

Mob Grazing vs. Tight Grazing vs. Low Utilization



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Who Is This Man?



Definitions

- Many definitions are used for similar management strategies
 - Rotational grazing
 - Management intensive grazing (MIG)
 - Strip grazing
 - Mob grazing (Ultra-high stock density)
 - Tall grazing
 - 3-leaf stage grazing

Definitions

- Today's definitions:
 - Mob grazing
 - Grazing taller, more mature pastures, and stocked at a set liveweight/acre/day basis
 - Tight grazing
 - Grazing shorter, more vegetative pastures, managed to balance forage demand with forage supply
 - Utilization
 - The amount of forage consumed relative to supply, i.e. harvest efficiency

Why Mob Grazing?

- Build soil organic matter
- Top of the plant is higher quality
- More aggressive grazing behavior
- Longer rest and/or better regrowth

Why Not Mob Grazing?

- Requires many moves/day
- Lower dry matter intake
- Acreage requirements higher

Why Tight Grazing?

- Vegetative plants are higher in quality
- Less work to maximize intake
- Limited acreage available

Why Not Tight Grazing?

- Plant re-growth not as good
- Slower soil organic matter accumulation

Dairy

- You are paid for the volume of milk produced + components
- Optimal milk production varies by farm
 - Depends on goals, costs, cash flow, etc.
- Direct correlation between milk produced and dry matter intake

Dairy

- If you can increase milk and/or components without increasing your costs, doesn't it make sense to do so?
- Managing to maximize dry matter intake from pasture is the most cost-effective tool you have.

Dry Matter Intake

Bite Rate

Bite Size

DMI

Time
Spent
Grazing



Anything that interferes with this process will reduce DMI and thus animal performance

Bite size



.02 of an ounce
per bite or less

2.0 to 4.0% of
body weight/d in
dry matter

Dry Matter Intake

Bite Rate

Bite Size

DMI

Time
Spent
Grazing



Anything that interferes with this process will reduce DMI and thus animal performance

Grazing mechanics

- Research shows 1st bite off a plant is top 1/3rd of height.
- 2nd bite is next 1/3rd
- Residual is bottom 1/3rd
- We want to maximize bite sizes and quality of the bite



Photo: Kathy Soder, USDA-ARS



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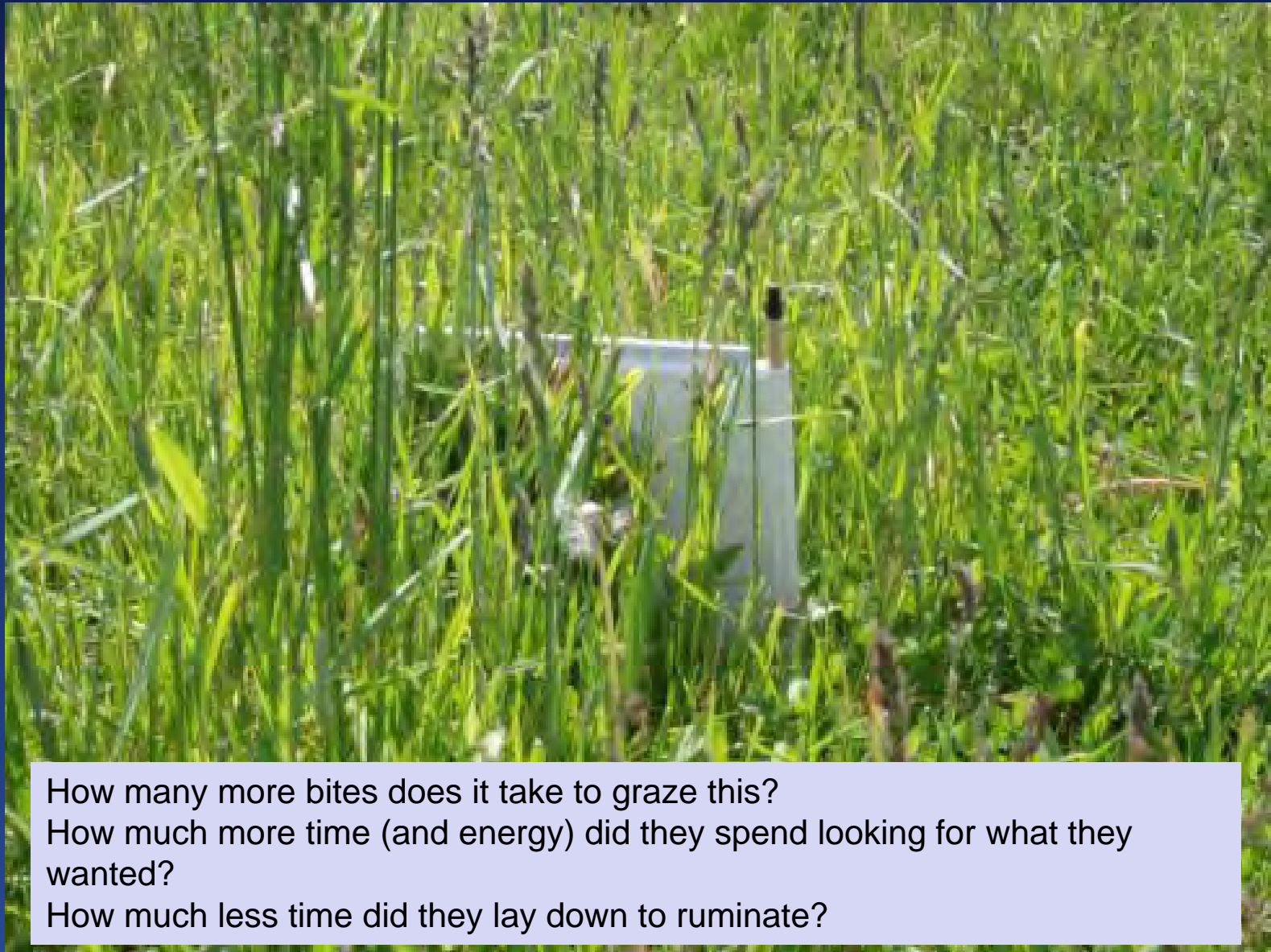
What factors are most likely to decrease intake/bite?

