

TENNESSEE SOYBEAN PRODUCTION HANDBOOK

CHAPTER 11: Soybean Marketing

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OVERVIEW

Soybeans are an integral part of the agricultural economy in Tennessee. Soybeans are planted on more acres than any other row crop in the state and have ranked as the top crop for farm cash receipts in 15 of the past 20 years.¹ Tennessee soybean yield per acre has increased on average by 0.63 bu/acre/year since 1980 (*Figure 11-1*). Yield increases have been achieved through improved varieties, advancements in production technology and better management practices. Since 2006, Tennessee has harvested 1.1 to 1.72 million acres annually (*Figure 11-2*).

Access to markets can be challenging depending on the production region in Tennessee. Most Tennessee soybeans are transported to export markets through Tennessee's elevators and barge points or to crushing facilities in other states since there are currently no major crushing facilities in Tennessee. Additionally, there are local soybean roasters and extruders that purchase soybeans for use in livestock, dairy and poultry feeds. The US Department of Agriculture Agricultural Marketing Service (USDA-AMS) publishes daily price and basis quotes by region for old crop and new crop delivery.²

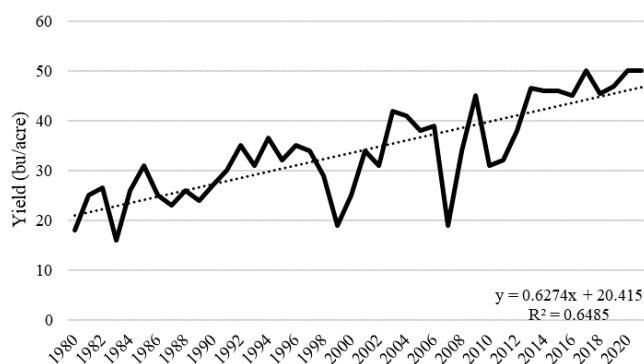


Fig. 11-1. Tennessee soybean yields, 1980-2021.
Source: USDA-NASS, 2022.

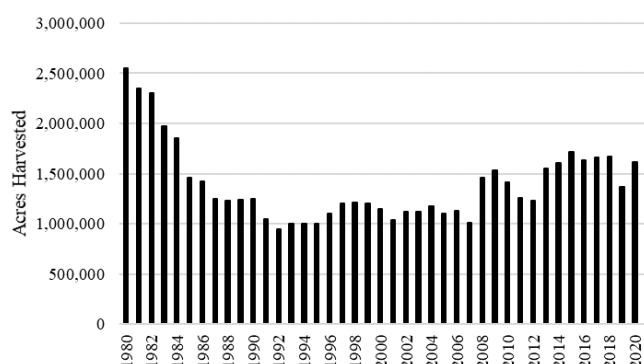


Fig. 11-2. Tennessee soybean acres harvested 1980-2021.
Source: USDA-NASS, 2022.

SOYBEAN PRICE TRENDS

Marketing year average (MYA)³ soybean prices in Tennessee have ranged from \$4.46/bu to \$14.60/bu from 1980-2021. From 1980 to 2006, MYA price for soybeans ranged from \$4.46/bu to \$7.96/bu. Post 2006, ethanol and biodiesel markets and export demand, primarily from China, have propelled prices to a higher level. The MYA price from 2007-2021 was \$10.73/bu, compared to \$6.03/bu from 1980-2006 (*Figure 11-3*). Soybean prices in Tennessee are affected by local, national and global supply and demand factors. In recent years, approximately half of soybeans produced in the United States are exported to foreign markets.

Projected growth in world supply is tied to acreage expansion, primarily in South America, and yield gains worldwide based largely on improved production practices and plant genetics. The largest global producers of soybeans are Brazil, the United States and Argentina. The three countries produce over 80 percent of global supplies. If Tennessee soybean producers are to continue thriving in the global marketplace, it will require continued

¹ See USDA-ERS. "Cash Receipts by State."

² See USDA-AMS. "Tennessee Daily Grain Bids."

³ The marketing year for soybeans is from September 1 to August 31.

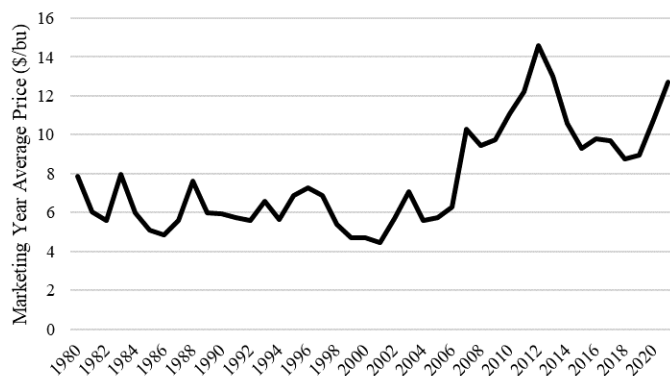


Fig. 11-3. Tennessee marketing year average price, 1980-2021.
Source: USDA-NASS, 2022.

improvement of production efficiency and attention to financial management. Implementation of a risk management and marketing program that manages price risk and boosts average prices received within the prevailing market environment is highly advisable.

