



## The Risk Management Agency and Climate Change



The Risk Management Agency (RMA) promotes and regulates sound risk management solutions to improve the economic stability of American agriculture. RMA offers Federal crop insurance and other risk management products through a network of private-sector entities. RMA also funds partnerships with State departments of agriculture, universities, and other public or private organizations to develop risk management tools to assist producers in minimizing their risks and adapting to increased risks from climate change, drought and other weather related conditions. See [www.rma.usda.gov](http://www.rma.usda.gov) Since 2002, various RMA funded partnerships are creating tools to assist producers with adaptation:

### **Tools to Manage Limited Irrigation Water Supplies.**

RMA has several partnerships with University of Nebraska at Lincoln (UNL) to manage drought: Drought across the West and Great Plains over the past six years has magnified problems of declining ground water and diminished surface water supplies. UNL in conjunction with Nebraska, Colorado, Kansas, Wyoming, Oklahoma and Texas is developing production functions for limited irrigated oil seed crops that can be used with a risk management tool called *Water Optimizer*. If the demand for biodiesel increases, oil-seed crops represent a good alternative for High Plains areas with limited water. This tool will make whole-farm crop planning decisions to mitigate risk under limited irrigation conditions.

### **Risk Management Strategies for Irrigation During Periods of Water Shortages.**

RMA partnered with the University of Oregon to develop web-based decision support software for irrigated farms dealing with reduced water supplies. The program will address two key questions: (1) what acreage can be planted and irrigated when farm water supply is reduced, and (2) what yield reductions will result when irrigation applications are less than nominal crop water requirements? Software to analyze these questions will be designed for use by individual producers and will be sufficiently flexible to accommodate the unique circumstances of individual farms.

### **Drought Management Calculator – Forage Growth Prediction Tools for Livestock Production During Drought Using Historical and Simulated Databases.**

RMA partnered with the Agricultural Research Service (ARS) to develop simple, site-specific forage prediction tools to assist ranchers in managing risk for range-livestock production systems. Plans include use of the historic database of forage production from 10 ARS research locations in Northern, Central, and Southern Great Plains, and a generated database using a calibrated computer simulation model (GPFARM-Range). These data will be compiled into one or more simple interfaces for use by ranchers to predict forage growth for the current and/or subsequent forage year.

### **Crop ALERT, Web-based Application for Specialty Crops.**

RMA partnered with AIR Worldwide of Boston who created *Crop ALERT* - which provides entire agricultural communities with access to accurate weather conditions and forecast information for scheduling day-to-day operations and longer-term planning. Through monitoring the meteorological conditions and forecasts affecting select specialty crop growth, producers can better assess the likely progress of the given crop during the growing season. The final product can be found at <http://CropALERT.air-worldwide.com>