- Sward structure and density at the top of the canopy
- Which has a denser sward canopy, a taller one or a shorter one?









How many more bites does it take to graze this?
How much more time (and energy) did they spend looking for what they wanted?
How much less time did they lay down to ruminate?





900 lbs DM/Ac



1600 lbs DM/Ac

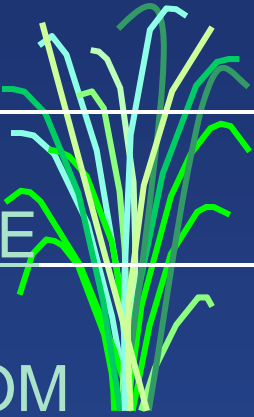


Nutrition in every bite

- Dairy cows need high protein, energy, and fiber
- Top and middle 1/3^{rds} of plant have it!
 - Higher quality when vegetative

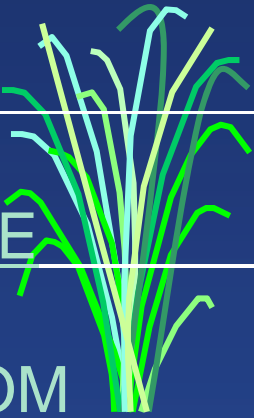
Nutrient Profile Of 9 Inch Tall Orchardgrass 10/5/98

	CP	NDF	NEL
<u>TOP</u>	27.4	38.5	.79
<u>MIDDLE</u>	22.9	44.6	.76
<u>BOTTOM</u>	14.0	60.0	.67

