DEMYSTIFYING PASTURE, FEED, AND DRY MATTER INTAKE RECORDS

Tips and tricks to avoid compliance concerns

Photo by Stijn te Strake on Unsplash

OREGON TILTH PRESENTERS

RYAN COSTELLO
Farm Certification Officer
Oregon Tilth

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Certification Officer
Inspector
Rancher
Oregon Tilth

The Organic System Plan: Why it Matters for Pasture and Grazing Compliance

A whirlwind overview of **Pasture Access & Recordkeeping Requirements** in the Rule

Three Fundamental Questions your inspector will want to know

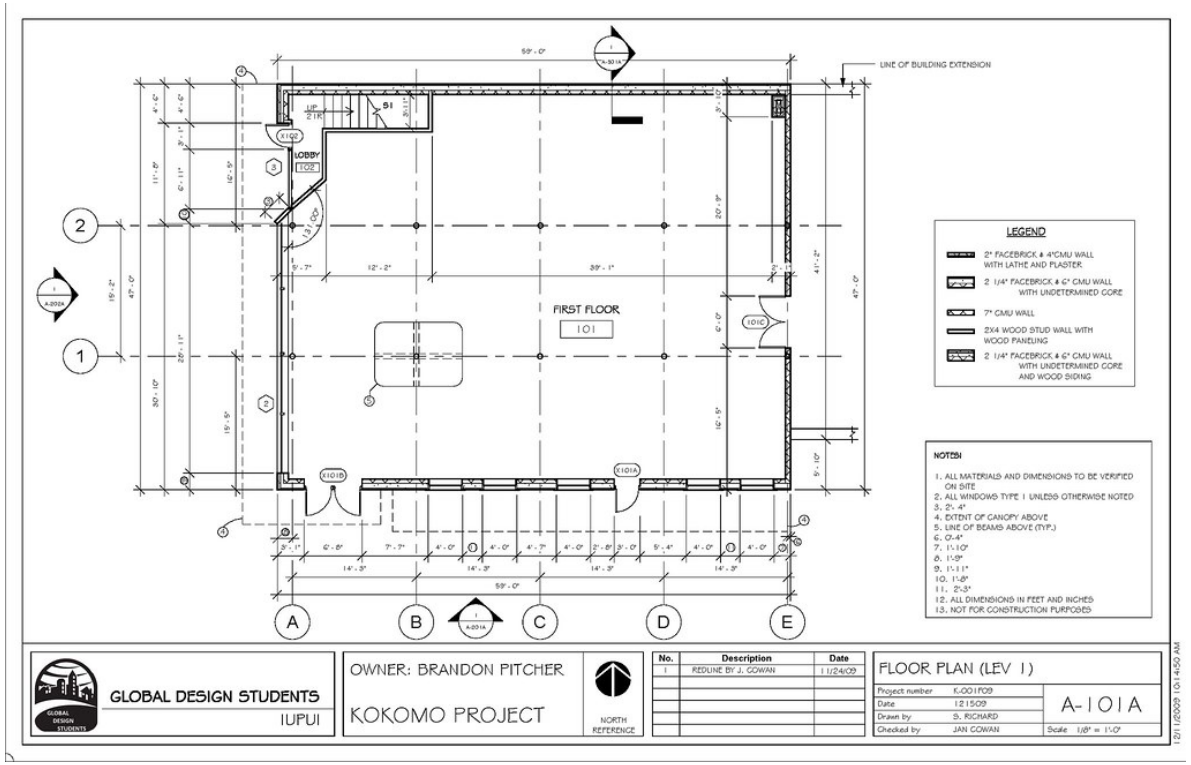
Three Fundamental Concepts: Grazing Season, Dry Matter Demand and Dry Matter Intake

Jamm Farm: Recordkeeping Tips and Examples from real life

Understanding **DMI/ Grazing Audits**

Avoiding Compliance Concerns with Complete Records

THE ORGANIC SYSTEM PLAN



In order to build a house, you must first **submit your plan to the city.**

You then build the house **according to the plan** and maintain required documentation.

THE ORGANIC SYSTEM PLAN

ACTIVITIES CHECKLIST FOR LIVESTOCK

Electronic versions available at www.tilth.org | Page 1 of 1

Section L1

Operation Name: Sunbow Dairy Farm **Date:** 8/24/19

► Review the following table to identify the sections of the Oregon Tilth Organic System Plan (OSP) that apply to your operation. For each activity that matches your plans or current organic activities, complete the OSP section(s) indicated.
► **OSP sections that do not apply to your operation are not required. However, a complete OSP is mandatory prior to inspection. If you have questions, contact the Farmer Hotline (503) 581-8102 or farmerhotline@tilth.org**

NOP §205.201 An operation intending to sell, label, or represent agricultural products as organic must develop an organic production system plan that is agreed to by the producer and an accredited certifying agent. An organic production system plan must include a description of practices and procedures to be performed and maintained.

	Organic Activities:	Applicable OSP Section(s):
☒	I/We are applying for Oregon Tilth organic livestock certification.	Operation Information - (required) Certification Contract and Trademark Use Agreement - (required) **L1:** Activities Checklist for Livestock Producers **L4:** Livestock Healthcare **L9:** Livestock Recordkeeping **L10:** Livestock Materials
☐	I/We raise poultry	**L2P:** Livestock Origin Poultry **L3NR:** Livestock Feed & Water - Non-Ruminant **L5A:** Livestock Living Conditions - Avian
☐	I/We raise pigs, rabbits, or other non-ruminant mammalian livestock.	**L2M:** Livestock Origin Mammalian **L3NR:** Livestock Feed & Water – Non-Ruminant **L5M:** Livestock Living Conditions - Mammalian
☐	I/We raise cattle, sheep, goats, or other ruminant livestock.	**L2M:** Livestock Origin Mammalian **L3R:** Livestock Feed & Water - Ruminant **L5M:** Livestock Living Conditions - Mammalian **L6:** Livestock Pasture Management Plan
☐	I/We perform any of the following activities on-farm or a contract facility performs the following: • Sell organic products, including live animals • Milk animals, cool and store milk • Mix, mill or grind livestock feed for use on farm • Wash and/or pack eggs • Slaughter animals • Cool, age, cut and wrap meat • Process fiber	**L7:** Livestock Product Processing
☐	I/We transport (or contract out the transport of) organic livestock.	**L8:** Transport and Handling
☒	I/We grow crops, including forages, pasture and/or have outdoor access for livestock.	**C1:** Activities Checklist For Growers
☐	I/We are requesting direct full EU certification	**EU:** Crop and Livestock EU Supplement
☐	I/We process, package or otherwise handle products at facilities to be certified as part of this operation, including but not limited to: • Produce products that are organic and non-organic • Process products for other operations	**Review: H1:** Handler Activities Checklist Contact OTCO to determine if Handling Certification scope is required

2525 SE 3rd Street, Corvallis, OR 97333, 503-378-0690 | 1-877-378-0690 | organic@tilth.org

In order to be certified organic you must create an **Organic System Plan** of all management practices.

Your Plan is an agreement between you, the certified producer, and us, the certifier.

It is a living plan, which must be kept up to date with all practices.

THE ORGANIC INSPECTION

Photo by Scottish Government (Flickr)

Just as the city would inspect to verify construction according to the codes...

Photo by Bridges Produce (IGT Winter 2018)

So the organic inspector must verify compliance by **inspecting your operation** and **auditing all records.**

Title 7, part 205
§205.201 Organic production and handling system plan.

(a) The producer or handler of a production or handling operation…must develop an **organic system plan** that is agreed to by the producer or handler and an accredited certifying agent. It must include all practices, materials and inputs, monitoring, recordkeeping, and contamination prevention.

§205.240 Pasture plan.

(c) A pasture plan must be included in the producer's organic system plan… the pasture plan shall include a description of the:
(1) Types of pasture provided..
(2) Cultural and management practices to be used to ensure pasture of a sufficient quality and quantity is available to graze throughout the grazing season and to provide all ruminants ..with an average of not less than **30 percent of their dry matter intake from grazing throughout the grazing season.**
(3) **Grazing season** for the livestock operation's regional location.
(4) Location and size of pastures, including maps giving each pasture its own identification.

THE NATIONAL ORGANIC STANDARDS

§205.237 Livestock feed.

(a) The producer of an organic livestock operation must provide livestock with a **total feed ration that are organically produced** and handled by operations certified to the NOP.

(c) During the grazing season, producers shall

(1) Provide **not more than an average of 70 percent of a ruminant's dry matter demand from dry matter fed** (dry matter fed does not include dry matter grazed from residual forage or vegetation rooted in pasture). This shall be calculated as an average over the entire grazing season for each type and class of animal.

Ruminant animals must be grazed throughout the **entire grazing season for the geographical region,** which shall be not less than **120 days per calendar year.**

Due to weather, season, and/or climate, the grazing season may or may not be continuous.

THE NATIONAL ORGANIC STANDARDS

§205.237 Livestock feed.

(d) Ruminant livestock producers shall:

(1) Describe the **total feed ration for each type and class of animal**. The description must include:

(i) All feed produced on-farm;

(ii) All feed purchased from off-farm sources;

(iii) The percentage of each feed type, including pasture, in the total ration; and

(iv) A list of all feed supplements and additives.

(2) **Document the amount of each type of feed actually fed to each type and class of animal.**

(3) **Document changes that are made to all rations** throughout the year in response to seasonal grazing changes.

(4) Provide the method for calculating **dry matter demand and dry matter intake.**

THE NATIONAL ORGANIC STANDARDS

§205.103 Recordkeeping by certified operations.

(a) A certified operation **must maintain records** concerning the production, harvesting, and handling of agricultural products that are or that are intended to be sold, labeled, or represented as ..organic

(b) Such records must:

(1) Be adapted to the particular business that the certified operation is conducting;

(2) **Fully disclose all activities** and transactions of the certified operation in sufficient detail as to be readily understood and audited;

(3) Be maintained for not less than 5 years beyond their creation; and

(4) Be sufficient to demonstrate compliance with the Act and the regulations in this part.

(c) The certified operation must make such records available for inspection and copying during normal business hours.

THE NATIONAL ORGANIC STANDARDS

Photo by Green Forage LTD (Twitter)

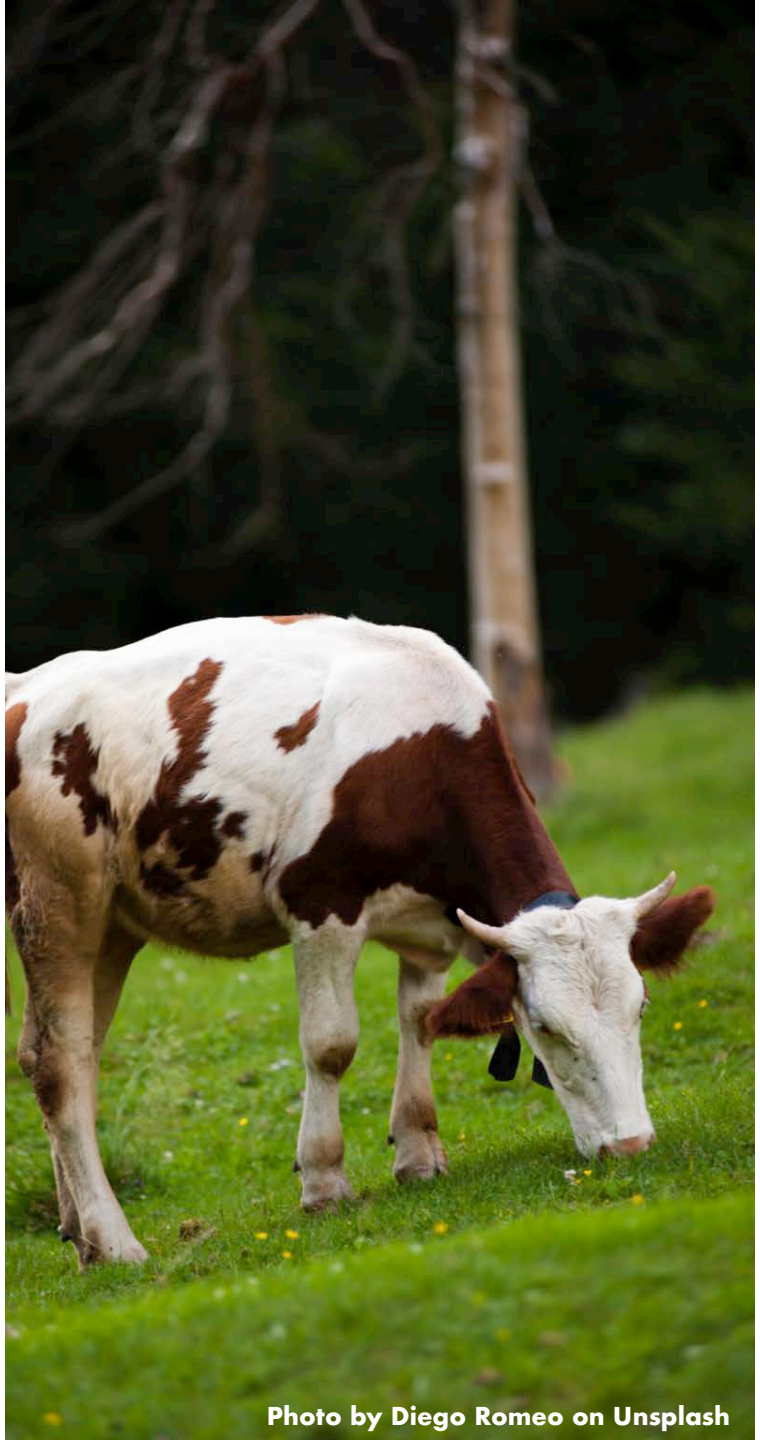


Photo by Diego Romeo on Unsplash

THREE FUNDAMENTAL QUESTIONS

How **long** did animals graze?

