



**EXTENSION**

# Efficient Use of Range Cubes

## Protein Source and Feeding Management

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NE Area Livestock Specialist

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### Evaluate Feed Cost



Added Nutrition accounts for 40% of total operating costs

- Hay/Harvested Roughage
- Concentrate feeds – blended feeds, cubes/cake
- Mineral supplements

Yearly evaluation of supplementation/feeding program

Keep in Mind!

- Reproductive efficiency strongly correlates with adequate nutrition



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# Supplementation

**Providing an unneeded supplement or the wrong supplement will only increase feed costs with little benefits!**



**Using feeds to enhance the utilization of the base forage/ roughage source while improving the nutritional value of the overall diet**

Supplement:

- Overcome limitations on digestion and intake as forage quality declines
- Improve rumen microbial function to increase fermentation and passage rate



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Guaranteed Analysis

Crude Protein.....18.0%  
 Crude Fat.....4.5%  
 Crude Fiber.....16.0%

Ingredients: Wood Chips, Clay, 10W30 Motor Oil, and Lawn Fertilizer



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## Sources of Crude Protein

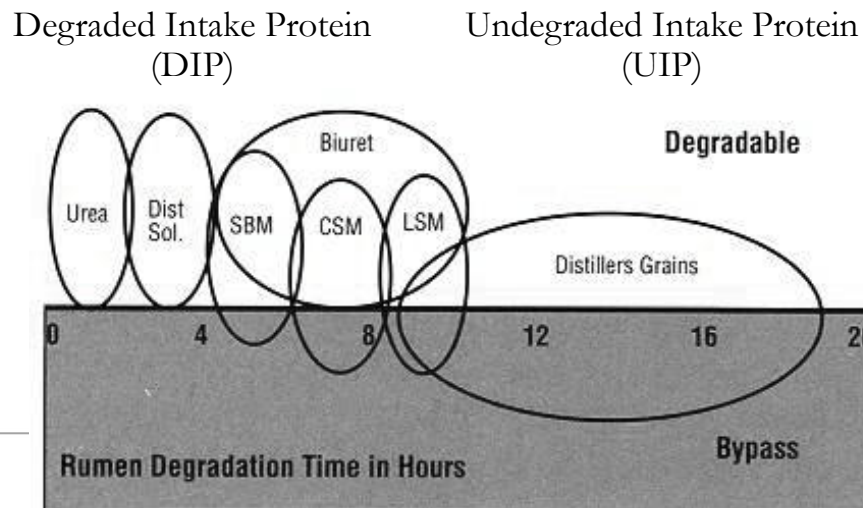
<u>Plant Proteins</u>	<u>Animal Proteins</u>	<u>Non-Protein Proteins</u>
Soybean Meal	Meat & Bone Meal	Urea
CSM		Biuret
Alfalfa		Ammonia
Linseed Meal		
Etc.		

**CAN NOT feed ruminant derived proteins to other ruminants, including goats**



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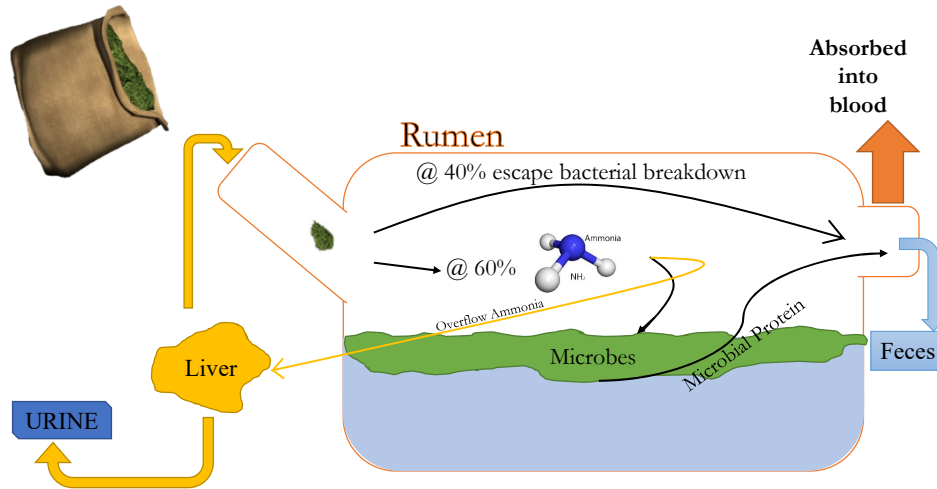
## Breakdown of Crude Protein