CROP INSURANCE

A sound risk management and marketing program is important to soybean growers to help manage price risk, reduce anxiety and increase average prices. The base risk management program for most Tennessee row crop producers is the Federal Crop Insurance Program. Crop insurance is an essential risk management tool for soybean producers and creates a strong foundation for a marketing plan. There are two crop insurance price determination periods for soybeans in Tennessee. The projected price is determined as the average daily close of the November futures contract from February 1 to February 28. The harvest price is determined by the average daily close of the November soybean contract from October 1 to October 31. **Table 11-1** shows projected and harvest crop insurance prices from 2011 to 2022. The spring and harvest price assist in setting the revenue guarantee for each insured farm unit (revenue guarantee = APH yield x price x coverage level). When selecting a crop insurance product, producers have numerous decisions to make (policy

Year	Projected	Harvest
2011	\$13.49	\$12.14
2012	\$12.55	\$15.39
2013	\$12.87	\$12.87
2014	\$11.36	\$9.65
2015	\$9.73	\$8.91
2016	\$8.85	\$9.75
2017	\$10.19	\$9.75
2018	\$10.16	\$8.60
2020	\$9.17	\$10.55
2022	\$14.33	NA

Table 11-1. Tennessee Projected and Harvest Soybean Prices, 2011-2022.
Source: USDA-RMA, 2022.

type, unit structure, buy-up level, etc.). Working with a qualified crop insurance representative will assist producers in maximizing the effectiveness of crop insurance protection. Crop insurance provides a base level of revenue or yield protection that can be used to assist when making marketing decisions.

STORAGE

Storage can be an effective marketing tool for Tennessee soybean producers. On-farm or commercial storage allow producers to avoid harvest wait times at elevators and barge points and extend the marketing window, so producers can take advantage of seasonal price appreciation and time delivery to avoid months of the year when labor may not be readily available on the farm. Basis (local cash price - nearby futures price) in Tennessee is typically lowest during the harvest season, September to November (**Figure 11-4**). The monthly average close of the November futures contract indicates price lows are typically achieved August to October (**Figure 11-5**). Avoiding typical seasonal lows during harvest, through storing the crop, can assist producers with obtaining higher average cash prices. From 2013 to 2021, average cash soybean prices in Tennessee improved \$1.23 from September to May (15.4 cents per month). Building on farm storage can be expensive. Producers should determine if programs such as the Tennessee Agricultural Enhancement Program⁴ can assist in lowering producer costs. Storage can be an important part of a strong marketing program and assist producers with tax planning.

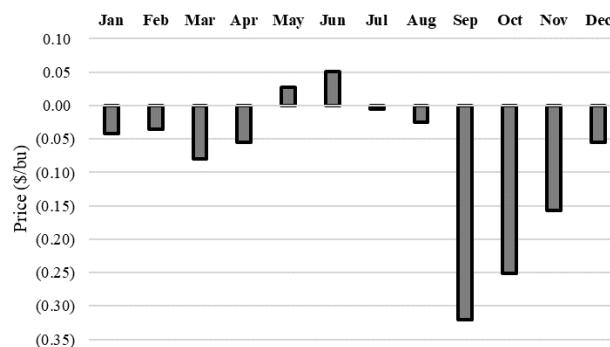


Fig. 11-4. Tennessee monthly average soybean basis, 2017-2021.
Source: Barchart.com, 2022.

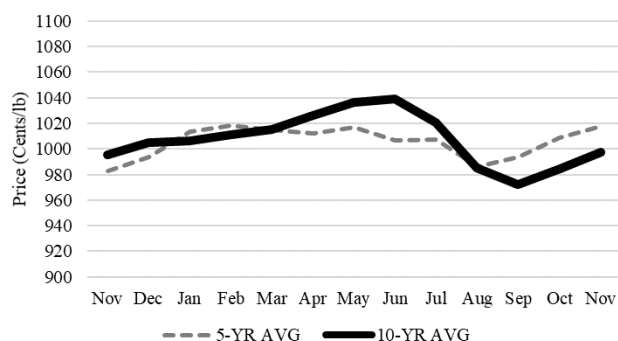


Fig. 11-5. Monthly Average Closing Price for the November Futures Contract, 5-year (2017-2021) and 10-year (average 2014-2021).
Source: USDA-AMS, 2022.

⁴ See Tennessee Department of Agriculture. "Tennessee Agricultural Enhancement Program (TAEP)."