How **much** did animals graze?

How much **supplemental feed** did they receive?

Photo by Jan Jakub Nanista on Unsplash

THREE FUNDAMENTAL CONCEPTS

Grazing season
When pasture is available for grazing in your area.

Dry Matter Demand (DMD)
The expected feed intake per animal.

Dry Matter Intake (DMI)
Actual feed consumed per animal.

Photo by Jan Jakub Nanista on Unsplash

THREE FUNDAMENTAL CONCEPTS

Grazing season
When pasture is available for grazing in your area.

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Actual feed consumed per animal.

GRAZING SEASON

>120 DAYS

Photo by Michael Pujals on Unsplash

January | February | March | April | May | June | July | August | September | November | December

Your Grazing Season is unique to your region, soil, precipitation, grass

GRAZING SEASON

Photo by Michael Pujals on Unsplash

Vermont

January | February | March | April | May | June | July | August | September | November | December

Oregon

Your Grazing Season is unique to your region, soil, precipitation, grass

GRAZING SEASON

January | February | March | April | May | June | July | August | September | November | December

Planned Grazing Season

152 days

Your Grazing Season is unique to your region, soil, precipitation, grass

GRAZING SEASON

Photo by Michael Pujals on Unsplash

2019 Actual Grazing Days

126 days

January | February | March | April | May | June | July | August | September | November | December

Planned Grazing Season

152 days

Your Grazing Season is unique to your region, soil, precipitation, grass

GRAZING SEASON

>120 DAYS

Photo by Michael Pujals on Unsplash

January | February | March | April | May | June | July | August | September | November | December

Spring (110d)

Extreme Heat

Fall (60d)

Your Grazing Season is unique to your region, soil, precipitation, grass

Photo by Jan Jakub Nanista on Unsplash

THREE FUNDAMENTAL CONCEPTS

Grazing season

When pasture is available for grazing

Dry Matter Demand (DMD)

The expected feed intake per animal.

Dry Matter Intake (DMI)

Feed consumed per animal.

DRY MATTER

(a universal measurement)

Photo by Mihaly Koles on Unsplash

Dry matter is what remains when water is removed from feed. It's a universal way to refer to the nutritional content of feed.

The moisture content of feeds can vary depending on humidity, conditions of harvest, processing, storage.

DRY MATTER

(a universal measurement)

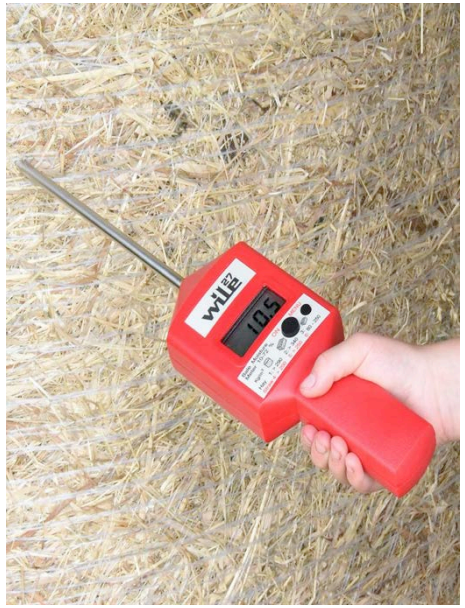
Photo by Mihaly Koles on Unsplash

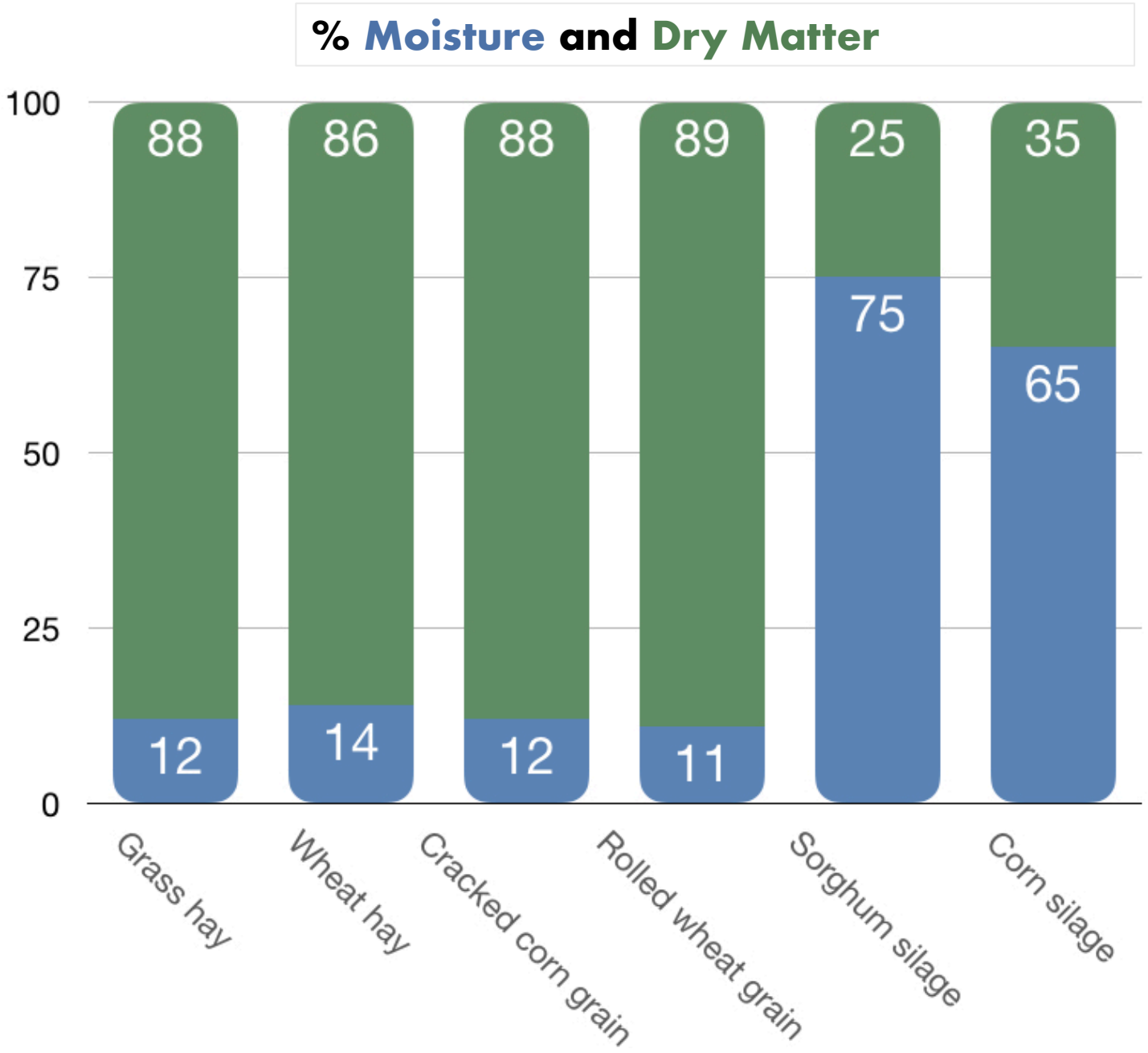
Dry matter is what remains when water is removed from feed. It's a universal way to refer to the nutritional content of feed.

The moisture content of feeds can vary depending on variety, humidity, conditions of harvest, processing, storage, etc.

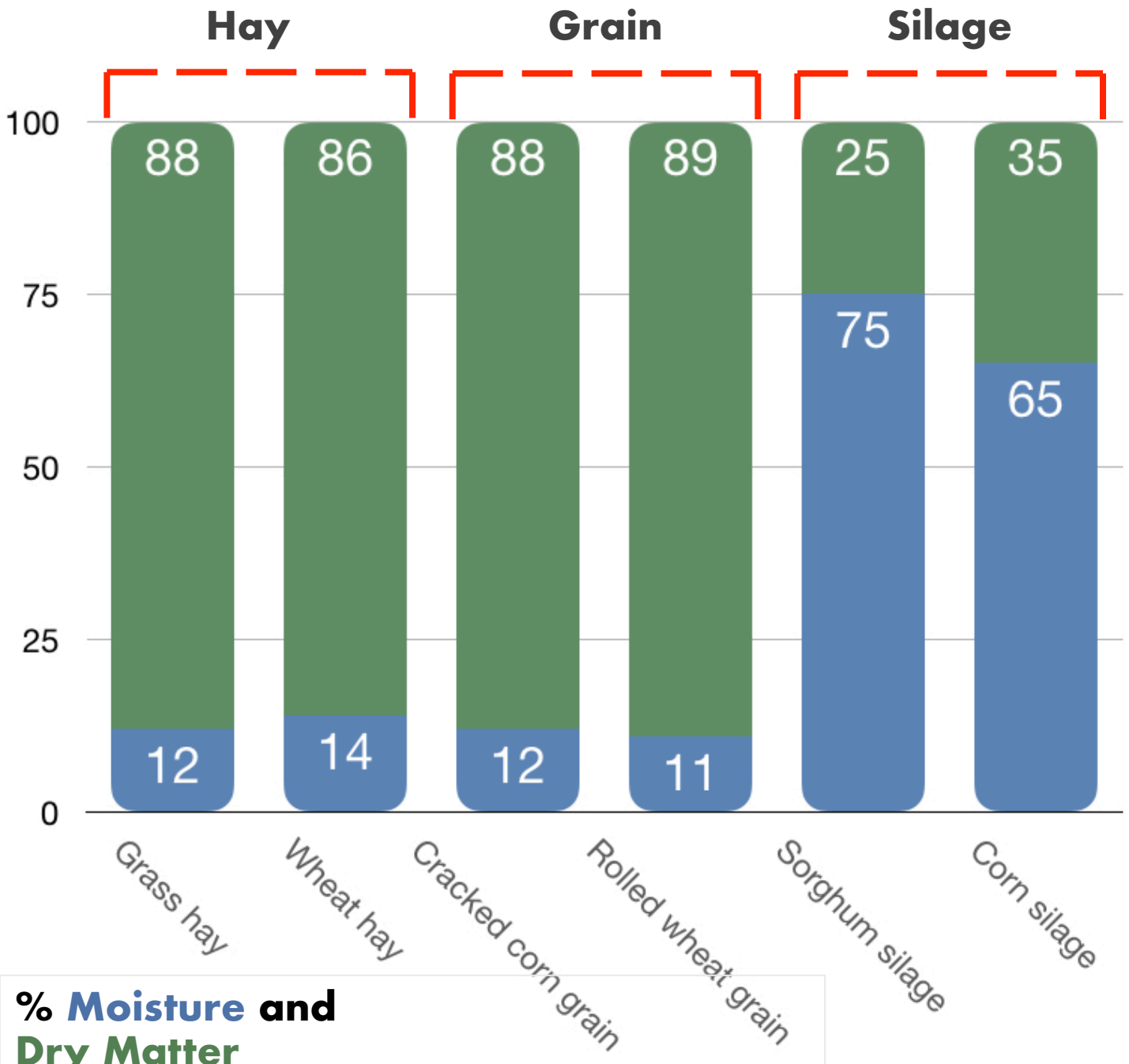
METHODS

Taking samples and drying (weigh before and after)
Handheld probes
Tables of reference





Subtract the moisture content for each feed and you will have the remaining dry matter.



% Moisture and Dry Matter

Subtract the moisture content for each feed and you will have the remaining dry matter.

Hay feeds

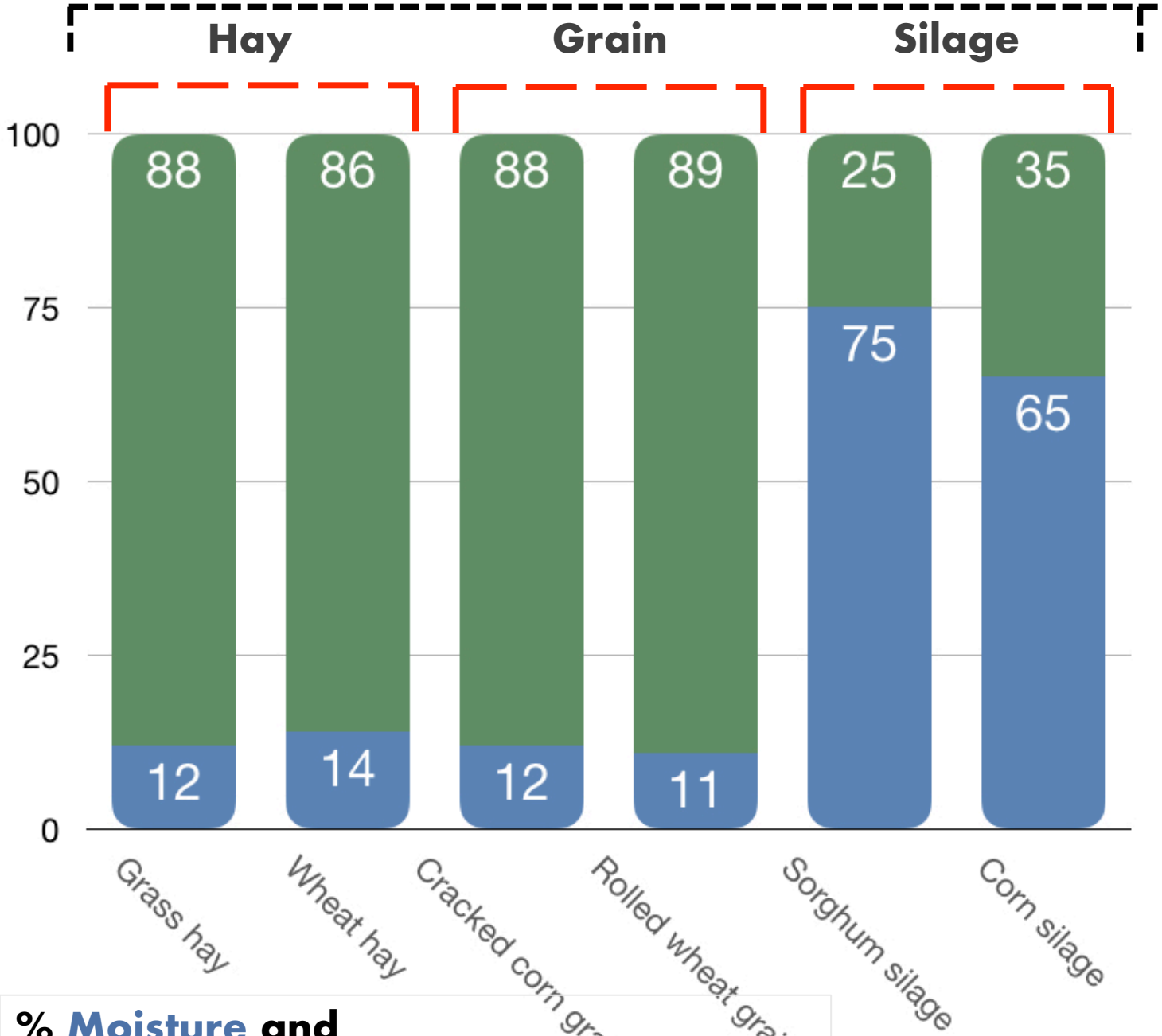
Tend to range from 85-92% dry matter

Grains

Tend to range from 88-90% dry matter

Silage/haylage

Tends to range from 25-40% dry matter



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Subtract the moisture content for each feed and you will have the remaining dry matter.

