Virtual Quiz Bowl
SE District
Mini Rex


Phenotype: rabbits are a small, compact breed that has a very plush undercoat and extremely soft, velvety feeling fur, which comes in a wide variety of colors.

Maximum weight 4.5 lbs.
Mini Satin

Origin: Developed by J. Leo Collins and became the 47th recognized breed in 2005.
Phenotype: originally a white rabbit but now comes in about 16 varieties of colors.

Maximum weight 4.75 lbs.
Mini Lop

Maximum weight 6.5 lbs.

**Origin:** Developed with a name change and recognized as a breed in 1980.

**Phenotype:** Easily recognized by the softball-sized head and engaging lopped ears.
Dutch

Origin: Possibly the most recognized breed developed in England in the 1830s.

Phenotype: Essentially, these are a white rabbit, with a colored base coat. They have well-rounded, compact bodies, with short, strong legs, and a broad head with full cheeks, and short, erect ears.

Maximum weight 5.5 lbs.
Californian

Origin: Developed in the US by George West in 1920.
Phenotype: Most popular breed in the American Rabbit Breed Association. They were developed with the desired goal of producing a good meat and fur breed.

Maximum weight 10.5 lbs.
Origin: Despite the name, the breed was originally developed in the United States and became recognized in 1916. Prized mostly for their quick growth rate and meat production.

Phenotype: Originally red in fur color white became more popular for dyeing the fur.

Maximum weight 12 lbs.
Rex

Maximum weight 10.5 lbs.

Origin: First shown publicly at the Paris International Rabbit Show in 1924, the breed was recognized internationally as a breed to watch.

Phenotype: Today the “King of the Rabbits” can be shown in 16 color varieties that showcase that plush and unforgettable fur.
American Chinchilla

Origin: After being shown by a British exhibitor in 1919 at the New York State Fair it can be credited with the development of more breeds and varieties of rabbit worldwide than any other breed of domestic rabbit.

Phenotype: It has a commercial body type but the same roll back coat and straight erect ears.

Maximum weight 12 lbs.
**Origin:** Bred in 19th Century France from English Lop and Flemish Giant Stock Appeared in the US in 1971.

**Phenotype:** massive, heavy boned rabbit with a strongly developed, wide and sturdy head.
English Lop

Maximum weight None.

Origin: Unknown origin but believed to have originated in Africa but arrived in England in 1800s. Nicknamed “the Dog of the rabbit world”.

Phenotype: Big floppy ears and easy going nature.
Checkered Giant

**Origin:** French breed and ARBA Recognized in 1919.

**Phenotype:** easily recognized by its distinctive bold markings and arched body type. They are a running breed and require a large cage to move comfortably.

Maximum weight *None.*
Swine Breeds
Origin: England
Phenotype: Black bodies with white feet, tails, and faces. Known for dish snouts; and short erect ears.
Origin: England
Phenotype: large-framed white bodies with erect ears.
Known as the “Mother” breed for large litters and good mothering ability.
Origin: England
Phenotype: black bodies with a white belt near the shoulders and erect ears.
Known as a carcass breed.
Origin: Pennsylvannia
Phenotype: white bodies and medium sized, droopy ears. Known as a maternal “Mother” breed.
Origin: Denmark
Phenotype: long white bodies with large droopy ears. Known for large litter sizes.
Origin: Ohio
Phenotype: black bodies with six white points, medium sized droopy ears. Known as a lean meat breed.
Origin: United States
Phenotype: light to dark red bodies with medium sized droopy ears. Known as a lean meat breed with growth efficiency.
Origin: United States (Ohio)
Phenotype: black and white spotted bodies with medium droopy ears. Known as a carcass breed with growth efficiency.
Meishan

**Origin:** China

**Phenotype:** black bodied with folds of skin appearance and large dropping ears. Known as a high litter breed.
Origin: Belgium
Phenotype: The breed is of medium size and is white with black spots and erect ears. Known to carry “PSE” gene or “stress” gene.
**Origin:** United States (Missouri)

**Phenotype:** must have white face, not less than two-thirds red exclusive of face and ears, with at least two white feet – white showing not less than one inch above the hoof. Known as a lean meat breed.
Tamworth

**Origin:** England

**Phenotype:** light red bodied with erect ears.

Known as a lean meat breed and forager.
Goat Breeds
**Origin:** Republic of South Africa

**Phenotype:** The Boer breed is characterized by a red head and red on at least a portion of the neck, with a white body.
Origin: Turkey
Phenotype: goat raised primarily for their luxurious mohair fiber which must be sheared every six months.
LaMancha

Origin: Spain
Phenotype: dairy goat is born with its unique small ears.
Origin: French Alps
Phenotype: Dairy goat has no distinct color has been established, and it may range from pure white through shades of fawn, gray, brown, black, red, bluff, piebald, or various shadings or combinations of these colors.
Origin: West Africa

