Growing the Next Generation of Farmers Through Grazing Cover Crops

History

- Century Old Farm
  - Established 1876
  - 145 years
- 5th Generation
- Turkeys Since 1958
- Organic Turkeys 2001
- Cow/Calf (180 head)
- Row Crops
  - Con. 380ac
  - Org. 520ac

Background

- Luther College
  - Environmental Studies
  - 2014 Graduate

Location

- Northeast Iowa
  - Driftless Region
  - NW of Decorah IA.
- River Bottom Ground
  - Subject to Flooding
- Bluffland Ground
  - Wildlife Damage

How We Started Grazing

- Hated Silos
  - Inefficient
  - Labor Intensive
- Losing Money on Cattle
  - Winter Feeding

Education

- Youtube Videos
  - Erin Silva
  - Gabe Brown
  - Jim Gerrish
- Books
  - Soil Health

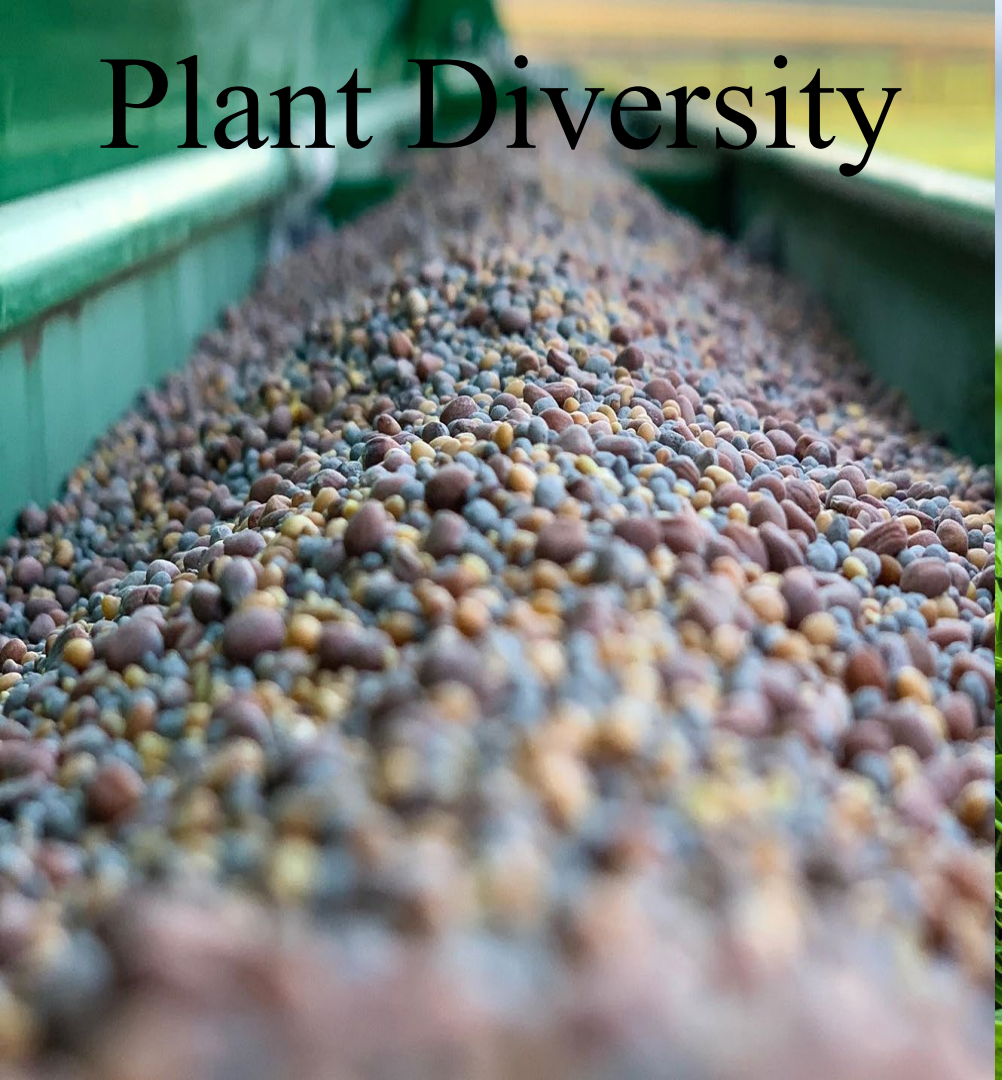
Education

- NRCS
  - Contracts (CSP, EQIP)
- Diamond T Ag (Full Circle Nutrition)
  - Compost
  - Biological Products
- Prairie Creek Seed
  - Cover Crop Seed

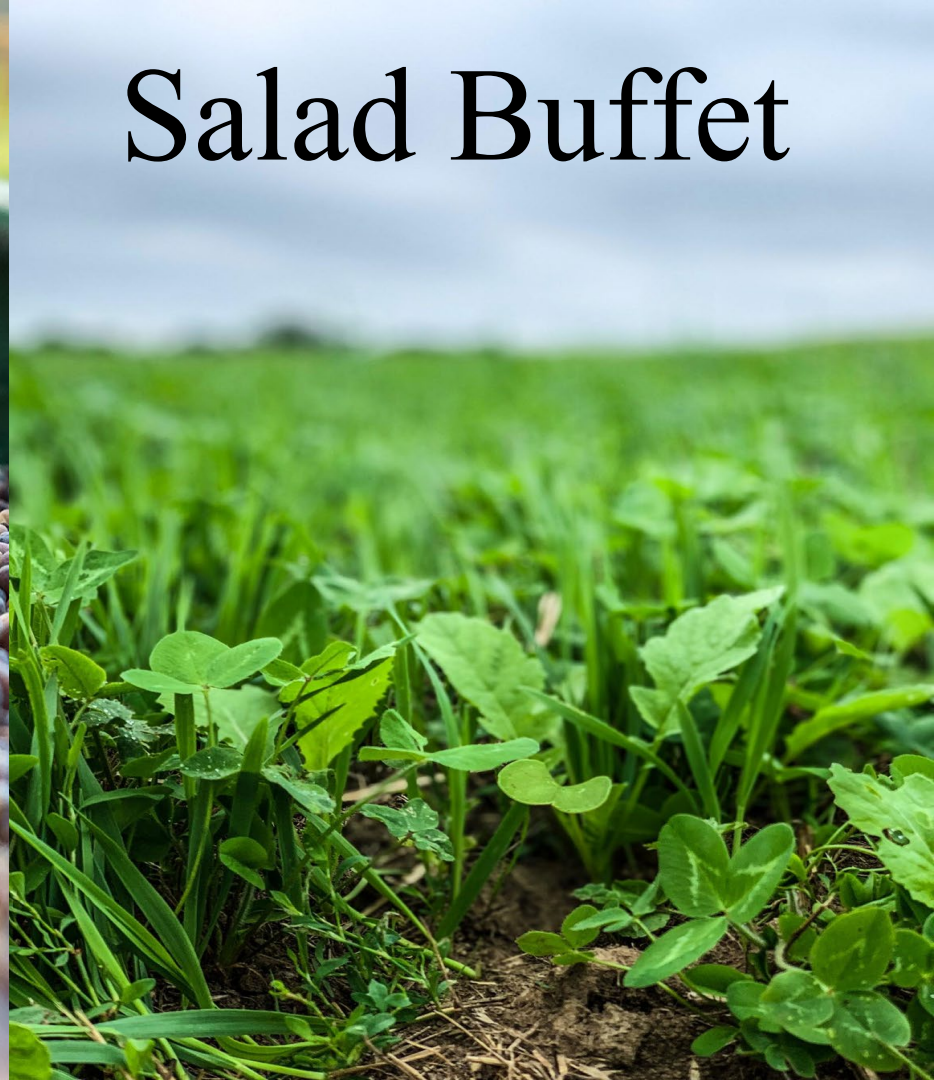
Why We Graze Covers

- Increase Soil & Animal Health
- Increase Plant Diversity
- Animal Behavior
- Reduce Winter Feed Expenses
- Increased Yield

