



SOYBEAN SEED VARIETY TRIALS (2015-2024)

Challenges

- Without broad, independent testing, Mississippi soybean producers would have little basis to effectively evaluate the performance of over 100 seed varieties that are marketed each year across varying production systems.
- Between the 2002 and 2022 Censuses of Agriculture, planted acres of soybeans for beans increased by 75.3% and the average planted acres per farm increased by 81.9%.
- Genetically modified seed is used on 91% of soybean acres; many were “stacked” varieties that offered multiple protective traits such as multiple types of pest resistance, herbicides, and drought tolerance.

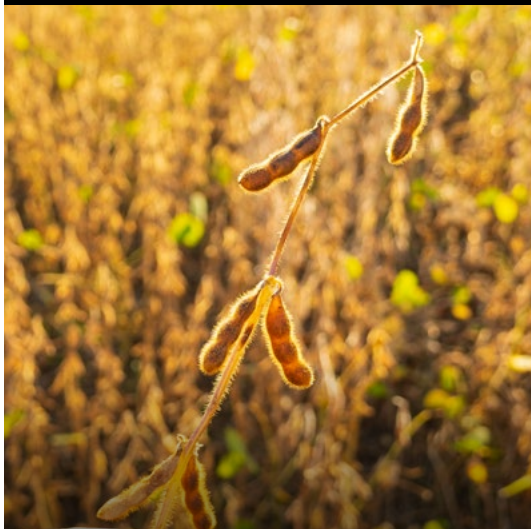
EXTENSION RESPONSE

To help producers face these challenges, Mississippi State University Extension Service faculty and professional staff developed the MSU Extension Soybean Variety Demonstration Program.

- From 2015 to 2024, the program evaluated an average of 52 different seed varieties each year across different Mississippi production systems (irrigated versus dryland and varying soil textures).
- From 2015 to 2024, the program evaluated 370 unique seed varieties from 28 different companies.
- New varieties are introduced each year.
- Submissions are voluntary and represent the primary maturity groups grown in the state.
- Companies are encouraged to enter their best adapted varieties and genetic traits; this promotes an elite group of varieties for evaluation.

ECONOMIC IMPACTS

- Data from the 2015 to 2023 trials (for crops planted in 2016 to 2024) showed that the best soybean varieties improved yields by **7.3 bushels per acre**.
- Given a 90% adoption rate, this could result in an increase in revenue of **\$1.3 billion** for Mississippi soybean producers.
- We estimate that this revenue increase could support **8,835 jobs** earning **\$636.5 million**, generate **\$1.2 billion** in value-added, and result in **\$2.1 billion** in output for the state.
- Yield increases also could support an estimated increase in taxes accruing to county governments of **\$4.6 million**, to special taxing districts of **\$5.7 million**, and to municipalities of **\$2.3 million**.
- This increase in output could generate an additional **\$41.3 million** in state tax revenues and **\$129.6 million** in federal tax revenues.



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