



# ADVANTAGES OF U.S. SOYBEAN MEAL IN DOMESTIC FEED RATIONS

THE NUTRITION, PRODUCTION AND PHYSICAL  
CHARACTERISTICS OF U.S. DOMESTIC SOYBEAN  
MEAL SHOULD BE CONSIDERED WHEN COMPARED  
TO COMPETING PROTEIN SOURCES:

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## NUTRITION

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**Balanced Amino Acid Profile.** Soybean meal has high levels of amino acids which balance well with those in cereal grains for poultry and swine feed applications.

**Amino Acid Digestibility.** Lysine in soybean meal is typically estimated to be over 85% digestible. Similarly high digestibility levels are true for other amino acids found in soybean meal, like threonine.

**Other Nutritional Characteristics.** In addition to serving as a source of amino acids, soybean meal provides additional nutritional value by contributing energy, minerals and vitamins

**Nutritional Value Proposition.** For over half a century, U.S. soybean meal has been extensively used in livestock feeds because it delivers nutrients critical to animal health and performance at a competitive cost.

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## RELIABILITY

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**Availability.** With about 60 domestic soybean processing plants, soybean meal has multiple providers delivering a consistent product over a wide area that provides geographic and weather diversity in terms of both growing conditions and shipping options.

**Reliability.** The consistency and “everyday known product quality” can provide a source of highly digestible amino acids that is easily formulated with little or no adjustments for quality differentials or inconsistencies.

**Hedgeability.** All parts of the soybean complex—beans, meal and oil—trade in large volumes, with known and relatively predictable price relationships, so soybean meal can reduce risk of ingredient exposure in terms of both market fluctuation and hedgeability.

**Quality/Claims Process.** The long-established NOPA trade rules provide a proven process to ensure that what is paid for is received in terms of protein, fiber and moisture value. Any reductions in quality are offset financially in a fair, consistent and proven system.

**Transportation Diversity.** Due to the diversity of U.S. soybean processing plants, multiple delivery means are available to ensure consistent and timely soybean meal deliveries, reducing overbuying to ensure availability. Shorter logistical trails allow for less lead-time and less freight expense. Truck, rail or barge delivery is available on a daily basis from multiple sources. Rail delivery is available on multiple rail lines, in various size cars, and can effectively increase the usable storage space of a feed plant.

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## PHYSICAL CHARACTERISTICS

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**Grind.** Soybean meal is ground by the processor, enabling it to be used without additional grinding expense prior to use. This also facilitates blending, bulk bin utilization and minimizes dust and fines at the feed mill. Customers can partner with their processor to achieve the specific grind characteristics that meet their individual needs.

**Moisture.** Although consistent moisture is a key advantage of U.S. soybean meal, plants have the ability to increase or decrease moisture based on the feed formulator's demands.

**Flowability.** Soybean meal has many characteristics that enable a consistent flow from rail cars, storage bins and feed mixers. Limited hang-ups ease feed manufacturing, enable delivery of a more consistent feed and lower feed production costs.

**Soybean Processing Plant Quality Adjustments.** If a feed ingredient buyer is willing to work with a processor, there are many soybean meal traits that can be adjusted to fit a particular end use. Beyond moisture and grind, protein and fiber can be adjusted in the process—within certain limits and based on crop year soybean quality factors—to provide a more valuable feed ingredient. Flow coating agents that ease handling could be changed. Toasting can be adjusted to change color, digestibility or palatability. There is a cost/benefit analysis to all of these, and a processor can work with an end user to optimize costs relative to value.

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## OTHER CONSIDERATIONS

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**Sustainability.** Domestic soybean meal has a proven track record of being a protein/amino acid source that does not negatively affect the environment. And, U.S. soybean producers have improved the sustainability of their operations in recent years with reduced weed control, reduced trips across the field (requiring less fuel), more no-till, and improved land rotation and yield for other crops, reducing weed/insect control and fertilizer for corn.

**Market Driven.** U.S. soybeans are a relatively low- or no-subsidy crop compared to other crops and industries. World supply and demand are the primary determinants of the final value of soybeans and soybean meal. Many competing protein sources receive heavy subsidies from foreign governments or from short-term domestic government programs.

**All Vegetable” Considerations.** U.S. soybean meal is an all-vegetable product, increasing marketing opportunities for some end-users. “All Natural” and “Vegetable Diet” labels are increasing in quantity and many consumers are willing to pay more for these products.

**U.S. Soybean Industry Support.** The soybean checkoff works to support animal agriculture through programs to enhance soybeans, improve soybean meal, emphasize the economic importance of animal agriculture to influencers at the local, state and national level, increase meat and poultry exports, and to provide reliable, third-party educational information about today's food system to consumers. When we “value add” to soybeans, it is good for the entire value chain from farmers, truckers, livestock producers, processors and seed technology companies to consumers.



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