Plant Diversity



Salad Buffet



FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.
Arcadia, WI 54612
Telephone 608-323-2123

Report date: 11/20/2019
Sample number: 001-1911-050870

ACCOUNT # 121 (0)
SAMPLED BY: Farmers Win Coop

TO: Farmers Win Coop
Box 402
824 E Water St
Decorah , IA 52101

SAMPLED FOR: JEWELL FARMS

PRODUCT: HF4A2 West (1 - N1)

Moisture	%	74.86%	
Dry Matter	%	25.14%	Mixed hay statistics provided for comparison.

		Dry Basis	Median	90% Range
Crude Protein	%DM	13.78%	19.89	13.73 - 23.91
ADF	%DM	35.28%	32.66	25.78 - 41.61
aNDF	%DM	49.46%	41.14	32.31 - 55.58
AD-ICP	%DM	0.69%	1.43	1.06 - 2.09
Protein Sol.	%CP	37.81%	36.28	26.07 - 46.05
Starch	%DM	1.85%	2.03	0.29 - 3.75
Calcium	%DM	0.73%	1.47	0.93 - 1.81
Phosphorus	%DM	0.31%	0.31	0.24 - 0.39
Magnesium	%DM	0.24%	0.31	0.23 - 0.40
Potassium	%DM	2.88%	2.58	1.76 - 3.37
Sulfur	%DM	0.16%	0.25	0.16 - 0.33
Sugar (ESC)	%DM	9.00%	6.35	3.04 - 9.57
Sugar (WSC)	%DM	9.51%	7.34	3.67 - 10.53

Adjusted Crude Protein	%	13.78%
NFC	%	25.12%
RFV		115.70

		ADF
TDN 1x	%DM	61.42
Nel 3x	Mcal/cwt	63.02
Neg	Mcal/cwt	28.87
Nem	Mcal/cwt	54.46

----------BILLING INFORMATION----------

SAMPLED BY: Farmers Win Coop
SAMPLED FOR: JEWELL FARMS
PRODUCT: HF4A2 West

Reference: 0628652
Date: 11/20/2019
Sample: 001-1911-050870

$ 17.00 *N-1 NIR BASIC
$ 17.00 TOTAL

Seeded- 8/5/19

3 Weeks Apart

FEED AND FORAGE REPORT

DAIRYLAND LABORATORIES, INC.
Arcadia, WI 54612
Telephone 608-323-2123

Report date: 11/20/2019
Sample number: 001-1911-050869

ACCOUNT # 121 (0)
SAMPLED BY: Farmers Win Coop

TO: Farmers Win Coop
Box 402
824 E Water St
Decorah , IA 52101

SAMPLED FOR: JEWELL FARMS

PRODUCT: HF4A2 East (7 - N1)

Moisture	%	60.10%	
Dry Matter	%	39.90%	Sorghum/sudan silage statistics provided for comparison.
pH		6.51	

		Dry Basis	Median	90% Range
Crude Protein	%DM	11.20%	9.70	5.06 - 16.00
ADF	%DM	41.13%	38.71	30.82 - 47.36
aNDF	%DM	65.39%	57.63	45.66 - 68.15
AD-ICP	%DM	1.18%	1.06	0.60 - 1.63
Protein Sol.	%CP	20.80%	43.76	21.38 - 61.00
Starch	%DM	0.10%	1.91	0.12 - 21.48
Calcium	%DM	0.27%	0.42	0.23 - 0.77
Phosphorus	%DM	0.22%	0.27	0.17 - 0.40
Magnesium	%DM	0.20%	0.23	0.14 - 0.38
Potassium	%DM	1.37%	2.04	1.01 - 3.48
Sulfur	%DM	0.15%	0.13	0.09 - 0.22
Sugar (ESC)	%DM	2.49%	1.70	0.31 - 3.87
Sugar (WSC)	%DM	8.54%	5.15	1.50 - 12.73

