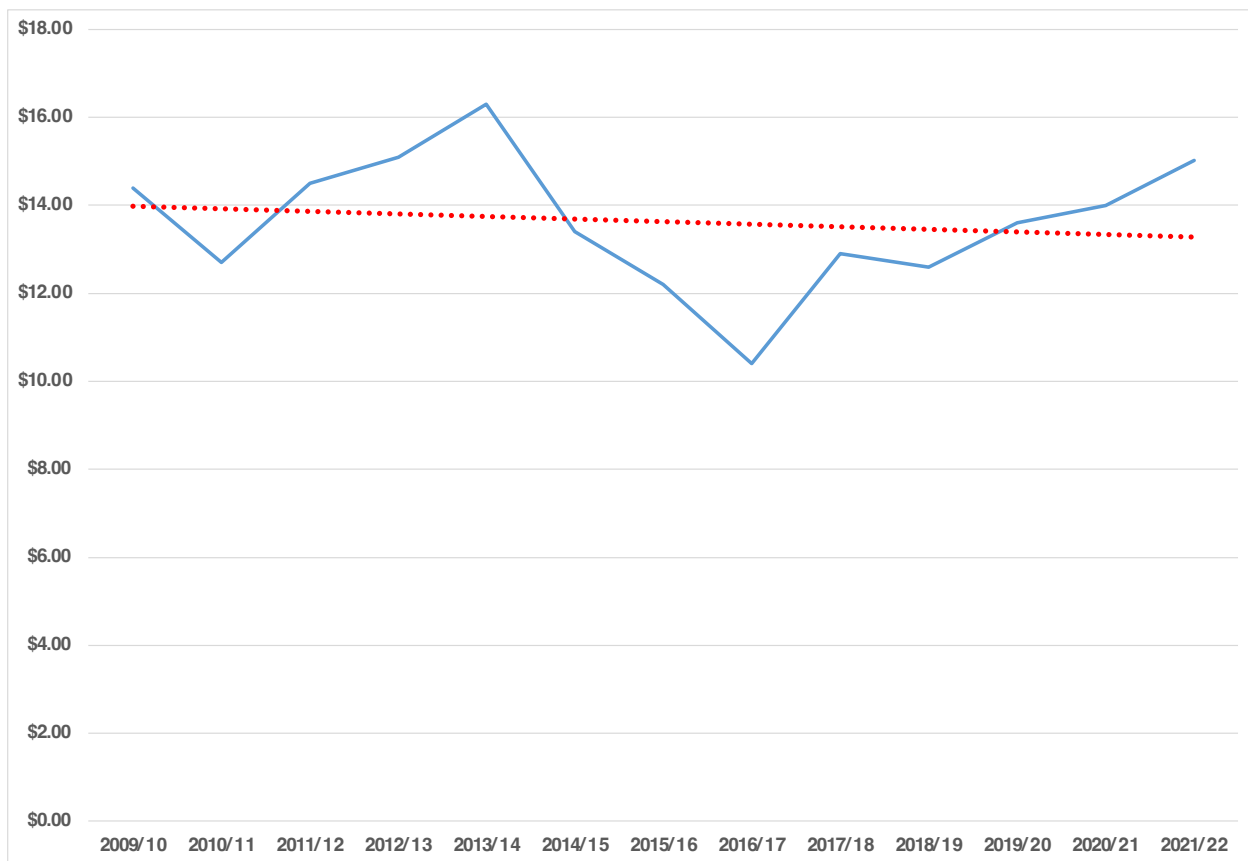


## Impact of Higher Input Costs on the U.S. Rice Industry

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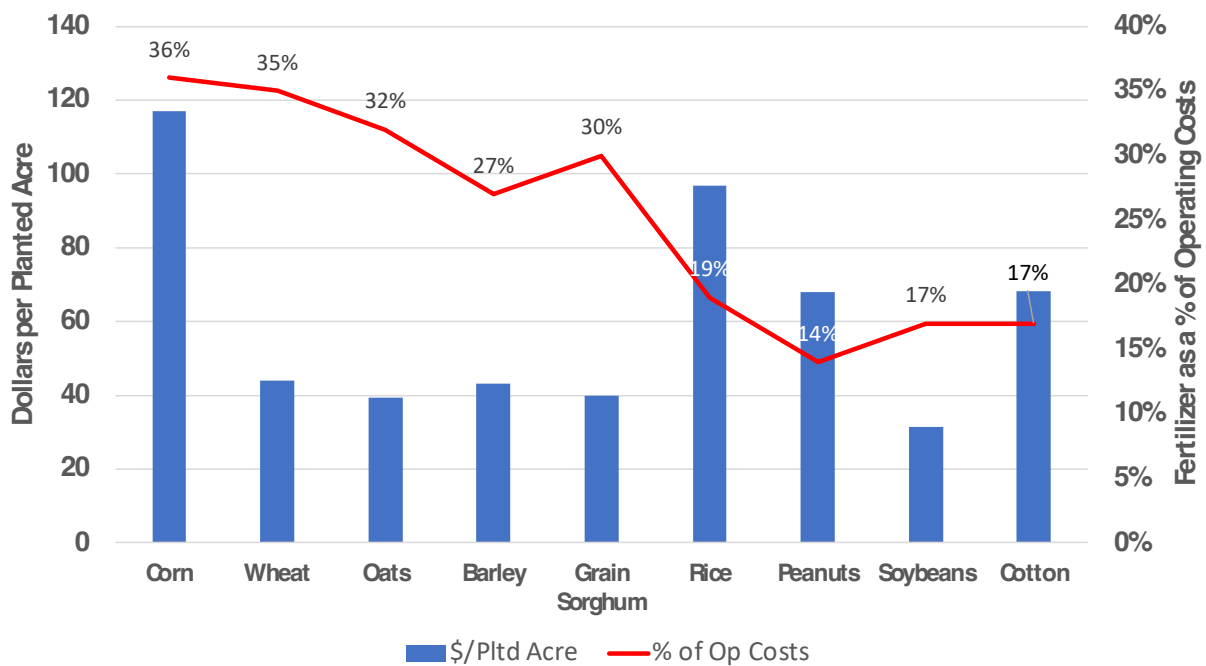
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Input prices have risen drastically over the past year. For many U.S. commodities, the rise in production costs have offset some of the significant price increases these commodities have experienced recently. Currently corn, soybeans and wheat futures prices are trending higher each trading day. This is not the case for rice producers. Rice producers have only had prices they would consider profitable in only a few years in more than a decade (Figure 1). The trend line in prices over that time has been declining even with a slight recovery in prices over the past few years.



**Figure 1. Marketing Year Average All Rice Price and Trend, 2009 to 2021.**

The price situation is especially problematic for rice producers due to the high cost of production. For example, Figure 2 indicates that rice is second only to corn in terms of fertilizer costs per planted acre according to USDA-ERS. However, the nearly \$120 per acre fertilizer cost for corn represents 36% of corn production costs while the \$98 per acre only represents 19% of rice production costs. This translates into \$328 operating costs for corn versus \$516 for rice. It is worth noting that operating costs do not include ownership or fixed costs.



**Figure 2. Fertilizer Costs per Planted Acre and Fertilizer Costs as a Percent of Operating Costs for Major U.S. Crops.**

Source: USDA-ERS Commodity Costs and Returns data for 2020.

In addition to fertilizer, several other cost categories have seen a significant increase over the past year. AFPC utilized published data from several sources to evaluate the increases in cost categories from 2021 to 2022. The specific categories and percent increase for each are contained in Table 1.

