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# Diet Selection in Sheep

Produced for the CRC for Premium Quality Wool undergraduate program by;  
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# Feeding Choices

- **When to Eat**
  - circadian patterns
- **Where to Eat**
  - home range, plant communities, feeding patches, feeding stations
- **What to Eat**
  - food selection
- **How much to Eat**

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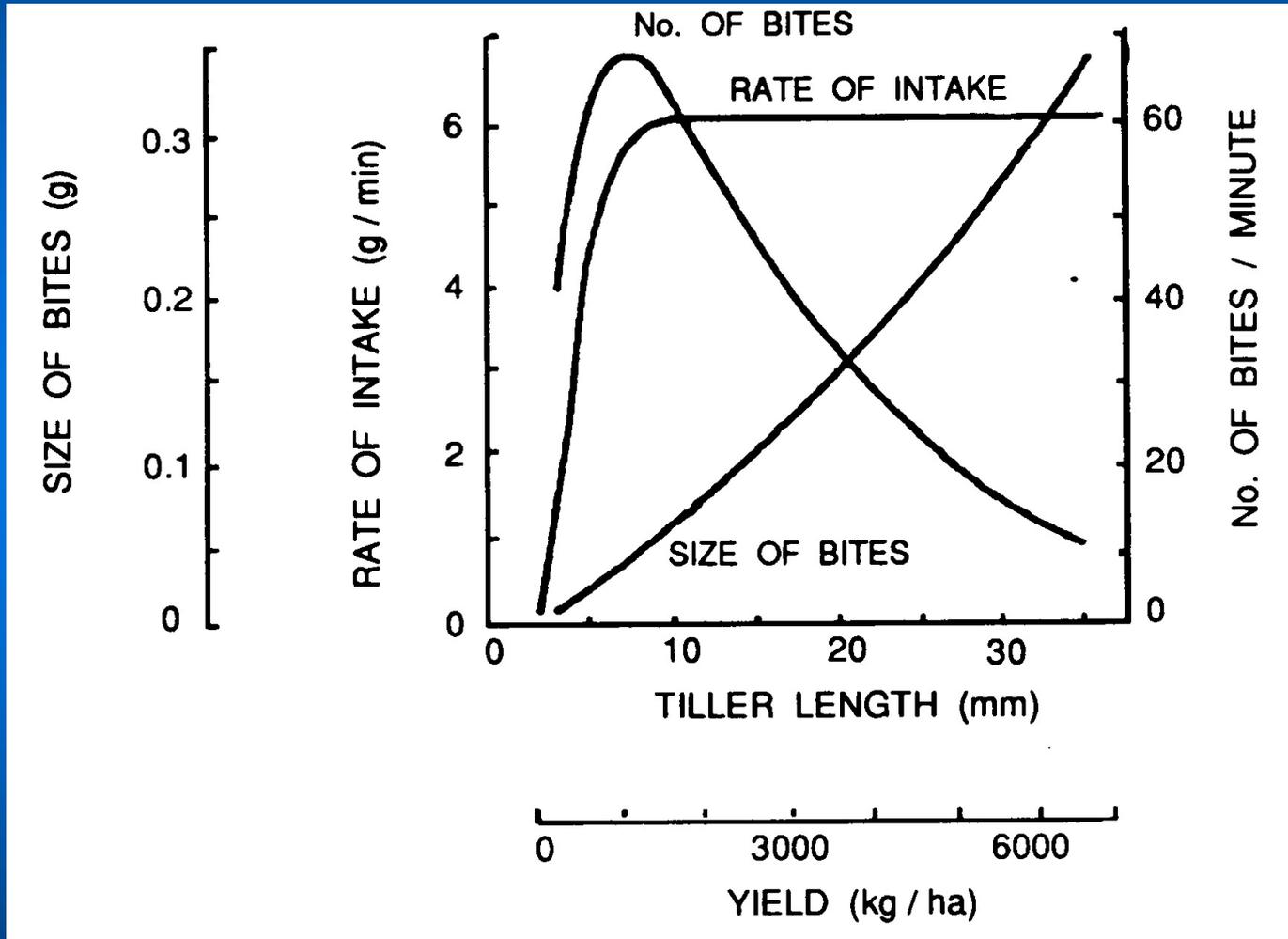
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# Relationship between feed availability, bite size and bite rate

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# What to Eat?

- Identify the potential foods
- Select from the range of feeds available
  - Note that monoculture is unusual except for full feeding intensive systems!