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# Crude Protein

- Crude Protein = Amount of Nitrogen x 6.25



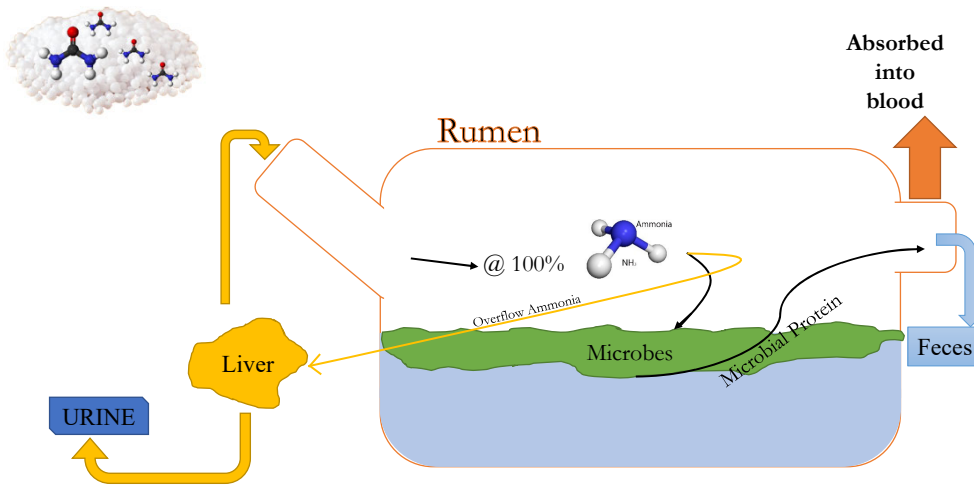
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# Crude Protein

Urea = 46-0-0

- Non-Protein Nitrogen

$$46\% \text{ N} \times 6.25 = 287.5\% \text{ CP}$$



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## What is in a range cube?

Wheat Midds  
Soybean Hulls  
Corn Gluten  
Dried Distillers Grain  
Cottonseed Meal  
Soybean Meal  
Limestone (Calcium)  
Binder Molasses

Vitamins  
Minerals  
Antibiotics  
Ionophores

Other Special Ingredients



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### I feed a 4-way.....

Typically but not always contains:

Soybean Hulls  
Wheat Midds  
Corn Gluten  
DDGs or Corn

What ingredients and at what inclusion rate?