Phenotype: The nose is straight. The ears are upright. The coat is soft with short to medium hair. Any color or combination of colors is acceptable, though silver agouti (roan) is considered a moderate fault.
**Origin:** Africa  
**Phenotype:** dwarf meat breed with all body colors are acceptable, the predominate coloration is a grizzled (agouti) pattern produced by the intermingling of light and dark hairs, of any color.
Origin: South Africa

Phenotype: large framed, well-muscled breed primarily used for meat. They typically have white coats, as that coat allele is dominant over the others. However, their skin, horns, and hooves have black pigmentation, to protect them from the sun.
Origin: Tennessee

Phenotype: Most are black and white but multi colors are not uncommon and when they are frightened or excited they "lock up" and often fall over (faint) and lie very stiff for a few seconds.
**Origin:** New Zealand

**Phenotype:** Meat breed with multiple coat color combinations. Known for grazing selection pressure and potential parasite resilience traits.
Origin: GOATEX Group LLC – New Zealand
Phenotype: meat type breed composite.
Origin: US - Native
Phenotype: Goats can be any color or color pattern. They are moderate in size and growth rate. They are especially tolerant of difficult conditions and forage well on local plants.
Origin: England
Phenotype: The head is the distinctive breed characteristic, with the facial profile between the eyes and the muzzle being strongly convex (Roman nose).
Origin: Switzerland
Phenotype: dairy goat may be any color or combination of colors except white or light cream.
Oberhasli

**Origin:** Canton of Berne in Switzerland  
**Phenotype:** name loosely translates as “highlander.” This breed is of medium size, vigorous and alert in appearance. Its color is chamois.
Saanen

**Origin:** south of Canton Berne, Switzerland.

**Phenotype:** heavy producers of milk and usually yield 3 percent to 4 percent milk fat. This breed is medium to large in size, and white in coat color.
Toggenburg

Origin: _______ Valley, Switzerland
Phenotype: medium in size, moderate in production and have relatively low butterfat content — 2 percent to 3 percent — in their milk. They are also known as being the oldest dairy goat breed.
Cattle Breeds
Origin: Scotland
Phenotype: Polled with black hide
Known for carcass traits, milking, mothering and reproduction.
Gelbvieh

**Origin:** Germany

**Phenotype:** Solid cream to reddish yellow

Known for general purpose breed with good milking ability
**Origin:** West Central France

**Phenotype:** Red color with lighter color around muzzle and eyes

Known for lean meat yield and minimal fat.
Charolais

Origin: France  Imported: 1936
Phenotype: Cream Color to White with heavy muscle expression.
Known for feed efficiency & growth.
Origin: Lasater Ranch, Texas
Phenotype: Selection pressure on Six Essentials - Weight, Conformation, Milking Ability, Fertility, Hardiness and Disposition
Simmental

**Origin:** Switzerland

**Phenotype:** Traditionally, it is reddish in color with white markings, and is raised for both milk and meat.
Pinzgauer

**Origin:** Austria

**Phenotype:** a characteristic broad white stripe lengthwise along the whole back. The abdomen, chest, udder, and tail are white as well.
**Polled Hereford**

**Origin**: Developed in the US without horns

**Phenotype**: Red and white color pattern. Known for survivability to droughty conditions.
Horned Hereford

**Origin:** England  Imported to US: 1817

**Phenotype:** Red and white color pattern with horns.
Red Angus

**Origin**: Scotland  
**Imported**: 1872  
**Maine Anjou**

**Origin:** France  
**Imported:** 1969

**Phenotype:** Red, Black, White or combination of each. Known for feed efficiency & growth.
Brahman

**Origin**: Bos Indicus type zebu breed from India.
**Phenotype**: color varies from light grey or red to almost black. Known to do well in hot humid climates.

Phenotype: Black or Red registrations. Known for combining positive traits of each breed. Heat tolerance of Brahman and carcass traits of Angus.
Origin: Southwestern Scotland
Phenotype: Mostly Black with a white belt. Sometimes referred to as the “Oreo Cookie” cattle.
Origin: France    Imported: 1975
Phenotype: Mostly Red. Typically, larger framed cattle.
Tarentaise

Origin: ________Valley, France       Imported: 1973

Phenotype: Red, black muzzle & switch, horned. Known for Milk & Early Maturity.
Origin: West Central, Italy

Imported: 1973 from Canada

Phenotype: short hair that varies from white to steel gray in color, legs are longer than most breeds
Origin: Virgin Islands      Imported: 1977
Phenotype: Typically a short haired red *Bos Taurus* heat tolerant breed originally crossed between N’Dama and Red Poll.
Origin: Ponce de León landing in Florida

Phenotype: Speckled with lots of color combinations and horns adapted to Florida environment.
**Shorthorn**

**Origin:** Northeastern part of England  
**Phenotype:** breed come in three colors, red, white and roan. Red cattle may be solid red or have white markings and they can be horned or polled. They are bigger than their dairy counterparts and are grown specifically for their beef.
Origin: Northwest, Italy  Imported: 1979 from Canada

**Phenotype:** born 'fawn' or tan color and change to the grey-white color, with black skin pigmentation and also carry the double muscling gene.
Origin: central and upper Belgium