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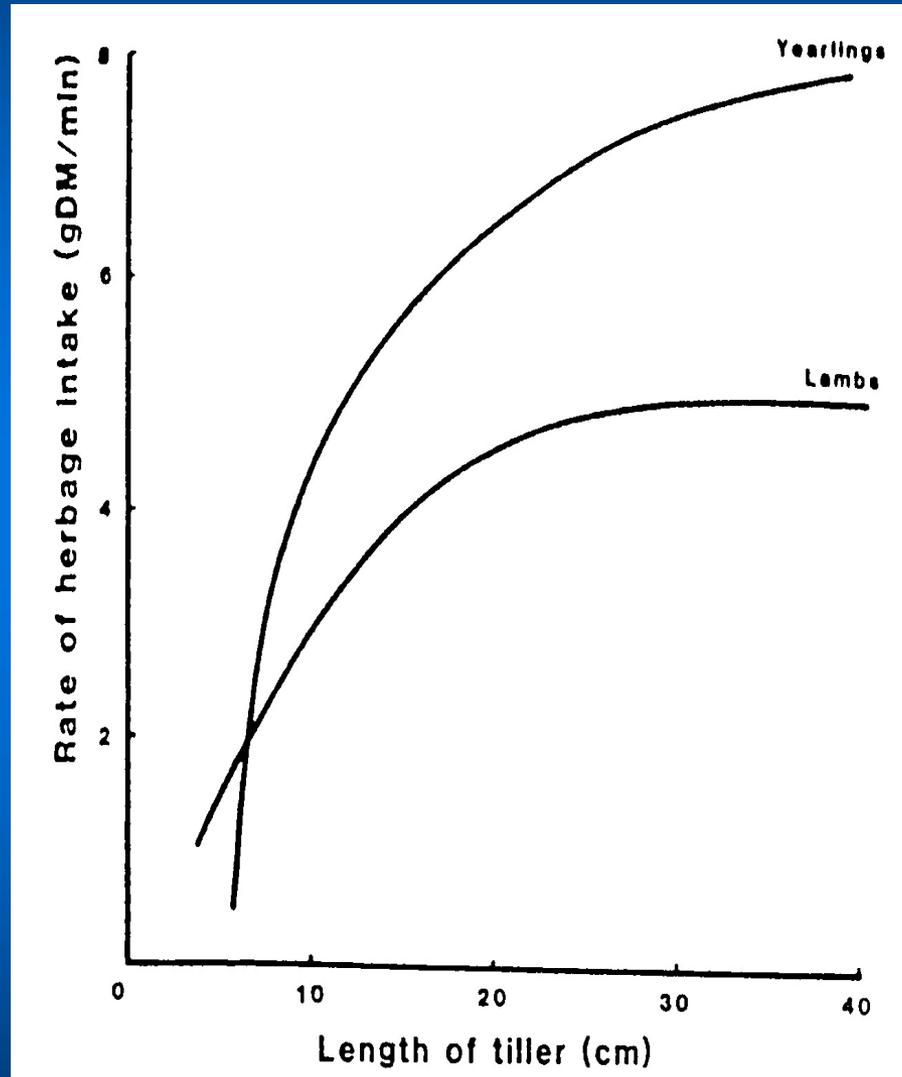
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# Relationship between tiller height and intake rate of mature and immature and sheep



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# Selectivity

- Characteristic of foraging animals including the traditional intensively farmed species
- Highly variable between individuals
- Species differ in degree
  - cattle < sheep < goats?
  - Also variation associated with the proportion of browse in the diet

