LEARNING OBJECTIVES

- Identify various feedstuffs used in swine diets.
- Explain the purpose of each feedstuff in the diet.
- Understand the importance of utilizing feedstuffs for swine nutrition.
WHAT IS A "FEEDSTUFF"?

- A feedstuff is basically any food that is used for livestock.
- Feedstuffs are used to provide minerals, protein, and energy in swine diets.
- Various colors and textures can help you tell feedstuffs apart.
- We want swine diets to be high in energy, low in fiber, and adequate in terms of protein.
FEEDSTUFFS TO KNOW

- Dicalcium Phosphate
- Soybean Meal
- Fish Meal
- Copper Sulfate
- Whole Wheat
- Milk Replacer
- Whole Cotton Seeds
- Whey

- Steam Rolled Oats
- Cracked Corn
- Wheat Middlings
- Blood Meal
- Distillers Grains
- Dried Egg
- Milo
- Mixing Salt
The following feedstuffs are excellent sources of minerals in swine diets.

- Dicalcium Phosphate
- Copper Sulfate
- Mixing Salt
DICALCIUM PHOSPHATE

- Color: Gray
- Texture: Granular
- Appearance: Looks like small rocks of uniform size
- Purpose:
  - Provide calcium and phosphorous
  - Increase bone strength
  - Improve structural development
  - Decreases chance of rickets
COPPER SULFATE

- Color: Blue
- Texture: Finer Crystals
- Purpose:
  - Provide copper in diets
  - Assist in the growth and development of swine
  - Increase growth performance of young pigs
MIXING SALTS

- **Color:** White
- **Texture:** Granular, Grainy
- **Appearance:** Looks like tiny uniform crystals
- **Purpose:**
  - Maintain appetite and normal eating/drinking behavior
  - Increase growth and performance
  - Improve hair and skin conditions
The following feedstuffs are excellent sources of proteins in swine diets.

- Soybean Meal
- Fish Meal
- Blood Meal
- Distillers Grains
- Dried Egg
- Milk Replacer
SOYBEAN MEAL

- Color: Light Brown
- Texture: Granular and Flaky
- Other Characteristic: By-product after removing the oil from the seeds
- Purpose:
  - Provide protein and amino acids
  - High in lysine (most limiting factor in swine diets)
  - Complement other feedstuffs well in the diet
FISH MEAL

- Color: Brown
- Texture: Powdery
- Other Characteristic: Smells like fish, by-product of fisheries and removal of oil from fish
- Purpose:
  - High in protein
**BLOOD MEAL**

- **Color:** Dark, Deep Brown
- **Texture:** Granular, powdery
- **Other Characteristic:** By-product of the meat industry
- **Purpose:**
  - High source of protein
  - High source of lysine when processed correctly
DISTILLERS GRAIN

- Color: Brown
- Texture: Flaky to powdery
- Other Characteristic: sweet smell, by-product of making alcohol for liquor and fuel
- Purpose:
  - Provide protein and energy
  - Cost effective for swine diets
DRIED EGG

- Color: Yellow/gold
- Texture: Powdery
- Purpose:
  - Provide protein and energy
  - Good source of immune globulins
  - Well-suited for younger pig diets
MIL REPLACER

- Color: White/cream
- Texture: Fine, powdery
- Purpose:
  - Provide protein and energy
  - Often used with very young pigs to assist in rearing
  - High in protein
  - Does not fully substitute the nutritional value of sow’s milk
The following feedstuffs are excellent sources of energy in swine diets.

- Whole wheat
- Whole cotton seeds
- Milo
- Whey
- Steam rolled oats
- Cracked corn
- Wheat middlings
WHOLE WHEAT

- Color: Brown
- Texture: Smooth with round edges
- Other Characteristics: Crease along the middle of one side
- Purpose:
  - Excellent source of energy
  - Often not as competitively priced as corn or milo
WHEAT MIDDINGS

- Color: Brown with white spots
- Texture: Flaky
- Other Characteristics: Looks like crumbled bran cereal, by-product of removing starch from wheat
- Purpose:
  - Source of energy
  - Improved feed disappearance
  - Improved gain
**MILO**

- **Color:** Reddish brown
- **Texture:** Smooth
- **Other Characteristics:** Round bead-like grain
- **Purpose:**
  - Great source of energy
  - More economical than corn
  - Not as high in energy content as corn
WHEY

- Color: Light brown
- Texture: Fine, powdery
- Other Characteristics: Sweet smell, by-product of making cheese
- Purpose:
  - Contains lactose and protein
  - Economical
  - Good source of energy
  - Can be used similar to milk replacer
WHOLE COTTON SEEDS

- Color: White
- Texture: Fuzzy
- Other Characteristics: By-product of removing cotton lint from seeds
- Purpose:
  - Good source of energy
  - Do not feed too much to swine or result in gossypol toxicity
CRACKED CORN

• Color: Yellow and white
• Texture: Rough
• Other Characteristics: Whole corn kernels that have been broken
• Purpose:
  ○ Excellent source of energy
  ○ Excellent feed efficiency
  ○ Excellent average daily gains
STEAM ROLLED OATS

- Color: Light Brown
- Texture: Flaky
- Other Characteristics: Whole oats that have been steamed and rolled; look for creases in the kernel caused by the roller
- Purpose:
  - Serve as a gut fill product
  - Improved digestibility
FEEDSTUFFS QUIZ

See what you've learned!
Which of these pictures represents soybean meal?
Which of the following has a sweet smell similar to that of milk replacer?

- Fish Meal
- Blood Meal
- Dried Whey
- Cracked Corn
Which of the following is the most limiting factor in swine diets?

Lysine  
Valine  
Leucine  
Tryptophan
Which of the following could lead to gossypol toxicity if fed in excess?

- Milo
- Dicalcium Phosphate
- Cotton Seeds
- Whole Wheat
Milo is higher in energy content than corn.
1. Which of these pictures represents soybean meal?
2. Which of the following has a sweet smell similar to that of milk replacer? DRIED WHEY
3. Which of the following is the most limiting factor in swine diets? LYSINE
4. Which of the following could lead to gossypol toxicity if fed in excess? WHOLE COTTON SEEDS
5. Milo is higher in energy content than corn. FALSE
Congratulations!
You've completed the "Feedstuffs" resource! Great Work!
Keep going through the resources to learn more about swine!