Hay feeds

Tend to range from 85-92% dry matter

Grains

Tend to range from 88-90% dry matter

Silage/haylage

Tends to range from 25-40% dry matter

Dry matter of all feeds added together is the ration

DRY MATTER DEMAND

(how much feed does each group require?)

Photo by Serhii Butneko on Unsplash

Dry Matter Demand (DMD)

Dry Matter Demand is the total weight of dry matter per animal per day.

Each group of animals (heifers, calves, dry cows) needs to have a defined Dry Matter Demand.

It is expressed in dry weight of feed per animal per day.

For example:
35 lbs per animal per day

NATIONAL ORGANIC PROGRAM
Dry Matter Demand Tables
For Classes of Dairy Cattle

Table 1 - 6: Daily Dry Matter Demand Requirements in Kilograms and Pounds
Mid Lactation *Large Breed Dairy Cows
25 - 45 Kilograms or 55 - 99 Pounds Daily Milk Production
68% Total Digestible Nutrients Diet

Daily Milk Production (kg)	Milk Fat (%)	DMD (kg)	Daily Milk Production (lb)	Milk Fat (%)	DMD (lb)
25	3.0	19.6	55.12	3.0	43.21
25	3.5	20.3	55.12	3.5	44.75
25	4.0	21	55.12	4.0	46.30
35	3.0	22.7	77.16	3.0	50.04
35	3.5	23.6	77.16	3.5	52.03
35	4.0	24.5	77.16	4.0	54.01
45	3.0	25.7	99.21	3.0	56.66
45	3.5	26.9	99.21	3.5	59.30
45	4.0	28.1	99.21	4.0	61.95

Abbreviations used in table:
DMD = Dry Matter Demand, kg = Kilogram, lb = Pound

*Large Breed Live Weight = 680 Kilograms or 1,499 Pounds

Adapted from: "Table 14-6," from *Nutrient Requirements of Dairy Cattle: Seventh Revised Edition, 2001* , by Subcommittee on Dairy Cattle Nutrition, Committee on Animal Nutrition, National Research Council, 2001, Washington, D.C.: National Academies Press. Copyright 2001 by National Academy of Sciences.

DETERMINING DRY MATTER DEMAND

Winter Ration (non-grazing)
Calculate feed consumed per group with not on pasture

Nutritionists recommendations
The expected feed intake per animal.

Tables
NOP, Extension Agent, other reference publications

Table 2-1. Daily Dry Matter Demand Requirements in Pounds and Percent of Body Weight

Beef Cows

1,000 - 1,400 lb Mature Body Weights and 10 - 30 lb of Milk Production/Day

	Months Since Calving												
	1	2	3	4	5	6	7	8	9	10	11	12	Average
1,000 lb Mature Weight, 10 lb/d Peak Milk													
DMD, lb	21.60	22.10	23.00	22.50	22.10	21.70	21.10	21.00	20.90	20.80	21.00	21.40	**21.60** lb
DMD as % Body Weight	2.16	2.21	2.30	2.25	2.21	2.17	2.11	2.10	2.09	2.08	2.10	2.14	**2.16** % Body Weight
1,000 lb Mature Weight, 20 lb/d Peak Milk													
DMD, lb	24.00	25.00	25.40	24.40	23.50	22.70	21.10	21.00	20.90	20.80	21.00	21.40	**22.60** lb
DMD as % Body Weight	2.40	2.50	2.54	2.44	2.35	2.27	2.11	2.10	2.09	2.08	2.10	2.14	**2.26** % Body Weight
1,000 lb Mature Weight, 30 lb/d Peak Milk													
DMD, lb	26.40	27.80	27.80	26.40	24.90	23.70	21.10	21.00	20.90	20.80	21.00	21.40	**23.60** lb
DMD as % Body Weight	2.64	2.78	2.78	2.64	2.49	2.37	2.11	2.10	2.09	2.08	2.10	2.14	**2.36** % Body Weight
1,200 lb Mature Weight, 10 lb/d Peak Milk													
DMD, lb	24.40	24.90	26.00	25.60	25.10	24.80	24.20	24.10	24.00	23.90	24.10	24.60	**24.64** lb
DMD as % Body Weight	2.03	2.08	2.17	2.13	2.09	2.07	2.02	2.01	2.00	1.99	2.01	2.05	**2.05** % Body Weight
1,200 lb Mature Weight, 20 lb/d Peak Milk													
DMD, lb	26.80	27.80	28.40	27.40	26.50	25.70	24.20	24.10	24.00	23.90	24.10	24.60	**25.63** lb
DMD as % Body Weight	2.23	2.32	2.37	2.28	2.21	2.14	2.02	2.01	2.00	1.99	2.01	2.05	**2.14** % Body Weight
1,200 lb Mature Weight, 30 lb/d Peak Milk													
DMD, lb	29.20	30.60	30.80	29.40	27.90	26.70	24.20	24.10	24.00	23.90	24.10	24.60	**26.63** lb
DMD as % Body Weight	2.43	2.55	2.57	2.45	2.33	2.23	2.02	2.01	2.00	1.99	2.01	2.05	**2.22** % Body Weight
1,400 lb Mature Weight, 10 lb/d Peak Milk													
DMD, lb	27.10	27.60	28.90	28.50	28.00	27.70	27.20	27.00	26.90	26.80	27.00	27.60	**27.53** lb
DMD as % Body Weight	1.94	1.97	2.06	2.04	2.00	1.98	1.94	1.93	1.92	1.91	1.93	1.97	**1.97** % Body Weight
1,400 lb Mature Weight, 10 lb/d Peak Milk													
DMD, lb	29.50	30.50	31.30	30.30	29.40	28.60	27.20	27.00	26.90	26.80	27.00	27.60	**28.51** lb
DMD as % Body Weight	2.11	2.18	2.24	2.16	2.10	2.04	1.94	1.93	1.92	1.91	1.93	1.97	**2.04** % Body Weight
1,400 lb Mature Weight, 10 lb/d Peak Milk													
DMD, lb	31.90	33.30	33.70	32.30	30.80	29.60	27.20	27.00	26.90	26.80	27.00	27.60	**29.51** lb
DMD as % Body Weight	2.28	2.38	2.41	2.31	2.20	2.11	1.94	1.93	1.92	1.91	1.93	1.97	**2.11** % Body Weight

Abbreviations used in table: DMD = Dry Matter Demand, kg = Kilogram, lb = Pound, d = day

Adapted from: "Tables 21, 22, and 23," from Nutrient Requirements of Beef Cattle: Seventh Revised Edition: Update 2000, by Subcommittee on Beef Cattle Nutrition, Committee on Animal Nutrition, National Research Council, 1996, Washington, D.C.: National Academies Press. Copyright 1996 by National Academy of Sciences.

Operation Name: Sunbow Dairy Farm **Date:** 8/30/19

3.2 DRY MATTER DEMAND

1) Complete the table below or attach additional sheets with all of the information requested. You may use the Dry Matter Demand tables provided by the National Organic Program or another method for estimating dry matter demand.

☐ Sheet(s) attached

Production Group	Approximate Body Weight	Dry Matter Demand during Grazing Season
Milk Cows	1400 Lbs	52 Lbs/ day
	Lbs	Lbs/ day
	Lbs	Lbs/ day

Operation Name: Sunbow Dairy Farm **Date:** 8/30/19

2) How have you determined the dry matter demand figure reported above? Select at least one option below, or describe your source for obtaining DMD information.

☒ I/We use a known reference to estimate the dry matter demand. *Be prepared to show your references at inspections.*

☐ I/We utilize a nutritionist to determine dry matter demand.

☐ I/We use rations fed during the non-grazing season (no pasture fed) to determine dry matter demand.

☐ Other (describe):

3) How do you ensure that your ruminant animals graze at least 30% of their dry matter demand from pasture over the grazing season? Select at least one option below, or describe your method for calculating dry matter intake.

☐ Animals are fed 100% pasture for at least 120 days per year. (Skip to section 3.3 below)

☒ I/We subtract the dry matter fed, excluding pasture, from dry matter demand (*i.e.*, the "subtraction method").

☐ Other (describe):

2) **Grazing Season:** Provide ration information for each production group during the **grazing season** as described above.

☐ N/A, Alternative Ration sheets attached

Production group	Name of Ingredient or Supplement	Amount (per animal per day)
Example: Fresh cows	*Silage*	*As Fed lbs.*
	Grain mix	*As Fed lbs.*
	Flax meal	*As Fed lbs.*
	Pasture	*As Fed lbs.*
Milk Cows	**Hay**	**20 lbs**
	Silage	**50 lbs**
Heifers	**Hay**	**15**
	Silage	**30**

Photo by Jan Jakub Nanista on Unsplash

THREE FUNDAMENTAL CONCEPTS

Grazing season
When pasture is available for grazing

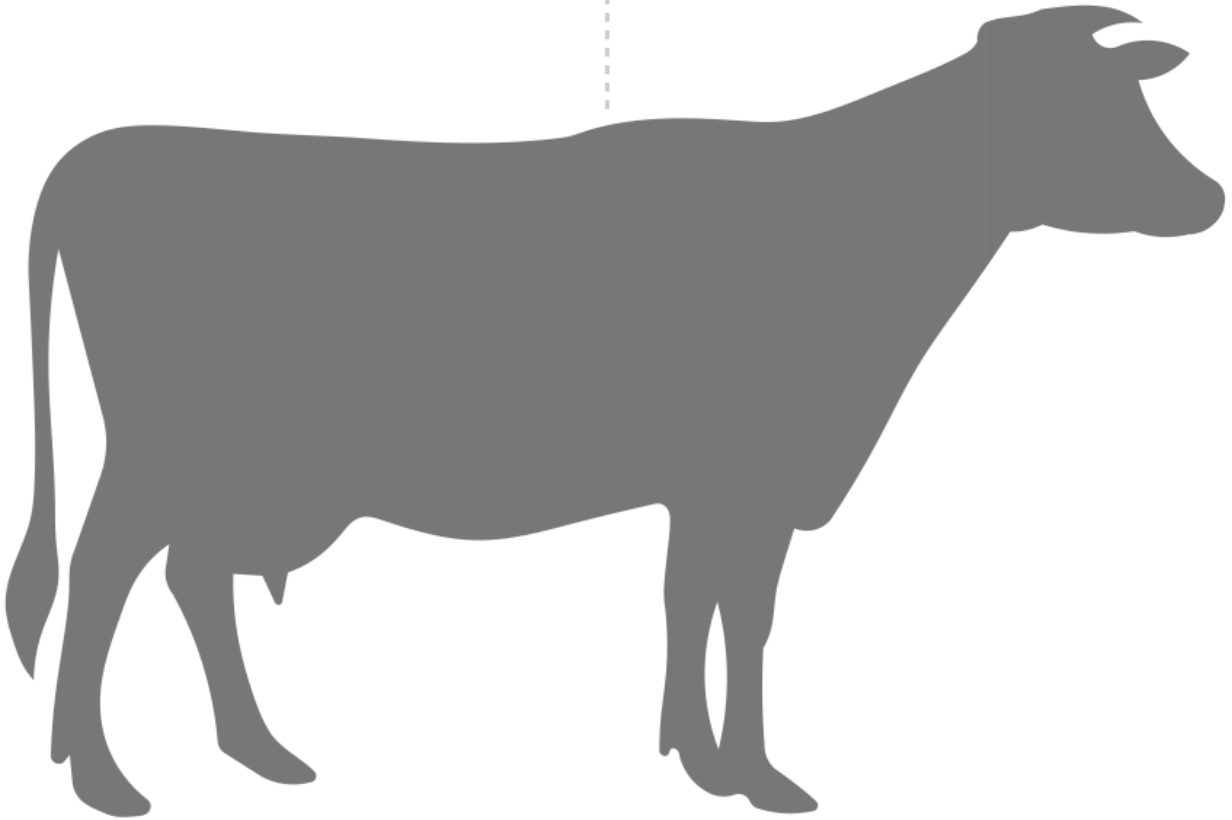
Dry Matter Demand (DMD)
The expected feed intake per animal.

