

June 2021 Arkansas Flood Damage Estimates

John D. Anderson

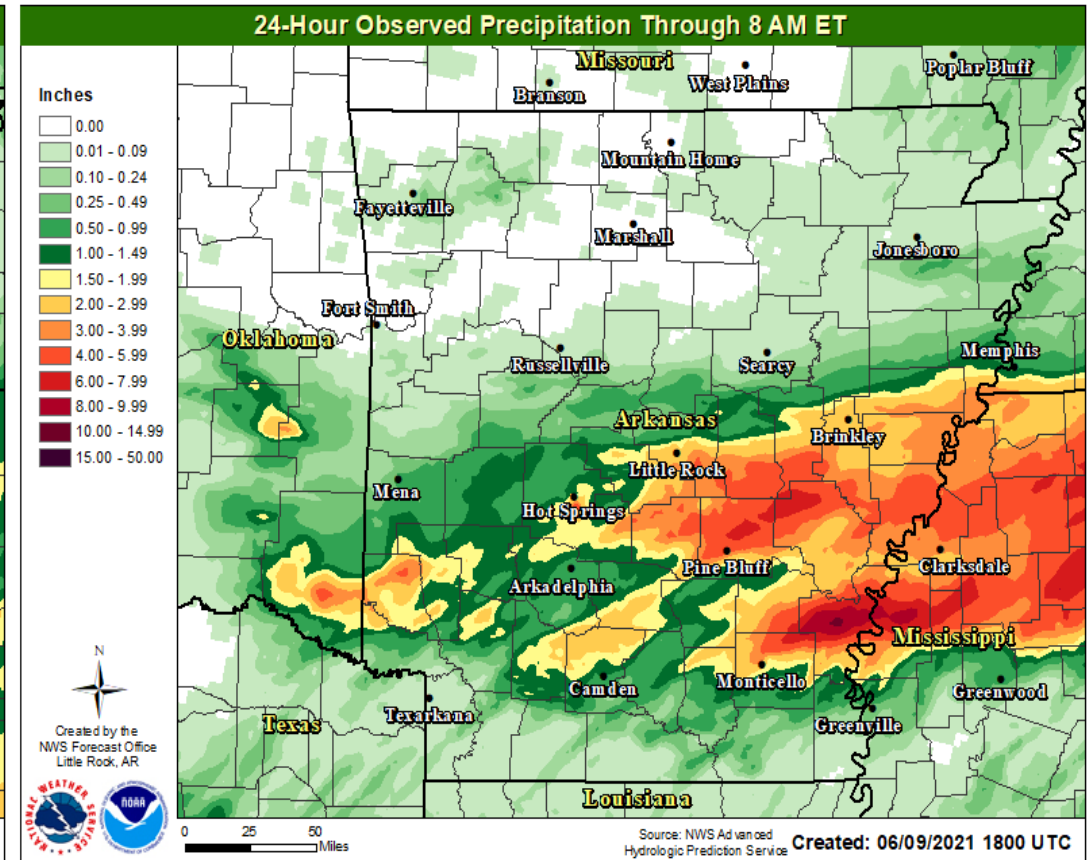
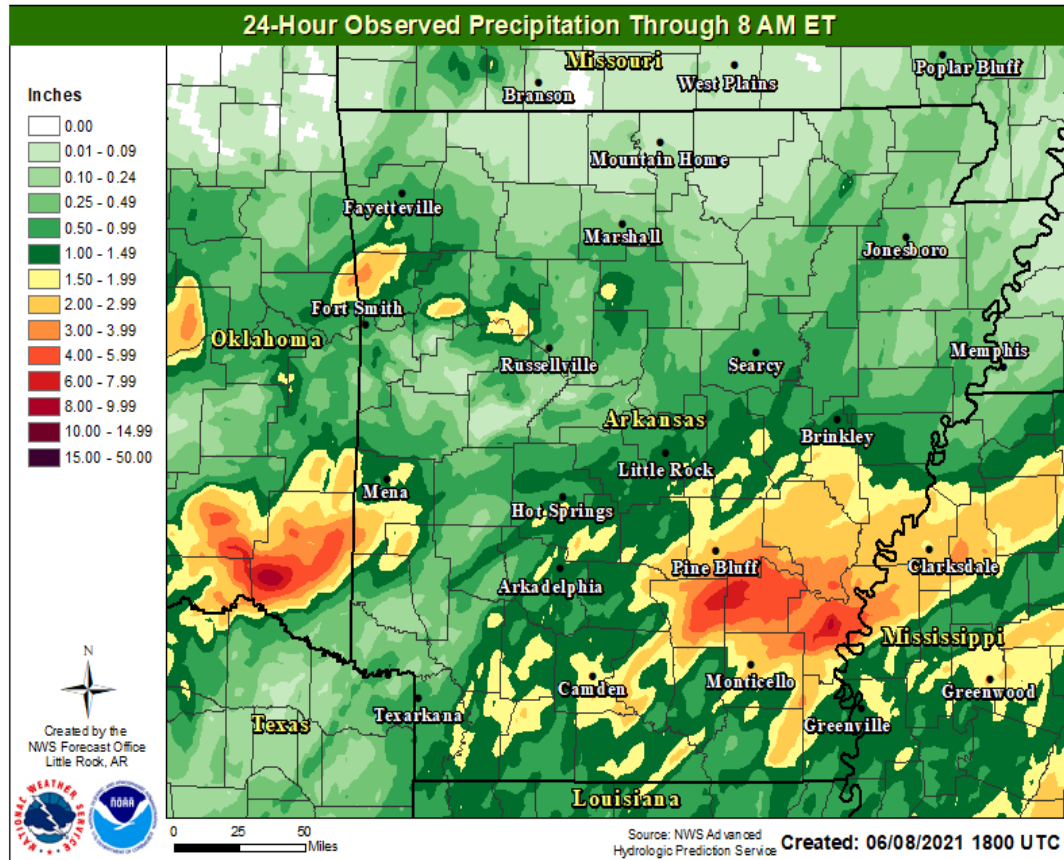
Agricultural Economics & Agribusiness

