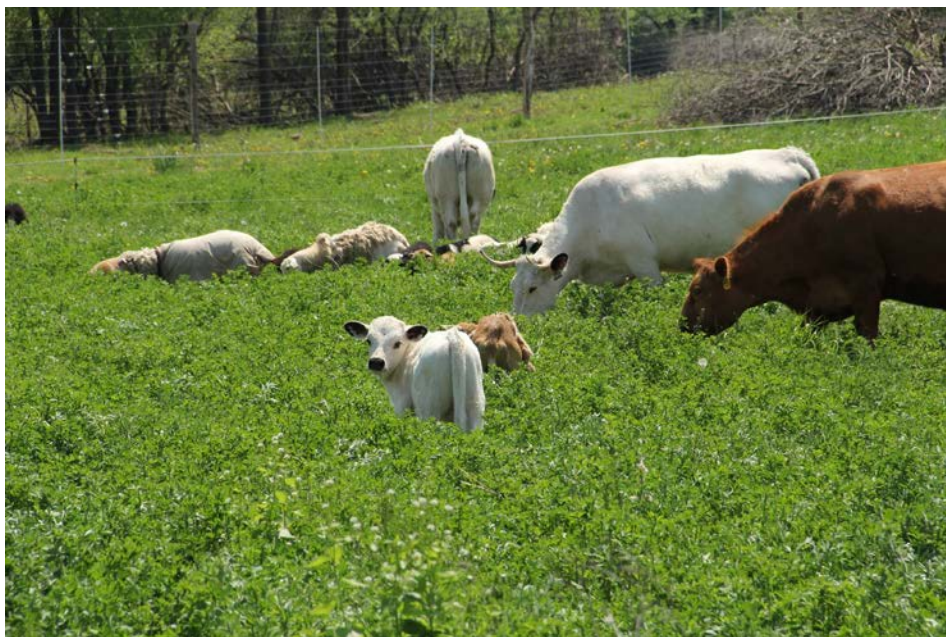


- MAY 30, 2018 -

Develop a Forage Chain For Your Livestock



- PRESENTED BY -

Kent Solberg
Sustainable Farming
Association

- HOSTED BY -

FACT

Food Animal Concerns Trust

Introductions



Food Animal Concerns Trust (FACT) is a national nonprofit organization that advocates for the safe and humane production of meat, milk, and eggs.



Larissa McKenna

Humane Farming Program Director

Email: lmckenna@foodanimalconcerns.org

Website: foodanimalconcernstrust.org/farmer

FACT's services for livestock and poultry farmers include:

- **Fund-a-Farmer Grants**
- **Conference scholarships**
- **Free webinars**
- **Humane Farming Mentorship Program**

Our Presenter



Kent Solberg

Livestock & Grazing Specialist
Sustainable Farming Association



Building A Season-Long Forage Chain

Kent Solberg

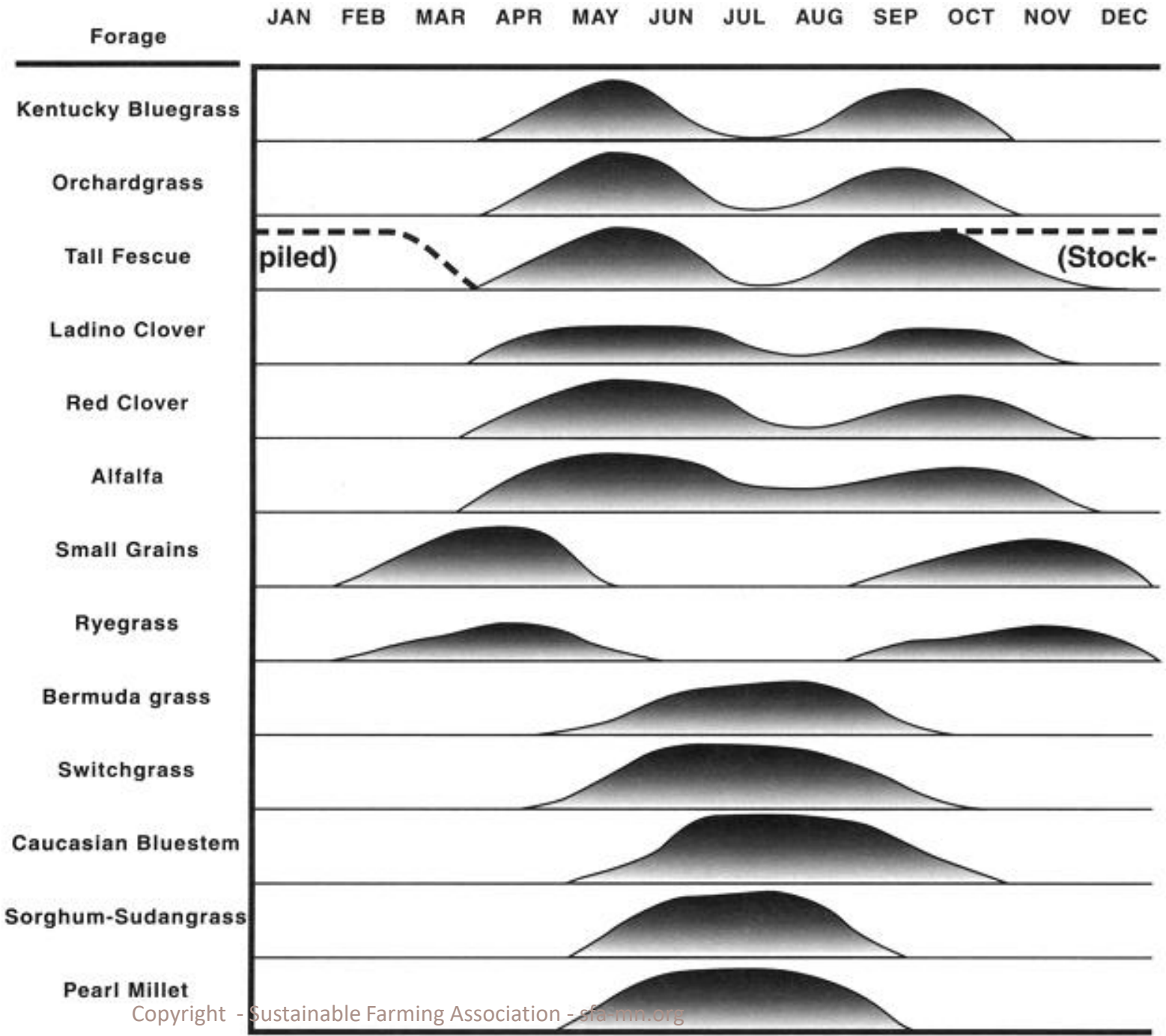
Livestock and Grazing Specialist
Sustainable Farming Association