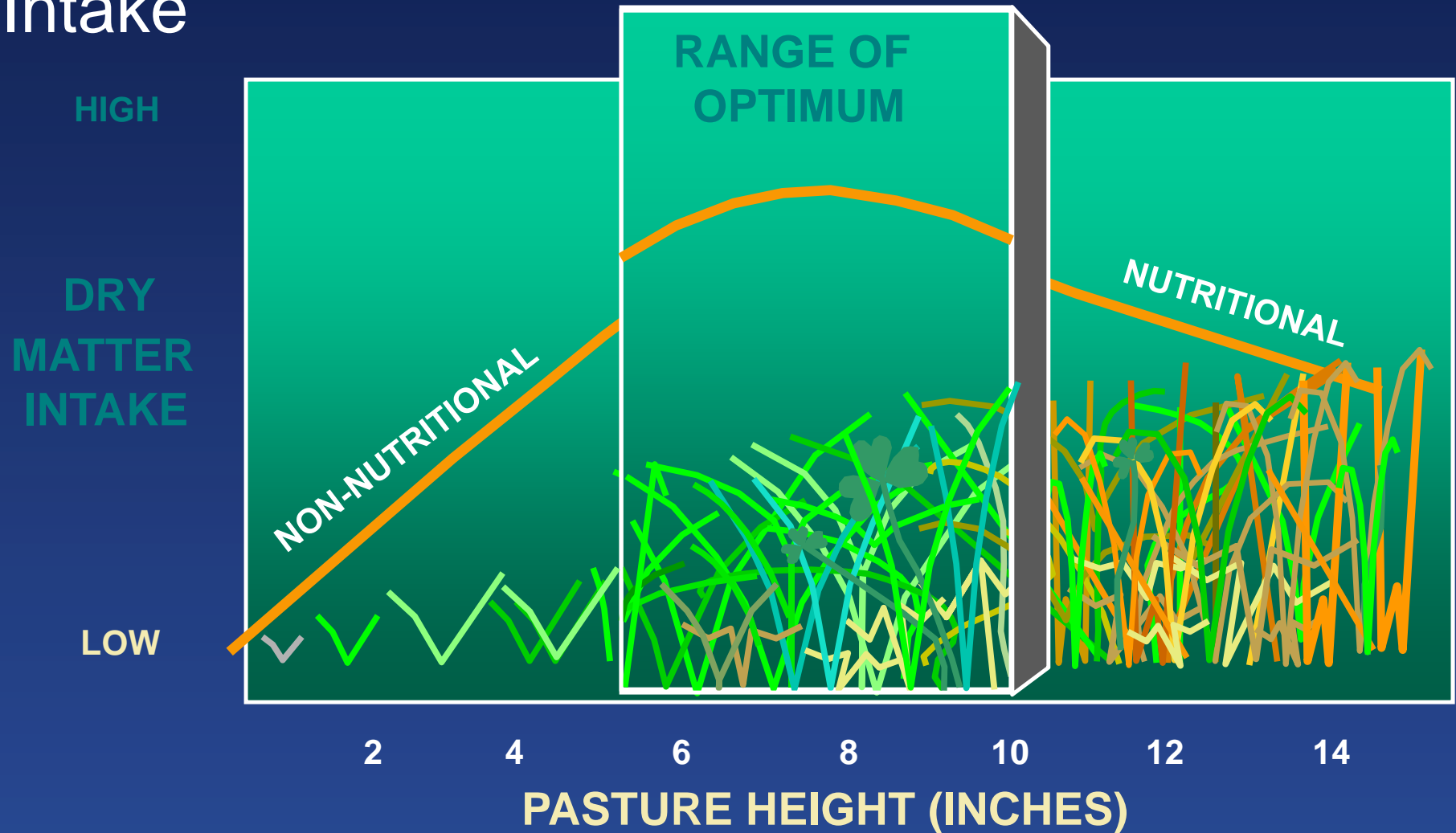


Nutrient Profile Of 24 Inch Tall Mixed Pasture 5/27/11

	CP	NDF	NEL
TOP	21 (27.4)	46.8 (38.5)	.65 (.79)
MIDDLE		unknown	
BOTTOM		unknown	

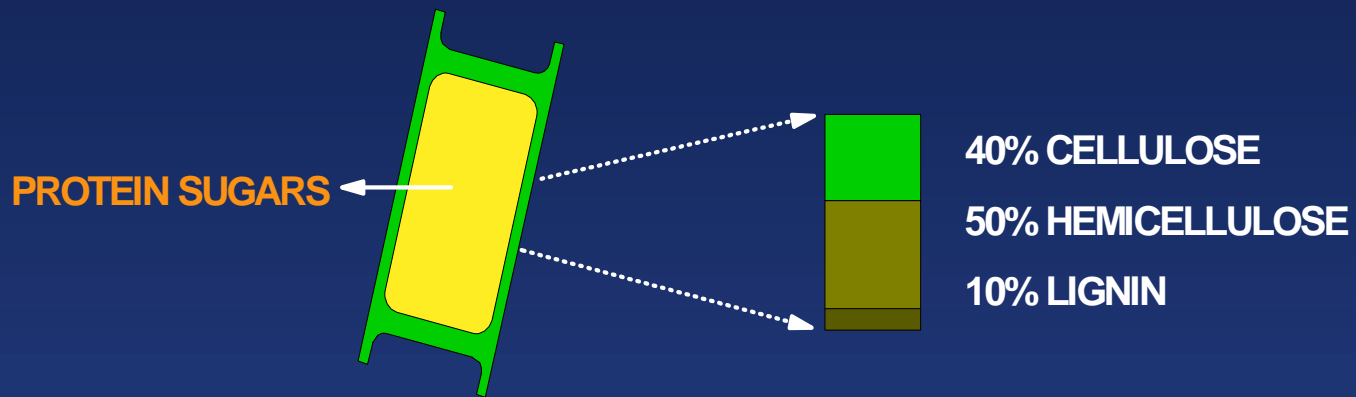


Pasture Characteristics Influencing Dry Matter Intake