Adjusted Crude Protein	%	11.10%
NFC	%	10.96%
RFV		81.10

		ADF
TDN 1x	%DM	63.45
Nel 3x	Mcal/cwt	65.21
Neg	Mcal/cwt	25.74
Nem	Mcal/cwt	51.07

----------BILLING INFORMATION----------

SAMPLED BY: Farmers Win Coop
SAMPLED FOR: JEWELL FARMS
PRODUCT: HF4A2 East

Reference: 0628489
Date: 11/20/2019
Sample: 001-1911-050869

$ 17.00 *N-1 NIR BASIC
$ 17.00 TOTAL

Seeded- 7/14/19

Aug. 15th
(4.5 weeks after seeding)
(1.5 weeks after seeding)

Sep. 15th
(8.5 weeks after seeding)
(5.5 weeks after seeding)

Reduce Winter Feed Expenses

Stockpiled Forage (HF4A2) 2019 Winter Grazing CC

Home Farm 4A2- 27 Acres (18 Days of Grazing Stockpiled Cover Crops)
Livestock- 151 Cows, 122 Calves, 5 Bulls
Avg. Weights- ~1200lb Cows, 200lb Calves, 1600lb Bulls
Total Cow Equivalence- 151+20+7= 178 Cows
Avg. Dry Matter Intake- 35lbs/cow (Cold Weather and Lactating)
Grazing days- 11/14 - 11/20 (7days), 12/2 - 12/12 (11 Days)= 18 days Total

Feed Price
Oat Bale Value- $120/Ton ($66/Bale) Av. 1100lb Bales
Hay Bale- $180/Ton ($99/Bale) Av. 1100lb Bales
Silage Value/Day- Tons / Corn Market / 10
2.01 / 3.80 / 10 = $76.38/Day

Labor- 30 Minutes/Day **(Wash!!!)**

Strip Grazing-(18 Days Total)~1.65Ac/Day (27 Total Ac) 9 Oat Bales use to supplement dry matter intake

Manure Spreading- 52 4/A (13ac)

Disking- 831.6 15.4/A x2

Seed- 1,350 50/A

Seeding- 495.45 18.35/A

Bales- 594 $66/Bale (9 Oat Bales)

Cattle Expense= -1,958.52
Next Crop Expense= -1,364.52

Total Expense= -$3,323.05

Feeding Silage/Hay- (18 Days Total) (4,030lb Silage, 2,200lbs Hay (2 bales) = 6,230lbs Dry Matter
Silage Value/Day – 2.01 Tons / $3.80 Corn market / 10 = $76.38/Day
18 Days = $1,374.84

Hay Value/Day – 2 Bales/Day

Bales- $3,564 $99/Bale (36 Bales total)

