



CONTRIBUTIONS OF RICE PRODUCTION IN ARKANSAS TO THE U.S. EXPORT

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Arkansas is known as a rice state and is located in the south-central region of the United States of America (hereafter U.S.). Arkansas State shares its border with Missouri, Tennessee, Mississippi, Louisiana, Texas, and Oklahoma. It is the 29th largest state among 50 states of the U.S., with a total area of 53,182 square miles. There are two major rivers as Arkansas and the Mississippi River, which help recharge the groundwater, and the groundwater is further used for irrigation. The land is categorized into five sub-regions as shown in Figure 1 (a).

Physiographic Regions of Arkansas



Figure 1 (a) Five Sub-regions

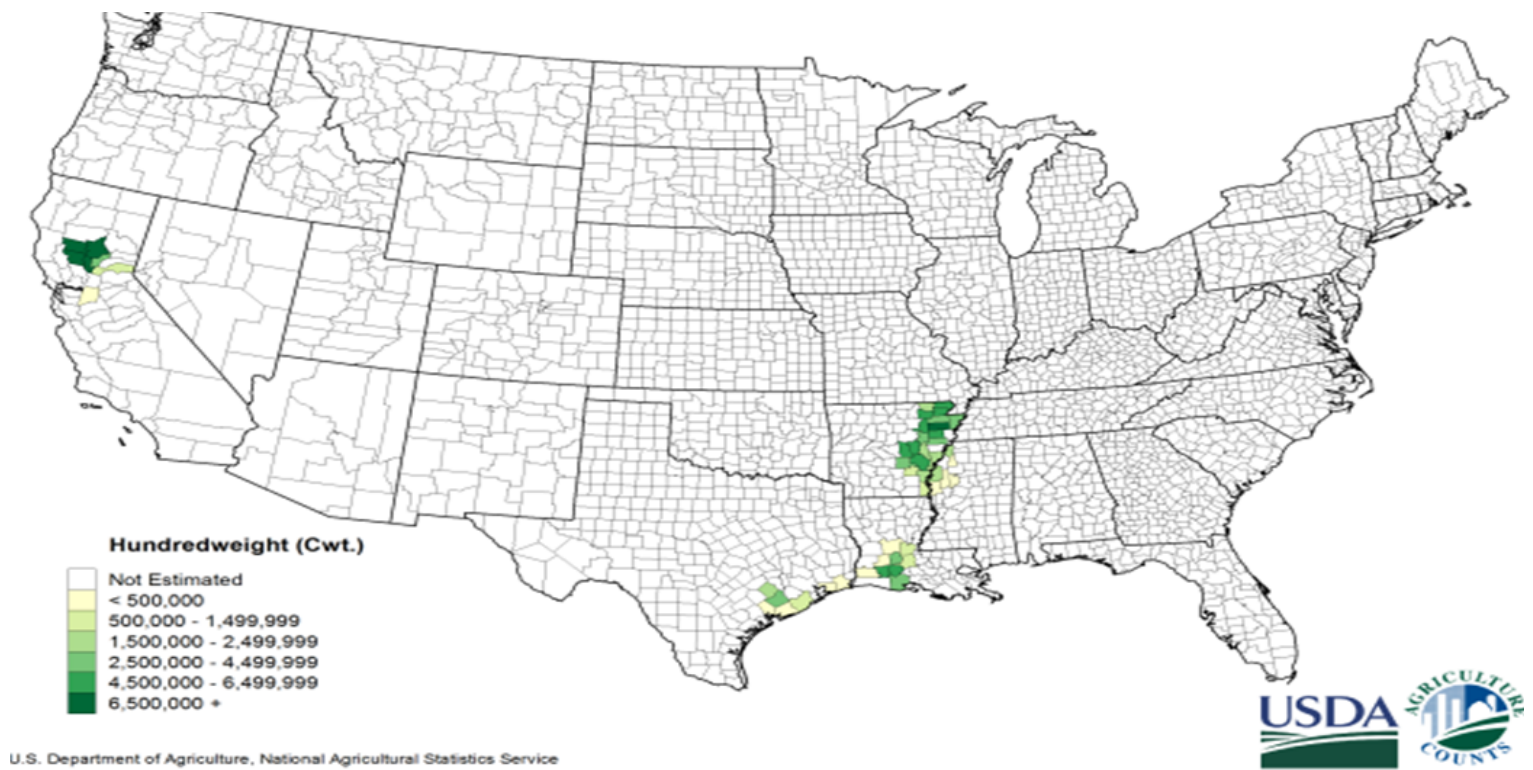
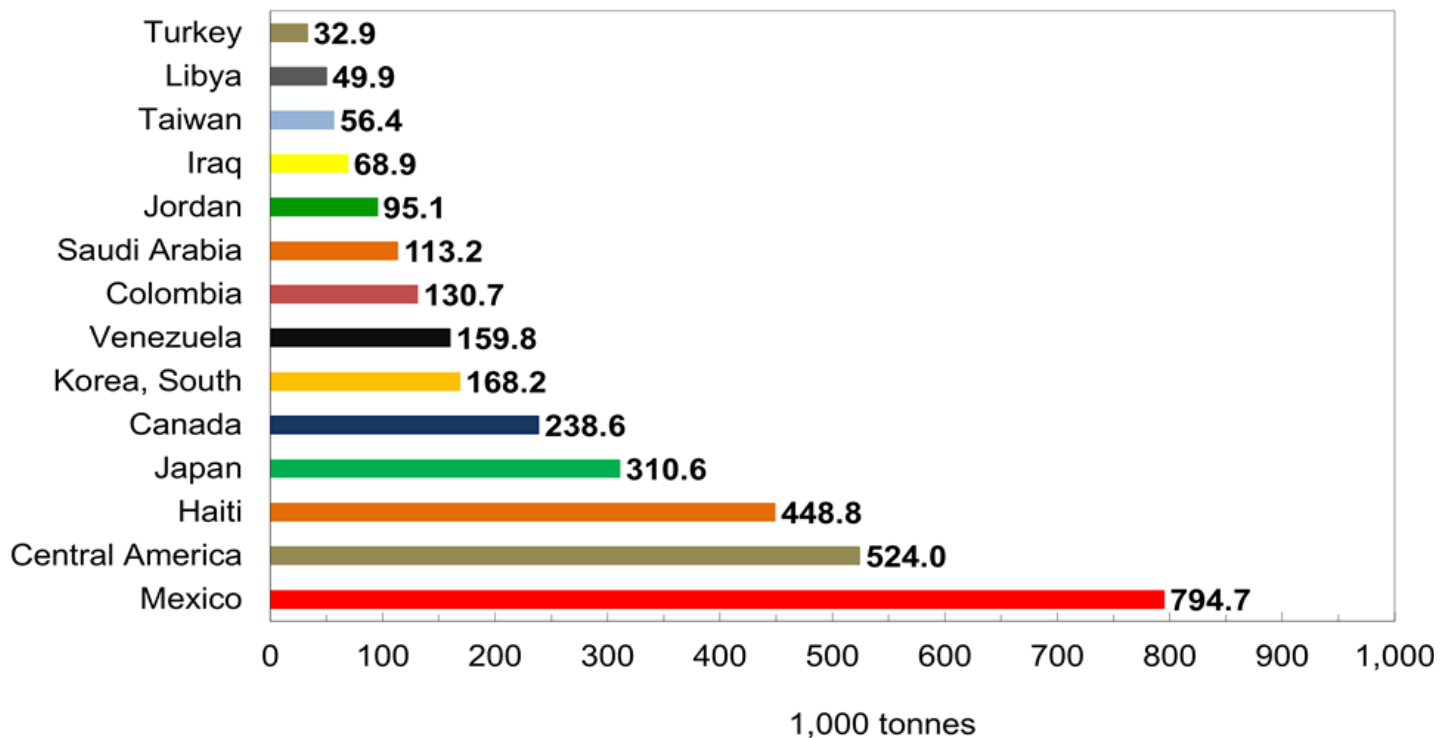