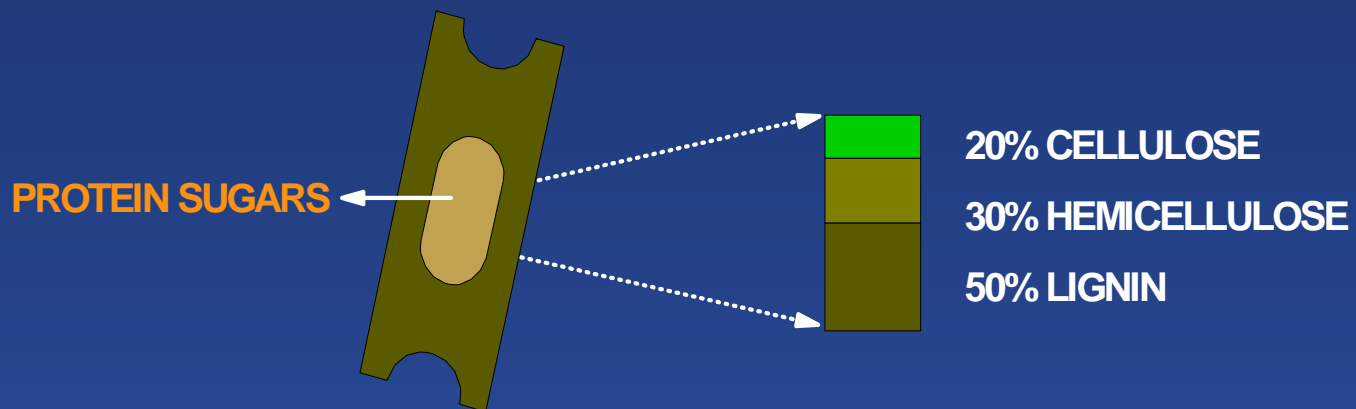


RELATIVE PROPORTION OF FIBER COMPONENTS

YOUNG VEGETATIVE PLANT



OLD OVER-MATURE PLANT





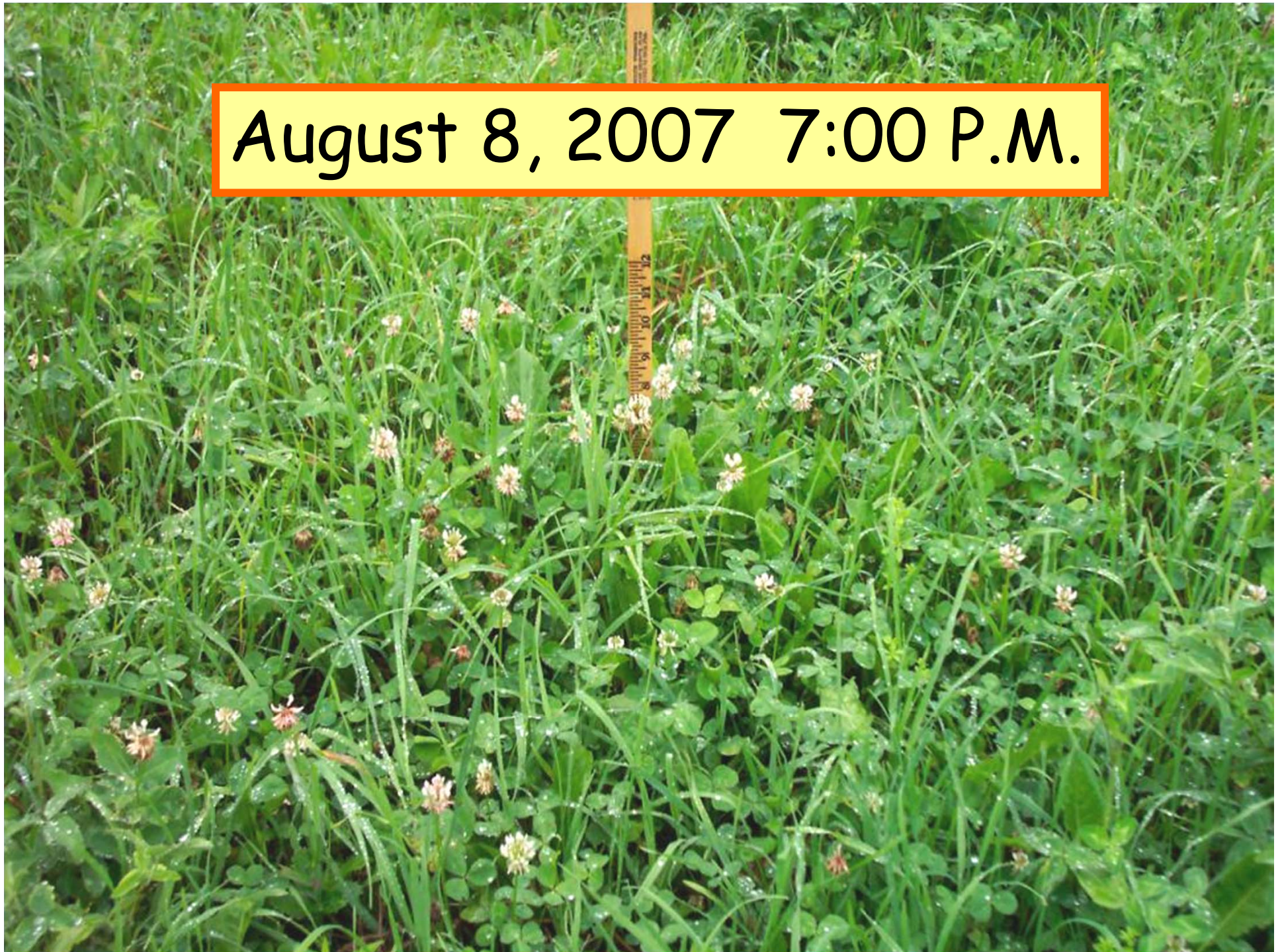
Smell, touch = quality, fouled areas, litter decomposition



