

DOUBLECROPPING IN THE MIDSOUTH

Doublecropping refers to the practice of growing two crops in one year. In the midsouthern U.S., this production system usually involves growing winter wheat and soybeans in rotation. However, wheat acreage in the Midsouth has been low in recent years, and was only 2.8% and 1.5% of soybean acres in Arkansas and Mississippi in 2024 [wheat acres in Louisiana were negligible]. There were only 120,000 total wheat acres in Arkansas and Mississippi in 2024 even though these two states had the most soybean acres [3,020,000 and 2,270,000, respectively] in the southern U.S. [[NASS](#)].

Doublecropping is more prominent in the southeastern U.S., where wheat acreage in 2022 in Georgia, Kentucky, North Carolina, South Carolina, and Tennessee was 36.4%, 19.1%, 20.4%, 17.1%, and 17.8% of soybean acres, respectively. Total wheat acres in these five states was estimated to be 1,165,000 in 2024, which was 19.4% of the 6,005,000 soybean acres in those five states [[NASS](#)].

The perceived general and subjective advantages of doublecropping are:

- Increased cash flow that results from having income from two crops in one 12-month period
- Reduced soil and water losses by having the soil covered with a plant canopy most of the year—i.e. wheat is a cover crop
- More intensive use of land, machinery, labor, and capital investments
- Harvesting more of the solar radiation available in a given year by deploying two crop canopies.

Some general principles that apply to a doublecropping system are:

- Doublecropped soybean planted following wheat will yield significantly less than full-season soybeans that are planted before mid-May. [This is verified in the Midsouth by results from research conducted in West Tenn.](#)
- A soybean–wheat doublecrop system will likely be most successful if irrigation of the soybean component is used to ensure the greatest chance of profit from soybean production on the clayey soils in the region because of the usual summer drought

that results in greatly reduced yields from late soybean plantings on these soils.

- With the early planting in the ESPS and subsequent higher yields from continuous soybean, producers should compare the economics of continuous soybean using the ESPS to that of doublecropping when determining which system to use, especially since soybean following wheat will be planted much later than soybean in ESPS plantings.
- Prices of both wheat and soybeans should be assessed each year to ensure that doublecropping will in fact be more profitable than either crop grown alone, especially with no irrigation for soybeans grown on clayey soils.

The decision to plant soybeans following wheat is influenced by both agronomic and economic factors.

- Agronomic factors include harvest date of the wheat crop [which dictates soybean planting date following wheat harvest], soil moisture status [with no irrigation] for soybean planting and emergence, and availability of seed of desired soybean varieties.
- Economic factors that influence planting soybeans following wheat are the return realized from the wheat crop, expected soybean price, and the expected yield of soybeans following wheat compared to the known cost of production. Click [here](#) to access current Planning Budgets for Soybeans from MSU Ag. Econ. to find yield and commodity price combinations for soybeans that will assist in deciding whether or not to doublecrop.

Wheat Production Practices

- Use shallow tillage to prepare a seedbed [number of seedbed preparation tillage trips depends on preceding crop and rutting from harvest].
- Plant in 6- to 10-in.-wide rows using a seeding rate of 90 to 120 lb/acre.
- Apply 30 to 45 lb/acre of N if wheat follows a summer cereal crop such as corn or grain sorghum, or fallow. Fall-applied N is not recommended if wheat is planted following soybeans.
- If ryegrass infestations are present after wheat



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emergence, make fall applications of herbicide before ryegrass reaches the five-leaf stage. Apply appropriate herbicides in late winter to control winter weeds such as wild garlic, curly dock, and annual broadleaf weeds, if needed. Click [here](#) to access current Midsouth Weed Control Guidelines for both wheat and soybeans.