**Phenotype:** cream to blue color appearance and also carry the double muscling gene.
Texas Longhorn

**Origin:** Spanish Andalusian.

**Phenotype:** animals have long horns and several different color patterns. Known for longevity and hardiness with Disease and insect resistance.
Origin: Switzerland       Imported: 1983

**Phenotype:** Mousy brown pigmented, Light color on muzzle, black tail & hooves Known for Maternal & Carcass traits.
Origin: About 1910 King Ranch in Kingsville, TX  (3/8 Brahman and 5/8 Shorthorn)

Phenotype: Red in color and display a blend of *Bos indicus* and *Bos taurus* attributes. They have a short, straight slick coat with loose and moveable skin which is red in pigmentation. Their confirmation is broad, strong and well muscled, they may be polled or horned.
Red Poll

**Origin:** Suffolk and Norfolk counties of England. Imported to US in 1873.

**Phenotype:** Dual purpose cattle that are universally polled and Red in color.
Origin: British Isles
Phenotype: horned cattle breed which is white with colored points. These points include the ears, nose, rims of eyes, teats and feet but excludes the tail switch.
Origin: southern New South Wales, Australia

Phenotype: preferred color is silver-gray although there are numerous variations in the shading of gray.
Origin: Considered very ancient one, with obscure origins shrouded in antiquity and its' name derived from the word Gallovid or Gaul.

Phenotype: Color of the coat ranges from the more popular Black, to Dun (silver through brown), Red, White (with dark pigment about the eyes, nose, ears and teats), and the Belted (black, dun or red, with a white band around the middle). Usually long haired.
Origin: one of the oldest beef breeds in existence today and even prehistoric ancestry.
Phenotype: cattle are red in color, varying in shade from a rich deep red to a light red or chestnut color. A bright ruby red color is preferred.
Akaushi

**Origin:** originated in Kumamoto, Japan

**Phenotype:** Red in color with high marbling beef
Sheep Breeds
**Origin:** Developed in Southern England  
**US imported 1860’s**

**Phenotype:** large breed moderately prolific with wool caps, black faces, and medium wool fleeces. **Medium Wool.**
Origin: United Kingdom
US imported 1888
Phenotype: This polled breed with black head and legs is known for its meatiness and high carcass quality. Medium Wool.
**Origin:** United Kingdom  
**US imported 1855**

**Phenotype:** medium sized, dark-faced, polled breed has wool on its head and face. It is prolific, matures early, milks well, and is heavily muscled. **Medium Wool.**
**Origin:** border between England and Scotland  
**US Imported:** 1838  
**Phenotype:** small breed, with a white face and bare head and legs. They have erect ears, with a stylish and alert appearance.  
**Medium Wool**
Origin: Netherlands

Phenotype: Known as a terminal sire breed because of its muscling. Distinguished with a white face and bare head and legs. **Medium Wool.**
**Origin:** Southern England  
**US Imported:** 1885  
**Phenotype:** Sheep can be horned, scurred, or polled and best known for out of season breeding.  
**Medium Wool**
Southdown

Origin: Oldest breed from England  US Imported 1820’s  Medium Wool
Phenotype:  color of their face and legs is gray to mouse-brown with wool on the legs.
Corriedale

**Origin:** Simultaneously developed in Australia and New Zealand US Imported 1914.

**Phenotype:** White face with wool on legs and head. **Medium Wool**
Taghee

Origin: USA @ Dubois, ID
Phenotype: White faced wool on legs and wool cap on the head.

Medium Fine Wool
Origin: Finland  US Imported 1968  Medium Wool
Phenotype: Fine boned breed with white faces and wool free legs. Best known for prolific litters sizes and vigorous lambs at birth.
Columbia

**Origin:** US by USDA in early 1900’s

**Medium Wool**

**Phenotype:** White faced polled and large frame size with wool on the legs. Known to be very adaptable under range conditions.
Origin: Spain – One of oldest breeds in the World
Phenotype: Breed is horned, White headed with wool on head and legs.

Very Fine Wool
**Rambouillet**

**Origin:** France  
**US imported 1800’s**  
**Fine Wool**

**Phenotype:** Large white faced, with wool on head and legs. Breed can be polled or horned.
Origin: USA, Maine in 1950’s

Phenotype: Hair sheep breed with some noted parasite resistance.
Origin: South Africa

Phenotype: Two recognized varieties Black Headed, white headed. May not shed the hair coat but are used because of the muscle development traits.

US Imported Mid 1990’s

Hair Sheep
Romanov

Origin: Russia

Phenotype: Most Prolific breed in the world typically black white face color pattern.

US Imported USDA-MARC 1980’s

Hair Sheep
Horse Breeds
American Paint
Shetland
Shire
Clydesdale
Thoroughbred
Belgian
Palomino
Quarter Horse
American Saddlebred
Poultry Breeds

Andalusian
Australorp
Brahma
Cochin
Cornish
Dominiques
Faverolles
Hamburg
Houdan
Jersey Giant
Leghorn
Minorca
Orpington
Plymouth Rock
Rhode Island Red
Sebright
Silkie
Wyandotte
Andalusian

Small, active, closely feathered birds that tend to be noisy and rarely go broody. The plumage is dark and laced.