What is a Forage Chain?

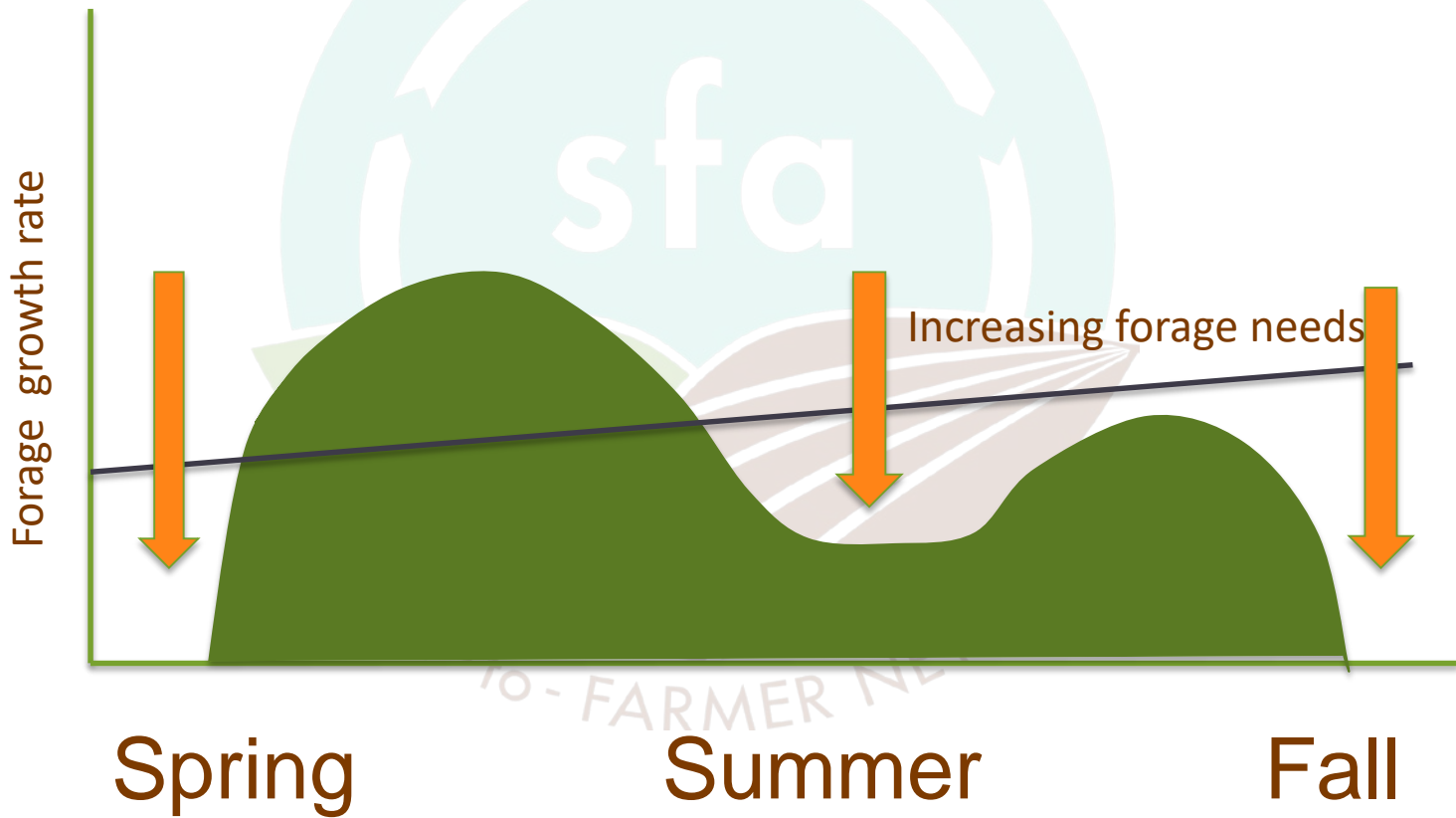
- A systems approach to forage production that maximizes grazing opportunities.
- Designed based on an individual farm's goals and resources.
- Often utilizes combination of annuals and perennials