Dry Matter Intake (DMI)
Feed consumed per animal.

January | February | March | April | May | June | July | August | September | November | December

Grazing Season: 4/1 to 8/30, 151 days

40 lbs Dry Matter Demand

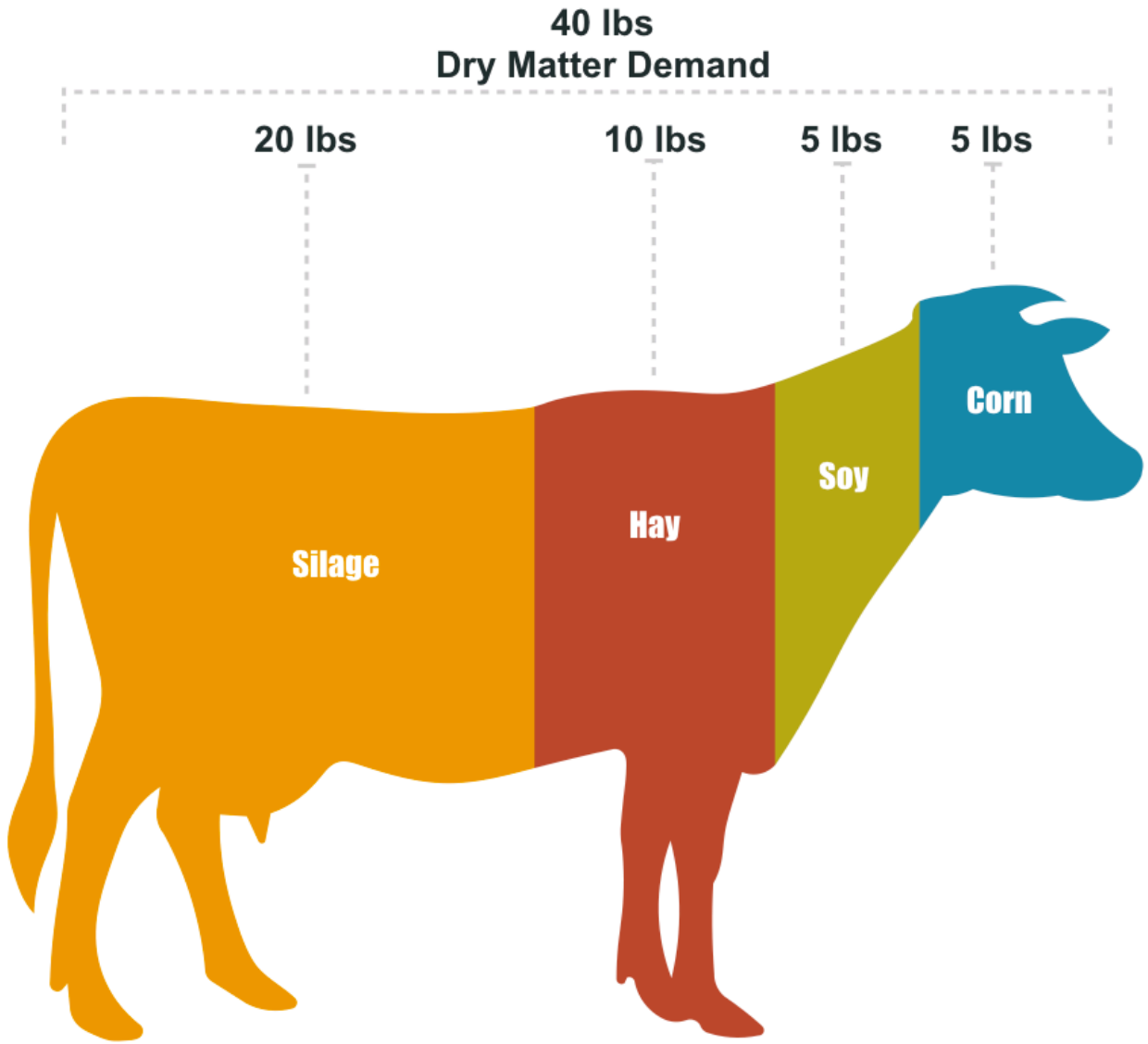


January | February | March | April | May | June | July | August | September | November | December

1/1 to 4/30

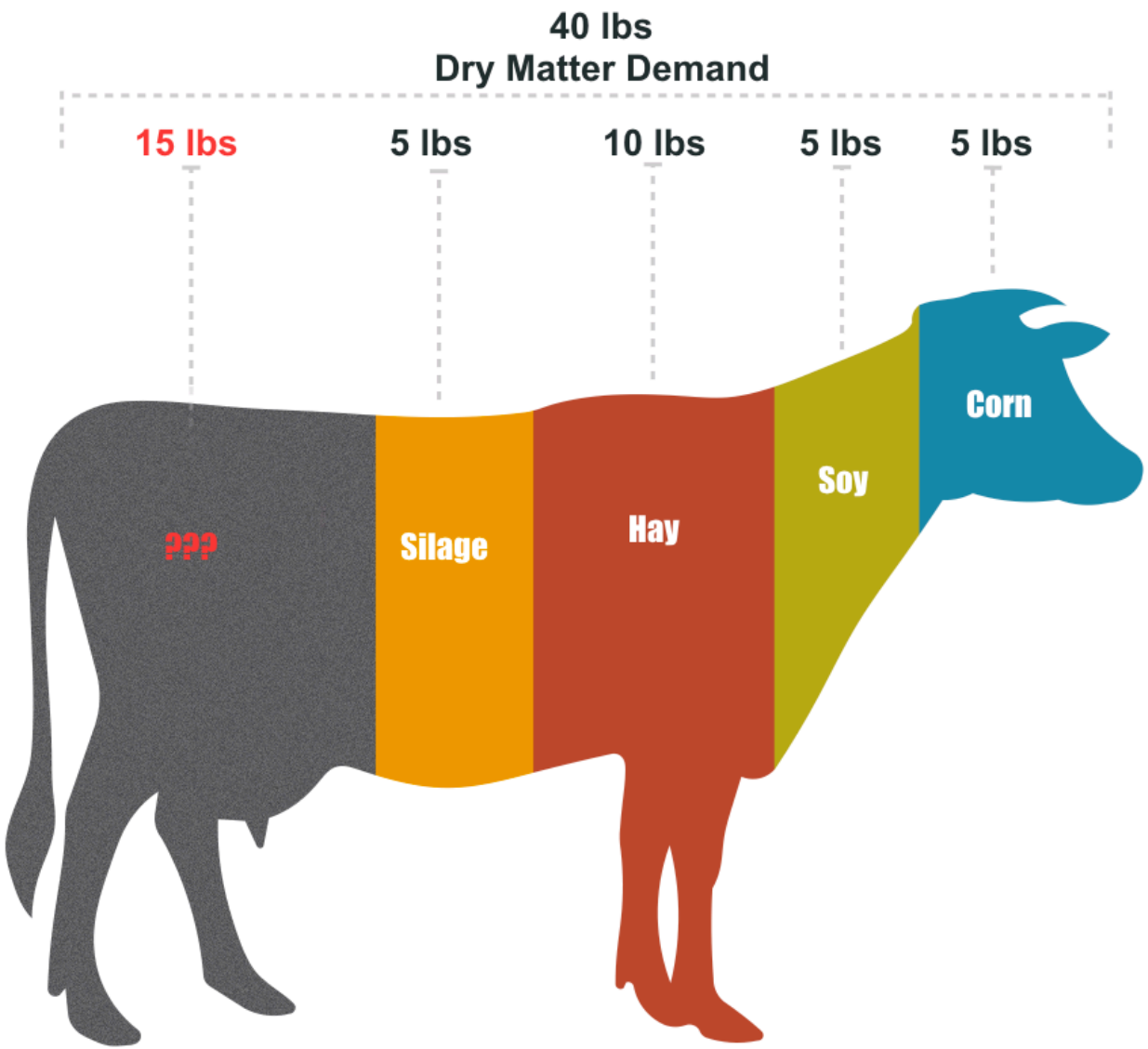
Winter ration

9/1 to 12/31



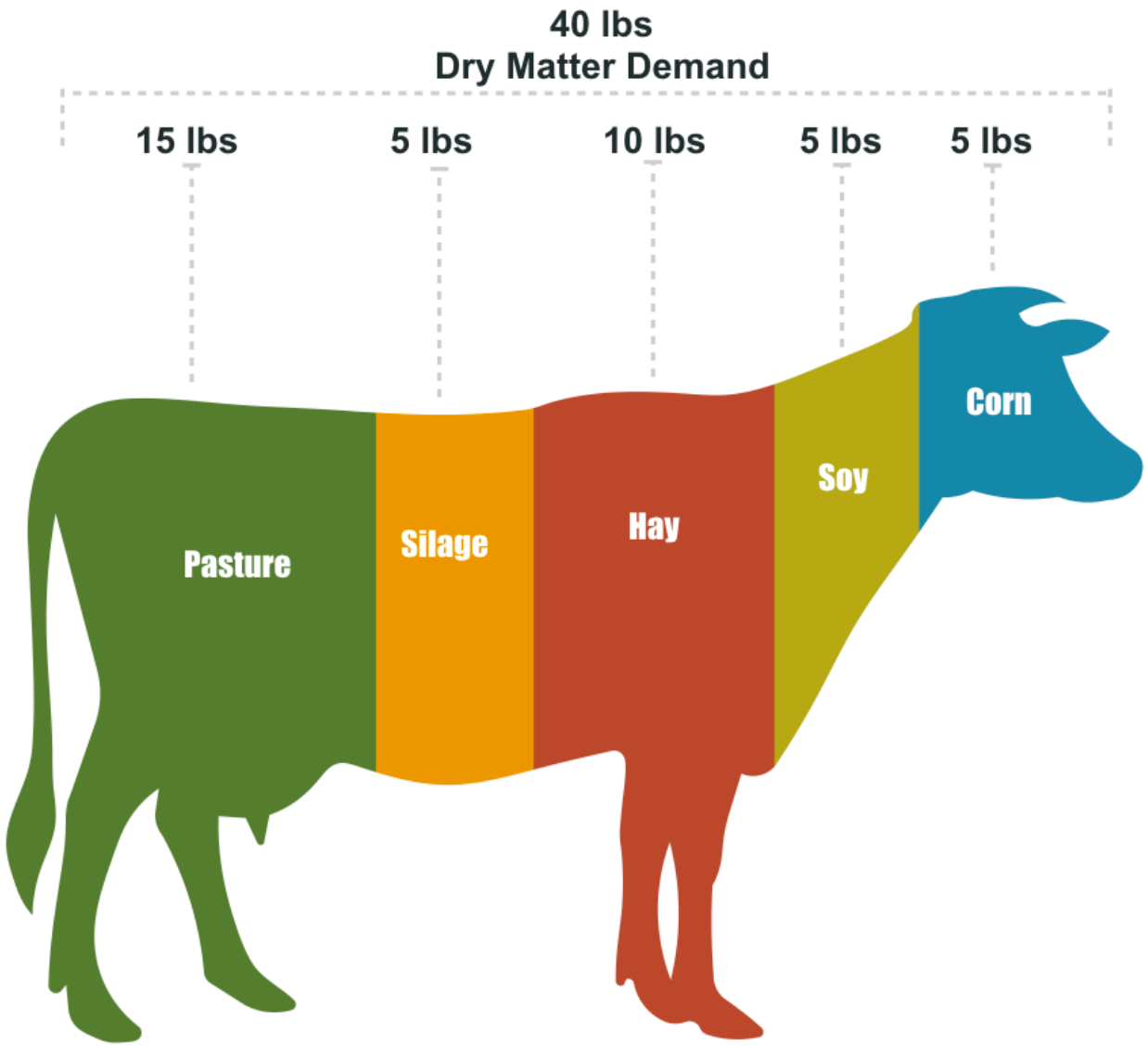
January | February | March | April | May | June | July | August | September | November | December

