farm and home

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UNIVERSITY OF MINNESOTA
Agricultural Extension Service
U. S. DEPARTMENT OF AGRICULTURE

FACT SHEET

Agronomy No. 1

Start a Ration-a-Day Grazing Plan

(Strip Grazing or Daily Rotational Grazing)

Rodney A. Briggs, Extension Agronomist

Forage crops are proving their value to many Minnesota livestock farmers. And more and more farmers are discovering that pastures are their cheapest source of feed.

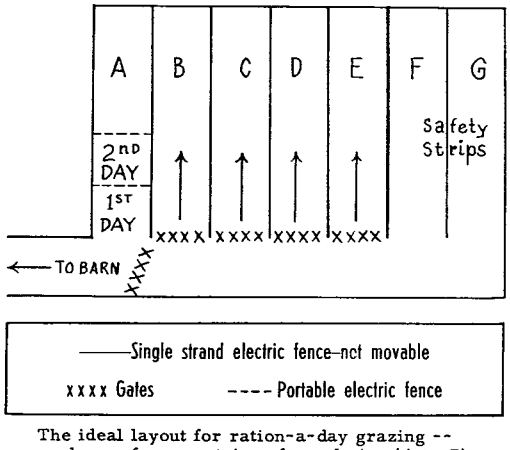
Ration-a-day is the name for a system of intensive management in which a new strip of pasture is opened for grazing each day. This system, also known as strip grazing and daily rotation grazing, provides enough forage for the daily ration.

You will find that you have a higher total yield of forage production with this system than with any other. With excellent pasture, slightly less than one-half acre per animal will provide pasture for the entire season.

It is easy to see why this system is catching on. Many farmers are tired of the waste of our good forage crops. They have seen livestock graze only the juicy tops of plants, trample much into the ground, and avoid grazing manure spots. Now the farmers have come to realize that they can avoid these problems by intensive pasture management. Ration-a-day is the answer.

Before You Start...

1. Tailor-make your ration-a-day pasture system for your farm. The system will depend on the number of livestock you have and the growth condition of your pastures.



The ideal layout for ration-a-day grazing -- made up of seven strips of equal size (A to G).

2. You may need to provide extra feed at the start of the season to make sure that good alfalfa-brome pastures are at least 8 to 12 inches tall before grazing. There are three possibilities: (a) provide fertilized bluegrass pasture or winter rye, (b) use stands with a high proportion of grass or stands in their last year for earliest grazing, or (c) keep your cattle on a winter ration till the pastures are ready.

3. Have your soil tested and then adopt a fertilizer program. This may require fertilization at seeding and annually after that.

How Much Acreage Do You Need?

It requires three steps to find acreage needed, as the area in each strip and the total acres needed depend on the number of grazing animals and the condition of the pasture.

STEP ONE

Determine the condition of your pasture. Is it excellent, good, fair, or poor?

Excellent -- Composed of alfalfa-bromegrass or alfalfa-grass plus another legume, with 50 per cent or more legume; on productive soils with good drainage; normally with good summer production; fertility needs have been met with fertilizer; no weed or brush problems.

Good -- Composed of red clover, timothy, other legume-grass mixture, or alfalfa-bromegrass with less than 50 per cent alfalfa; tendency for low summer production; may be low in fertility; weeds and brush may be slight problem.

Fair -- Composed either of pure grass or of 30 per cent or less of desirable legumes in legume-grass mixtures; total production is low; may be located on droughty, light, or sandy soil, which normally has low summer production; buckbrush or perennial broadleaf weeds may present a big problem.

Poor -- Permanent pasture--mostly bluegrass of low fertility--always dormant for some part of summer; weeds and brush may be very bad.

STEP TWO

Determine the number of grazing animals you have by finding your animal units. An animal unit equals one mature dairy cow or two young stock.

STEP THREE

Determine the total acreage. In the following table you can find the number of acres needed for one strip by finding the number of your grazing animals (use the unit nearest to your actual herd number) and the condition of your pasture. The total acreage will be seven times the acreage in one strip.

Number of Acres Needed for One Strip

Condition of pasture	Number of animal units				
	10	20	30	40	50
			acres		
Excellent....	1	2	3	4	5
Good.....	1 1/4	2 1/2	3 3/4	5	6 1/4
Fair.....	1 2/3	3 1/4	5	6 1/2	8
Poor.....	Improve your pastures -- do not use ration-a-day grazing.				

How Do You Go About It?

These steps are intended only for a guide in setting up a ration-a-day grazing system. Climatic conditions, feeding programs, and management will vary these recommendations.

A. When the forage in strip A is 8 to 10 inches tall put the animals on a section of strip A for their first day's grazing. Control this area by a single strand of fence across the strip (see the chart on front page).

B. Then, daily, move the single fence across the strip until strip A is grazed. This initial grazing should take about three days. On the fourth day start on strip B. Continue this by grazing each strip one day longer than the previous, until you have reached strip E. Then repeat by starting over on strip A. During the first grazing, strip A will receive about three days' grazing, strip B four days, strip C five days, strip D six days, and strip E seven days.

C. By the time the second grazing is started, each strip should then supply about seven days' grazing. By grazing each strip a day longer during the first grazing you are establishing a growth pattern for later grazing. Watch for signs of overgrazing or undergrazing -- both are bad. Plan to leave about a four-inch stubble. If over four inches is left, clip it. This indicates undergrazing, so increase your stock or reduce acreage.

D. Strips F and G are safety strips. In case of dry, hot summer weather, the regrowth of forages may be slow. Strips F and G can then provide pasture if needed. However, you must harvest these strips for grass silage or hay at nearly the same time you start grazing strip A for the first time. In years of excellent forage growth conditions, it will be necessary to make hay or grass silage from one or more of the strips A to E. Try never to let the forage crop get beyond early bloom; harvest the crop first.

Mmmmmm, good!
New pasture every day!

After You Get Started...

Constantly observing the condition of your pasturing system will insure high forage yields and high milk production. Remember the following:

1. You have better use of your forage crops if cattle take the entire plant in grazing. When they take just the young, succulent tops, they risk bloat and also reduce the extreme flush milk period after the first grazing.
2. Extra expenses in fencing are involved the first year, but during the following years maintenance costs will be lower.
3. Labor and time required, though high, can be reduced in time through experience.
4. To insure high milk production and high yields of tall growing grasses and legumes such as alfalfa-brome mixtures, forage crops must be kept productive.
   a. Let alfalfa reach early bloom stage at least once during the growing season.
   b. Harvest the growth rapidly.
   c. Allow the growth to recover from 30 to 35 days after harvesting.
   d. Let it rest before frost to insure winter hardiness.
   e. Allow plenty of time for regrowth in order to get top forage yields. In a growing season, a pasture field will have one more grazing than if that field were cut for hay.

UNIVERSITY OF MINNESOTA, INSTITUTE OF AGRICULTURE,
ST. PAUL 1, MINNESOTA

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