Why a Forage Chain

- Grazing most economical means of harvesting forage.
- Stored forages (hay, baleage, silage) greatest annual cost to most livestock operations.
- Aids producer in meeting organic certification requirements (120 days 30% DMI from grazing).
- Managed grazing key component of building soil health.
- Pastures have seasonally variable growth



Cool Season Pasture Growth Curve



Spring strategies



Cereal rye, triticale , hairy vetch

Have a termination plan

Strategies For “Summer Slump”

- Managed Rotational Grazing (“Flex grazing”)
 - Rest period allows for “stockpiling” forages
 - Rest period based on grass recovery not calendar.
 - Higher forage production and utilization



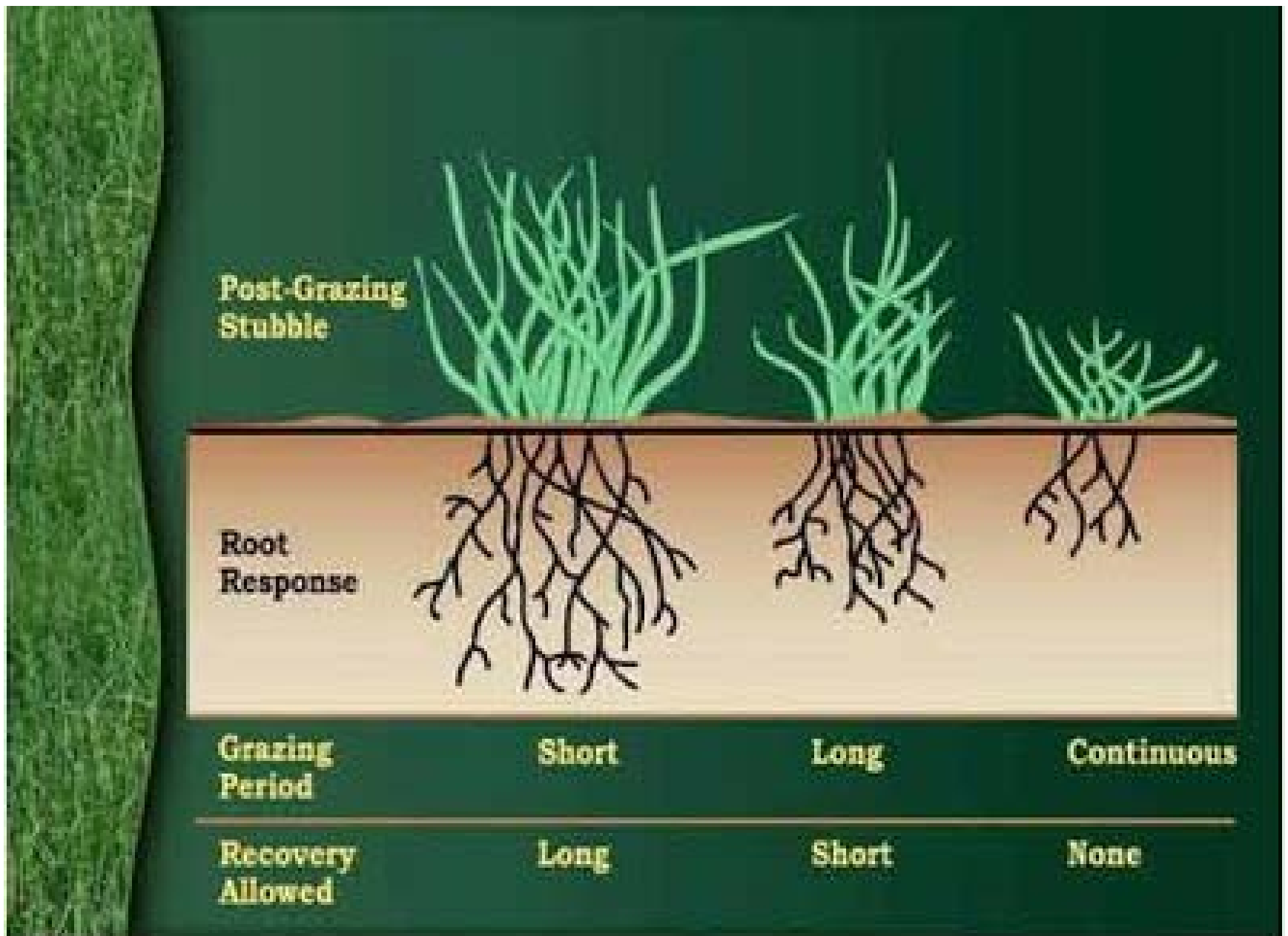


Image: Kansas State University



“Graze the best. Trample the rest.”

Most nutrition upper 1/3rd of forage plants

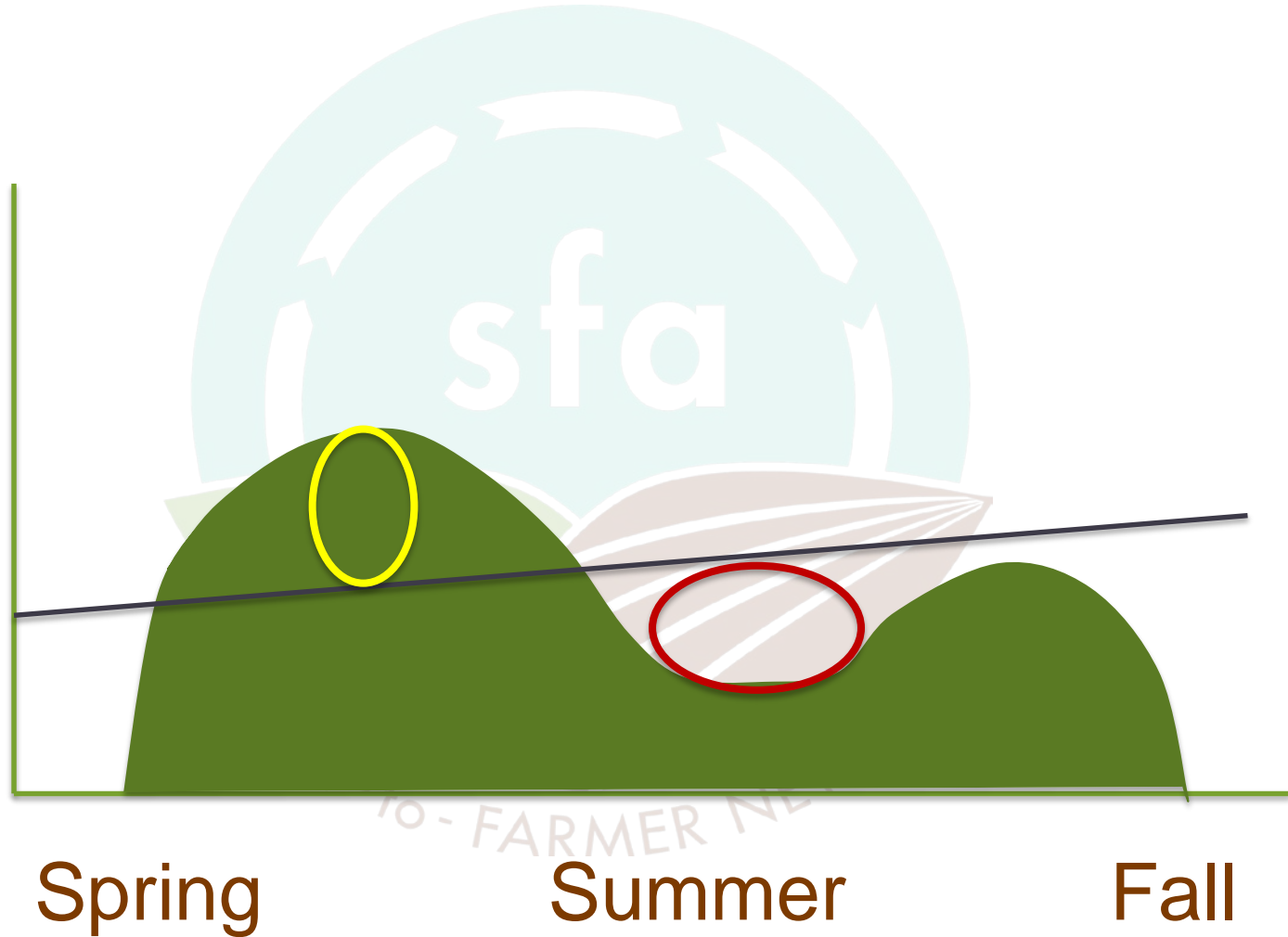
**If you want more
feed next year,
trample more
forage this year.**

Strategies For “Summer Slump”

- Harvest spring surplus as hay/haylage.
 - Harvest portion of accessible pasture acreage in late spring (30-60%).
 - Can typically graze again in 45-80 days with adequate rain (mid to late summer).
 - Rotate year to year which paddocks cut for hay/haylage.