Figure 1 (b) Rice production by county in Arkansas, 2019

The overall average temperature ranges from 93.6 degrees high and 26.6 degrees low. This temperature is favourable for growing rice. That is why Arkansas is known as a rice state. Overall, 40 counties in Arkansas grow rice and contribute more than 40% of the total rice production in the U.S. Mainly, long and medium grain varieties are produced and exported; however, there are overall 9 varieties of rice in Arkansas.[1]

According to the United States Department of Agriculture (USDA) 2020, the land under the rice plantation was 1,461,000 acres, of which the total production was 108,107,000 CWT.[2] They also assumed that there might be an increase in rice production by 10% in the past decades. Arkansas rice farmers produce more than 9 billion pounds per year on average. The farmers contribute more than billions of dollars to the state economy and provide 25,000+ jobs. Overall, 56-58 percent of long-grain rice and a substantial amount of the small-grain rice are being grown. Arkansas rice plays a vital role in the total export of U.S. rice.



Notes: 1 metric tonne = 2204.62 pounds. All shipment averages are reported in actual shipment product-weight.

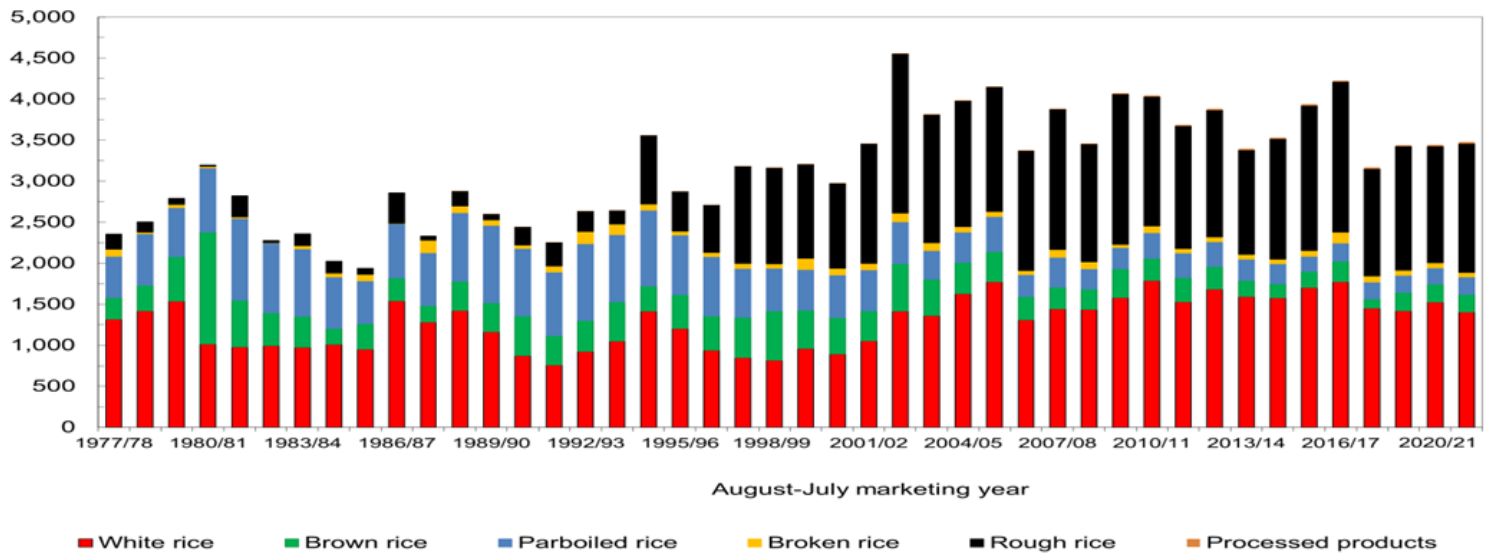
Source: USDA, Foreign Agricultural Service, Global Agricultural Trade System online database.

Figure 2. U.S rice exports by market from 2016 to 2020

Globally, the U.S. shares less than 2% of global rice production. This exported rice includes different grain types such as rough, parboiled rice, brown rice, and fully milled rice. Almost half of the rice produced in the U.S. is being exported every year. In figure 2, the data is from 2016 to 2020. The U.S exports almost 55% of its rice to Mexico, Central America, and Haiti. Out of which approximately 25% is exported to Mexico. Additionally, Turkey is the only with 1.03% which keeps it at the bottom for its contribution to U.S export.

Figure 3 shows different types of rice being exported from the U.S. White rice export has fluctuation over the past decades. It covers the high percentage of rice export. Whereas it remains around 1000 – 1500 tonnes in a year. Brown rice only has a rapid rise in the year 1980/81, but otherwise, it has maintained a stable growth since 1977.

1,000 tonnes



Note: Rice exports are reported as product-weight.
Source: USDA, Foreign Agricultural Service, Global Agricultural Trade System database.

Figure 3. U.S rice exports by type from 1977 - 2020

Parboiled rice covers the second-highest percentage of the rice exported in the initial years. Whereas, it became the third-highest in rice export as the year passes. Broken rice is the one which is exported in very less quantity every year. Rough rice is highly likable in a rice export nowadays. But in the initial years, it was not that likable. It is also giving good competition to white rice in the rice export.

References:

- 1.Information on 9 varieties of rice can be found at <https://aaes.uada.edu/row-crops/foundation-seed-program/rice-seed/>
- 2.More detailed information can be found at <https://www.ers.usda.gov/topics/crops/rice/rice-sector-at-a-glance/>