**Varieties:** Black, Splash, Blue

**Egg Shell Color:** White

**Skin Color:** White

**Use:** An ornamental fowl with fairly good egg production potential.
This breed has an intense beetle-green sheen on the black birds, dark eyes, deep bodies and are very active.

**Variety:** Black, Blue laced, White

**Egg Shell Color:** Brown.

**Skin Color:** White.

**Use:** The breed is primarily a laying and meat bird.
The ancestry of the Breed traces back to China although much of their development took place in the U.S. between 1850 and 1890.

**Variety:** Light, Dark, Buff

**Egg Shell Color:** Brown.

**Skin Color:** Yellow.

**Use:** A very heavy fowl for the production of heavy roasters or capons. Fair egg layers.
Origin: The breed originates from China in the Shanghai province, in 1840.
Variety: Black, Buff, Partridge, White, Barred, Blue, Brown, Golden Laced, Silver Laced.
Egg Shell Color: Brown.
Use: Ornamental and egg production – Winter type bird
Origin: The breed was developed in the shire (county) of Cornwall, England.
Variety: Dark, White, White Laced Red, Buff
Skin Color: Yellow.
Use: Developed as the ultimate meat bird.
Dominiques

**Origin:** Developed in New England. Only rose combed fowl of intermediate size classify

**Variety:** None

**Egg Shell Color:** Brown

**Use:** A dual-purpose breed.

**Skin Color:** Yellow.
Faverolles

**Origin:** Developed in France, it is equipped with a beard and muffs on both the male and female. Brought to the US in early 1900’s.

**Variety:** Salmon, White

**Egg Shell Color:** Light Brown

**Skin Color:** White.

**Use:** Dual purpose of eggs and meat.
**Hamburg**

**Origin:** Holland but with a German name established in the US in mid 1800’s.

**Variety:** Golden Spangled, Silver Spangled, Golden Penciled, Silver Penciled, Black, White

**Egg Shell Color:** White  
**Skin Color:** White.

**Use:** Great egg producer but it also has ornamental uses.
Houdan

**Origin:** Paris, France bred from breeds of that area that have dated back to Roman times, AD 7 - AD 40. Possess a crest, beard and muff and have five toes on each foot. **Variety:** White and Mottled

**Egg Shell Color:** White

**Skin Color:** White

**Use:** Ornamental fowl that is also a good egg producer and fairly good as a meat bird.
Jersey Giant

**Origin:** largest chicken developed in America.
**Variety:** Black, White
**Egg Shell Color:** Brown  **Skin Color:** Yellow
**Use:** a dual-purpose fowl for meat and eggs.
**Origin:** Originates from a region in Northern Italy. Most numerous breed we have in America

**Varieties:** Single Comb (White, Brown, Buff, Light Brown, Red, Silver, Black, Black tailed Red, Columbian) Some Rose Comb varieties as well.

**Egg Shell Color:** White

**Skin Color:** Yellow

**Use:** Primarily a layer.
Minorca

**Origin:** developed in the Mediterranean area off the coast of Spain.

**Variety:** Single Comb (Black, White, Buff) Rose Comb (Black, White)

**Egg Shell Color:** White

**Skin Color:** White

**Use:** egg producers
Orpington

**Origin:** Developed in England by crossbreeding a Minorca and a Black Plymouth Rock.
**Variety:** Black, Blue, Buff, White
**Egg Shell Color:** Brown  **Skin Color:** White
**Use:** dual-purpose bird for eggs and table meat.
Plymouth Rock

**Origin:** Developed in America with the first variety being barred.

**Varieties:** Barred, White, Buff, Partridge, Silver Penciled, Blue, Columbian

**Egg Shell Color:** Brown

**Skin Color:** Yellow

**Use:** dual-purpose bird for eggs and table meat.
Rhode Island Red

**Origin:** Developed in North East US States.

**Varieties:** Single Comb, Rose Comb

**Egg Shell Color:** Brown

**Skin Color:** Yellow.

**Use:** Considered the best egg layers of dual-purpose birds.
Sebright

Origin: Considered one of the oldest British “true bantam” breeds.
Varieties: Silver, Gold
Egg Shell Color: White/cream
Use: ornamental bantam fowl
Silkie

**Origin:** Developed in Asia? China, India, or Japan.
**Varieties:** Bearded or Non Bearded- (Black, Blue, Partridge, Buff, White, Gray)
**Egg Shell Color:** Cream
**Use:** ornamental bantam fowl
**Silver Laced**

**Origin:** Later named after a North American tribe located in Upper New York and Canada.

**Varieties:** White, Buff, Columbian, Golden Laced, Blue, Silver Laced, Silver-Penciled, Partridge, Black

**Egg Shell Color:** Brown  
**Skin Color:** Yellow

**Use:** dual-purpose bird for eggs and table meat.
• *Medicago sativa*
• Called the Queen of forage
• Has an outstanding protein content and balance of amino acids
• Provides a higher level of minerals and vitamins
• Can cause bloat and contains Phytoestrogens

