FOOTNOTES

1 **Revenue**

**Corn** price was estimated using weighted average futures prices from September 2022 to July 2023, adjusted by average monthly basis in Tennessee. Corn yield is the predicted 2022 linear trend line yield for corn in Tennessee, using state average USDA-NASS yields from 2002-2021. Irrigated corn yield was estimated at 230 bu/acre.

**Soybean** price was estimated using weighted average futures prices from November 2022 to August 2023, adjusted by average monthly basis in Tennessee. Soybean yield is the predicted 2022 linear trend line yield for soybeans in Tennessee, using state average USDA-NASS yields from 2002-2021. Irrigated soybean yield was estimated at 65 bu/acre.

**Wheat/Soybean.** Soybean yield is the predicted 2022 linear trend line yield for soybeans in Tennessee, adjusted for double cropping system. Wheat price was estimated using weighted average futures prices from July 2022 to May 2023, adjusted by average monthly basis in Tennessee. Wheat yield is the predicted 2022 linear trend line yield for wheat in Tennessee, using state average yields from 2002-2021. If a market for wheat straw is available, add an appropriate amount to other revenue ($/acre) based on the expected yield and price of the straw, being sure to account for additional harvest and marketing costs.

**Cotton** price was estimated using weighted average futures prices from December 2022 to July 2023, adjusted by average monthly basis in Tennessee. Cotton yield is the predicted 2022 linear trend line yield for cotton in Tennessee, using state average yields from 2002-2021. Most ginning arrangements provide producers cottonseed revenue net ginning costs, which should be included as additional revenue.

**Sorghum** price is estimated 50 cents above the price of corn, based on expected market conditions. Due to low acres and limited market access, prices may swing dramatically. Recently, in Tennessee, sorghum has been 10-25 cents above the price of corn.

2 **Seed Costs**

**Corn:** Assumes a bag of seed costs $292 and contains 80,000 seeds ($3.65/thousand seeds). Seeding rate of 32,000 seeds/acre (36,500 for irrigated). Seed treatment is included in the price. Seed cost varies by variety.

**Soybeans:** Assumes a bag of seed costs $64 and contains 140,000 seeds ($0.46/thousand seeds). Seeding rate of 140,000 seeds/acre (150,000 for irrigated). Seed treatment is included in the price. Seed cost varies by variety.

**Wheat:** Assumes seeding rate of 2.5 bu/acre at $15.00 per bushel. Seed treatment is included in the price. Seed cost varies by variety.

**Cotton:** Assumes $2.40/thousand seeds. Seeding rate of 50,000 seeds/acre (60,000 for irrigated). Seed treatment is included in the price. Seed cost varies by variety.

Check with farm suppliers for rebates, discounts and incentives for seed and chemicals. Substantial cost savings may be available.

3 **Fertilizer and Lime**

Lime is assumed to be applied once every four years at a rate of 2 tons per acre (includes the cost of application). N, P and K quantities and prices are shown in elemental lb. Check with farm suppliers for rebates, discounts and incentives for fertilizers, seed and chemicals. Substantial cost savings may be available. Substantial variation in prices for fertilizer exist based on quantity purchased, product purchased and location of purchase.
4 Chemicals

Assumes a normal crop rotation with minimal weed infestation. A continuous monocrop system may require additional expenses for chemicals and/or land preparation. Weed control chemicals should be selected for specific weed or grass problems that are present. Generic chemicals may be a cost-effective option; contact your chemical supplier, qualified consultant or weed control specialist. Alternative weed control options are available in the University of Tennessee Weed Control Manual for Tennessee. Follow all labels, state and national regulations when using all chemicals. Check with farm suppliers for rebates, discounts and incentives for seed and chemicals. Substantial cost savings may be available. Seed treatments, such as some nematicide treatments, are optional and costs vary depending on product used.

5 Machinery

Machinery expenses will vary dramatically by operation, financial resources and land base. The machinery cost estimates provided in Table 3 are provided as an estimate of cost of ownership and operation for specified pieces of machinery that would be available to a "representative" row-crop farm in Tennessee. To estimate machinery costs for a specific set of equipment, interested parties can utilize the Excel version of the budgets and modify the Machinery Assumptions Table.

6 Crop Insurance

Crop insurance is an estimate and will vary by policy, county and coverage election. The estimate provided is the average premium paid per insured acre for each commodity in Tennessee for the previous production year, as reported by USDA RMA's Summary of Business Report.

7 Operating Interest

Operating interest is assumed to be charged on half of all variable expenses.

8 Cash Rental Rates

Cash rental rates are the 2021 USDA-NASS reported cash rental rates for cropland in Tennessee. Substantial differences may exist in cash rental rates reported by NASS and the prevailing rate in your location.

9 Irrigation

Center-pivot irrigation costs are estimated using the following assumptions: purchase price and installation cost of $85,000; useful life of 20 years; and an irrigated acreage of 125 acres. Well depth and energy source will dramatically impact irrigation costs. Irrigation rates should be adjusted to meet commodity- and farm-specific applications. Irrigation costs are site and energy-source specific.

10 Management Labor

Management labor for irrigated acreage is assumed to be double that of dryland acres.