Cool Season Grass Growth Curve



Strategies for “Summer Slump”

- Reduce Livestock Population
 - Bi-seasonal calving
 - Place dry cows on different pasture July – August
 - Paddock cut for hay earlier?
 - Mixed livestock – sell spring lambs in July.
 - Wean calves early
 - 30% reduction in feed consumption.



Strategies For “Summer Slump”

- Diversify perennial forage sward or stand.
 - Inter-seed mid and warm season perennials
 - Red clover
 - Alfalfa
 - Intermediate wheatgrass
 - Endophyte free tall fescue
 - Chicory
 - Switchgrass



Strategies For “Summer Slump”

- Utilize warm season perennial paddocks
 - Strong mid-summer growth
- Native range or former CRP acres
- Big and Little Bluestem, Indiangrass, Switchgrass
- Careful grazing management can improve production.



Strategies For “Summer Slump”

- Utilize low ground pastures
 - Typically to wet in spring and early summer
 - Must dry out enough to support livestock
 - May not be able to utilize every year
 - Design fencing to access when available



Strategies For “Summer Slump”

- Seeded annuals
 - Use as part of broader crop rotation on tillable acres.
 - a.k.a “Cover crops”
 - Single cut = grazing corn, forage sorghum
 - Multi - cut = sudangrass, pearl millet, teff
 - Use multi-species blends

Seeded annuals – summer grazing



Seeded annuals – summer grazing



Multi-species blends (polycultures)

Brown's Ranch, Bismarck, ND, 8/20/13



~30 cover crop species, planted 6/26, 0.5" rain, picture taken 8/20, 1PM, 100 degrees F

Designing complex cover crop blends

- 3 grasses
 - Oat, sudangrass, pearl millet, corn, barley
- 3 legumes
 - Cowpea, Crimson clover, sunn hemp, field pea
- 3 broadleaves
 - Sunflower, buckwheat, safflower, purple top turnip