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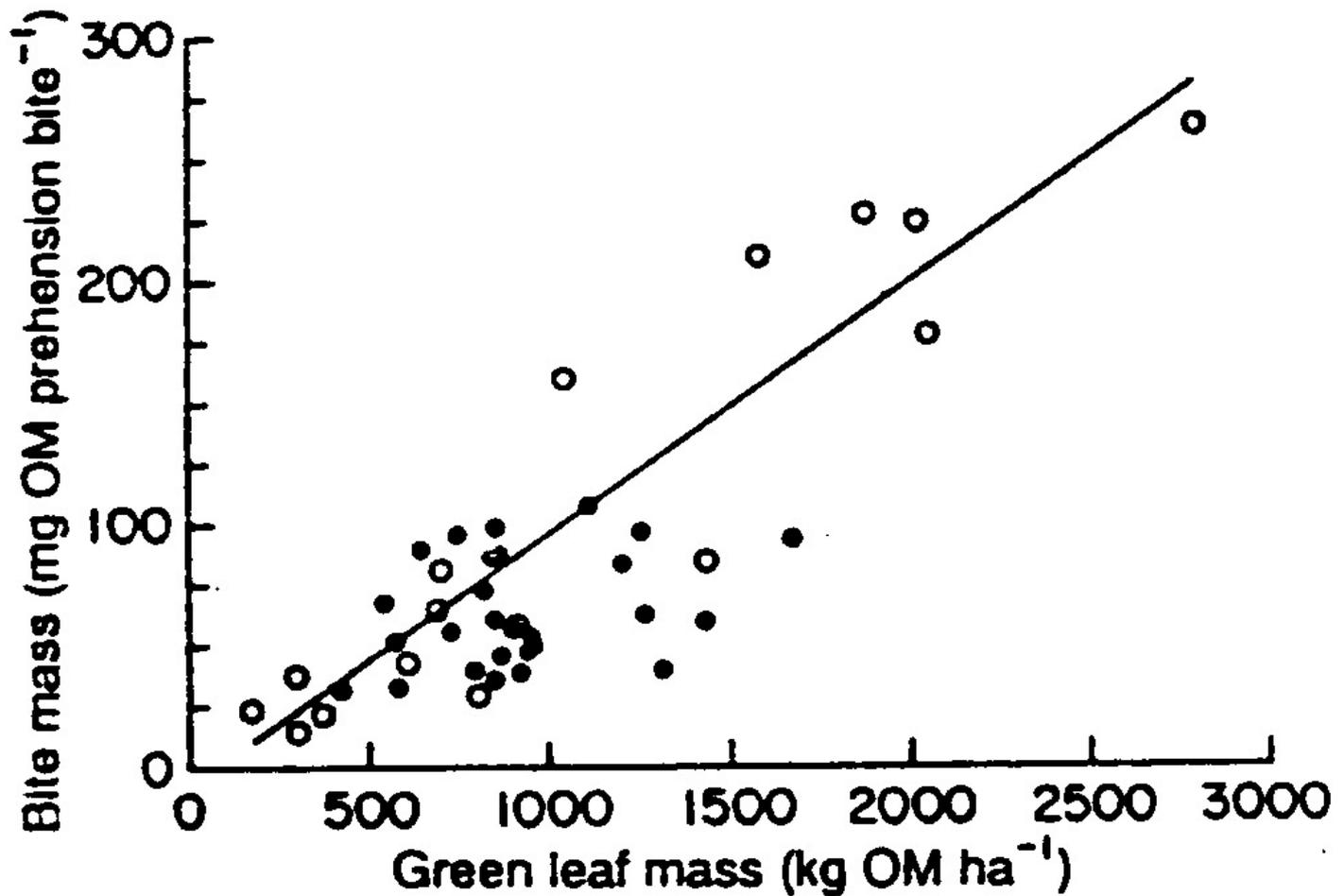
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# Relationship between sheep bite size (mass) and available green leaf

