



THE RESOURCE CONSERVING INGREDIENT[®]

U.S. Grain Sorghum: Sustainable Energy – Functional Feed Ingredient for Swine

U.S. grain sorghum is a versatile and sustainable feed ingredient for swine, offering a cost-effective non-GMO alternative to other cereal feed grains. With its strong nutritional profile, high-grain quality and growing demand make it a valuable feedstuff for the global feed milling and swine production industries.

Nutritional Value

- **Energy Source:** U.S. grain sorghum is an excellent source of energy composed of starch, soluble sugars and dietary fiber that also contributes to gut health. U.S. grain sorghum can replace up to 100% of corn or wheat in swine diets with appropriate nutrient balancing.
- **Protein Content:** U.S. grain sorghum contains higher protein levels and more of the essential amino acids threonine, tryptophan and valine than corn on a standardized ileal digestible basis. Supplementation with lysine and methionine is crucial for optimal growth performance.
- **Digestibility:** Modern U.S. grain sorghum hybrids that are considered tannin-free exhibit high starch digestibility that is comparable to corn.
- **Other Nutrients:** U.S. grain sorghum provides valuable micronutrients, including greater non-phytate phosphorus than corn, potassium, and B vitamins. Phosphorus availability can be enhanced through the use of phytase enzymes.

Benefits for Swine Production

- **Effective Feed Ingredient:** The availability and consistently high grain quality make U.S. grain sorghum a cost-effective alternative to other cereal feed grains.
- **Functional Feed Ingredient:** When properly formulated into swine diets, U.S. grain sorghum supports growth and development, resulting in optimal body weight and improved carcass traits. The fiber content can function as a prebiotic that helps support the gut microbiome, contributing to improved digestive function and reduced incidence of enteric diseases.

Considerations when using U.S. grain sorghum

- **Formulation:** When using U.S. grain sorghum it is very important to use its standardized ileal digestible (SID) amino acid content values in swine diet formulations.
- **Tannin Content:** Some grain sorghum varieties grown in other global regions may contain tannins, which can negatively impact feed intake and nutrient digestibility. However, all U.S. grain sorghum for feed use is considered tannin-free.
- **Processing:** Particle size and processing methods should be optimized to maximize starch digestibility and milling efficiency. A suggested dietary particle size of approximately 500-600 microns, or grinding as finely as possible yet maintaining flowability of the diet through automatic feeding systems to optimize both pig performance and milling efficiency.

Scan to learn more about the benefits of U.S. grain sorghum for swine

