

# Cut Alfalfa + Rain Fall

What happens?  
Now, what do I do?

# Alfalfa Supplies

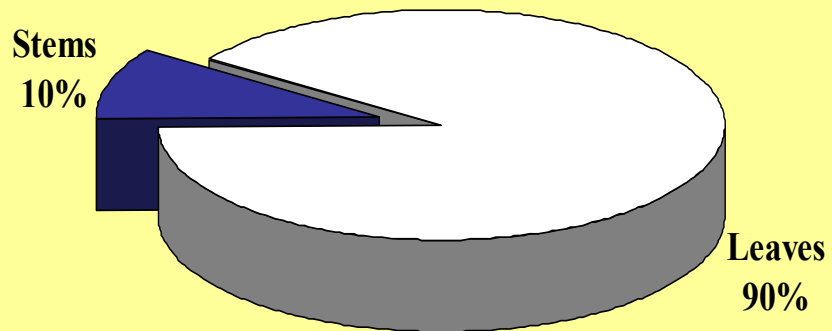
- Energy
- Fiber
- Protein
- Vitamins
- Minerals

# Alfalfa Components

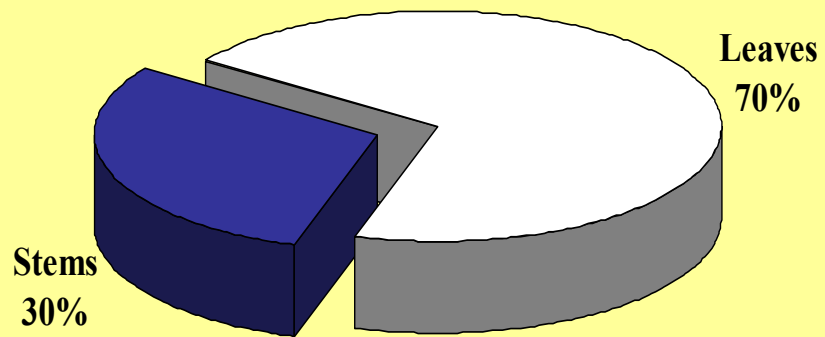


- Leaves
  - 25-35% Protein
  - 18-28% Fiber
- Stems
  - 10-20% Protein
  - 35-70% Fiber

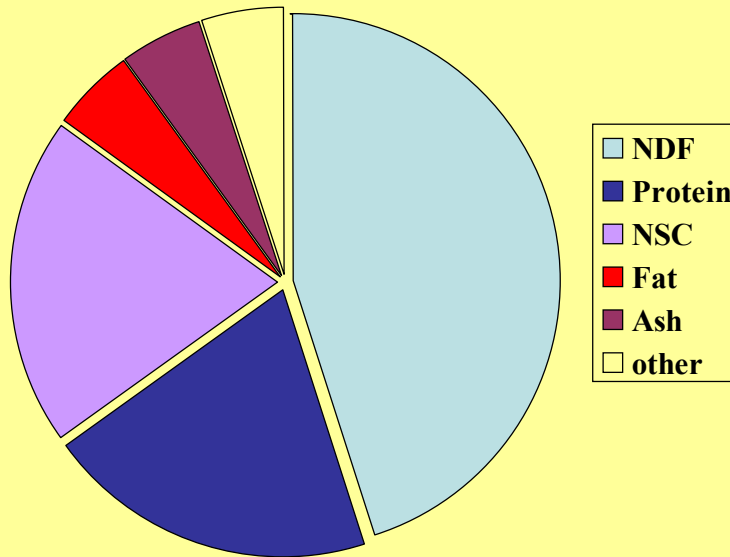
# Vitamins & Minerals Produced



# Crude Protein Production

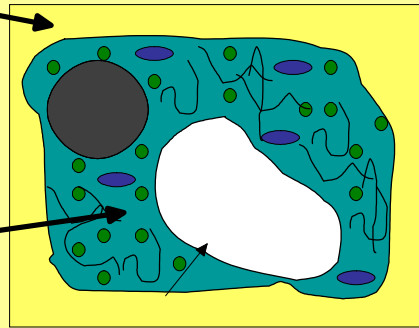


# Alfalfa Forage Quality Plant Composition



# Alfalfa Forage Quality Plant Composition

- Cell Wall – NDF
  - Cellulose
  - Hemi-cellulose
  - Lignin
- Cell Contents
  - Proteins
  - Non Fiber Carbohydrate (NFC)
  - Fats
  - Other



# Alfalfa Losses Due To Rain

- Alfalfa in a windrow
  - Both yield and quality are reduced by
- Research varies
  - 1 inch = 22% DM loss
    - How long has the hay cured
      - The drier the hay the more severe the damage
- Color is bleached

## Alfalfa Leaf Loss Due To Rain

- No definitive research to estimate leaf loss due to rainfall
- Rain damaged alfalfa
  - More leaf shatter as it dries
    - Due to additional raking or tedding of windrows

# Alfalfa Plant Reaction Upon Cutting

- Standing alfalfa is 80% moisture
  - Upon cutting it begins immediate respiration
    - Normal dry matter losses are 3-4%
  - Respires down until 30% level
    - Breakdown of soluble carbohydrates by plant enzymes
  - Each time cut forages are wetted
    - Respiration is prolonged or begins again

# Nutrient Losses Upon Cutting

- Leaching of soluble carbohydrates
- Protein
  - Rain has least impact on protein
- Minerals
- Leaf shatter & loss
- Microbial activity
- Color bleaching

# Plant Components Lost in Rain

- Readily available carbohydrates
  - Makes up 50% of nutrients leached by rain
  - Highly digestible
    - Soluble carbohydrates
    - Soluble nitrogen
    - Minerals
    - Lipids

## Equal Rain Amounts Different Intensity

- Low intensity
  - More leaching
- High intensity
  - Less leaching
- Prolonged rainfall causes more damage

### Forage quality needs of animals

