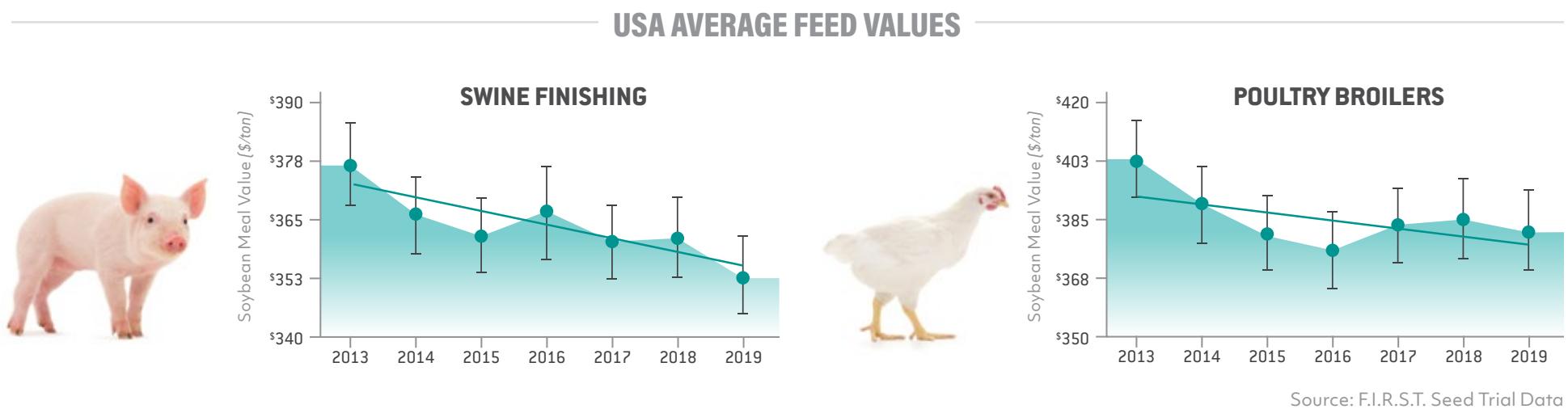


REVEALING SOYBEAN MARKETPLACE CHALLENGES AND VALUE IMPROVEMENT OPPORTUNITIES

A five-year study by the Illinois Soybean Association has uncovered trends with soybean meal value and use in livestock feed that should concern all soybean farmers and seed companies. The quality of U.S. soybeans is decreasing and soybean meal value is dropping with it. Competition from synthetic feed ingredients has pushed the majority of soybean meal out of pig feed rations. The economic damage to soybean farmers is invisible, hiding in reduced demand and lower elevator checks. This overview shows the hidden economic realities of what's happening with soybean value and utilization. It also shows how farmers and feed customers can benefit in unseen ways when farmers select soybean varieties with high feed value.

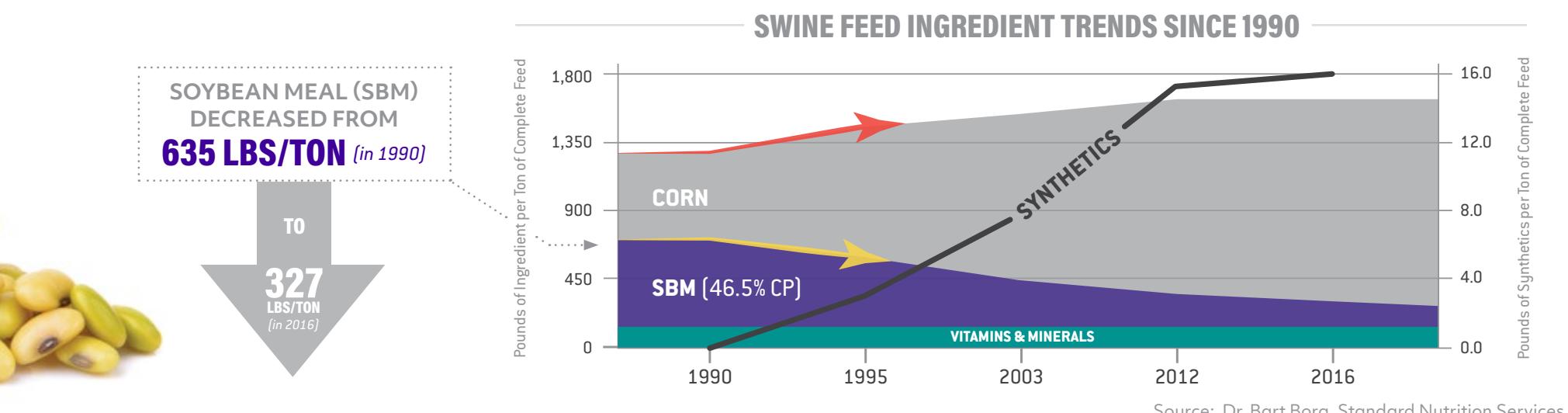
U.S. SOYBEAN VALUE IN LIVESTOCK FEED IS DECREASING