Grazing Season: 4/1 to 8/30, 151 days



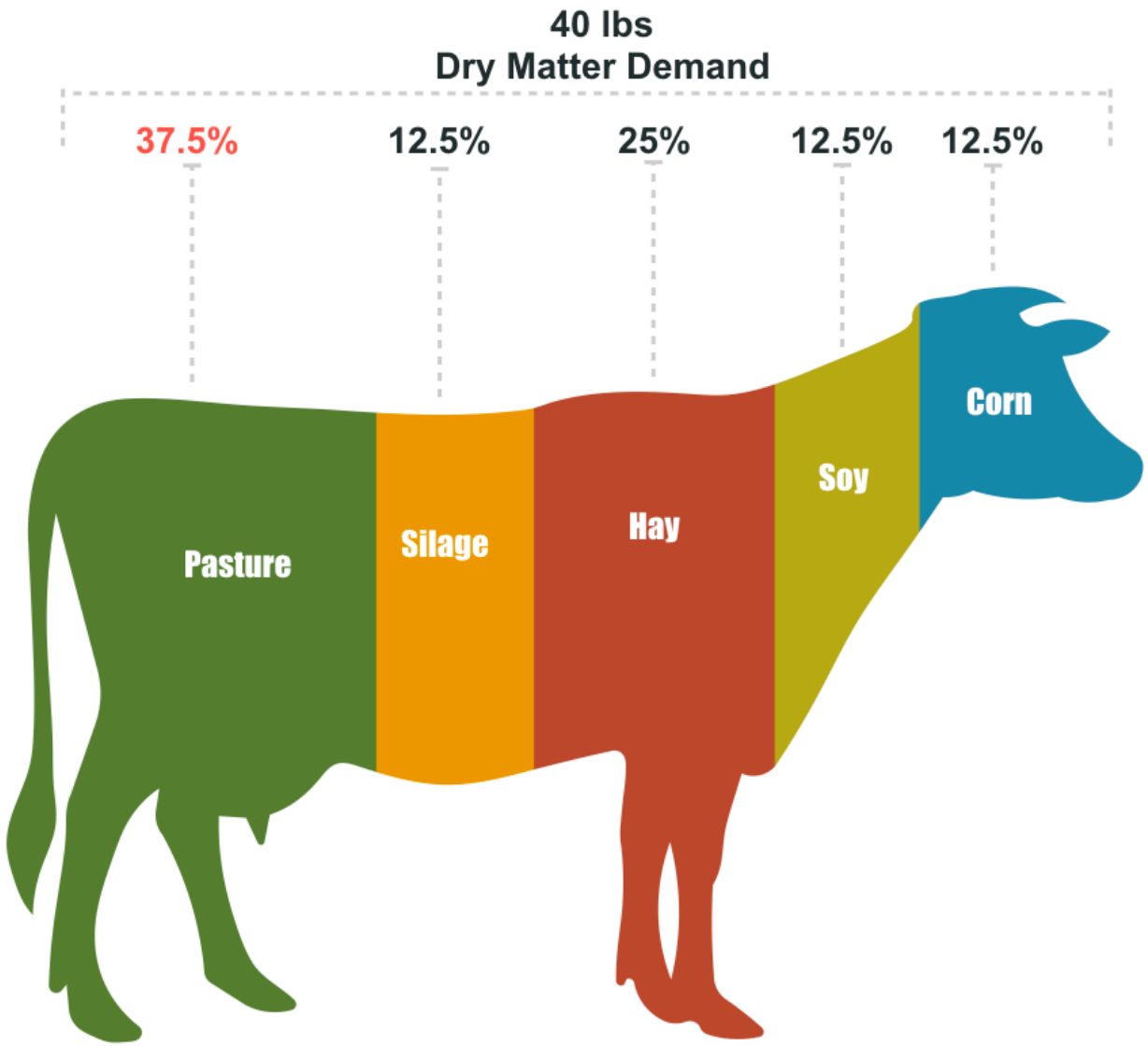
January | February | March | April | May | June | July | August | September | November | December

Grazing Season: 4/1 to 8/30, 151 days



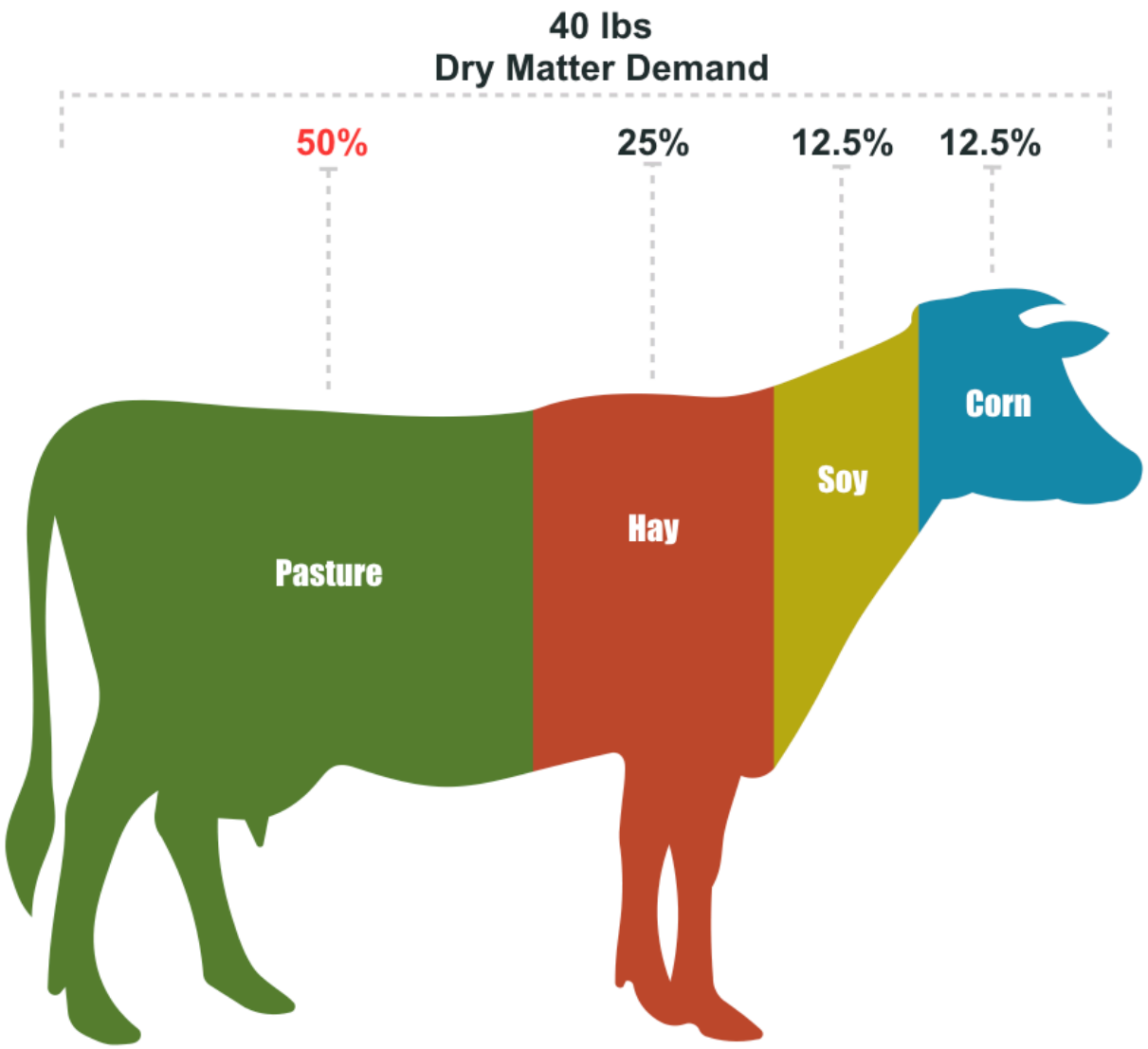
January | February | March | April | May | June | July | August | September | November | December

Grazing Season: 4/1 to 8/30, 151 days



January | February | March | April | May | June | July | August | September | November | December

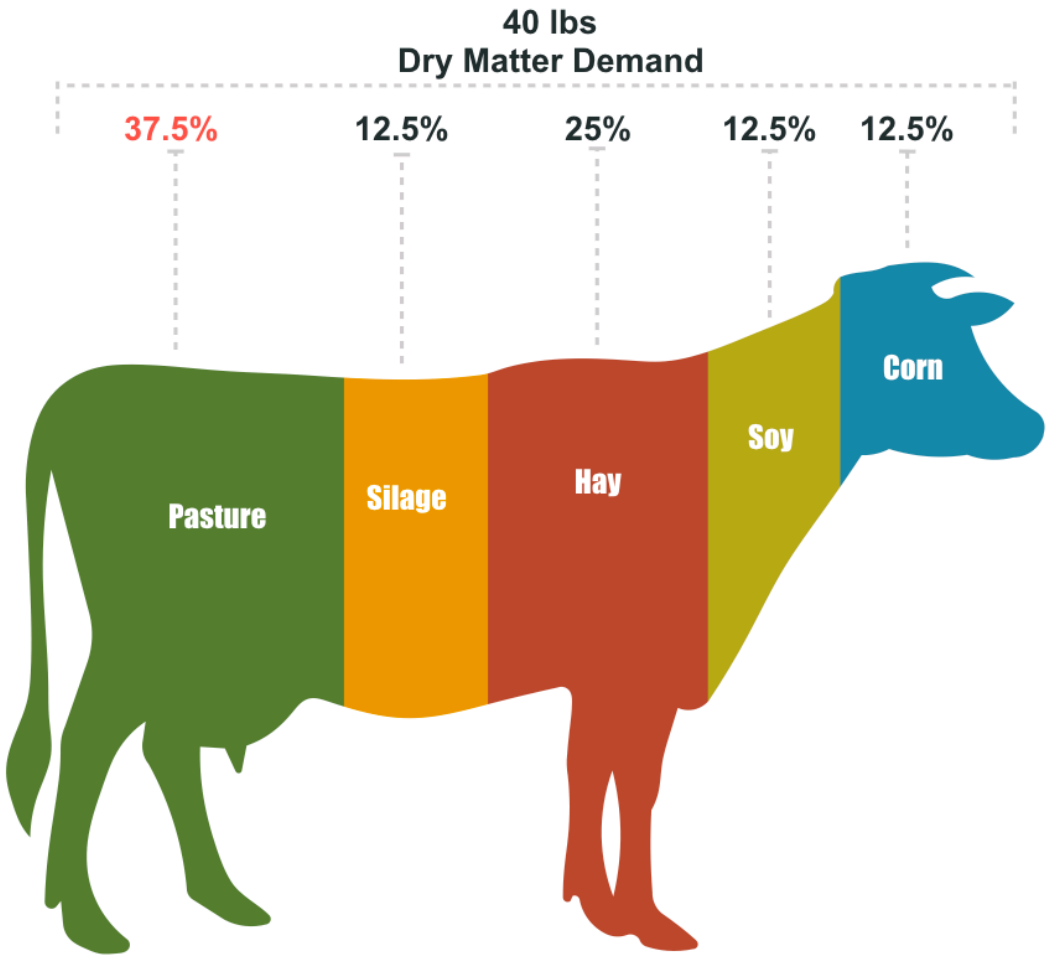
Summer Ration: 7/1 to 8/30



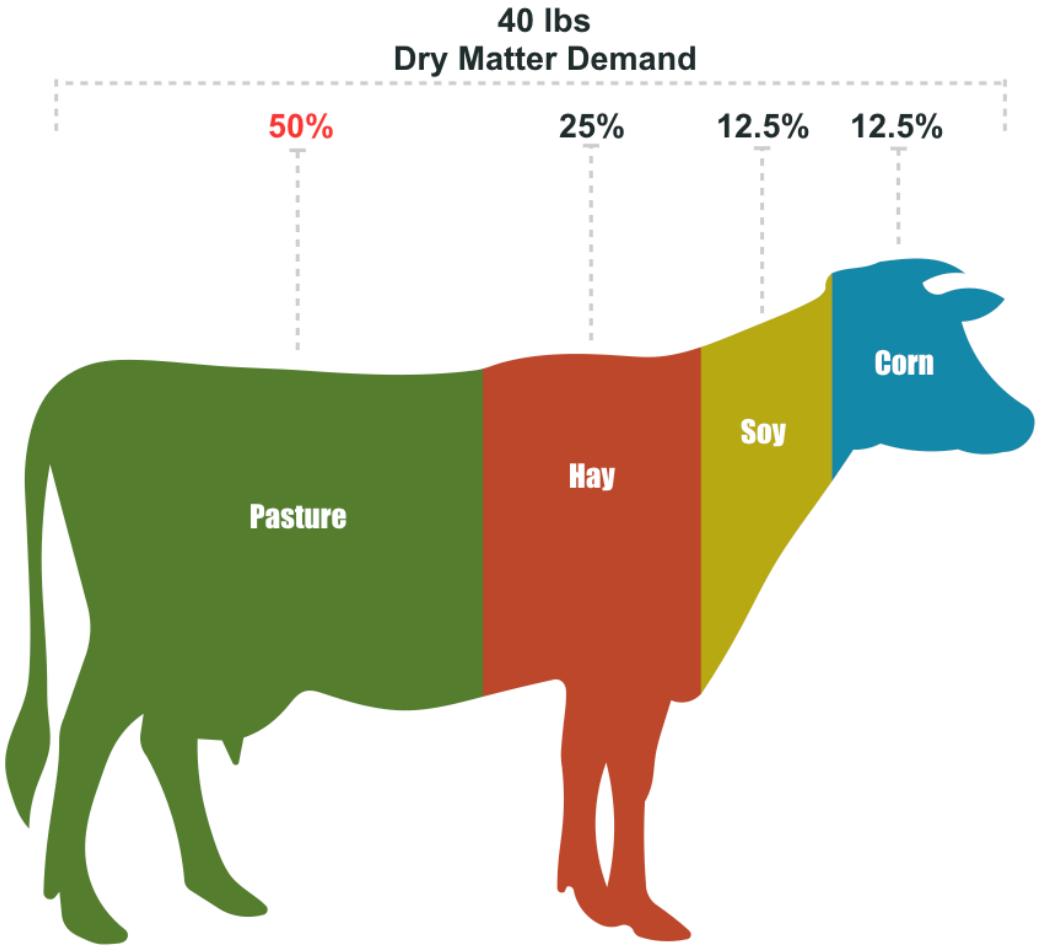
January | February | March | April | May | June | July | August | September | November | December