PRICING ALTERNATIVES

Soybean producers are price takers when pricing their crop on a particular day, but they can mitigate risk and potentially boost their average price by making more effective use of time and available pricing alternatives. Time can and should be considered as a valuable ally. “Have to” selling should be avoided whenever possible. Making incremental sales during the production year to avoid sales during times of the year when prices are typically lower can assist in obtaining a higher season average price. Additionally, during periods of abnormally strong prices, producers may want to consider pricing part of future crops using futures or options (CME soybean futures contracts are traded four years in advance). Pricing alternatives include using, cash sales, futures, options, cash forward contracts, hedge-to-arrive (HTA) contracts, basis contracts, minimum price contracts and deferred pricing contracts. Many grain merchandisers and end users offer products or services that can assist producers in pricing soybeans. Farmers should investigate available soybean pricing alternatives and decide which ones are the most practical for their operation. Working with a broker or grain merchandiser can be a valuable relationship that saves a producer time and money; however, producers should understand the pricing alternatives and strategies that the broker or merchandiser are utilizing to manage price risk. Remember that very little in life thrives on neglect, and this is certainly true of soybean marketing.

PLACE EMPHASIS ON FORWARD PRICING

The highest new-crop price offers are often provided several months before harvest. New crop price strength during the past 10 years has been greatest during the March to June period. Prices are strongest then because of uncertainty of growing conditions for the new crop. The market, in effect, bids a weather risk premium into prices. In addition, high new-crop prices at or just before the primary planting period in the major growing areas serve as a planting incentive to producers, especially as soybeans, corn and cotton compete for spring-planted acreage. Growers can often use this “acreage bidding” process to good advantage. Many successful soybean marketers have a goal of getting 40-50 percent of their expected production priced by July 1. Those with concern about getting too many beans obligated for delivery too early can start with elevator delivery contracts but at some point shift to use of futures or options, where delivery is not required, thus avoiding exchanging price risk for production risk. New-crop prices typically slide during July based on the failure of serious weather problems to materialize. In effect, most weather premiums tend to be removed during July. Dry weather in late July or August or the fear of early frost can result in the weather premium incorporated back into prices. Each year presents unique challenges and opportunities; therefore, producers should remain informed throughout the year on global, national and local issues that are affecting agricultural markets. Using a combination of forward pricing and storage can avoid pricing when soybean prices are typically lowest at harvest.

Generally, soybean growers can forward price using: (1) fixed price agreements, basis contracts, hedge-to-arrive contracts, or minimum price contracts with grain elevators and/or (2) futures market hedges and options contracts through a brokerage firm. Elevator contracts are simpler to use, but there is a delivery expectation. Forward pricing through a brokerage business is more complex and has direct monetary consequences, but there are no physical delivery requirements.

PRICING ABOVE THE PROJECTED CROP INSURANCE PRICE GUARANTEE USING AN INCREMENTAL SYSTEM

Many growers target incremental soybean sales during the growing season when prices exceed the projected crop insurance price. If the projected crop insurance price is exceeded by the futures market price, producers may want to make incremental sales at specified price intervals. For example, if the projected crop insurance price is \$12.00/bu, a producer may decide to price 5 percent of projected production when harvest futures reach \$12.25/bu, 10 percent of production at \$12.50/bu, 15 percent of production at \$12.75/bu and so on until his targeted amount of production is reached, for instance, 50 percent of production priced by July 1. In this example, a producer would price an additional 5 percent of production with each \$0.25/bu increase in futures price, up to a maximum of 50 percent of projected annual production. Incremental pricing will not result in the highest possible price, but it can assist in spreading out risk. Producers are encouraged to evaluate the amount priced in each increment and the desired price increase to trigger additional sales.

PRICING SOYBEANS AT OR AFTER HARVEST

Even though you may be aggressive at forward pricing, producers may still have 25-75 percent of the crop left to price when combines enter fields in the fall. The November futures contract typically makes a seasonal low in September or October. In general, growers should not make cash sales at harvest the primary feature of their marketing program. Growers can expect basis improvement (*Figure 11-4*) of \$0.25-0.35/bu between September and January, but after that further basis gains can be slow to materialize. Soybean producers can also consider futures and options strategies that create a “re-ownership” position that will benefit the producer financially if futures prices rally after cash sales occur. After the US harvest, global production risk shifts to South America. As such, price reaction in futures and basis is strongly influenced by weather and production estimates from Brazil and Argentina. South American crops will compete for export markets starting at the end of January.

SUMMARY

Soybean producers should develop annual risk management and marketing plans. The marketing plan should include crop insurance selections, production estimates, budgeting/breakeven analysis/price points, pricing alternatives and approach to incremental or targeted sales at time periods during the production year. Marketing and risk management plans should be adaptable to changes in market conditions during the production and marketing year. Developing a strong support network that includes crop insurance agents, Extension agents, consultants, bankers, brokers and grain merchandisers can assist in providing the resources and expertise needed to execute the risk management and marketing plan.

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