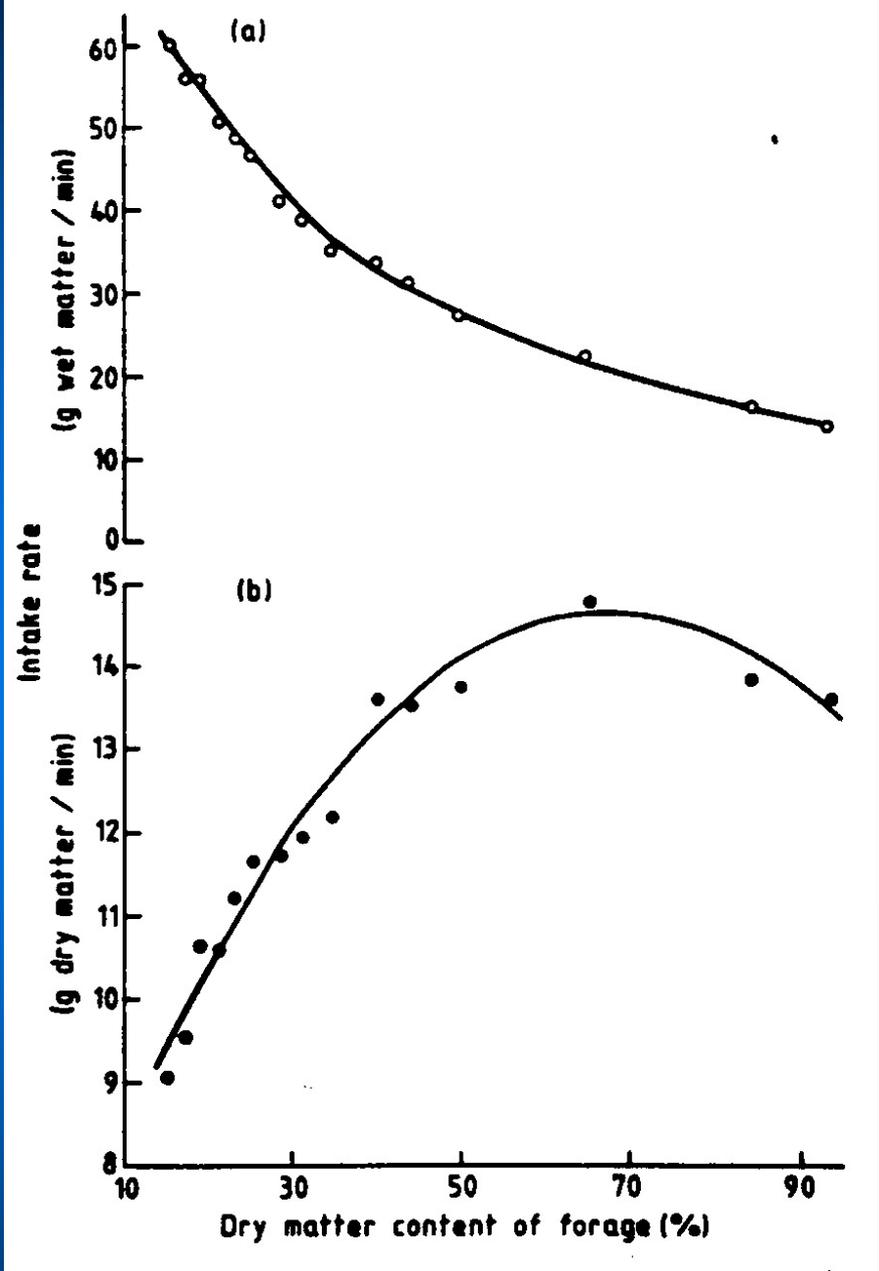


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# Relationship between dry matter and intake rate of wet or dry material

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# Food Choices of Omnivore - Wild Boar

<u>Food</u>	<u>% Dry matter</u>
Acorns	47
Fruits	5
Grapes	5
Other plant	5
Mushrooms	2
Grain	32
Animal	3
Leaf litter	1

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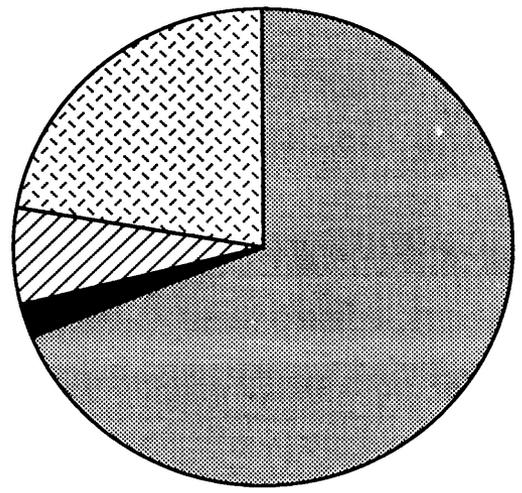
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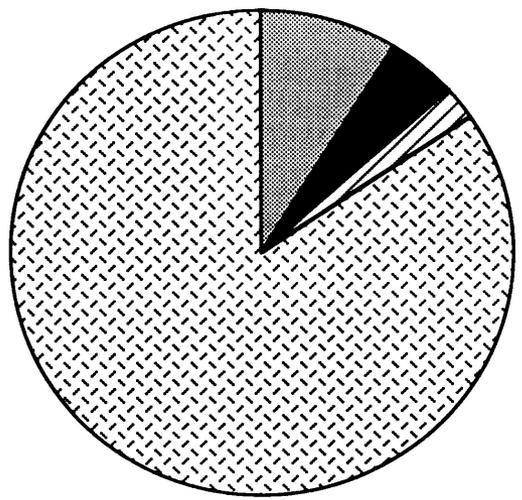
# Species composition of pasture and oesophageal samples