Regrowth potential

- What stimulates a plant to regrow?
 - Defoliation
- How long does it take the plant to start?
- True or false?
 - “The recovery period can be shorter because more has been left behind and the reserves of the plant are replaced quicker.”

August 8, 2007 7:00 P.M.



August 8, 2007 7:10 P.M.

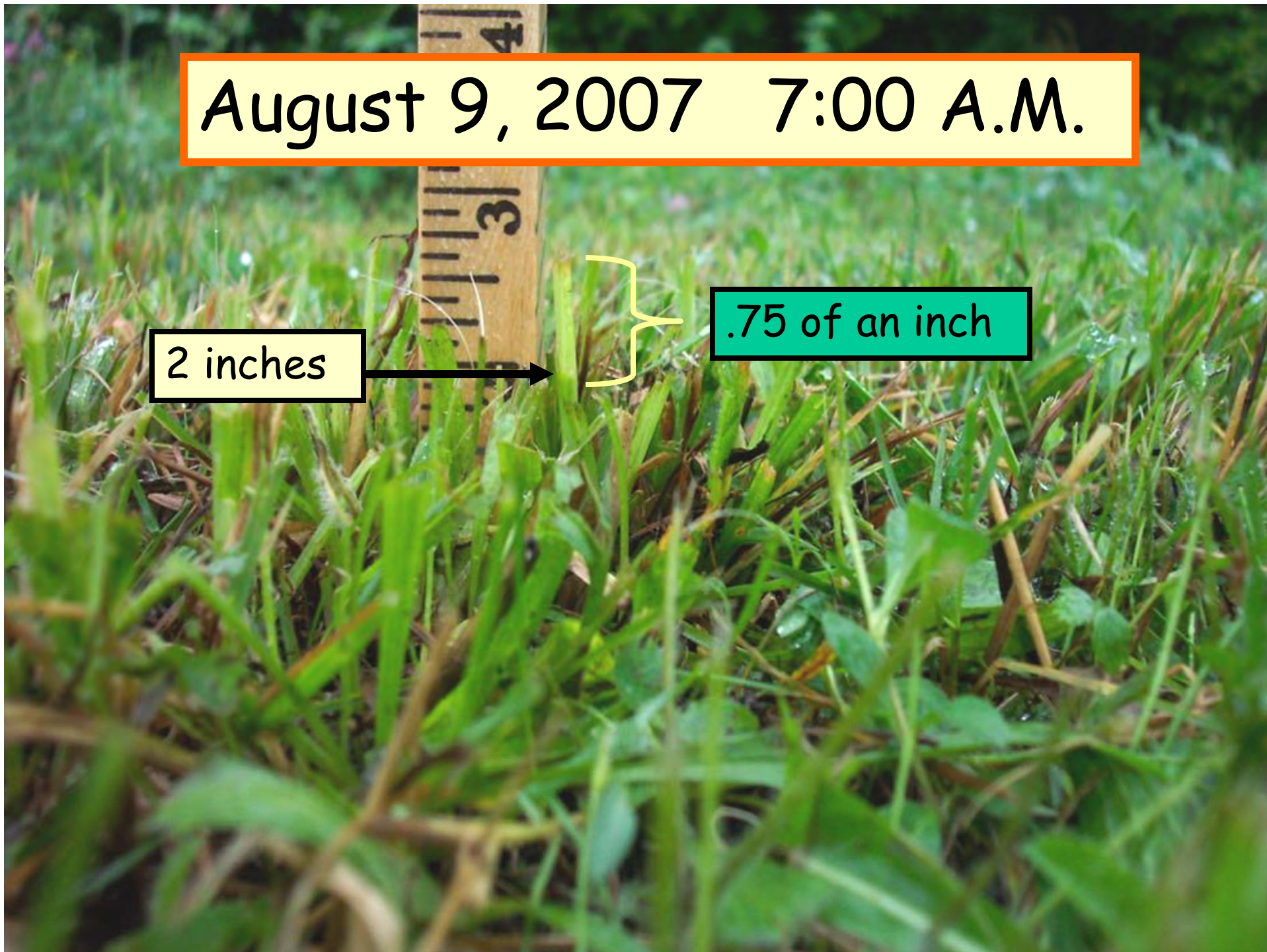
Mowed to a 2-
inch height



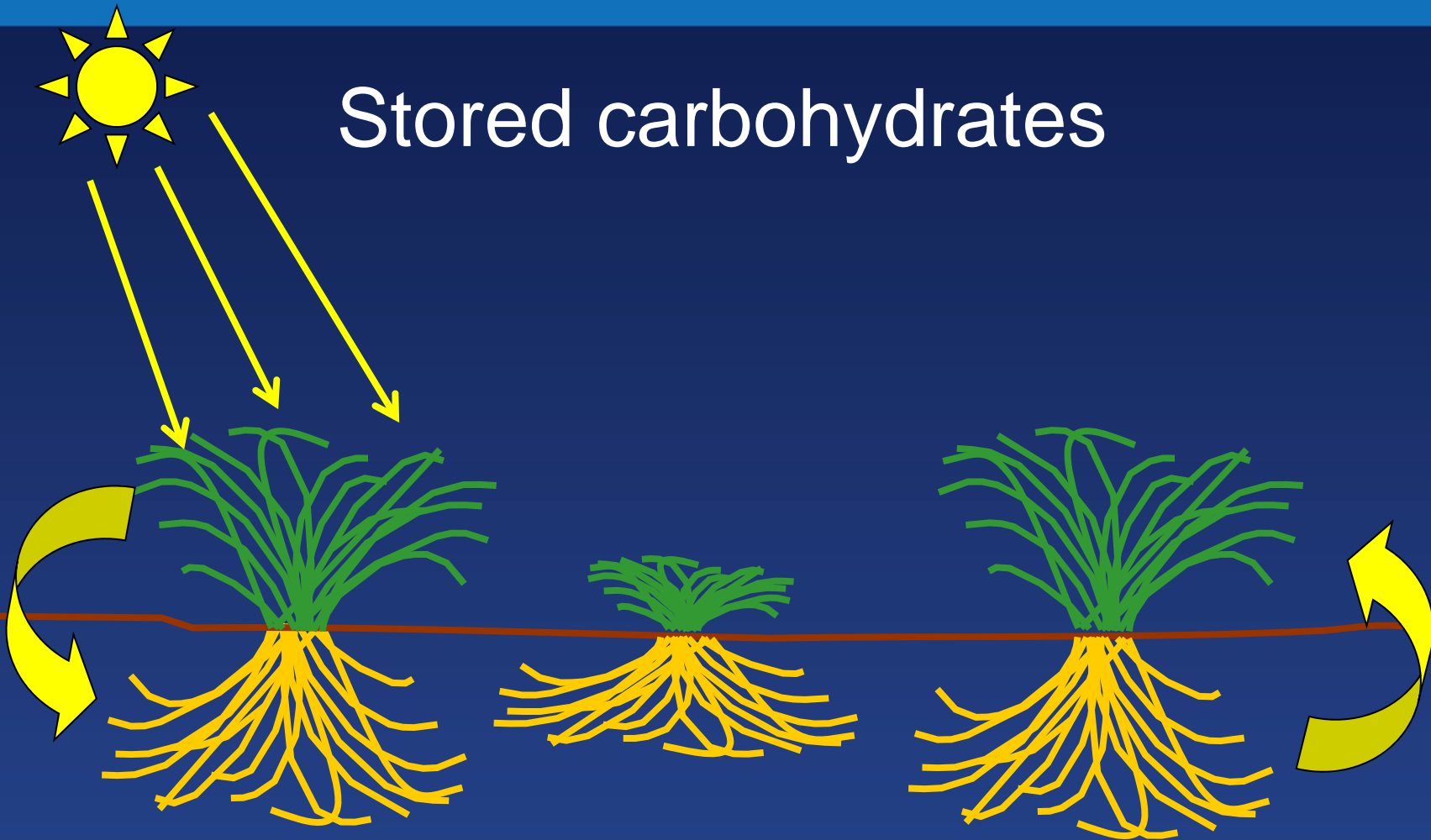
August 9, 2007 7:00 A.M.