- Details about using pyroxasulfone [Zidua and Anthem Flex] herbicide preemergence to control Italian ryegrass are presented in the [Oct. 9, 2015 Arkansas Row Crops blog entitled “Arkansas Wheat”](#). This should prevent its competing with the wheat crop, and also prevent its being an uncontrollable weed when soybean is planted following wheat harvest. Click [here](#) to access a White Paper on this website that explores the concept of using the Harvest Weed Seed Control option for controlling this problem weed that affects both the wheat and soybean crops if not controlled.
- Click [here](#) to access the 2025 Arkansas Wheat Quick Facts publication that provides a summary of wheat production guidelines.
- Apply a foliar fungicide that will control diseases [e.g. [Fusarium head blight or head scab](#)] that affect developing seed. This is necessary to prevent low test weights that are penalized at the elevator. Click [here](#) to access the current Arkansas Plant Disease Control Products Guide to find fungicide seed treatment and foliar fungicide products that can be used to manage wheat diseases, plus treatment thresholds for wheat diseases.
- Apply 90 to 120 lb/acre of N in late February or early March, using split applications on soils with poor internal drainage. Applying the amount of N needed to maximize wheat yield will not affect the following soybean crop.
- Harvest wheat with a combine that has a straw shredder/spreader. If soybean is to be planted no-till, cut wheat at 9 to 12 in. above the ground to minimize both horizontal [cut straw that interferes with planter] and vertical [shades emerging soybean seedlings] residue effects.

Soybean Production Practices

- Soybean varieties selected for superior performance in conventional environments [early

planting] can be expected to be among the superior varieties in doublecrop or later-planted environments. [Results from Midsouth research](#) indicate that MG IV soybean varieties provide the best opportunity for maximum yields from soybeans that are necessarily planted late following wheat harvest.

- P and K fertilization rates for full-season [non-doublecropped] soybeans should be optimal for doublecropped soybeans [[Slaton et. al., 2012](#)].
- A [seed treatment](#) that contains both fungicide and insecticide components should be used to ensure the quickest germination and emergence of the most soybean plants, and to provide early-season protection against insects that may reduce stand and/or seedling vigor.
- Soybeans that are doublecropped should be planted in narrow rows [< 20 in.] as soon as possible after wheat harvest.
- The least planting delay occurs when soybean is planted as early as possible, such as following the earliest possible harvest of wheat and planted into standing wheat stubble. Click [here](#) for a summary of and access to results from a doublecrop study conducted in Western Kentucky that confirm this following early harvest of wheat with high seed moisture content.
- Burning wheat residue prior to soybean planting is a matter of convenience and is of no agronomic benefit—i.e. there is no advantage from burning wheat residue. The combination of no-till planting of soybeans into non-burned wheat residue is the best management practice from both a soybean yield and environmental perspective according to results from Univ. of Ark. research [[Brye et. al., 2004](#); [Cordell and Brye, J. Sust. Agric., 2007](#)].
- Conventional recommendations in the midsouthern USA promote a seeding rate to achieve a final stand that is about 10% to 30% higher than that for conventional ESPS plantings [[LSU, 2008](#)]. Click [here](#) for a summary of and access to results from a doublecrop study conducted in Western Kentucky that indicate that a higher seeding rate is beneficial for late-planted soybeans planted following wheat.
- Ensure that late-planted soybeans in a doublecrop system have no competition from emerged or emerging weeds at planting and following soybean emergence. Application of preplant, non-selective,



burndown herbicides to kill weeds in standing wheat stubble is recommended at time of soybean planting, as is the application of preemergent herbicides [[LSU, 2008](#)].

- Irrigation where available will ensure maximum emergence, growth, and yield on droughty soils. Production of soybeans after wheat on clayey soils in the midsouthern USA without irrigation likely will not be profitable due to the effects of normal summer drought and the later planting. Again, potential/expected soybean yield and commodity prices will determine this.
- Frequent scouting of soybeans planted behind wheat is critical to detect late-season insect infestations that will be more prevalent in these later plantings and that will reduce yield if not treated with either a prophylactic or economic threshold application of an insecticide. Click [here](#) to access the latest edition of Midsouth states' Insect Control Guides that provide treatment thresholds for late-season insects that affect soybean.
- The ESPS and a soybean-wheat doublecropping system are mutually exclusive because of the later planting date for soybeans planted following wheat harvest. [The potentially lower yield from soybeans that are grown following wheat](#) must be considered when deciding which system to use.

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