(a) SWARD



- DEAD MATERIAL
- WHITE CLOVER
- PSEUDOSTEM
- GREEN GRASS LEAF

(b) OESOPHAGEAL BOLUSES





# The result of selection ?



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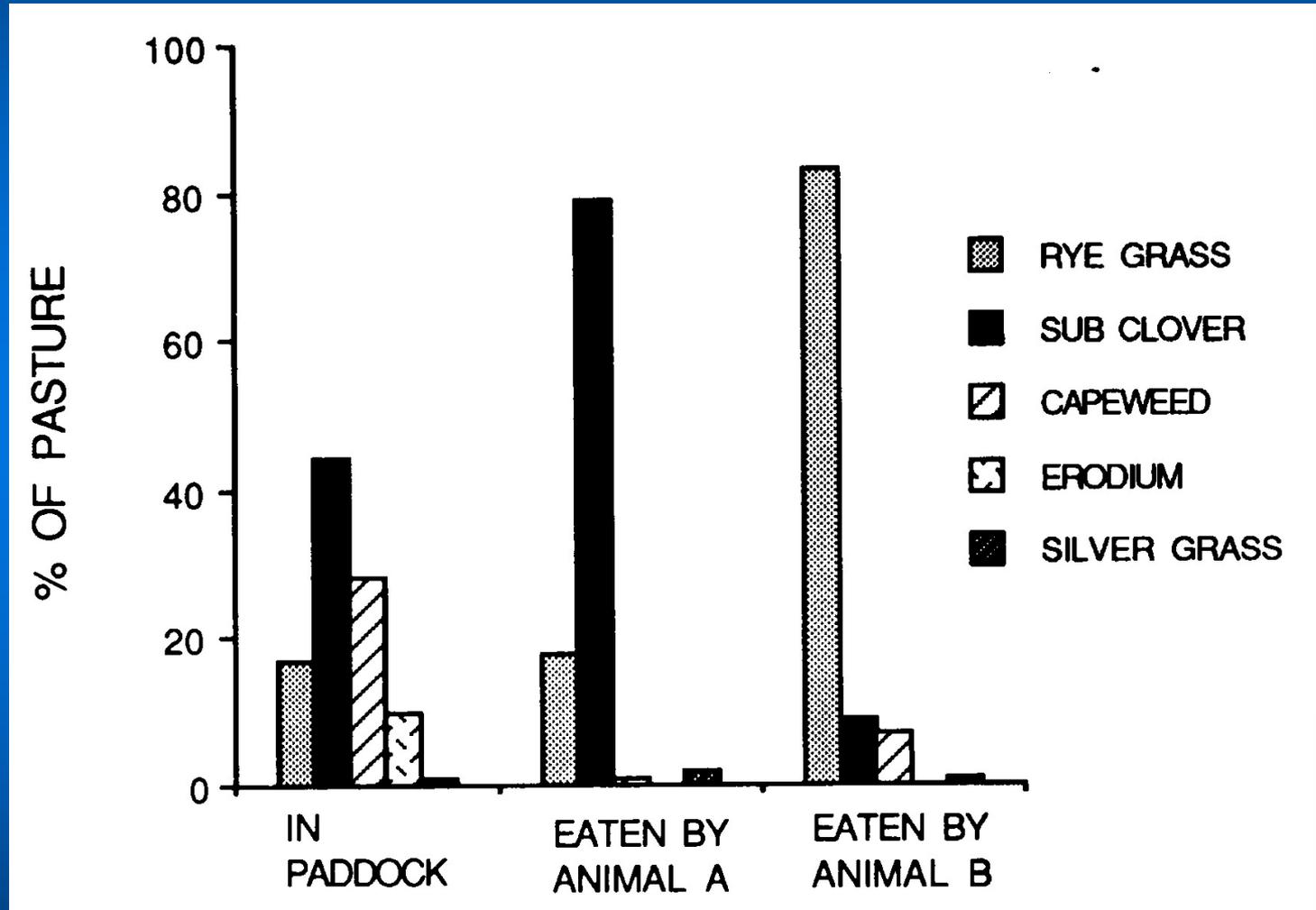
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# Sheep choices from 5 plant species - oesophageal samples



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Source: Broom and Arnold (1986)



# Selectivity - continued

- Degree of selectivity by ruminants
  - lupin species - 25 X
  - normal 1.5 - 2.5 X
- Generally
  - Green over Dry (water)
  - Leaf over stem (soluble carbohydrate)
  - Variety (clover vs grass)

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