SORGHUM AS AN ADVANCED BIOFUEL: PRICE EFFECT ON WHEAT, CORN AND SOYBEAN MARKETS
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BACKGROUND: The 2007 US Biofuel mandate requires total biofuel production to increase to 36 billion gallons by 2022. The Energy Independence and Security Act further specify that more than 55\% of total biofuel production in 2022 must come from sources – grain, sorghum, wheat, etc – other than cornstarch. In 2012, the EPA announced that grain sorghum ethanol is qualified as renewable fuel with more carbon credit than the corn based ethanol. This may result to the land use changing from planting wheat and other grains to planting sorghum. However, the problem of increase sorghum production could cause a decrease in food supply leading to an upward pressure on grain prices. This article will examine impact of biofuel mandate on wheat, corn, soybean and sorghum prices considering the new situation where sorghum gets more credits than the corn based ethanol.

METHOD: The stochastic partial equilibrium model is used to evaluate the short run implication of demand and supply shock of the policy on corn, wheat and soybean prices in Kansas. Different scenarios are simulated and compared to a counterfactual.

EXPECTED OUTCOME: The use of sorghum as an input for biofuel could alter grain prices in Kansas. With higher competitive prices from sorghum, the possibility of decrease production in wheat and other grains is inevitable. Since Kansas a leading wheat producer any decline in its production will have effect on the global wheat market.

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