Commodity programs for agriculture are intended to provide farm income stability and maintain desirable efficiencies that derive from market based outcomes. A measure of economic efficiency is producer response to market signals. This research measures acreage response of Arkansas field crops that are associated with changes in the U.S. stocks-to-use ratio. Results of this analysis indicate that stocks-to-use is a significant determinant of acreage decisions in Arkansas. Changes in stocks-to-use are associated with acreage changes in responses that maintain equilibrium of U.S. supply and demand, and agricultural policies historically establishing price floors for field crops have not undermined market responses.