Spring Ration: 4/1 to 6/31

Summer Ration: 7/1 to 8/30



Spring Ration
37.5% from pasture
for 91 days

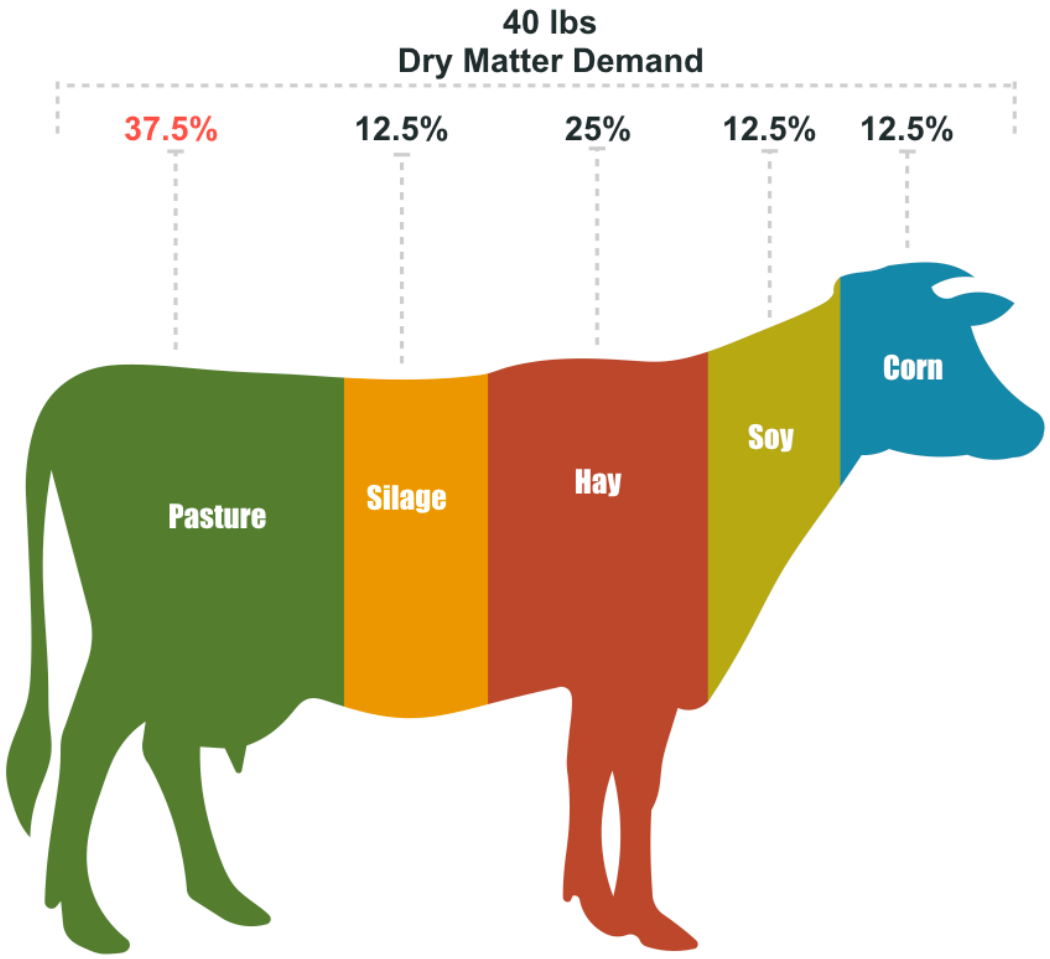


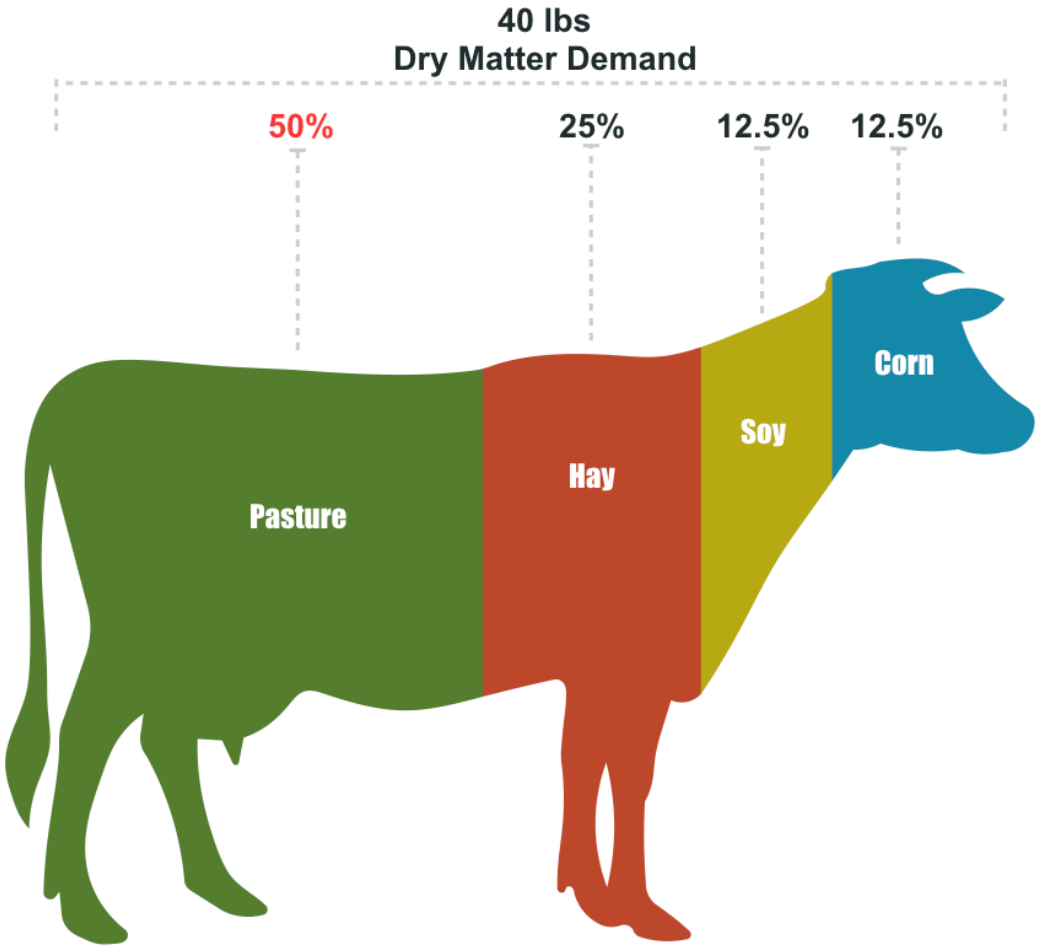
Summer Ration
50% from pasture
for 60 days

January | February | March | April | May | June | July | August | September | November | December

Spring Ration: 4/1 to 6/31

Summer Ration: 7/1 to 8/30



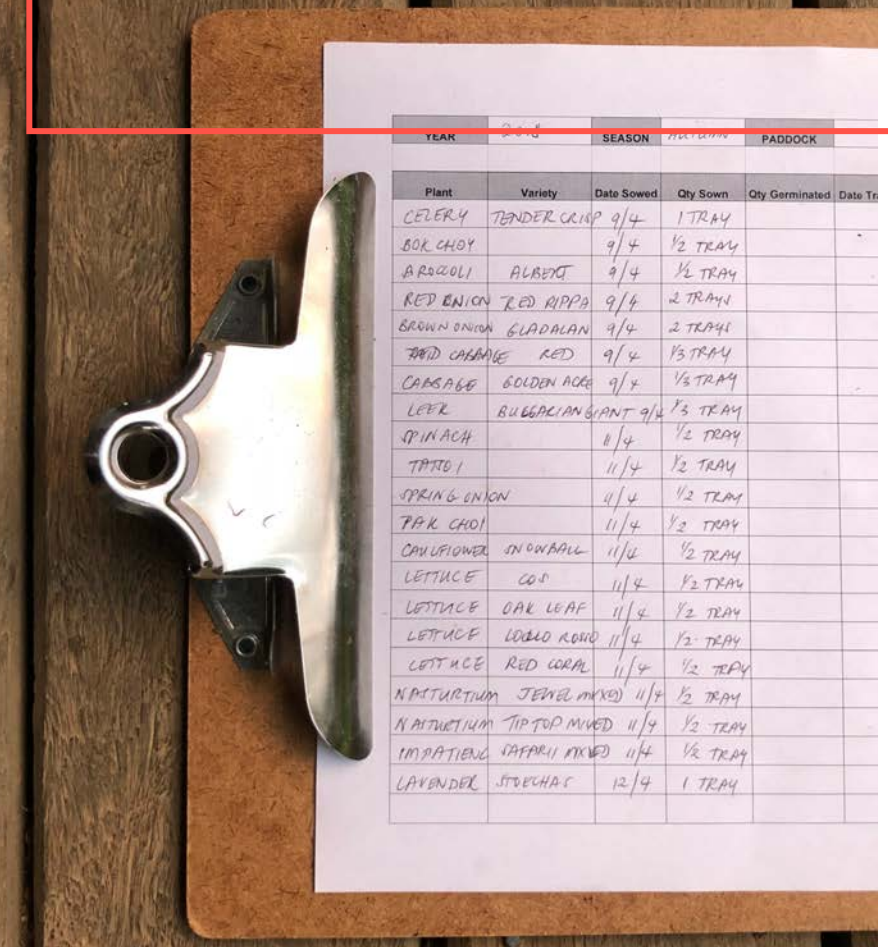


Spring Ration
37.5% from pasture
for 91 days

Weighted Average:
42% from pasture
For 151 days

Summer Ration
50% from pasture
for 60 days

RECORDS



THREE FUNDAMENTAL QUESTIONS

How long did animals graze?

How much did animals graze?

How much supplemental feed did they receive?

Grazing start and end dates

Maintain records of grazing start and end dates. You may need to record multiple start/end dates if non-contiguous.

Confinement

When animals (by group/ class) were confined and why.

Feed records

You can follow your Organic System Plan rations or
Record all rations and ration change dates or
Record feed fed every day/week/month.

Any recordkeeping system can be used as long as the inspector can understand and audit it.

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THE ORGANIC SYSTEM PLAN

Two components of the livestock OSP are critical to communicate what records should be available at inspection:

The **L3R** or Livestock Feed & Water for Ruminants

The **L6R** or Livestock Pasture Management Plan

REAL-LIFE EXAMPLE: "JAMM" FARMS

MN DAIRY

3.2 DRY MATTER DEMAND

1) Complete the table below or attach additional sheets with all of the information requested. You may use the Dry Matter Demand tables provided by the National Organic Program for estimating dry matter demand or another method.

☐ Sheet(s) attached

Production Group	Approximate Body Weight	Dry Matter Demand during Grazing Season
Milking cows	1200 Lbs	50 Lbs/ day
Young stock	700 Lbs	35 Lbs/ day
	Lbs	Lbs/ day
	Lbs	Lbs/ day
	Lbs	Lbs/ day

2) How have you determined the dry matter demand figure reported above? Mark at least one option below, or describe your source for obtaining DMD information.

☐ I/We use a known reference to estimate the dry matter demand. *Be prepared to show your references at inspections.*
☐ I/We utilize a nutritionist to determine dry matter demand
☐ I/We use rations fed during the non-grazing season (no pasture fed) to determine dry matter demand
☐ Other (describe):

I know roughly what a cow needs & took a percentage for the young stock

3) How do you ensure that your ruminant animals graze at least 30% of their dry matter demand from pasture over the grazing season? Mark at least one option below, or describe your method for calculating dry matter intake below.

☐ Animals are fed 100% pasture for at least 120 days per year. SKIP to section 4.3 below.
☒ I/We subtract the dry matter fed, excluding pasture, from dry matter demand (i.e. the "subtraction method").
☐ Other (describe):

REAL-LIFE EXAMPLE: "JAMM" FARMS MN DAIRY

Species of animals described by this form: Dairy cattle for milk & slaughter

3.1 FEED RATIONS

Please list rations for each production group (calves, milk cows, ewes, etc.) that you manage during the grazing and non-grazing seasons as indicated. If you feed different amounts or types of feed to the same group over time, list those rations separately. Rations may be provided on your own forms, spreadsheets, etc. so long as they include the information below and also identify the time of year when rations are fed (i.e. grazing season or non-grazing season). ☐ Rations attached.

1) Grazing Season: Describe feed rations for each production group during the **grazing season** as described above.

Production group	Feed type or ration component	Amount (per animal per day)
Milking + Dry cows (Example: Fresh cows)	Silage: Hay	As Fed lbs.: 10
	Grain mix: Grain	As Fed lbs.: 6
	Flax meal	As Fed lbs.
	Pasture: Pasture	As Fed lbs.: 24
Heifer & Steer 6 month +	Pasture	35 – 40
Finish Steer	Hay	30
	Grain	15
calves – 6 months	milk	16
	Hay	5

REAL-LIFE EXAMPLE: "JAMM" FARMS

MN DAIRY

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LIVESTOCK PASTURE MANAGEMENT PLAN

Electronic versions available at www.tilth.org | Page 1 of 2

Section L6

Operation Name: _____ **Date:** 8/9/17

► Please complete a separate pasture management plan for each species of animal to be certified. Note: You may submit your NRCS or other pasture plan if it answers all of the questions below.

NOP §205.240 The producer must, for all ruminant livestock on the operation, demonstrate a functioning management plan for pasture. During the grazing season, producers shall provide an average of no less than 30 percent of animals' dry matter intake from grazing for a minimum of 120 days on pasture.

Species of animals described by this form: Dairy cows for milk & slaughter

6.1 GRAZING SEASON

1) Please describe your operations grazing season, including the conditions that characterize the grazing season. Include approximate start and end dates of the grazing season and hours per day grazed for each period.

It starts around May 15 & ends about Oct 30. Cows are about 20 hours a day & young stock 24 hours. Good grazing in spring but if it gets dry in summer it slows down & we may have to supplement more other feed

6.2 PASTURE MANAGEMENT FOR RUMINANT PRODUCERS

1.) Ensure that your pasture maps include the location, size, individual identification and the locations of permanent fences, shade and water. ☐ Maps for all pastures include this information.