Analysis of over 60,000 samples collected by two checkoff-funded studies proves U.S. soybean value in swine and poultry feed has trended downward since 2013. Other checkoff-funded studies have shown soybean protein vital to livestock feed value has decreased for decades, so the charts below are a short-term snapshot in a long-term slide in soybean value.



SOYBEAN MEAL USE IS DECREASING IN SWINE FINISHING FEED RATIONS

Since 1990 the amount of soybean meal used in swine finishing feed has decreased from **635 pounds per ton of feed** to **327 pounds per ton**, or less, depending on the feed ration formulation. This decrease is due to synthetic amino acids, increased use of corn, and DDGs.



SELECTING VARIETIES WITH HIGH FEED VALUE INCREASES FEED EFFICIENCY AND SOYBEAN VALUE

HIGHER QUALITY BENEFITS SOYBEAN CUSTOMERS

When soybean quality increases, the feed value of soybean meal increases, the cost per head fed decreases, and the amount of soybeans required decreases. The increased feed value of soybeans offsets the decreased amount of soybean meal.

HIDDEN VALUE INCREASES WITH HIGHER FEED QUALITY

When soybean quality improves at the variety level, the feed value per bushel and per acre can increase significantly. However, farmers do not see this value because it's hidden in elevator checks. By selecting higher quality farmers take personal action to protect markets and support higher elevator prices in the future.

LIVESTOCK PRODUCER

2013–2019 SEED TRIAL DATA (Swine Finishing)

Quality Level (Based on Cost per Head Fed)	Estimated Cost/hd Fed (\$ Difference from Average Value)	Value of SBM (\$/ton)	Meal Yield per Bu of Soybeans (lb/bu)
Top 10%	-\$0.41	\$376.82	43.1
Middle 80%	\$0.00	\$363.49	43.1
Bottom 10%	\$0.50	\$348.70	42.9

2019 FARMER SAMPLE DATA (Swine Finishing)

Quality Level (Based on Cost per Head Fed)	Estimated Cost/hd Fed (\$ Difference from Average Value)	Value of SBM (\$/ton)	Meal Yield per Bu of Soybeans (lb/bu)
Top 10%	-\$0.36	\$353.56	43.0
Middle 80%	\$0.00	\$340.08	42.9
Bottom 10%	\$0.43	\$325.97	42.9

2013–2019 SEED TRIAL DATA (Swine Finishing)

Quality Level (Based on Cost per Head Fed)	Estimated Value of Soybeans (\$/bu Difference from Sample with Average Cost/hd Fed Value)	Farmer Value @ 55 bu/ac (\$/acre Difference from Sample with Average Cost/hd Fed Value)
Top 10%	\$0.29	\$15.79
Middle 80%	\$0.00	\$0.00
Bottom 10%	-\$0.32	-\$17.45

2019 FARMER SAMPLE DATA (Swine Finishing)

Quality Level (Based on Cost per Head Fed)	Estimated Value of Soybeans (\$/bu Difference from Sample with Average Cost/hd Fed Value)	Farmer Value @ 55 bu/ac (\$/acre Difference from Sample with Average Cost/hd Fed Value)
Top 10%	\$0.29	\$15.95
Middle 80%	\$0.00	\$0.00
Bottom 10%	-\$0.30	-\$16.63

Farmers have more individual control over future soybean quality and value when they look at quality at the variety level. Planting varieties with high livestock feed value can help reverse the downward trends in U.S. soybean value in swine and poultry feed. Visit soyvalue.com to learn which varieties in your state have the highest livestock feed value.

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