FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED TWELFTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
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November 4, 2011

The Honorable Fred Upton
Chairman
Energy and Commerce Committee
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Ed Whitfield
Chairman
Subcommittee on Energy and Power
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Upton and Chairman Whitfield:

We are writing to request once again that you hold hearings on important new developments in climate change science. Last week, we asked that the Committee examine a new analysis by the Berkeley Earth Surface Temperature Project led by Richard Muller, a prominent climate skeptic, which concluded that "global warming is real."[1] This week, we want to call your attention to recent studies on the impact of global warming on crop yields.

Crop scientists in the United States are increasingly concerned about the negative consequences of rising day-time and night-time temperatures. For years, scientists focused on the impact of climate change on rain and irrigation and the effects that changes in the water cycle would have on crops. Studies are now showing that high temperatures are an even bigger factor than rainfall in shrinking the output of many crops and vegetables.[2] Jerry Hatfield, Laboratory Director at the National Soil Tilth Laboratory in Ames, Iowa, explains the situation: "One of the consequences of rising temperatures ... is to compress the life cycle of that plant. The other key

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[1] Letter from Reps. Henry A. Waxman and Bobby L. Rush to Reps. Fred Upton and Ed Whitfield (Oct. 28, 2011).

[2] *Crop scientists now fret about heat not just water,* Reuters (October 24, 2011) (online at http://www.reuters.com/article/2011/10/24/us-climate-crops-idUSTRE79N07420111024).

consequence is that when the atmosphere gets warmer the atmospheric demand for water increases. These are simple things that can occur and have tremendous consequences on our ability to produce a stable supply of food or feed or fiber."[3]

We are already seeing consequences of this phenomenon. A recent *Science* study authored by David Lobell and Justin Costa-Roberts at Stanford University and Wolfram Schlenker of Columbia University found that global wheat yields have dropped by over 5% compared to what would have been expected without rising temperatures.[4] In the United States, snap peas can no longer be grown in Florida during the summer and the pollination of tomatoes fails during the summer months in the Deep South.[5] Further crop impacts are expected as temperatures continue to rise. According to the *Science* study, the losses from climate change probably account for price increases of about 6% in four major commodities: rice, corn, soybeans, and wheat. At current grain prices, climate change already may be costing consumers, food companies, and livestock producers about $60 billion a year.[6]

The latest science indicates that crop yields, agricultural areas, and consumers are now experiencing the adverse effects of climate change and are expected to face more acute challenges as temperatures continue to rise. We urge you to hold hearings on the significant new research in this area to help inform members about the urgent need for action and the severe consequences of inaction.

Thank you for your attention to this matter.

Sincerely,

Henry A. Waxman
Ranking Member

Bobby L. Rush
Ranking Member
Subcommittee on Energy and Power

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[3] *Id.*

[4] David Lobell, Wolfram Schlenker and Justin Costa-Roberts, *Climate trends and Global Crop Production Since 1980,* Science (May 5, 2011).

[5] *Crop scientists now fret about heat not just water,* Reuters (October 24, 2011) (online at http://www.reuters.com/article/2011/10/24/us-climate-crops-idUSTRE79N07420111024).

[6] *Global Warming Reduces Expected Yields of Harvests in Some Countries, Study Says*, New York Times (May 5, 2011) (online at http://www.nytimes.com/2011/05/06/science/earth/06warming.html).