El Niño Not Likely to Affect First Fall Freeze

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A developing El Niño in the Pacific Ocean will likely not affect the first freeze this fall in the Midwest, according to Steve Hilberg, Director of the Midwestern Regional Climate Center at the Illinois State Water Survey (ISWS), University of Illinois.

With delayed spring planting, unusually cool summer weather, and dry conditions in parts of the Midwest contributing to slow development of corn and soybeans, agricultural producers are looking nervously ahead into the fall. Crops in the southern half of the Midwest are up to three weeks behind normal development for this stage in the season. An early end to the growing season would result in reduced yields.

Climatologists at the Midwestern Regional Climate Center in consultation with the State Climatologists in the Midwest looked at the occurrence of the first fall freeze for a number of locations in the Midwest in years with similar developing El Niños and found no discernable difference in the dates of the first fall freeze.

A freeze is defined as when the temperature drops to 32 degrees or colder. The median date for the first freeze ranges from late October along and south of the Ohio River to mid-September in northern Minnesota. Generally, the first fall freeze is considered normal if it falls within a week before or after the median date. There can be significant variations within a particular area because of terrain and proximity to large bodies of water.
The National Oceanic and Atmospheric Administration (NOAA) Climate Prediction Center identified a weak El Niño in July as sea surface temperatures warmed in the Pacific Ocean along the equator. This El Niño is expected to strengthen and last through the 2009-2010 winter.

“The official temperature outlook for September from the NOAA Climate Prediction Center is for equal chances for above, normal, and below normal temperatures,” says Jim Angel, Illinois State Climatologist at the ISWS. “However, one cannot draw any conclusions about the likelihood of a freeze from this, as it represents an average for the month. The occurrence of a freeze is a singular event and might occur on one or two days that are not typical of the rest of the month.”

The Midwestern Regional Climate Center is a program funded by the NOAA, and is located in the Division of Illinois State Water Survey in the Institute of Natural Resource Sustainability at the University of Illinois at Urbana-Champaign.