### I ordered corn in my feed and I don't see any...

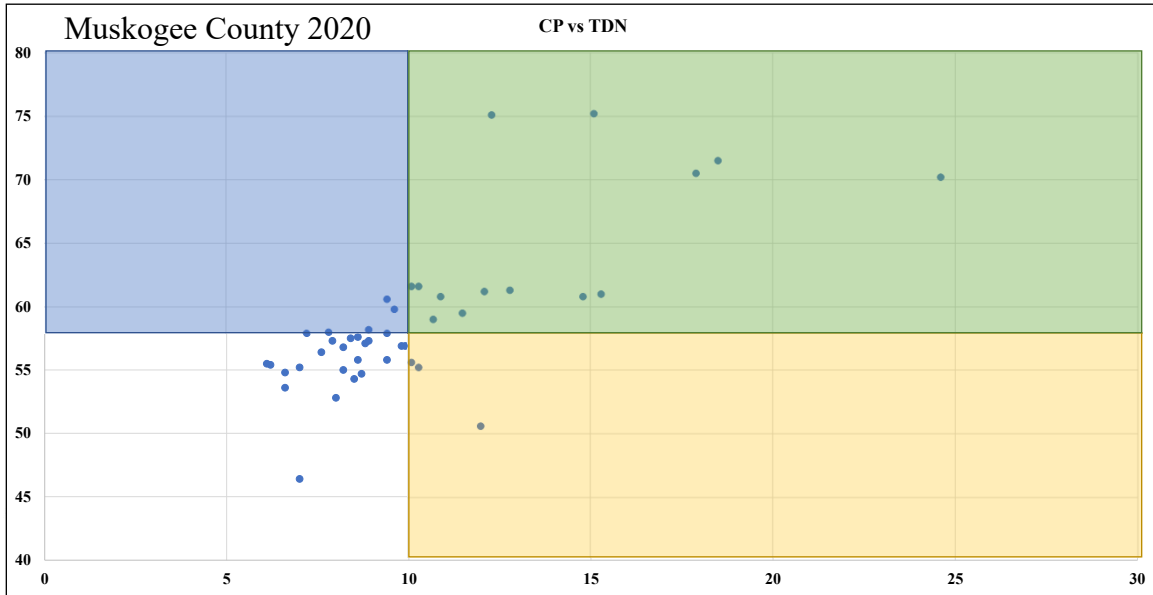
To make a consistent cube or pellet that a consumer will be happy with, the ingredients must be ground.

If you see corn in the cube, that means that they have put in some chopped corn instead of ground

Corn kernels in a cube cause a week spot in the cube and results in shorter broken cubes.

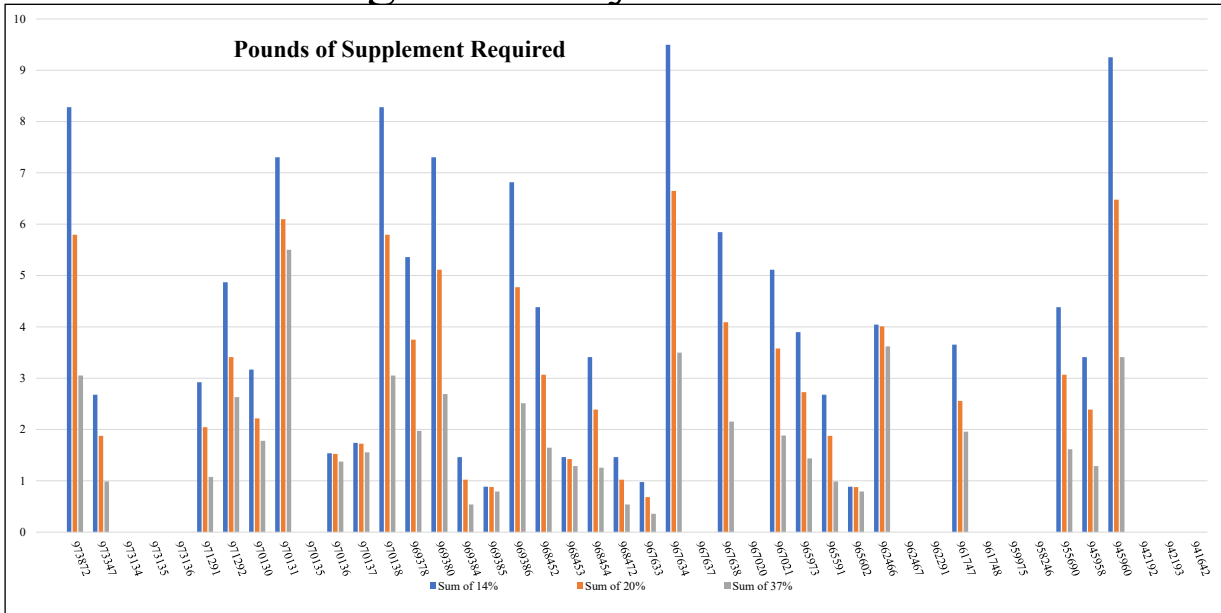
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# Choosing the right supplement..

