

The Value of Climate Information when Farm Programs Matter

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Climate forecast suggest a potential to reduce farm risk by tailoring agricultural management strategies to mitigate the impacts of adverse conditions or to take advantage of favorable conditions. Federal farm policies may enhance or limit the usefulness of the climate information. A representative peanut-cotton-corn non-irrigated north Florida farm was used to estimate the value of the ENSO-based climate information and examine impacts of farm programs under uncertain conditions of climate and prices. Historical series of yields and prices were used to generate stochastic distributions that were fed into a whole farm model, first, to optimize management practices, and then, to simulate uncertain outcomes under variable risk aversion levels, with and without the use of climate information, and with and without the inclusion of farm programs. Preliminary results suggest that seasonal climate forecasts have a positive value for less risk averse farmers when forecasted El Niño ENSO phase and the inclusion of Loan Deficiency Payments Programs decrease the value of the forecast information. Potential farm responses to climate decreased when farmers moved from risk neutrality towards risk aversion. Further research contemplates including multiple crop management options resulting of running crop models with stochastic weather generated. It is anticipated to identify more synergies or conflicts between climate information and farm programs that could be proactively used.

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