Fryar Price Risk Management Center of Excellence

University of Arkansas Division of Agriculture

June 6-9 Precipitation

Over 13 inches of rain in Desha county.







Crop Damage Examples



2021 Southeast Arkansas Flood Event

Estimated Impact

Commodity and Acreage

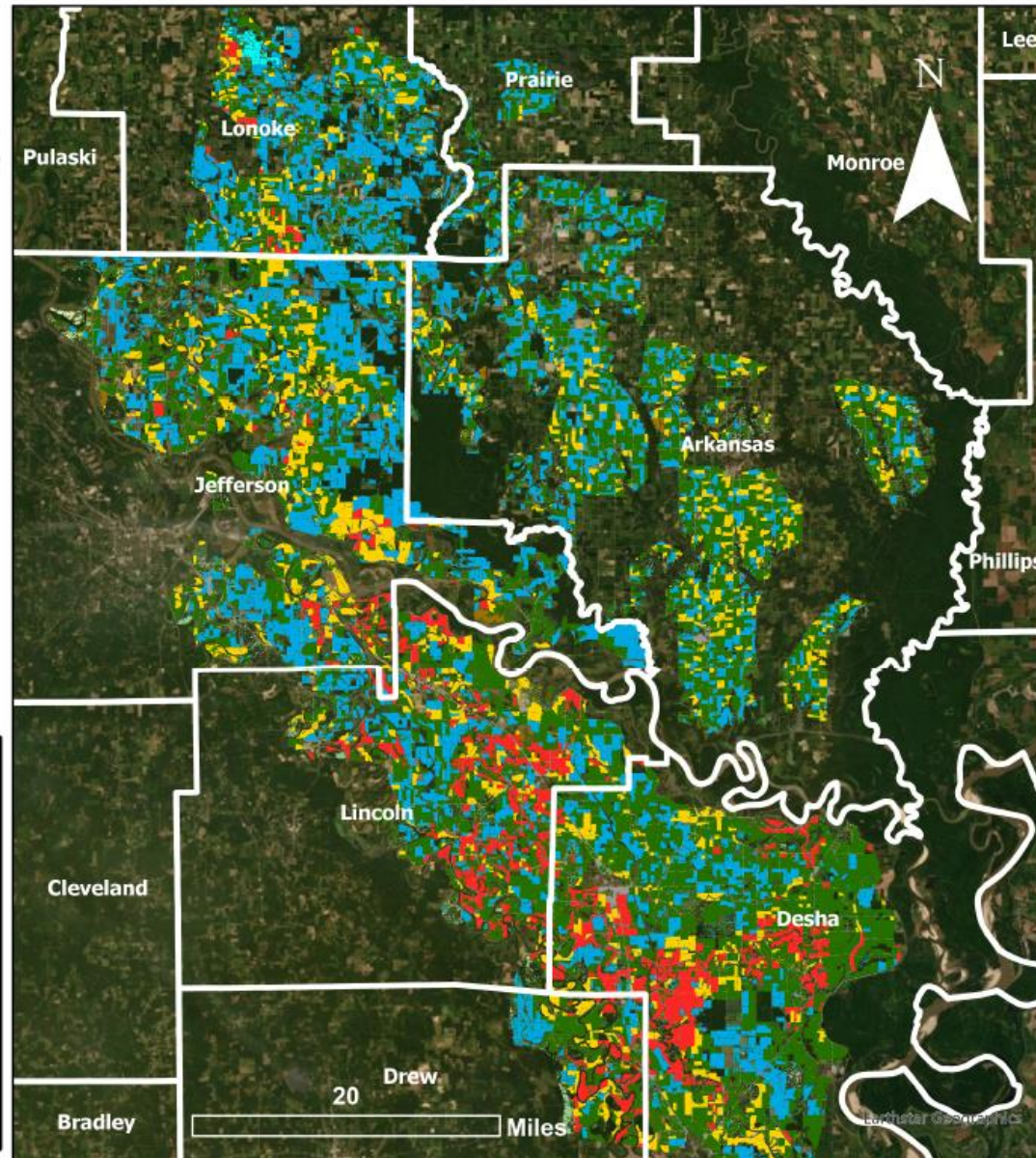
	Cotton	63,460 acres
	Corn	104,849 acres
	Rice	239,395 acres
	Soybeans	386,912 acres