Cover Crop Calculator

- <https://smartmix.greencoverseed.com/>

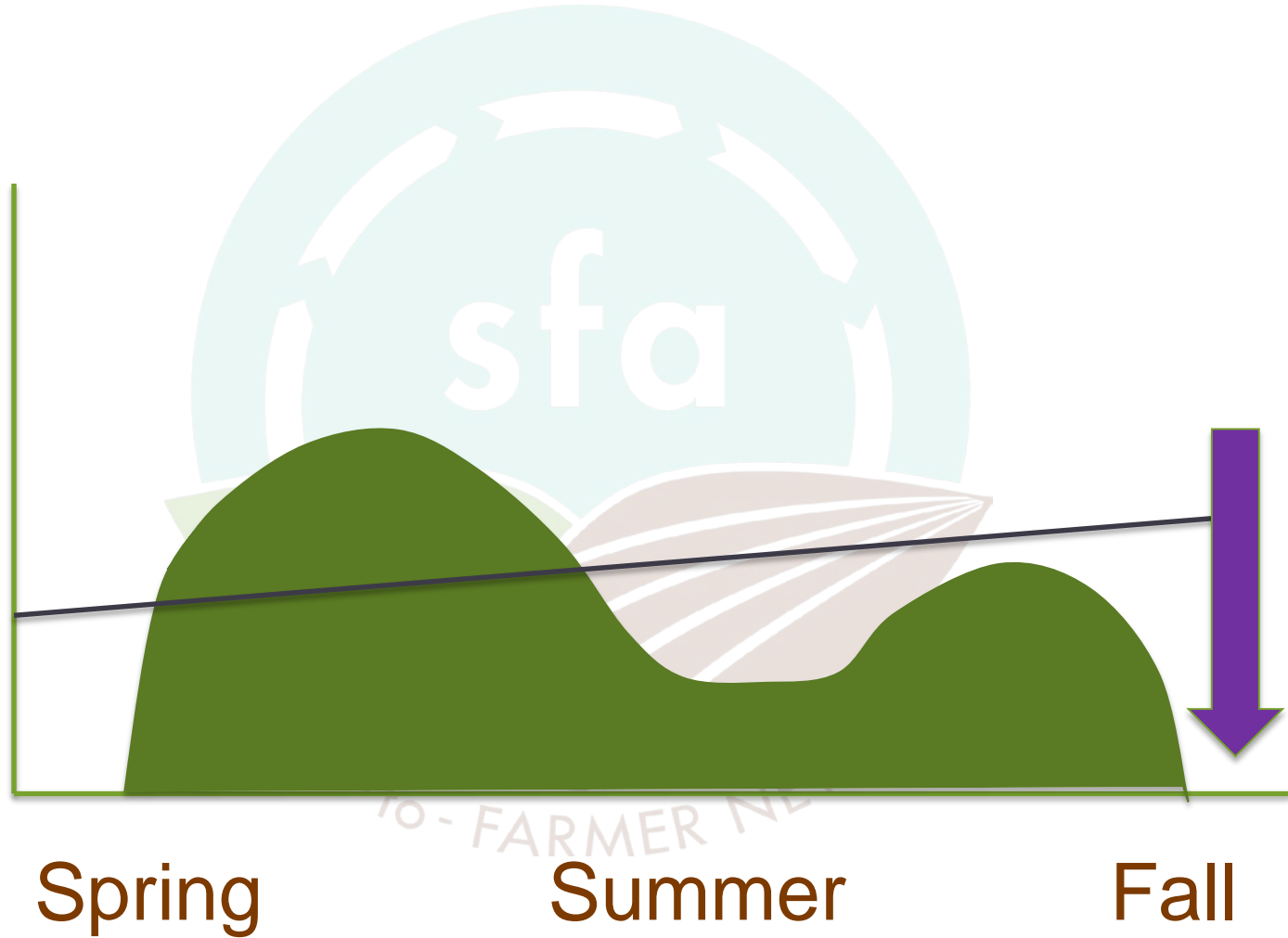


Strategies For “Summer Slump”

- Feed stored forages (Hay)
 - Systematically feed on specific site to promote fertility.
 - “Sacrifice” paddock
 - Part-time hay feeding
 - On a paddock during day,
 - Hay at night



Cool Season Grass Growth Curve



- Spring Summer Fall

Extend Grazing Season

- Stockpiled pasture forages
 - Best for dry cows and ewes
 - Test forages
 - Plan for early in grazing season
 - Set aside area mid to late summer.
 - After first, second or third crop hay?
 - Graze after killing frost
 - One to 8 weeks of grazing opportunity.

Stockpiled Forage Quality

- October 26, 2015
- 10"

	<u>Suggested</u>	<u>Stockpiled Pasture</u>
TDN	>60	62
NDFd(30)	60 - 70	63
NE/L	.65 - .70	.54
RFQ	140 – 170	170

Extend Grazing Season

- Graze crop residue
 - Corn after combining most common
 - Check for herbicide restrictions
 - Limit feed to avoid bloat/acidosis
 - Offer quality alfalfa hay to balance ration
 - Or, inter-seed with Crimson clover, annual ryegrass and/or brassicas (timely rains critical)
 - “Volunteer” cereal grains (oats, wheat)
 - No-till in brassicas, winter pea, lentils

Gleaning Crop Residues



“Cover crop” inter-seeded into row crops



Extend Grazing Season

- Seeded annuals
 - a.k.a “Cover crops”
 - Seeded late spring or early summer
 - Can be seeded after 1st crop hay or small grains
 - Consider multi-species blends
 - Strip graze 30-50% for soil health

Multi-species Blends Post Small Grains



Multi-species blend after spring forage crop



Forage Quality?



RFQ = 179, NDFd (30) = 62, NE/L = .68, TDN = 65

Strip Grazing –Take half/leave half



“Graze the Best, Trample the Rest”



Trampling provides soil armor and feeds the microbes



Extend Grazing Season

- Swath grazing
 - Triticale, oats, wheat, annual ryegrass or stockpiled grass
 - Annuals planted mid-summer
 - Cut with swather in October – early November
 - Cattle able to access swaths in snow (up to 18” deep) than stockpiled grasses.
 - Most successful in colder/western areas
 - Strip graze swaths
 - What animals can eat in 1-3 days