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
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<td>57</td>
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• One of the main cereal grain crops
• also used in the production of alcohol

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• often referred to as a “super fiber” due to its high digestibility and ease of fermentation
• lacking in nutrients such as Vitamin A and Selenium

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<th>DM%</th>
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<td>76</td>
<td>0.5</td>
<td>0.6</td>
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• Major food staple throughout the world
• Considered the #1 Energy source feed ingredient in livestock operations
• Causes acidosis when fed at high rates

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<tr>
<td>Corn</td>
<td>89</td>
<td>10</td>
<td>89</td>
<td>4.1</td>
<td>.03</td>
<td>.30</td>
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• Complex group of Micronutrients typically supplied with a lick block or loose mineral formulation

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<th>Trace Mineral Salt</th>
<th>Na%</th>
<th>Zn PPM</th>
<th>Fe PPM</th>
<th>Mn PPM</th>
<th>Cu PPM</th>
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<td>2000</td>
<td>1800</td>
<td>280</td>
<td>100</td>
<td>60</td>
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• Mineral supplied to give strength to bones and teeth
• Helps keep the Ca:P ratio 2:1

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<th></th>
<th>Ca%</th>
<th>P%</th>
<th>Na%</th>
<th>S%</th>
<th>Zn PPM</th>
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<tr>
<td>Dicalcium Phosphate</td>
<td>23</td>
<td>19</td>
<td>.08</td>
<td>1.14</td>
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Liquid or Dried Molasses

- Utilized to keep dust down in dry forage diets
- Sweetner - Highly palatable to cattle

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<tr>
<td>77-94</td>
<td>6-9</td>
<td>74</td>
<td>0.3</td>
<td>1.10</td>
<td>0.15</td>
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</table>
• Major cereal grain worldwide
• Considered a great feedstuff for horses
• Palatable, considered an excellent conditioning feed
• Higher protein than most grains, and the best balanced in amino acids of the cereal grains

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<tr>
<td>89</td>
<td>13</td>
<td>74</td>
<td>4</td>
<td>.10</td>
<td>.40</td>
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• Highest protein oil seed used in the world
• Good amino acid profile especially Lysine
• Although typically fed in small amounts can be an expensive ingredient.

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<td>49</td>
<td>84</td>
<td>1.5</td>
<td>.36</td>
<td>.70</td>
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**Limestone**

- Most common source of Calcium supplement used in livestock rations

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<td>38</td>
<td>.02</td>
<td>.06</td>
<td>.03</td>
<td>39</td>
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</table>
• Human use - usually too expensive as feed grain
• Low test weight, sprout-damaged grain sometimes competitively priced to other feed grains
• Higher rumen degradability of protein than corn
• Must be rolled or coarsely ground to be utilized
• If feeding high amounts of grain (>1% of weight) blend 30-50% of this with 50-70% other grain

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</table>
- By-product of flour milling process
- Performance similar to corn and soybean supplement in grazing cattle
- Energy from highly digestible fiber and starch
- Limit to 1% of weight to reduce risk of bloat
- Susceptible to molding at moisture content above 11%

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<td>73</td>
<td>5.9</td>
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Cottonseed Meal

- By-product of oil seed with specific Processing method
- Contains negative reproductive substance known as Gossypol

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<th>DM%</th>
<th>CP%</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cottonseed Meal</td>
<td>93</td>
<td>44</td>
<td>78</td>
<td>5.0</td>
<td>0.21</td>
<td>1.16</td>
</tr>
</tbody>
</table>
Rice Hulls

- by-product of rice dehulling. They are used in some countries for poultry litter bedding that can later be fed to ruminants.

<table>
<thead>
<tr>
<th></th>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice Hulls</td>
<td>92</td>
<td>3</td>
<td>13</td>
<td>0.9</td>
<td>.12</td>
<td>.07</td>
</tr>
</tbody>
</table>
• By-product of the distilling industry
• Low in ruminal degradable protein 30-50%
  • As acid detergent insoluble nitrogen (ADIN) increases, undegradable protein increases
• Considered a protein supplement, but energy value equal to corn gluten feed

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>31</td>
<td>89</td>
<td>13.0</td>
<td>.07</td>
<td>.87</td>
</tr>
</tbody>
</table>
• By-product of the rice milling industry
• High fat content can cause rancidity problems during summer storage
• Small particle size, starch, and fat content present potential digestive problems
• Limit to 0.5% of weight due to fat content

<table>
<thead>
<tr>
<th></th>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice Bran</td>
<td>91</td>
<td>14</td>
<td>72</td>
<td>15</td>
<td>.07</td>
<td>1.78</td>
</tr>
</tbody>
</table>
• By-product of grits, and corn meal milling process
• Palatable feed
• Should be analyzed for fat content
• Limit to 0.5% of weight due to fat and rapid fermentation rate