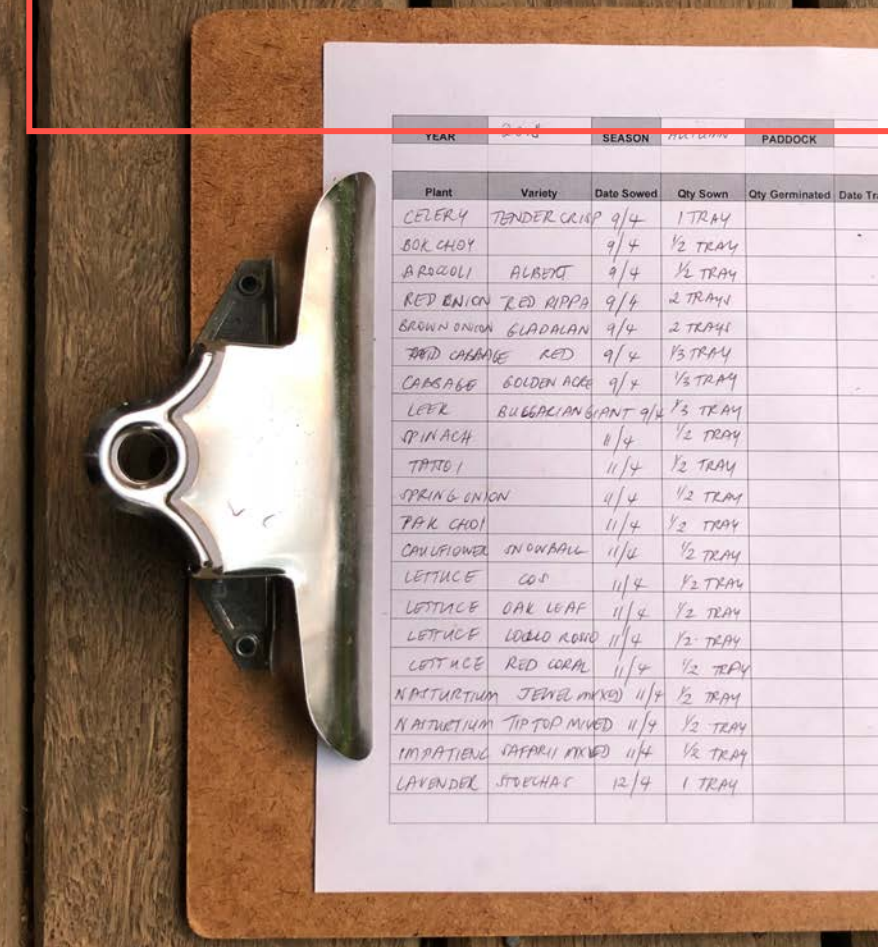
2) Please describe the types of pasture you have available for grazing organic animals (perennial, annual plantings, primary species, etc).

perennial pastures containing a variety of grasses & legumes such as rye grass, timothy, brome, juncgrass, white, red, & ladino clover, birdsfoot trefoil

3) What types of grazing methods do you use for grazing organic animals? Please describe typical size of paddocks, frequency of movement, duration of resting period for pastures, animal density per paddock, etc.

Practiced rotational grazing.

RECORDS



THREE FUNDAMENTAL QUESTIONS

How long did animals graze?

How much did animals graze?

How much supplemental feed did they receive?

Grazing start and end dates

Maintain records of grazing start and end dates. You may need to record multiple start/end dates if non-contiguous.

Confinement

When animals (by group/ class) were confined and why.

Feed records

You can follow your Organic System Plan rations or
Record all rations and ration change dates or
Record feed fed every day/week/month.

Any recordkeeping system can be used as long as the inspector can understand and audit it.

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RECORDS ARE FOR AUDITING

Illustration from Pixabay.com

RECORDS THAT ARE QUICK AND EFFICIENT TO AUDIT

Spreadsheets and templates
Showing each grazing period and corresponding feed.

Calendar/pocket calendar or app
Showing quantity of feeds fed, and when.

Dry Matter Demand (DMD) estimates
For each production group on pasture.

Specific grazing records
For each production group on pasture.

Ration sheets
From your nutritionist.

Example DMI/DMD Worksheets and Records

Documentation Forms for Organic Livestock Producers

Ruminant Dry Matter Intake (DMI)

Calculation Methods Description and Summary of DMI Calculations from Feed and Grazing for All Ruminant LIvestock in the Opration

Use this form to describe your methods for estimating Dry Matter Demand (DMD) and to summarize your calculations of Dry Matter Intake (DMI) percentages during the grazing season for each class of livestock.

Class of Ruminants (Please specify the breed if you raise multiple breeds.)	Number of Days in the Grazing Season (from grazing and feeding records) Must be >120 to be in compliance.	Grazing Season Average Percentage of DMI from Pasture/ Grazing (Calculations must be available for inspection.) Percentage of DMI from grazing must be > 30% to be in compliance.			
Young Stock over 6 Months of Age (calves, lambs, kids)		Average Weight lbs. per animal	DMD lbs./day	DM from feed fed	% DMI from Grazing
Slaughter Stock					
Young Stock / Heifers					
Bred Heifers					

ATTRA National Sustainable Agriculture Information Service

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Example DMI/DMD Worksheets and Records

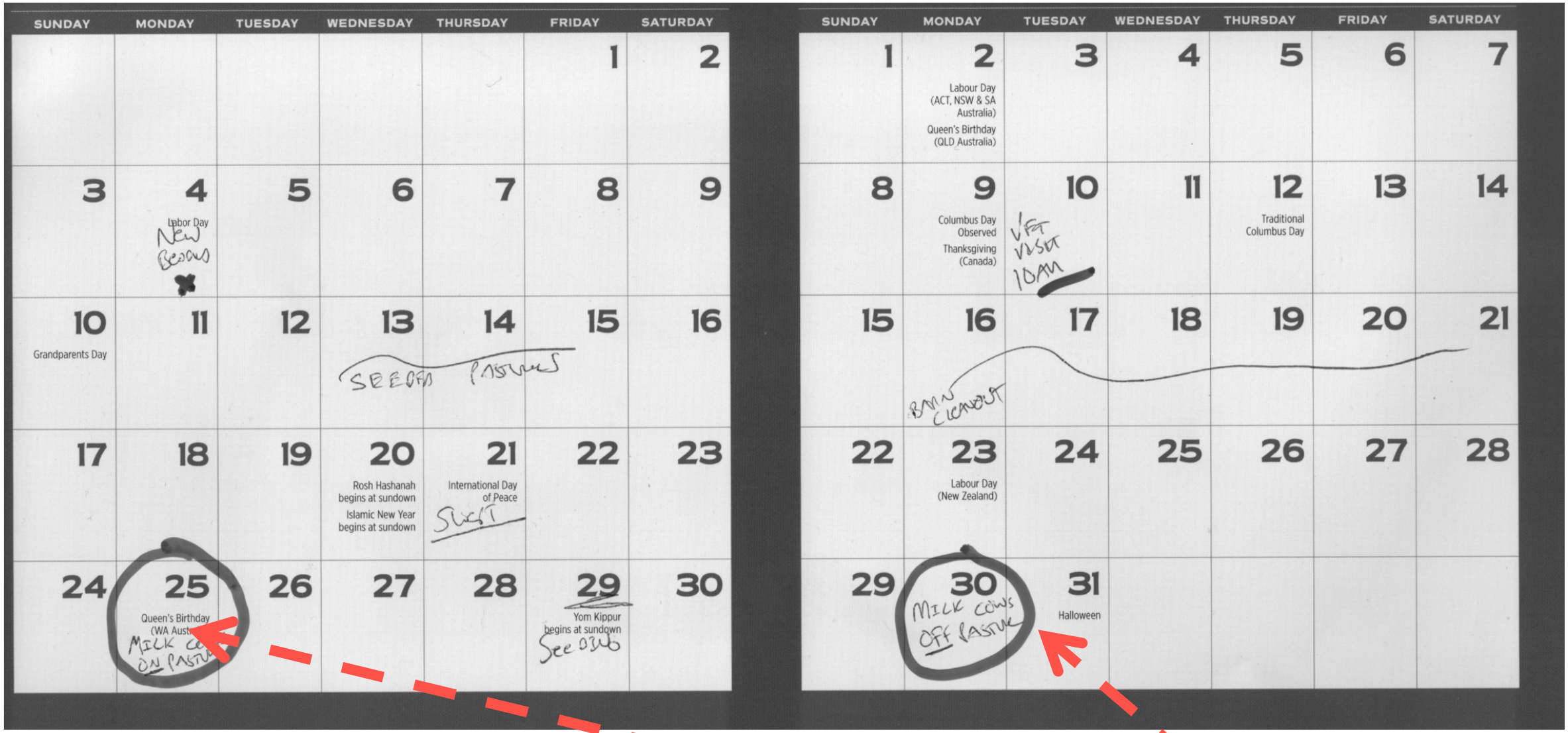
Documentation Forms for Organic Livestock Producers

Dry Matter Intake (DMI) Calculation Worksheet for Ruminants

Operation Name *Example*			**Date and Year** *January 1, 2011*		
Ration Name/Type *Early lactation corn, hay, pasture*			**Livestock Type** (species, breed, average weight) *Early-lactating Holstein cows, 1200 lbs.*		
Time Period This Ration Is Fed (during grazing season ONLY) Season: ☐ Winter ☐ Spring ☐ Summer ☐ Fall Number of Days: *30*			**Class of Animal** ☐ Calf/Lamb/Kid ☐ Heifer/Young Stock ☐ Lactating ☐ Dry ☐ Breeding ☐ Slaughter ☐ Other (specify):		
Number of Animals: *30*	**Dry Matter Demand** (in lbs.): *34 lbs/day*		**Source of DMD Values:** *NOP Dairy tables for large-breed milk cows* Source of Feed Dry Matter Values: *NRC Nutrient Required for Dairy Cattle*		
Feed Type (list all other than pasture)	**Average Weight Fed** (per animal per day in lbs.)	×	**Dry Matter Content of Feed Source as %**	=	**DMI Fed** (in lbs.)
Corn	*18*	×	*.89*	=	*16.02*
Hay	*15*	×	*.90*	=	*13.50*
		×		=	
Total DMI Fed from Non-pasture (sum of DMI lbs. of each type)					29.52

REAL-LIFE EXAMPLE: "JAMM" FARMS

MN DAIRY



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4 Labor Day	5	6	7	8	9
10 Grandparents Day	11	12	13	14	15	16
17	18	19	20 Rosh Hashanah begins at sundown; Islamic New Year begins at sundown	21 International Day of Peace	22	23
24	25 Queen's Birthday (WA Aust)	26	27	28	29 Yom Kippur begins at sundown	30

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1	2 Labour Day (ACT, NSW & SA Australia); Queen's Birthday (QLD Australia)	3	4	5	6	7
8	9 Columbus Day Observed; Thanksgiving (Canada)	10	11	12 Traditional Columbus Day	13	14
15	16	17	18	19	20	21
22	23 Labour Day (New Zealand)	24	25	26	27	28
29	30	31 Halloween				

Milk cows on pasture May 25th, off pasture October 30th

REAL-LIFE EXAMPLE:

"JAMM" FARMS

MN DAIRY

Spring Ration for 38 days

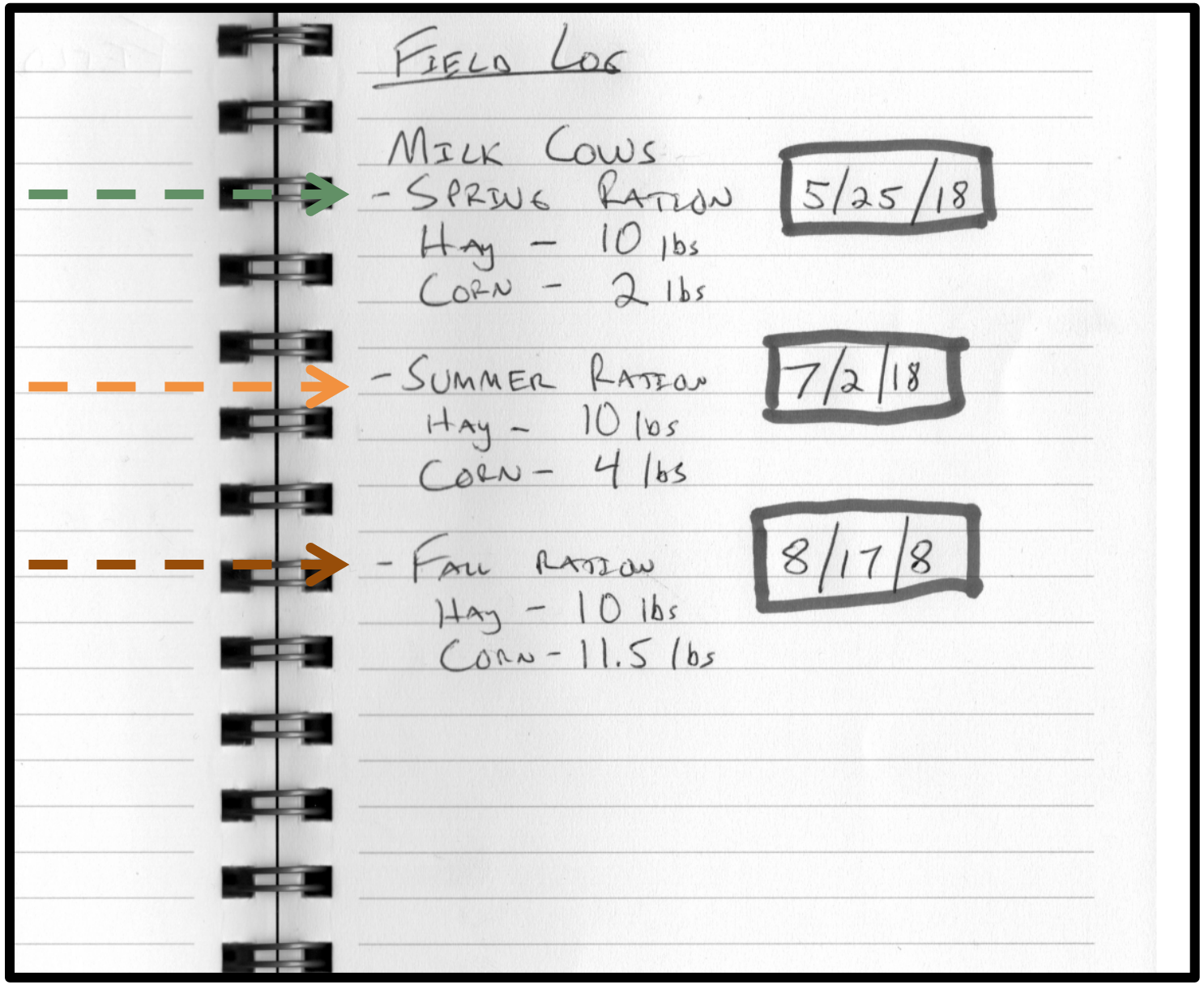
12 lbs supplemental feed

Summer Ration for 46 days

14 lbs supplemental feed

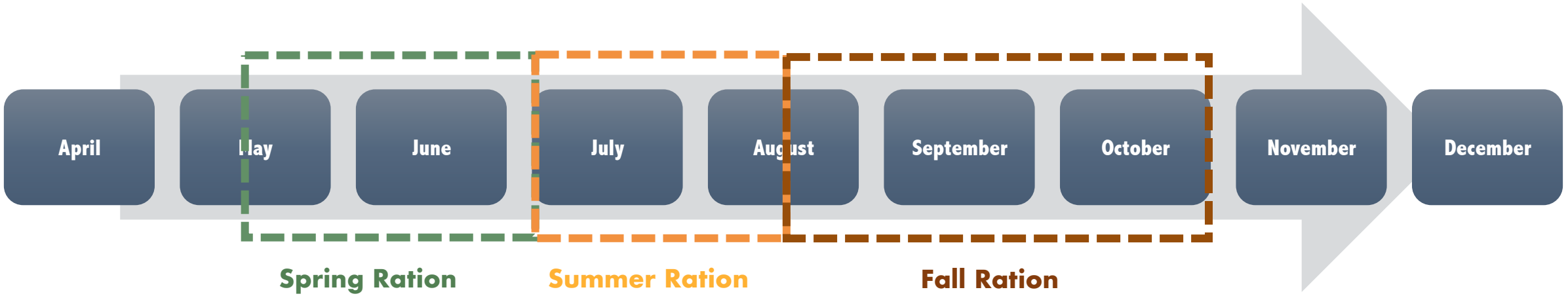
Fall Ration for 77 days

21.5 lbs supplemental feed



REAL-LIFE EXAMPLE: "JAMM" FARMS

MN DAIRY



Ration Name	Pasture DMI From Ration (lbs/day/head)	x	Number of days on ration	=	Pasture DMI (lbs) During Audit Period
Spring	38.00		35.0		74480.00
Summer	36.00		46.0		92736.00
Fall	28.50		77.0		122892.00
					0.00
					0.00
					0.00
					0.00
	% DMI from Pasture During Audit Period:				65.58%

Weighted average

REAL-LIFE EXAMPLE: "JAMM" FARMS MN DAIRY

Each animal needs 50 lbs DM/ day;

So with spring ration 50-38= 12 lbs feed from supplemental feed

Audit period DMI tons

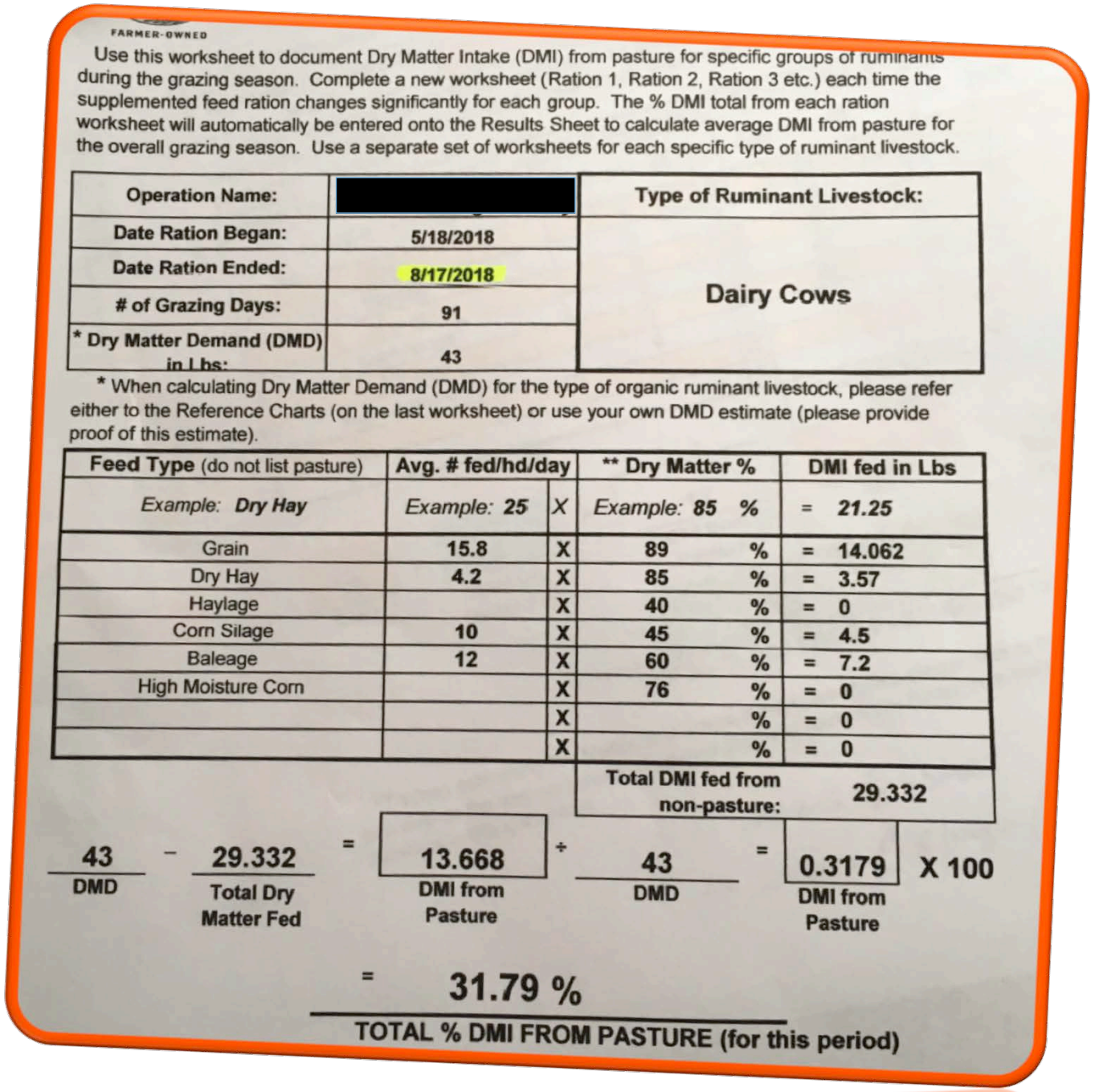
÷

Total Pasture DMI Tons

Date:	Mar 21 2019				
Class of Animal:	Milking Cows		Grazing Season (# of Days):		160
Other Class of Animal:			Grazing Season DMD (Tons):		224
Breed			Audit Period (# of Days):		158.0
Avg. # Of Animals in Group:	56		Audit Period DMD (Tons):		221.2
Average DMD (Lbs/Day/Head)	50				
Ration Name	Pasture DMI From Ration (lbs/day/head)	x	Number of days on ration	=	Pasture DMI (lbs) During Audit Period
Spring	38.00		35.0		74480.00
Summer	36.00		46.0		92736.00
Fall	28.50		77.0		122892.00
					0.00
					0.00
					0.00
					0.00
	Total Days Audited:		158.0		
	Total Pasture DMI (lbs) During Audit Period:				290108.00
	Total Pasture DMI (Tons) During Audit Period:				145.05
	% DMI from Pasture During Audit Period:				65.58%

Example of spreadsheet used to conduct audit

This audit was done for the grazing season in 2018 which at 2018 inspection was not complete.



FARMER-OWNED

Use this worksheet to document Dry Matter Intake (DMI) from pasture for specific groups of ruminants during the grazing season. Complete a new worksheet (Ration 1, Ration 2, Ration 3 etc.) each time the supplemented feed ration changes significantly for each group. The % DMI total from each ration worksheet will automatically be entered onto the Results Sheet to calculate average DMI from pasture for the overall grazing season. Use a separate set of worksheets for each specific type of ruminant livestock.

Operation Name:	[redacted]	Type of Ruminant Livestock:
Date Ration Began:	5/18/2018	Dairy Cows
Date Ration Ended:	8/17/2018	
# of Grazing Days:	91	
* Dry Matter Demand (DMD) in Lbs:	43	

* When calculating Dry Matter Demand (DMD) for the type of organic ruminant livestock, please refer either to the Reference Charts (on the last worksheet) or use your own DMD estimate (please provide proof of this estimate).

Feed Type (do not list pasture)	Avg. # fed/hd/day		** Dry Matter %	DMI fed in Lbs
Example: Dry Hay	*Example: 25*	*X*	*Example: 85 %*	= *21.25*
Grain	15.8	X	89 %	= 14.062
Dry Hay	4.2	X	85 %	= 3.57
Haylage		X	40 %	= 0
Corn Silage	10	X	45 %	= 4.5
Baleage	12	X	60 %	= 7.2
High Moisture Corn		X	76 %	= 0
		X	%	= 0
		X	%	= 0
			Total DMI fed from non-pasture:	29.332

43 (DMD) − 29.332 (Total Dry Matter Fed) = 13.668 (DMI from Pasture) ÷ 43 (DMD) = 0.3179 (DMI from Pasture) X 100

= 31.79 %

TOTAL % DMI FROM PASTURE (for this period)

RECORDS ARE FOR AUDITING

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Successful Farming

THER MACHINERY CROPS TECHNOLOGY FARM MANAGEMENT LIVESTOCK FAMILY

Home › Family › Health and Safety

HOW TO HELP YOUR STRESSED-OUT FARM NEIGHBORS

By Austin Anderson
4/17/2019

Maybe it's getting agitated over something that seems small. Or possibly not going to the diner for their regular cup of coffee. Both can be one of the many different signs of a stressed-out farm neighbor.

Other signs can come from the appearance of the farm, according to Kate Downes, the outreach director for Cornell University's New York Farm Net. If a farm looks to be unusually run-down, or reversely, unusually well kept, it could be coming

RECORDS ARE FOR AUDITING

Illustration from Pixabay.com

INCOMPLETE RECORDS CAN SLOW THE INSPECTION

Incomplete record examples:

A shoebox showing feeds of all types purchased over the last five years.

Some harvest records showing bales/ silage harvested with no estimate of weight/ Dry Matter quantity of those feeds; need weights of feed and DM of feeds to be auditable.

RECORDS ARE FOR AUDITING

Illustration from Pixabay.com

INCOMPLETE RECORDS CAN SLOW THE INSPECTION

Incomplete record examples:

Records that say 'buckets' or 'cartloads' instead of weights- need weights to be audited.

A few scribbles on a pocket calendar for when one group went to pasture and came off, but no records for youngstock over 6 months or dry cow groups. *All classes of ruminants over 6 months need grazing/ feeding records.*

Example DMI/DMD Worksheets and Records

Documentation Forms for Organic Livestock Producers

Non-Ruminants: Temporary Confinement/Outdoor Access Restriction Record

Use this form to describe the circumstances and reasons for actual temporary confinement of animals. Indicate which animals are confined and the duration and place of confinement.

Date(s) and Length of Time	Animals (type/class or specific animal ID)	Location and Reason/Circumstances of Temporary Confinement

Not recording days off pasture and the reason can impact compliance

Even a few days off pasture due to allowed reasons outline in the rule can impact compliance.

(c) The producer of an organic livestock operation may, in addition to the times permitted under §205.239(b), temporarily deny a ruminant animal pasture or outdoor access under the following conditions:

(1) One week at the end of a lactation for dry off (for denial of access to pasture only), three weeks prior to parturition (birthing), parturition, and up to one week after parturition;

(2) In the case of newborn dairy cattle for up to six months, after which they must be on pasture during the grazing season and may no longer be individually housed…

(c) The producer of an organic livestock operation may, in addition to the times permitted under §205.239(b), temporarily deny a ruminant animal pasture or outdoor access under the following conditions:

(3) In the case of fiber bearing animals, for short periods for shearing; and

(4) In the case of dairy animals, for short periods daily for milking. ...Milking frequencies or duration practices cannot be used to deny dairy animals pasture.

(c) The producer of an organic livestock operation may, in addition to the times permitted under §205.239(b), temporarily deny a ruminant animal pasture or outdoor access under the following conditions:

(d) ...During the finishing period, ruminant slaughter stock shall be exempt from the minimum 30 percent DMI requirement from grazing....The finishing period shall not exceed one-fifth (1/5) of the animal's total life or 120 days, whichever is shorter.

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PASTURE: A FUNDEMENTAL NATURAL RESOURCE

Photo by Mae Petrehn

Pastureland is a farms' best tool for providing ecological services.

Certifiers need to efficiently audit the use of pasture; without being overly burdensome to farmers.

Organic production, is defined as " *A production system that is managed…by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.* "

The Organic System Plan: Why it Matters for Pasture and Grazing Compliance

A whirlwind overview of **Pasture Access & Recordkeeping Requirements** in the Rule

Three Fundamental Questions your inspector will want to know

Three Fundamental Concepts: Grazing Season, Dry Matter Demand and Dry Matter Intake

Jamm Farm: Recordkeeping Tips and Examples from real life

Understanding **DMI/ Grazing Audits**

Avoiding Compliance Concerns with Complete Records

THANKS!

Questions?