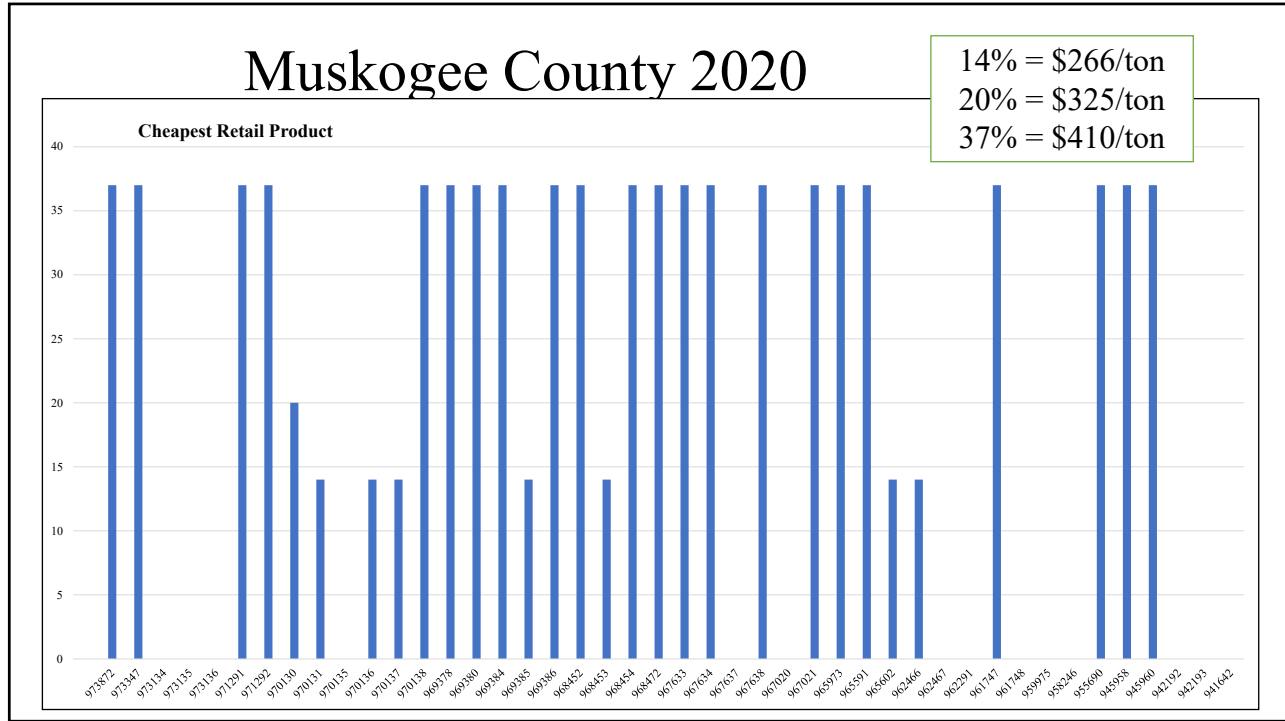


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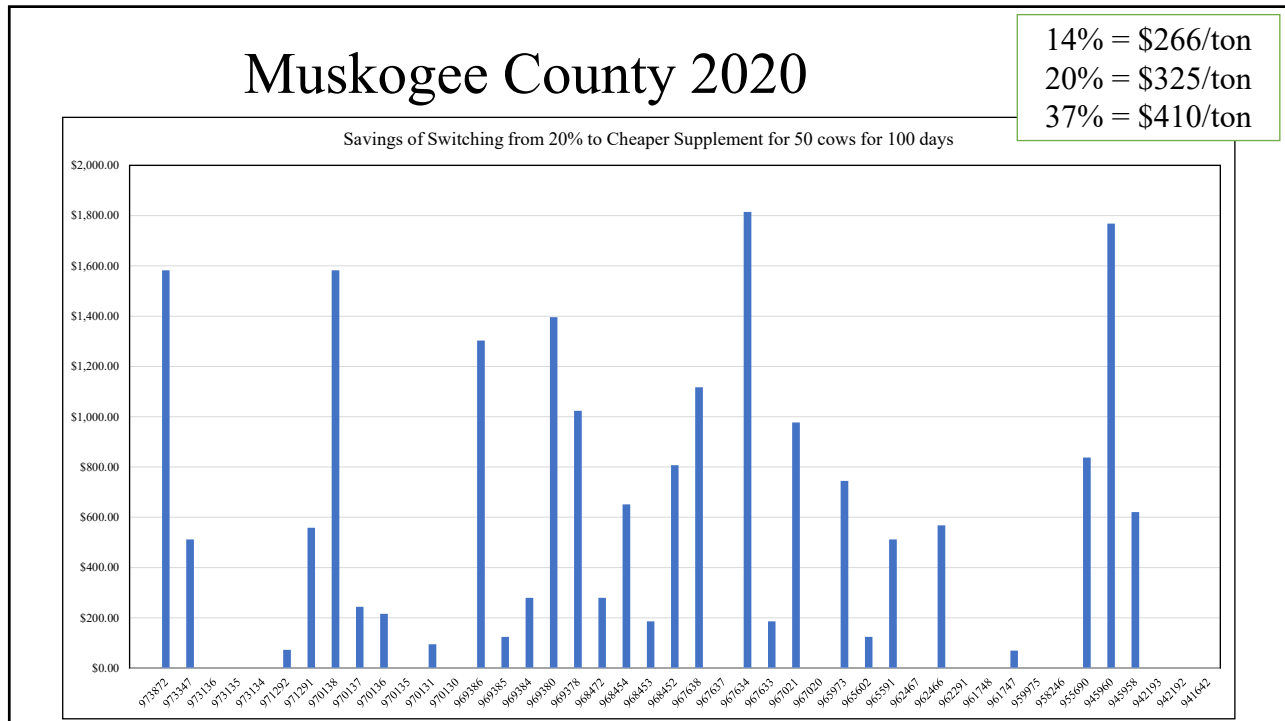
# Muskogee County 2020



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# Supplementation – Evaluate the Cows

Let your cows tell you when you need to start feeding!

Carefully watch BCS!



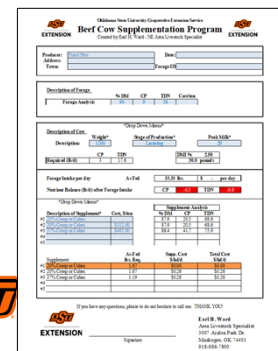
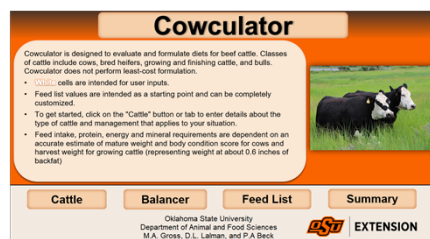
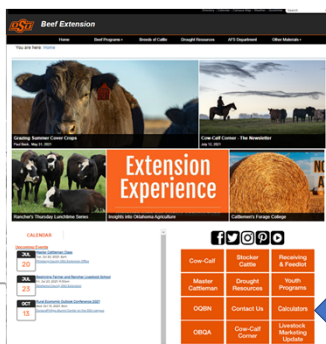
Watch Manure Pats



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## Work with your county OSU Extension Educator to develop a Feeding/Supplementation Strategy!

- Forage Analysis!
  - Try to match the forage quality to animal's nutrient requirements
- Supplementation Evaluation



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