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>10</td>
<td>86</td>
<td>6.9</td>
<td>.04</td>
<td>.55</td>
</tr>
</tbody>
</table>
• By-product of soy-bean oil processing in Pelletized form
• Energy from highly digestible fiber
• Energy equal to corn when limited to 0.5% of body weight of grazing cattle
• Can cause bloat if consuming over 1.5% of body weight. Avoid bloat by feeding 3-4 lbs. effective fiber when self-feeding hulls

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>14</td>
<td>67</td>
<td>3.3</td>
<td>.64</td>
<td>.18</td>
</tr>
</tbody>
</table>
- By-product of this oil seed
- Fibrous product primarily used to feed ruminants
- High fiber, low protein by-product

**Cottonseed Hulls**

<table>
<thead>
<tr>
<th></th>
<th>DM%</th>
<th>CP%</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw – Bulk Totes</td>
<td>90</td>
<td>3.8</td>
<td>42</td>
<td>1.7</td>
<td>0.13</td>
<td>0.09</td>
</tr>
<tr>
<td>Pelletized</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• By-product of high fructose corn syrup production
• Highly rumen degradable protein source
• Palatability variable with grazing cattle
• Energy value equal to corn when fed at 0.5% of body weight
• Potential sulfur toxicity problems

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP%</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
<th>K%</th>
<th>S%</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>24</td>
<td>80</td>
<td>4.1</td>
<td>.14</td>
<td>1.07</td>
<td>1.50</td>
<td>0.53</td>
</tr>
</tbody>
</table>
• Cereal Grain- usually planted as cool season forage for ruminants
• Can have a presence of ergot alkaloids
• used for flour, bread, beer, crispbread, some whiskeys, some vodkas, and animal fodder.

<table>
<thead>
<tr>
<th></th>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rye</td>
<td>89</td>
<td>14</td>
<td>80</td>
<td>2.5</td>
<td>.07</td>
<td>.55</td>
</tr>
</tbody>
</table>
• Legume crop most well known in Georgia
• Avoid using in pelleted format because it loses its Crude Fiber characteristics

Peanut Hull

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>CF%</th>
<th>Ca%</th>
<th>P%</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>8</td>
<td>22</td>
<td>1.5</td>
<td>63</td>
<td>.20</td>
<td>.07</td>
</tr>
</tbody>
</table>
• Canada & Northern US crop grown for its oil and noted for its high omega-3 fatty acid content
• Research has shown that in dairy cow rations feeding this has increased conception rates.
• Limit amount in Layer diets as may cause fishy taste to eggs

<table>
<thead>
<tr>
<th></th>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>CF%</th>
<th>Ca%</th>
<th>P%</th>
<th>Zn ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flax</td>
<td>92</td>
<td>27</td>
<td>111</td>
<td>29</td>
<td>10.7</td>
<td>.27</td>
<td>.67</td>
<td>54</td>
</tr>
</tbody>
</table>
• Warm Season Annual forage
• Utilizes Nitrogen fertilization very efficiently
• A favorite forage to make hay of most Oklahoma producers

<table>
<thead>
<tr>
<th>DM%</th>
<th>CP %</th>
<th>TDN%</th>
<th>Fat%</th>
<th>NDF%</th>
<th>Ca%</th>
<th>P%</th>
<th>Zn ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>8</td>
<td>47-53</td>
<td>1.8</td>
<td>79</td>
<td>.43</td>
<td>.18</td>
<td>26</td>
</tr>
</tbody>
</table>

Full (Mature) Bloom stage
Equipment
Drench Gun
Repeating Syringe
Transfer Needle
OB Chains
Elastrator
Ear Tagger
Curry Comb
Rice Brush
Goat Show Chain
Fluff Comb
Ear Notcher
Rice Pelvimeter
Cow Bell
Digital Thermometer
Scrotal Tape
Frame Score Stick
AI Gun
Elastrator Band
Lamb Snare
AI Sheath
Implant Gun
Calf Sling
Hoof Nipper
Needles
Disposable Syringe
Lariat Rope
Balling Gun
Bucket
Pour on Gun
CIDR applicator
Hanging Scale
Grooming Chute
Clipper
### 14% Pro gainer w/Bovatec 3/8

**MEDICATED**

For increased rate of weight gain in pasture cattle (slaughter, steerer, feeder cattle and dairy and beef replacement heifers).

For control of coccidiosis caused by *Eimeria bovis* and *Eimeria zuernii*.

