

Massachusetts EQIP 2007

Grazing Calculator

This calculator is designed to give the planner and landowner a quick evaluation of the land or animals at the beginning of planning for a grazing system. **It is only a starting point, and is not the grazing plan itself.** It will help to establish the animal/forage balance to determine EQIP eligibility (at least 75% of required land).

Instructions

The average weight of the animals and the number of animals are self-explanatory.

The factor used is the average amount expressed in percentage of body weight the animal needs. Most foraging animals eat .025% of their body weight each day. Dairy cows eat about .03%. There are several other options to choose from depending on the livestock.

In choosing a forage supply, be realistic. Unless the land is currently producing high quality hay in a multi-cut system, keep to the bottom part of the chart. A field that is cut one time a year and gets about 100 bales per acre produces about 2.5 tons of dry matter. Feel free to interpolate between the numbers given - they are just guidelines. For a very undeveloped pasture, use less than 1000 lbs in the estimate. (The tool can be used to show how much improvement can be made.) ***If pasture improvement will be part of the contract, use the soil capability for projecting.***

The residency period refers to how long the animals will be in a given paddock before being rotated. Dairy cows are usually moved at least daily, other animals vary.

The number of acres needed will reflect 75% of the land ideally needed to supply the forage necessary for a successful grazing system.

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Producer Name

 Type of Livestock

Planned Grazing System

Prescribed grazing management plan worksheet to be used with rotational stocking methods.

Forage Demand

The forage demand is the amount of forage drymatter (DM) required to feed the herd for one day. It is calculated based on the rule of thumb that lactating dairy cattle require an amount of forage dry matter equal to about 3% of their body weight per day. (Other livestock require about 2.5%, horses 2%, and llamas and alpaca require 1.5 %.)

Average Weight/Animal (lbs)	Factor	Number of Animals

lbs DM/Day = Average weight X factor X number of animals = _____ X 75% = _____

Forage Supply Forage Availability Estimates

Hay Yield Tons/Acre/Year	Forage Availability Pounds/Acre/Rotation	
5.5	2,200	Extraordinary production, usually with alfalfa
5.0	2,000	
4.5	1,800	
4.0	1,600	
3.5	1,400	
3.0	1,200	
2.0	1,000	1 cut, 100 square bales per acre

Forage Supply = lbs/acre/rotation

Residency Period = Days

Paddock Size = # of DM required/forage supply X residency period = _____ acres

Number of Paddocks = (30/residency period) + 1 = _____ paddocks

Total Acres Needed for 75% System = Paddock size X number of paddocks = _____ acres