Total Expenses= -$4,938.84

Grazing Covers Vs Silage/Hay- Total Savings= $1,615.79 $90/Day Total Expenses

Total Savings= $2,980.32 $165.57/Day Cattle Expenses

Increase Yield

- 2017 Org. Field Avg. 140bpa
- 2019 Org. Field Avg. 173bpa

How We Graze Winter Stockpiled Cover Crops

Strip Grazing

- Increase Grazing Days

Strip Grazing

- Increase Competition
- Better Consumption

Strip Grazing

- Even Distribution of Manure

Strip Grazing

- Snow Compaction

Strip Grazing

- Solar Wicking

Strip Grazing

- Wet Weather

Strip Grazing

- Eat Most Palatable First
- Will Have to Supplement

PURINA®
WIND & RAIN®
ORM® ALL SEASON 7.5 COMPLETE
MINERAL FEED FOR CATTLE ON PASTURE

3000410-106

GUARANTEED ANALYSIS

Calcium (Ca) (Min)	13.50 %
Calcium (Ca) (Max)	16.20 %
Phosphorus (P) (Min)	7.5 %
Salt (NaCl) (Min)	18.00 %
Salt (NaCl) (Max)	21.60 %
Magnesium (Mg) (Min)	1.0 %
Potassium (K) (Min)	1.00 %
Manganese (Mn) (Min)	3600 ppm
Cobalt (Co) (Min)	12 ppm
Copper (Cu) (Min)	1200 ppm
Iodine (I) (Min)	60 ppm
Selenium (Se) (Min)	27.00 ppm
Zinc (Zn) (Min)	3600 ppm
Vitamin A (Min)	300000 IU/LB
Vitamin D3 (Min)	30000 IU/LB
Vitamin E (Min)	300 IU/LB

INGREDIENTS

Calcium Carbonate, Salt, Dicalcium Phosphate, Monocalcium Phosphate, Processed Grain By-Products, Vegetable Oil, Plant Protein Products, Potassium Chloride, Magnesium Oxide, Sodium Selenite, Mineral Oil, Molasses Products, Lignin Sulfonate, Colored with Iron Oxide, Vitamin D3 Supplement, Vitamin E Supplement, Vitamin A Supplement, Natural Flavor, Artificial Flavor, Ethoxyquin (a Preservative), Manganese Sulfate, Zinc Sulfate, Basic Copper Chloride, Ethylenediamine Dihydroiodide, Cobalt Carbonate.

311J-FRE-D 7

DIRECTIONS

Feed this product free choice to cattle receiving rations composed largely of grass hay or to cattle grazing [illegible] on grass pasture. Optimum intake is 4 ounces per head daily.

IMPORTANT

Follow these management practices:
1. Cattle receiving phosphorus deficient diets may over-consume this product when it is first offered.

See Reverse Side For Precautionary Statements

8 04273 03373 0

MANUFACTURED BY
Purina Animal Nutrition LLC
Arden Hills, MN 55126

Feed Questions? Please Call 1-800-227-8941
Net Weight 50 lb (22.67 kg)

PURINA® WIND & RAIN® STORM® ALL SEASON 7.5 COMPLETE

311J

Supplementation


Equipment


GALLAGHER
M1800i
14A 8.0W
GALLAGHER
ZONE
NAME
A
kV
1
2
3
4
5
6
REFERENCE

Prairie Creek Seed

As of: 7/3/2020

(877) 754-4019 PrairieCreekSeed.com

Cover Crop Calculator Tool

Name: Jewel Large Seed

Tract Total Acres: 87 **NRCS (Y/N)** N **Organic:** Y (Y/N)

Seeding Method: 1 *1 = Drilled / 2=Broadcast Seeding / 3= Aerial Application*

Seeding Window: **Termination Method:**

Fertilizer Applied: **Primary Crop Planted:**

Cover Crop Mixture

Cover Crop Species	Full Seed Rate #/ac	Acres	% Full Rate	% of Blend	Rate lb/ac	Total lbs	Actual lbs	Crop Type	Seeding Depth (inches)	Seeds per Sq/Ft	Retail Cost per unit	Retail Cost (total)
Pea, Winter Icicle	50	87	5%	25%	2.5	217.5	250	CB	1.00-1.50	0.23	$ 0.45	112.50
Mung Beans	25	87	10%	25%	2.5	217.5	250	WB	0.50-0.76	1.15	$ 1.79	447.50
Sunflower VNS	7	87	5%	5%	0.35	30.45	50	WB	.50-1.0	0.06	$ 1.03	51.50
Sudangrass, SD3010 UT	35	87	14%	45%	4.9	426.3	450	WG	1.00-2.00	3.94	$ 1.65	741.60
				100%		892	1,000					