**ACTIVE DRUG INGREDIENT: Code#**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Code#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lasalocid</td>
<td>31 gms/ton lot#</td>
</tr>
</tbody>
</table>

**GUARANTEED ANALYSIS:**

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein</td>
<td>14.00%</td>
<td></td>
</tr>
<tr>
<td>Crude Fat</td>
<td>3.00%</td>
<td></td>
</tr>
<tr>
<td>Crude Fiber</td>
<td>16.00%</td>
<td></td>
</tr>
<tr>
<td>Calcium (Ca)</td>
<td>0.75%</td>
<td></td>
</tr>
<tr>
<td>Calcium (Ca)</td>
<td>1.25%</td>
<td></td>
</tr>
<tr>
<td>Phosphorus (P)</td>
<td>0.50%</td>
<td></td>
</tr>
<tr>
<td>Sodium (NaCl)</td>
<td>0.75%</td>
<td></td>
</tr>
<tr>
<td>Sodium (NaCl)</td>
<td>1.25%</td>
<td></td>
</tr>
<tr>
<td>Potassium (K)</td>
<td>1.00%</td>
<td></td>
</tr>
<tr>
<td>Vitamin A</td>
<td>7,000 IU/lb</td>
<td></td>
</tr>
<tr>
<td>Vitamin D</td>
<td>2,000 IU/lb</td>
<td></td>
</tr>
<tr>
<td>Vitamin E</td>
<td>21 IU/lb</td>
<td></td>
</tr>
</tbody>
</table>

**INGREDIENTS:**

Processed Grain By-Products, Roughage Products, Plant Protein Products, Grain Products, Forage Products, Molasses Products, Magnesium Mica, Calcium Carbonate, Salt, Zinc Hydroxysulfate, Potassium Chloride, Magnesium Oxide, Basic Copper Chloride, Vitamin A Supplement, Manganese Hydroxysulfate, Sodium Selenite, Vitamin D3 Supplement, Vitamin E Supplement, Cobalt Carbonate, Ferric Sulfate, Ethylenediamine Dihydroiodide.

**DIRECTIONS FOR USE:**

For increased rate of weight gain: Feed continuously at a rate of no less than 60 mg (1.32 lbs. feed) nor more than 100 mg (6.6 lbs. feed) per head per day.

Intakes of Lasalocid in excess of 200 mg per head per day have not been shown to be more effective than 200 mg per head per day on pasture cattle.

For control of coccidiosis: Feed at a rate to provide 1 mg/2.2 lbs. of body weight per day (500 lb. animal, feed 5 lbs. feed). Hand feed to cattle weighing up to 600 lbs. with a maximum of 360 mg/head/day (7.3 lbs. feed).

Provide clean fresh water at all times and a good roughage source.

**WARNING:** A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

**CAUTION:** Safety of lasalocid in unapproved species has not been established. Do not allow horses or other equines access to feeds containing lasalocid as ingestion may be fatal.
Active Drug?

14% Pro gainer w/Bovatec 3/8
(MEDICATED)

For increased rate of weight gain in pasture cattle (slaughter, stocker, feeder cattle and dairy and beef replacement heifers).

For control of coccidiosis caused by Eimeria bovis and Eimeria zuernii.

ACTIVE DRUG INGREDIENT: Code#
Lasalocid.......................... 91 gms/ton lot#

GUARANTEED ANALYSIS:
Crude Protein, min................14.00%
Crude Fat, min.................... 3.00%
Crude Fiber, max...............18.00%
Calcium (Ca), min............... 0.75%
Calcium (Ca), max............... 1.25%
Phosphorus (P), min............. 0.50%
Salt (NaCl), min................. 0.75%
Salt (NaCl), max................. 1.25%
Potassium (K), min.............. 1.00%
Vitamin A, min................ 7,000 IU/lb
Vitamin D, min................ 2,000 IU/lb
Vitamin E, min................ 21 IU/lb
14% Pro gainer w/Bovatec 3/8

(MEDICATED)

For increased rate of weight gain in pasture cattle (slaughter, stocker, feeder cattle and dairy and beef replacement heifers).

For control of coccidiosis caused by Eimeria bovis and Eimeria zuernii.

ACTIVE DRUG INGREDIENT: Code#
Lasalocid......................... 91 gms/ton lot#

GUARANTEED ANALYSIS:

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein</td>
<td>14.00%</td>
<td></td>
</tr>
<tr>
<td>Crude Fat</td>
<td>3.00%</td>
<td></td>
</tr>
<tr>
<td>Crude Fiber</td>
<td>18.00%</td>
<td></td>
</tr>
<tr>
<td>Calcium (Ca)</td>
<td>0.75%</td>
<td>1.25%</td>
</tr>
<tr>
<td>Phosphorus (P)</td>
<td>0.50%</td>
<td></td>
</tr>
<tr>
<td>Salt (NaCl)</td>
<td>0.75%</td>
<td>1.25%</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>7,000 IU/lb</td>
<td></td>
</tr>
<tr>
<td>Vitamin D</td>
<td>2,000 IU/lb</td>
<td></td>
</tr>
<tr>
<td>Vitamin E</td>
<td>21 IU/lb</td>
<td></td>
</tr>
</tbody>
</table>
14% Pro gainer w/Bovatec 3/8
(MEDICATED)

For increased rate of weight gain in pasture cattle (slaughter, stocker, feeder cattle and dairy and beef replacement heifers).

For control of coccidiosis caused by Eimeria bovis and Eimeria zuernii.