Swaths



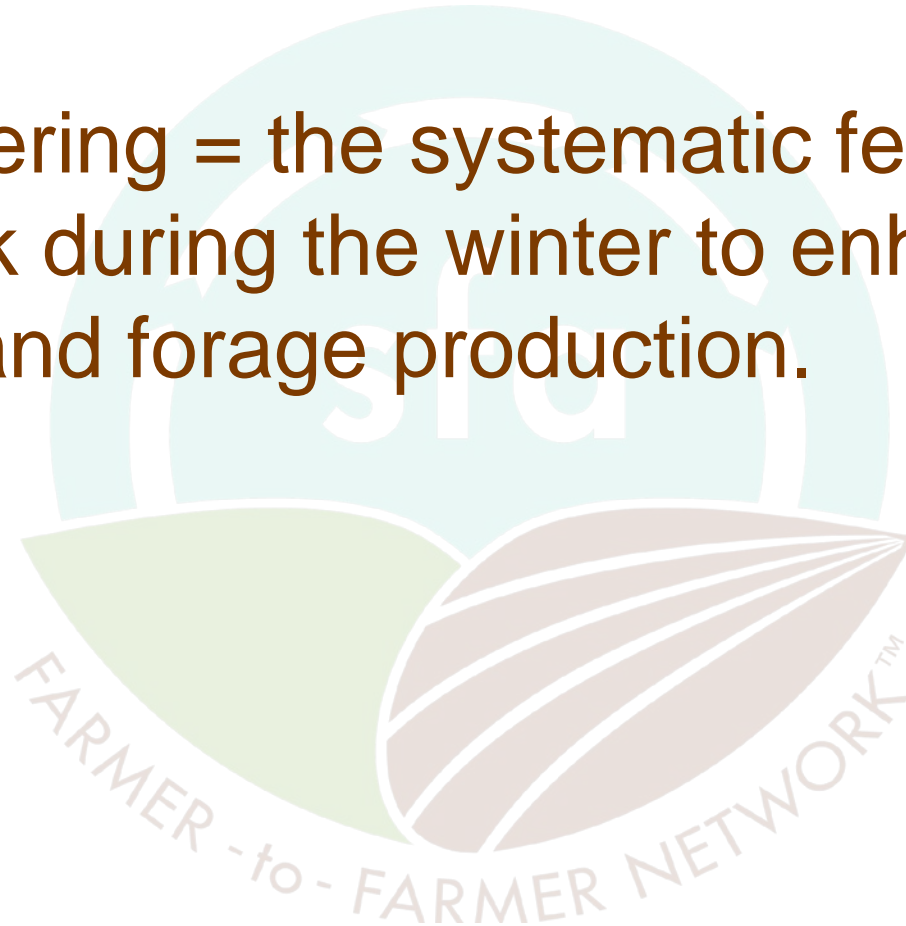
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Swath grazing



Outwintering/Bale Grazing

- Outwintering = the systematic feeding of livestock during the winter to enhance soil fertility and forage production.



