line 12 X Line 13)**# of paddocks needed x paddock size for 24 hours -or- Paddock size x (recovery period plus one)*  |  |  |  |  |  |  |
| 15 | **Preferred Period of Occupation (days)** |  |  |  |  |  |  |
| 16 | **Paddock size for desired occupancy** period(Line 13 x Line 15) |  |  |  |  |  |  |
| 17 | **Number of Paddocks needed with desired occupancy** period(Line 11/Line 15) +1 |  |  |  |  |  |  |
| 18 | Number acres needed (Line 16 x Line 17) |  |  |  |  |  |  |

**Do you have enough land to keep rotating/meeting full pasture DMI requirements during the longest planned recovery period? If not, what is your plan to avoid rotating back to paddocks that are not fully recovered?! This worksheet is for grazing acreage only and does not include additional land to meet non grazing season stored forage needs.**

**Reverse Stocking Rate Calculation:** *How many animals can this land support?*

# of acres / (# days in longest recovery period +1) (ex: 45 or 60 +1) = # acres available per day

**Ex: 100 acres/ (45 days +1) = 2.2 acres**

#acres per day x estimated lbs DM forage available per acre = # lbs DM available per day

**Ex: 2.2 acres/day x 1000 lbs DM/acre= 2200 lbs DM available per day**

# lbs DM available / 30 lbs DM needed per animal unit = Animal Units\* the land can support

**Ex: 2200 lbs DM/day / 30 lbs DM/AU =73 AU**

#AU / (weight of individual other stock type/1,000) = # of other stock type land can support

**Ex: 73 AU / (500 lb calves / 1000) = 146 calves**

*\*1 AU is about one 1,000 lb beef cow/steer*

PADDOCK SIZE QUICKIE CALCULATION:

**ACRES NEEDED/DAY = PASTURE DM REQUIRED BY THE GROUP/DM AVAILABLE PER ACRE**