ACTIVE DRUG INGREDIENT: Code#
Lasalocid.......................... 91 gms/ton lot#

GUARANTEED ANALYSIS:
Crude Protein, min...................... 14.00%
Crude Fat, min.......................... 3.00%
Crude Fiber, max........................ 18.00%
Calcium (Ca), min...................... 0.75%
Calcium (Ca), max...................... 1.25%
Phosphorus (P), min................... 0.50%
Salt (NaCl), min....................... 0.75%
Salt (NaCl), max....................... 1.25%
Potassium (K), min.................... 1.00%
Vitamin A, min......................... 7,000 IU/lb
Vitamin D, min......................... 2,000 IU/lb
Vitamin E, min......................... 21 IU/lb
14% Pro gainer w/Bovatec 3/8

(MEDICATED)

For increased rate of weight gain in pasture cattle (slaughter, stocker, feeder cattle and dairy and beef replacement heifers).

For control of coccidiosis caused by Eimeria bovis and Eimeria zuernii.

**ACTIVE DRUG INGREDIENT:** Code#

Lasalocid.......................... 91 gms/ton lot#

**GUARANTEED ANALYSIS:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Min/Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein, min.</td>
<td>14.00%</td>
</tr>
<tr>
<td>Crude Fat, min.</td>
<td>3.00%</td>
</tr>
<tr>
<td>Crude Fiber, max.</td>
<td>18.00%</td>
</tr>
<tr>
<td>Calcium (Ca), min.</td>
<td>0.75%</td>
</tr>
<tr>
<td>Calcium (Ca), max.</td>
<td>1.25%</td>
</tr>
<tr>
<td>Phosphorus (P), min.</td>
<td>0.50%</td>
</tr>
<tr>
<td>Salt (NaCl), min.</td>
<td>0.75%</td>
</tr>
<tr>
<td>Salt (NaCl), max.</td>
<td>1.25%</td>
</tr>
<tr>
<td>Potassium (K), min.</td>
<td>1.00%</td>
</tr>
<tr>
<td>Vitamin A, min.</td>
<td>7,000 IU/lb</td>
</tr>
<tr>
<td>Vitamin D, min.</td>
<td>2,000 IU/lb</td>
</tr>
<tr>
<td>Vitamin E, min.</td>
<td>21 IU/lb</td>
</tr>
</tbody>
</table>
DIRECTIONS FOR USE:

For increased rate of weight gain—Feed continuously at a rate of no less than 60 mg (1.32 lbs. feed) nor more than 300 mg (6.60 lbs. feed) per head per day.

Intakes of Lasalocid in excess of 200 mg per head per day have not been shown to be more effective than 200 mg per head per day on pasture cattle.

For control of coccidiosis—Feed at a rate to provide 1 mg/2.2 lbs. of body weight per day (500 lb. animal, feed 5 lbs. feed). Hand feed to cattle weighting up to 800 lbs. with a maximum of 360 mg/head/day (7.90 lbs. feed).

Provide clean fresh water at all times and a good roughage source.

WARNING: A withdraw period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

CAUTION: Safety of lasalocid in unapproved species has not been established. Do not allow horses or other equines access to feeds containing lasalocid as ingestion may be fatal.
Feed Ingredients?

INGREDIENTS:
Processed Grain By-Products, Roughage Products, Plant Protein Products, Grain Products, Forage Products, Molasses Products, Magnesium Mica, Calcium Carbonate, Salt, Zinc Hydroxychloride, Potassium Chloride, Magnesium Oxide, Basic Copper Chloride, Vitamin A Supplement, Manganese Hydroxychloride, Sodium Selenite, Vitamin D3 Supplement, Vitamin E Supplement, Cobalt Carbonate, Ferrous Sulfate, Ethylenediamine Dihydroiodide.

Corn Gluten, Pellets
Wheat Midds, Pellets
1200 lb cow with pinkeye? ____ cc’s

<table>
<thead>
<tr>
<th>Use:</th>
<th>Bovine respiratory disease (Pasteurella multocida, and Histophilus somni), treatment Infectious bovine keratoconjunctivitis (IBK) (Moraxella bovis), treatment Pneumonia (bacterial), treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species:</td>
<td>Beef Cattle, Dairy Cattle</td>
</tr>
<tr>
<td>RoA:</td>
<td>I.M., S.C.</td>
</tr>
<tr>
<td>Dose:</td>
<td>Single dose of 9 mg/lb b.w.</td>
</tr>
<tr>
<td>Withdrawal Time:</td>
<td>Meat. 28d</td>
</tr>
<tr>
<td>WT Notes:</td>
<td>Not for use in lactating dairy animals.</td>
</tr>
<tr>
<td>Animal Weight (lbs)</td>
<td>Number of ml or cc</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>100</td>
<td>3.0</td>
</tr>
<tr>
<td>300</td>
<td>9.0</td>
</tr>
<tr>
<td>600</td>
<td>18.0</td>
</tr>
<tr>
<td>900</td>
<td>27.0</td>
</tr>
<tr>
<td>1000</td>
<td>30.0</td>
</tr>
<tr>
<td>1100</td>
<td>33.0</td>
</tr>
<tr>
<td>1200</td>
<td>36.0</td>
</tr>
</tbody>
</table>