

10 THINGS YOU NEED TO KNOW ABOUT CLIMATE CHANGE AND FOOD SECURITY

1. Rising carbon dioxide levels in the atmosphere will erode the nutritional value of crops. A rise in carbon dioxide will alter the ratio of major macronutrients in plants, increasing starch and sugar content while decreasing the amount of available protein. Changing the nutritional content of the world's staple cereal crops will adversely impact the one in nine people on earth who live with hunger, and could increase malnutrition and related health problems worldwide.



2. Experts at the United Nations World Food Programme predict that the risk of hunger and malnutrition could increase 20% by 2050 because of climate disasters such as floods, droughts, and shifting weather patterns.



3. California is responsible for nearly half of the nation's fruits and vegetables. Because of extreme drought from climate change, California's wholesale produce prices have risen 5% on average in each of the past two years.



4. Corn is highly vulnerable to the water shortages and warmer temperatures caused by climate change. A global increase of 1.8 degrees F would slow the growth rate of corn, one of the world's most important staple cereal crops, by 7%. This could have a major impact on global nutrition.



5. Due to climate-change-related droughts in the western and southern United States, lean ground beef prices have risen in the past two years. In April 2016, lean ground beef sold on average at \$5.62 per pound.



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6. According to the U.S. Global Change Research Program, climate change will compromise food safety. Changes in climate factors such as temperature and extreme heat will foster the growth of foodborne pathogens and increase outbreaks of foodborne disease.



7. West Africa grows 70% of the world's cocoa. Because of extreme heat and drought from climate change in that region, scientists predict a serious cocoa shortage by 2020, resulting in price hikes worldwide.



8. A University of Kansas study found that wheat will face significant losses from heat and extreme weather from climate change if no adaptive measures are taken. Wheat yields are projected to drop by 6% for every 1.8 degrees F the temperature rises.

Increasing temperatures shorten the time frame that wheat plants have to mature and produce full heads for harvest, resulting in less grain produced from each plant.



9. The cost of common breakfast cereals could increase by 30% over the next 15 years due to droughts, floods, extreme storms and shifting weather patterns from climate change.



10. According to the Intergovernmental Panel on Climate Change, crop yield declines of 10-25% may be widespread by 2050 due to climate change.