2 inches

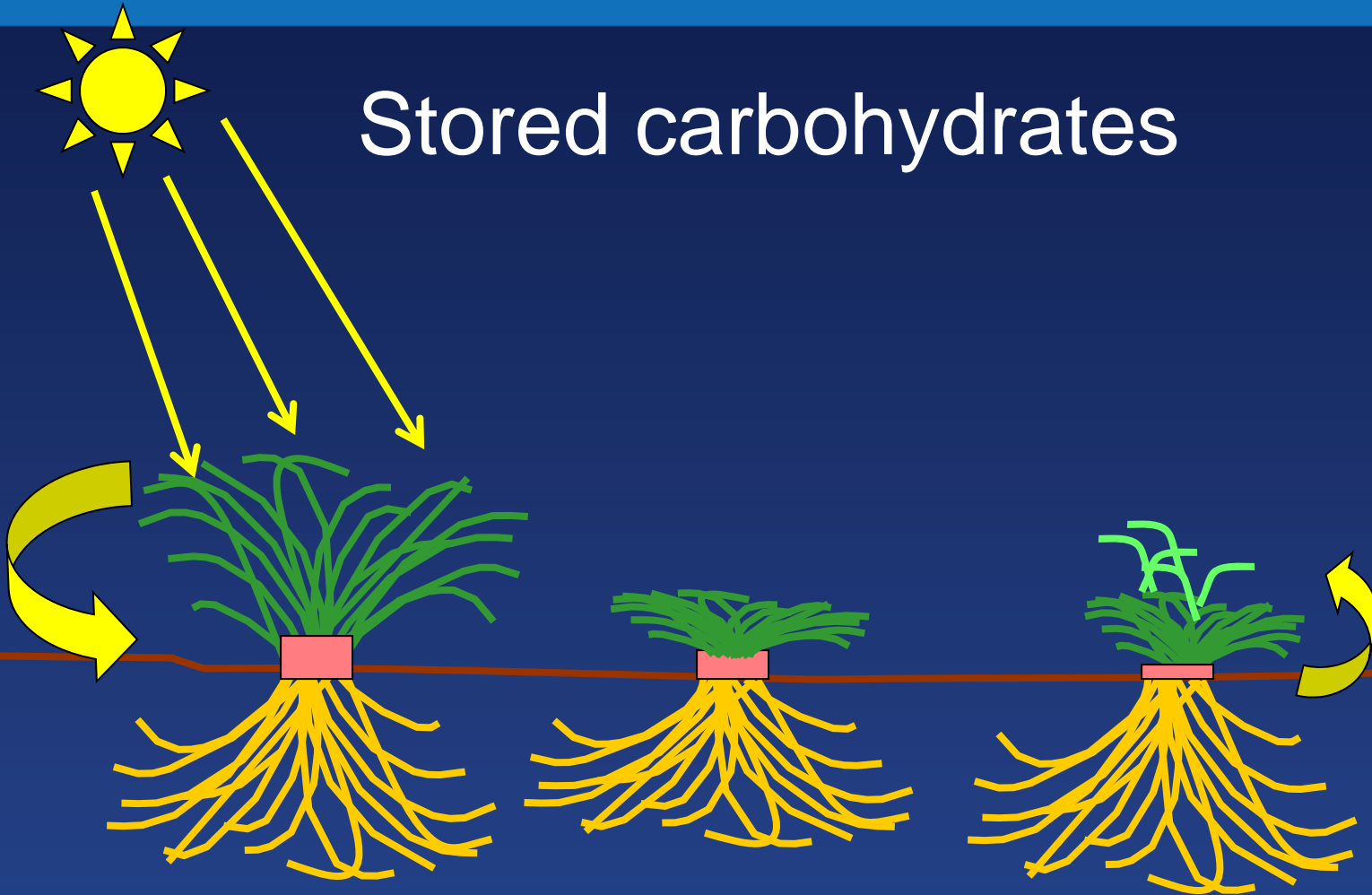
.75 of an inch



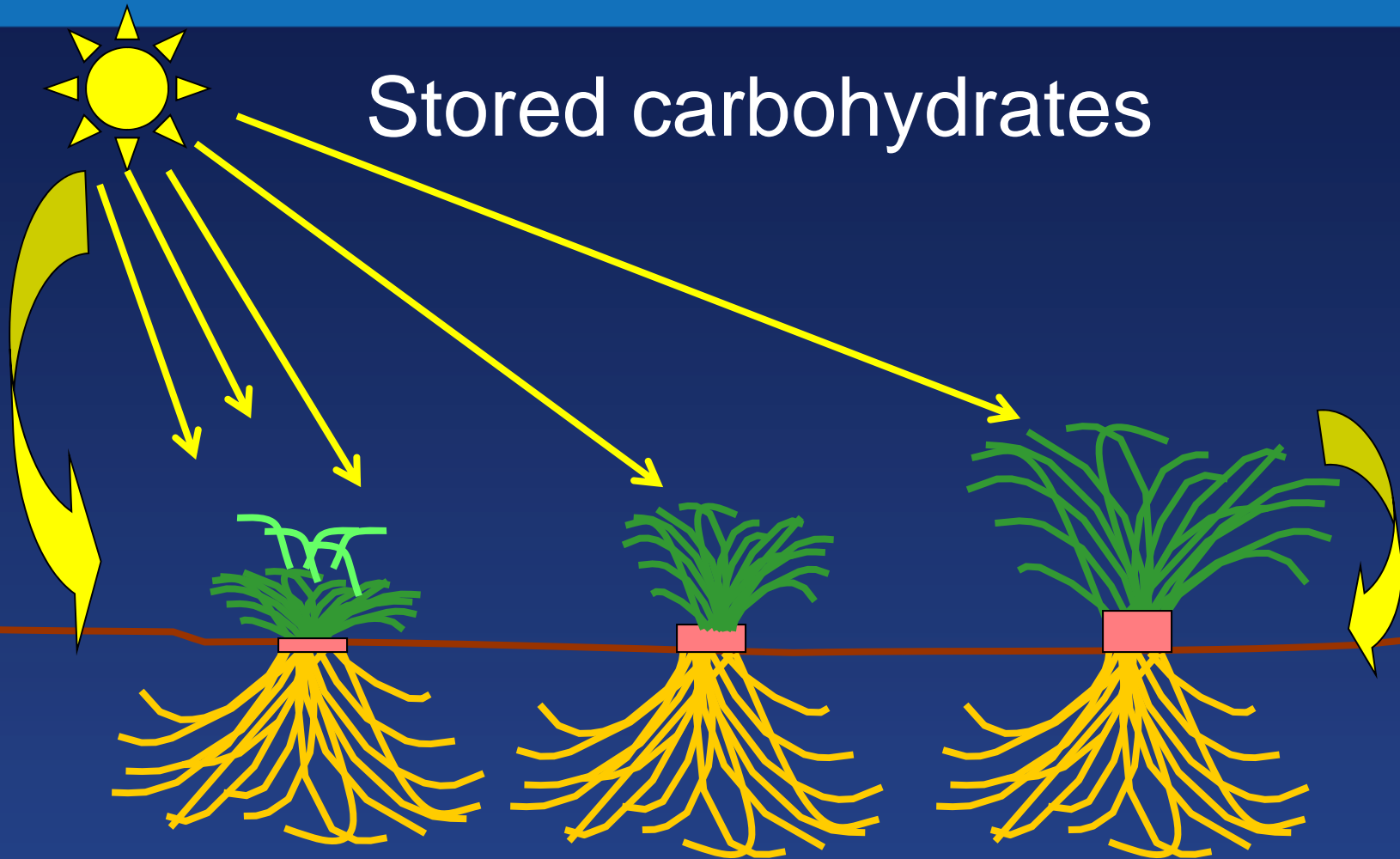
Stored carbohydrates



Stored carbohydrates



Stored carbohydrates



Sunlight also stimulates new tillers to grow = increased density

August 9, 2007 6 P.M.



1.25 Inches

Utilization

- Is it better to harvest as much as you can, or only 30-40% of what grows?
 - Are you going to clip or not?
 - How much regrowth is smothered by the 60-70% left standing, trampled or clipped?

Utilization

- What are your goals?
 - Building soil organic matter, carbon sequestration, etc. – mob grazing
 - Selling milk volume – tight grazing
 - build organic matter over time

Who Is This Man?



Paul Harvey – 1918-2009
Radio commentator
“And now you know, the rest of the story”

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