Bale grazing

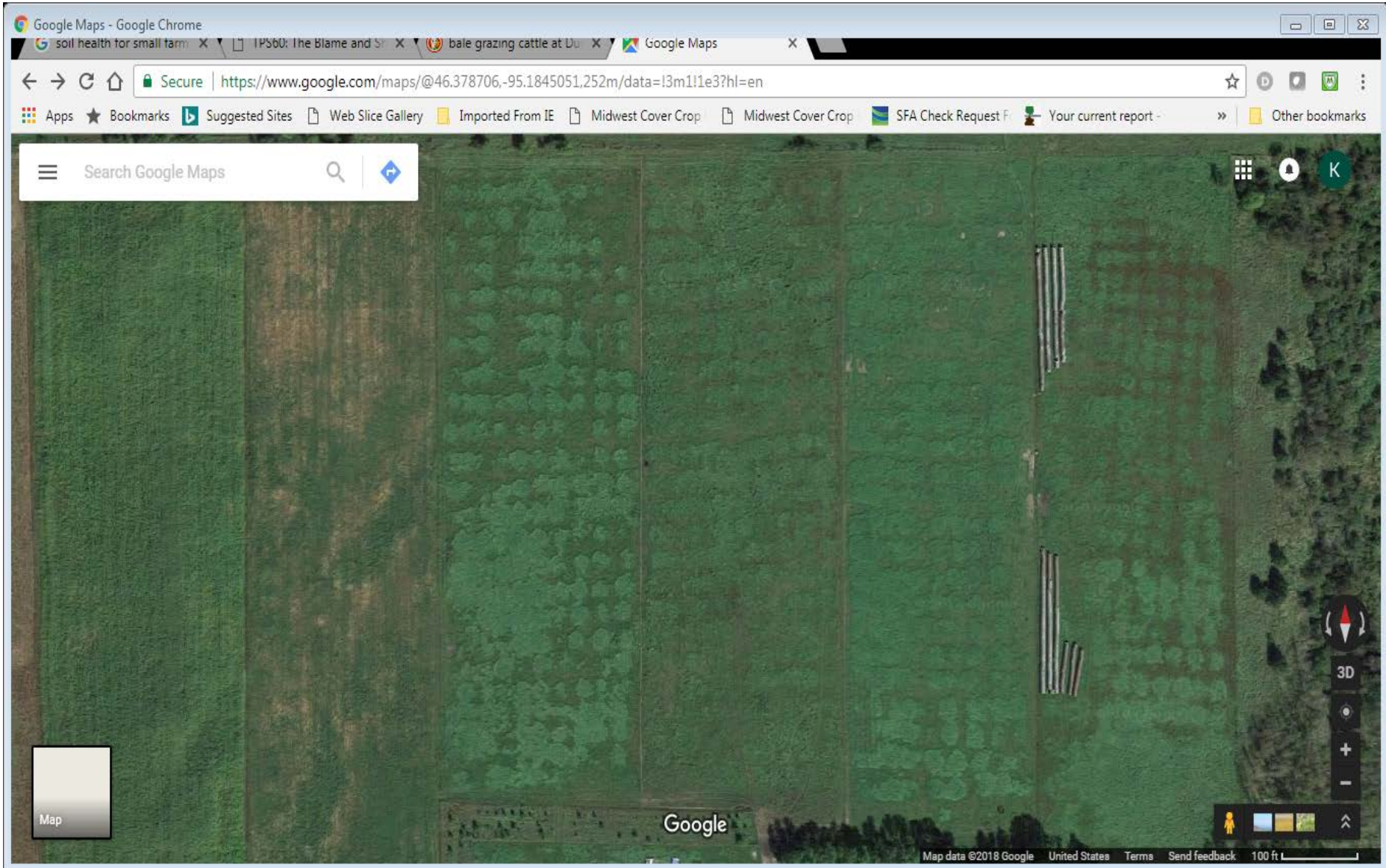


Systematic feeding TMR



Post bale graze

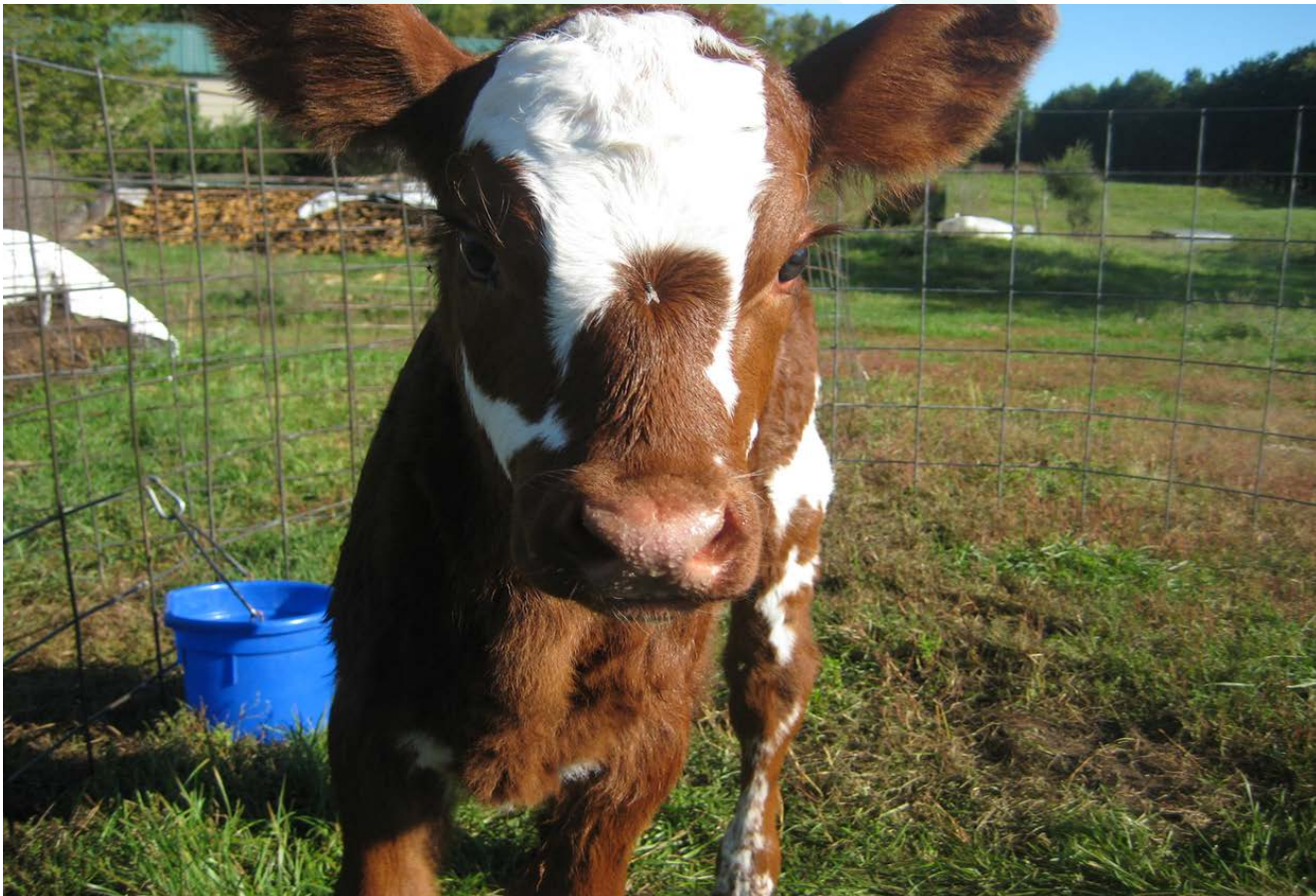




Thank you!

Questions & Answers

Please type your Q's into the chat bar



Connect with



Upcoming webinars

- Summer hiatus but many coming up in the fall

Grants, Scholarships, Mentorship & More!

- Fund-a-Farmer grant applications available in fall
- Scholarships accepted on an on-going basis

Sign up for emails @ foodanimalconcernstrust.org/farmer/

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