

**Arkansas Economic Losses Due to Flooding of Crops - 2011**

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Economic losses of the 2011 flooding event are estimated to be a reduced Arkansas net farm income of \$335 million and a loss in value added of \$181 million to the state economy. Heavy rains this spring resulted in severe flooding of the Arkansas crop production areas. The rains were untimely as they came at planting time with large areas having been prepared and seeded with the 2011 crops. The impact included not only the loss of the crops planted but also delays in the replanting and areas that had yet to be seeded.

***Farm Level Impacts***

The estimates of farm level impacts are based on USDA acreage reports as of June 30 and survey data collected from the Division of Agriculture Cooperative Extension Agents in each affected county. Agents made estimates of the acreage flooded that had already been seeded by crop, the areas that were reseeded to the same or different crop. Losses also include estimates of expected yield reductions due to the delay in planting after the optimal seeding period which were provided by Arkansas Extension crop production specialists. The impact on net farm income is provided in the following table.

<b>Estimates of Arkansas Net Farm Income Pre- and Post-Flood in 2011 by Crop (thousand \$)</b>				
		<b>Pre-Flood</b>	<b>Post-Flood</b>	<b>Net Loss</b>
<b>Corn</b>		201,429	164,347	-37,082
<b>Cotton</b>		383,711	339,498	-44,213
<b>Rice</b>		398,312	256,442	-141,870
<b>Sorghum</b>		79,838	49,120	-30,719
<b>Soybeans</b>		484,012	423,322	-60,690
<b>Wheat</b>		43,639	23,236	-20,403
<b>Total</b>		<b>1,590,942</b>	<b>1,255,966</b>	<b>-334,976</b>

***Value-added Impacts***

The economic loss as a result of the damage to crops due to flooding is estimated to reduce value added (Arkansas gross state product) by \$181 million. The loss of crop production and value due to the 2011

floods is estimated for three activities and includes both direct and indirect effects on the economy. First, crop damage results in less farm revenue which is estimated to reduce farm household spending for consumer goods and services. Second, since crop output is reduced, there are fewer grains and oilseeds (corn, rice, sorghum, wheat and soybeans) to transport, store and process. This reduces economic activity in the transportation, wholesale, warehousing and many other industries that supply goods and services to the processing industries. Similarly, since cotton production is diminished there will be less cotton to gin which requires fewer workers and, therefore, less paid in wages and salaries and less value added to the state economy. Less cotton to gin also affects those industries that supply goods and services to operate the gins, including transportation. However, an offsetting effect on employment and value added is the additional resources purchased, including labor and agricultural inputs, to prepare and replant their flooded lands.

Initial estimates of the economic loss due to crop damage from flooding in 2011 are a decline of nearly 2,150 full and part-time jobs, a reduction of approximately \$102 million in labor income, and a decline of \$181 million in value added (Arkansas Gross State Product).

<b>Economic Activity</b>	<b>Employment</b>	<b>Labor Income*</b>	<b>Value Added*</b>
Rice & Soybean Processing	(295)	\$ (15,059,305)	\$ (26,804,672)
Cotton Ginning	(183)	\$ (6,233,734)	\$ (6,488,087)
Grain Transportation & Storage	(128)	\$ (5,772,785)	\$ (8,783,686)
Increased Production Costs	1,541	\$ 30,974,808	\$ 49,638,123
Reduced Household Spending	(3,079)	\$ (106,222,149)	\$ (188,727,468)
<b>Total</b>	<b>(2,144)</b>	<b>\$ (102,313,165)</b>	<b>\$ (181,165,790)</b>

\* Values are in Thousand \$

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