In order to obtain a cost per acre increase, the percent increase for each cost category was multiplied by the 2021 cost for representative farms in each of the rice producing states. These data were averaged if there was more than one farm in each state. The increase in costs were then summed for each of the states. This result is in the first column of Table 2.

California had the highest per acre increase at \$268.48 followed by Texas at \$229.11. These state level increases were then multiplied by 2021 planted acres in each state to determine an overall impact on rice producers of \$471.2 million. This results in a weighted average per acre cost increase of \$174.20 across the rice industry. Table 2 also provides the average planted acreage over the past 5 years for each state. If planted acres of rice in 2022 are at the 2017 to 2021 average for each state, the impact would be \$504.9 million.

The price of rice has not risen to offset all or a portion of this increase like it has for corn, soybeans, wheat, cotton and grain sorghum.

**Table 1. Increase in Select Cost Categories, 2021 to 2022.**

<b>Cost Category</b>	<b>Increase (2021 to 2022)</b>
Rent	9.10%
Seed	8.40%
Fert N	81.50%
Fert PK	60.60%
Chemicals	20.30%
Labor	10.30%
Equipment	18.30%
Fuel	13.87%

**Table 2. Average Increase in Cost per Acre by State, Historical and 2021 Planted Acres and Additional Costs Incurred by Producers in Major Rice States.**

<b>State</b>	<b>Avg Input Increase/ Acre</b>	<b>2017-2021 Avg Acres</b>	<b>2021 Acres</b>	<b>State Impact</b>
<b>CA</b>	\$ 268.48	475,600	407,000	\$ 109,271,642
<b>TX</b>	\$ 229.11	179,800	190,000	\$ 43,530,874
<b>LA</b>	\$ 207.21	433,000	420,000	\$ 87,028,478
<b>AR</b>	\$ 151.72	1,287,000	1,211,000	\$ 183,735,382
<b>MS</b>	\$ 123.92	128,600	105,000	\$ 13,011,561
<b>MO</b>	\$ 174.40	201,400	199,000	\$ 34,705,081
<b>Total</b>		2,705,400	2,532,000	\$ 471,283,019