Imagery and counts are from 7 counties:

Lonoke
Prairie
Jefferson
Arkansas
Lincoln
Desha
Drew





Acreage counts are from 2020 Crop Data Layer published by NASS (<https://nassgeodata.gmu.edu/CropScape/>)

Raw satellite imagery is from June 14th, 2021 and sourced from 4 band Planet Scope Scenes (Planet.com)



2021 Southeast Arkansas Flood Event

Estimated Heavy Impact Commodity and Acreage

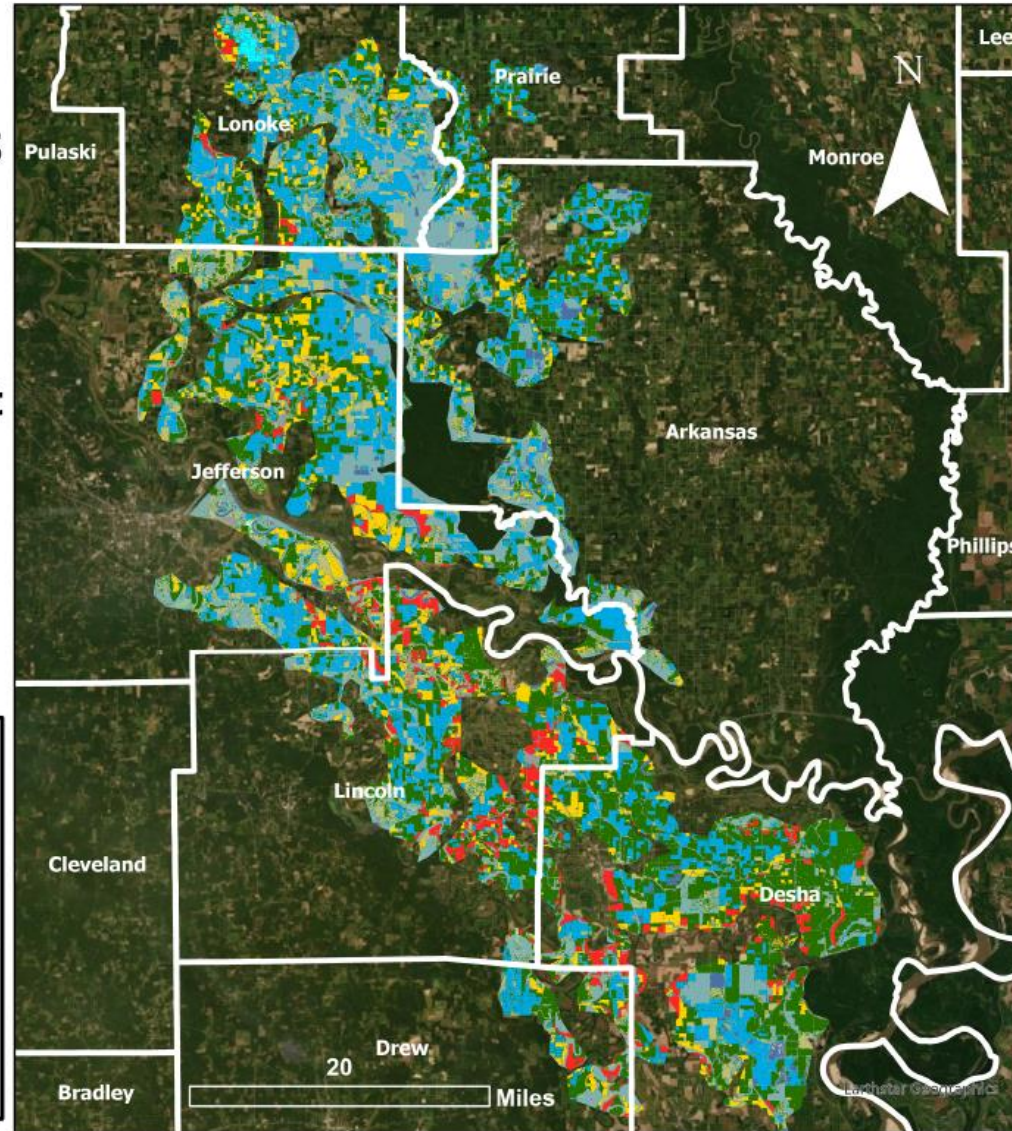
	Cotton	34,864 acres
	Corn	54,817 acres
	Rice	190,150 acres
	Soybeans	254,323 acres

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Economic Damage Estimates

- Focus on twelve counties in SE Arkansas hardest-hit by flooding
 - Arkansas, Ashley, Chicot, Desha, Drew, Jefferson, Lee, Lincoln, Lonoke, Monroe, Phillips, Prairie
- Focus on five major row crops
 - Corn, Cotton, Rice, Soybeans, Wheat

Crop Summary

- Corn
 - 15% production loss on 363,011 acres, valued at \$5.95/bushel.
- Cotton
 - 5,000 acres lost in Desha and Drew counties according to BWE district survey, valued at \$0.7716/lb on lint and \$247.13/ton on seed
- Rice
 - Total loss on 28,523 acres; 10% yield loss on another 153,974 acres; loss valued at \$5.76/bushel for long grain, \$5.94/bushel medium grain
- Soybeans
 - 25,025 acres lost, not replanted; 100,098 acres lost but replanted at a 30% yield reduction (costs of first planting added to lost value); lost production valued at \$14.09/bushel
- Wheat
 - 37,682 acres unharvested as of June 6; \$0.50/bushel discount on that production due to quality losses

Economic Damage Summary

Crop	Estimated Loss (\$)
Corn	\$59,954,805
Cotton	\$5,825,337
Rice	\$68,329,543
Soybeans	\$70,931,848
Wheat	\$923,410
TOTAL	\$205,964,942

Important Caveats

- Wide variation in loss experience across counties in the region and even across individual farms
- Limited geographic scope
 - Likely some negative impacts outside the 12-county region evaluated here
- Limited crop scope
 - Lack of data limits objective assessment of small-acreage row crops (e.g., grain sorghum) and specialty crops
- Damage to infrastructure/equipment and increased harvest costs
- ***Considering these limitations, it is likely that damages will be 10% to 25% higher than the objective estimates offered here. This would put total damages in the range of \$227 to \$257 million***

Further Updates

- As better data on lost acres, replanted acres and yield impacts becomes available, these damage estimates can be refined and updated
 - *Crop Progress, Crop Production, Acreage*, RMA Summary of Business Data
- Preliminary crop acreage data will be available from USDA Farm Service Agency in a little over a month

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