Estimated Cost (Bagged-total/acre): $ 16.36 1.42 /LB **Estimated seeding rate (lbs/acre):** 11.5

Estimated Cost (Bulk-total/acre): $ 16.13 1.40 /LB **Planned Seeding Depth (inches):**

TOTAL PROJECT SEED COST(Bagged Seed): $ 1,423.10 *(Check one)*

TOTAL PROJECT SEED COST(Bulk Bags Seed): $ 1,403.10 *(Check one)*

Notes:

Seeded After Oats

Planned by: Pat Troendle **Date:** 7/17/2020

1. Some pricing may be estimates and are subject to change.

Prairie Creek Seed

As of: 7/3/2020

(877) 754-4019 PrairieCreekSeed.com

Cover Crop Calculator Tool

Name: Jewel Small Seed

Tract Total Acres: 87 **NRCS (Y/N)** N **Organic:** Y (Y/N)

Seeding Method: 1 *1 = Drilled / 2=Broadcast Seeding / 3= Aerial Application*

Seeding Window: **Termination Method:**

Fertilizer Applied: **Primary Crop Planted:**

Cover Crop Mixture

Cover Crop Species	Full Seed Rate #/ac	Acres	% Full Rate	% of Blend	Rate lb/ac	Total lbs	Actual lbs	Crop Type	Seeding Depth (inches)	Seeds per Sq/Ft	Retail Cost per unit	Retail Cost (total)
Turnip, Barkant	2	87	10%	3%	0.2	17.4	25	CB	0.25-0.50	0.89	$ 2.12	52.94
Rapeseed, Barsica	4	87	5%	3%	0.2	17.4	25	CB	0.25-0.50	0.72	$ 1.59	39.81
Radish, Pick Axe	12	87	8%	13%	0.96	83.52	100	CB	0.50-0.75	0.75	$ 1.68	168.00
Clover, Medium Red	10	87	40%	47%	4	348	350	CB	0.25-0.49	24.99	$ 2.06	721.00
Millet, Pearl M5017 UT	23	87	10%	33%	2.3	200.1	250	WG	0.50 1.00	4.35	$ 2.02	505.00
				100%		666	750					

Estimated Cost (Bagged-total/acre): $ 17.69 2.05 /LB **Estimated seeding rate (lbs/acre):** 8.6

Estimated Cost (Bulk-total/acre): $ 17.52 2.03 /LB **Planned Seeding Depth (inches):**

TOTAL PROJECT SEED COST(Bagged Seed): $ 1,539.25 *(Check one)*

TOTAL PROJECT SEED COST(Bulk Bags Seed): $ 1,524.25 *(Check one)*

Notes:

Seeded after oats

Planned by: Pat Troendle **Date:** 7/17/2020

1. Some pricing may be estimates and are subject to change.


can-am
OUTLANDER
570

Layout

Paddock Size

- Trial & Error
- Formula

  1 sq ft wet weight = 100gms

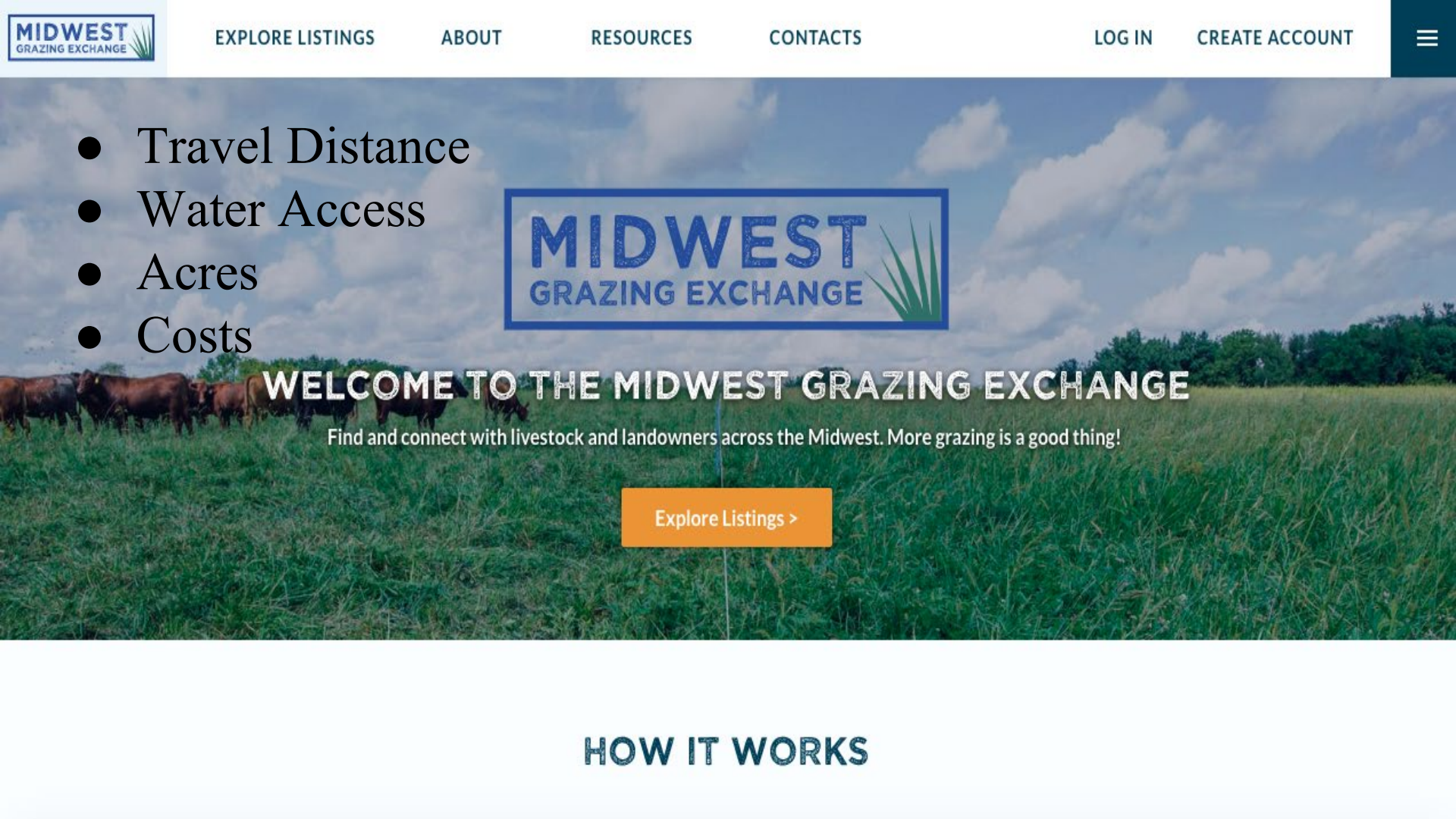
  100gms x .2(20% DM) = 20 gms of DM

  43560 x 20 = 871200 gms or 871 kg

  871 x 2.2 = 1916 lbs of DM/ac

Whole Field

- Less Grazing Days
- Less Risk for Mudding
  - Mud by Water Tank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Acres
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GRAZING EXCHANGE
WELCOME TO THE MIDWEST GRAZING EXCHANGE
Find and connect with livestock and landowners across the Midwest. More grazing is a good thing!
Explore Listings >
HOW IT WORKS

Resources

- Gabe Brown
  - Youtube
  - “Dirt to Soil”
- Jim Gerrish
  - Youtube (Strip grazing)
  - “Kick the Hay Habit”

Robert Jewell

Phone- 563-379-8622
Email- jewero01@luther.edu