~Four Season Grazing Management~
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Dairy Grazier Organic Valley, Educator River Country
RC&D, Dairy Grazing Apprenticeship, Grassworks
Managed Grazing: Linking Food, People, Animals and the Environment
DGA: First In The Nation

National Standards for Training in Managed Grazing Dairy Production

- Guided work experience
- Related instruction
- Facilitated peer group
- Industry networking
- Pathway to farm ownership
100% Grass-fed Dairy Standard
Five Fundamentals

- **No grain.** Cows eat a diet of high quality forages (pasture and hay) along with needed supplements like essential vitamins and minerals.
- **Pasture is a priority.** Cows must get the majority of their feed from good quality and well managed pastures during the grazing season.
- **Animal health is first.** Wellness checks or veterinarian oversight are required, these are not voluntary options – cows and calves must be healthy.
- **NO antibiotics, NO growth hormones, NO GMOs.**
- **Yearly farm inspections.** A 100% grass-fed farm receives a yearly on-farm review.
Milk Cows Eating Grass with Snow
Over 25 Years of Sustainable Farmer Pay

MAILBOX MILK PRICE PER CWT.

Organic Valley PAY PRICE

Organic Valley

MIDWEST MAILBOX DAIRY PAY PRICE
Balanced Omega-3 intake supports:

- Prevention of atherosclerosis, heart attack, depression and cancer
- Memory maintenance
- Normal brain development
- Cell membrane permeability
- Anti-inflammation

<table>
<thead>
<tr>
<th>Dietary Ratio</th>
<th>Omega 6</th>
<th>Omega 3</th>
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<tbody>
<tr>
<td>Ideal</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Estimated American Intake</td>
<td>11-30</td>
<td>1</td>
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<tr>
<td>Fat of grain-fed cow</td>
<td>7.65</td>
<td>1</td>
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<tr>
<td>Fat of grass-fed cow</td>
<td>1.53</td>
<td>1</td>
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Nutritional content of food impacts blood serum levels of omega fatty acids in humans.
Grassmilk™ Family of Products
#1 100% Grass-fed Dairy Brand!!*

Source: SPINS combined natural and mainstream grocery channels 52 weeks ending 12/25/2016
* Includes milk, cheese and yogurt
Building Soil

How did nature make all that soil in the first place?
Agricultural impacts in the midwest are not new....
....and are far reaching
SeaWiFS image of sediments reaching the Gulf of Mexico from Mississippi River Delta

https://oceancolor.gsfc.nasa.gov/outreach/ocsciencefocus/CreepingDead Zones2.pdf
Approximately 2/3 Of Your OM Increase Will Come From Roots!
Net Ecosystem Carbon Balance of Subhumid Pasture

MIRG lost significantly less carbon in year 1 than all other treatments, and in year 2, MIRG was the only treatment that had a positive NECB.

*Oates & Jackson, 2014*
Organic dairying...

• combines the requirement to graze – which reduces net emissions,

• prohibits the use of fossil fuel based applications to land, and

• promotes atmospheric CO2 sequestration.
INTRODUCTION

Recent measurements on thirty-five Wisconsin dairy farms show:

- Cows and heifers spend considerable time in outside areas, such as pastures, 'driveways' (PHOTO above), feed bunk areas, and barnyards.
- Average annual deposition rates (right) in outside areas range from 340 to 5407 for manure nitrogen (N) and 80 to 1170 for manure phosphorus (P).
- Some farmers identify these outside areas with pasture and/or crops.

OBJECTIVE

Determine impact on soil compaction, crop yields and N uptake of corralled dairy heifers on cropland.

HYPOTHESIS

Substantial gains in manure N recycling through crops can accrue by corralling dairy cows & heifers on cropland.

METHODS

A two-year field trial evaluates a factorial arrangement of two manure application methods, (1) corralled heifers on cropland to apply manure plus urine, and (2) anti-applied manure from the barn, two manure application rates (1) manure deposited during 2 days of corralled heifers on cropland for 2 days in the barn, and (2) manure deposited during 4 days of corralled heifers on cropland for 4 days in the barn. Two periods of manure application (spring-summer corresponding to April to September) and one fall-winter corresponding to October to March, two cropping patterns (1) wheat-soybean-corn, legumes for plots matured during April to September, (2) corn-rye-wheat, legumes for plots matured during October to March.

PRELIMINARY RESULTS

- From 50 to 150% more N is applied via corralled heifers than via barn manure.

- Difference between manure N applications via corralled heifers (C2 and C4) and barn manure (B2 and B4) reflect in-barn manure N losses.

- In-barn manure N losses appear to be lower during cooler months (Nov to Feb).

- Although manure N applications via B4 and C4 are higher than agronomic recommendations, they are within range of on-farm deposition rates in outside areas.

- Just prior to first crop planting after corralling, we measured soil compaction with a core penetrometer at all plots.

- Corralling during the spring caused soil compaction.

- Corralling during the winter did not cause soil compaction.

First year and residual crop N uptake after November manure applications

- Greater crop N uptake in corralled plots continued for two complete corn-rye-wheat rotations.

- Positive effects of winter corralling on crop N uptake may last for more than two years.

Crops N uptake in plots where heifers were corralled were higher than where manure was applied.

Positive effects of winter corralling on crop N uptake may last for more than two years.

Positive effects of summer corralling on crop N uptake may last for more than two years.

Next steps: corn silage yields and N uptake for 2004 will complete crop data component of experiment; larger-scale ovine trials and economic analysis of manure management practices will be initiated.
You can graze even if it sometimes feels like you're herding cats.
WI Grazing and Organic Contact Organizations

- RIVER COUNTRY RC&D  
  www.rivercountryrcd.org
- GRASSWORKS INC.  
  www.grassworks.org
- ORGANIC VALLEY CROPP COOP  
  www.organicvalley.coop
- WI DATCP GRAZING/ORGANIC
- DAIRY GRAZING APPRENTICESHIP dga-national.org