

# El Niño or No, La Niña or Not

**Regardless of patterns, trends show that relatively consistent weather is coming to an end.**

**B**ack in early June, climate watchers were waiting a little nervously for the July report on temperature patterns in the tropical eastern Pacific Ocean. The balance could go up – or down. Either has huge implications for world food production.

La Niña, it appeared, was ending, and El Niño seemed poised to begin. For North America's farming heartland, the El Niño weather pattern is good news. For the most part, El Niño weather is predictable and normal.

But weather patterns associated with Pacific Ocean water temperature don't always teeter-totter. As this article was being prepared, the national Climate Prediction Center indicated a 40% chance the current neutral period would swing back for another cycle of La Niña.

By early July, the subtle changes measured by remote sensors were expected to indicate which direction the tidal masses of temperature and moisture were turning.

And then, there was the long-term and potentially alarming climate outlook from Elwynn Taylor, dean of Extension agricultural climatologists at Iowa State University.

## IF EL NIÑO, THEN ...

**T**he El Niño forecast is by no means a given. But the signs are pointing in that direction," says Brad Rippey, North America meteorologist for the World Agricultural Outlook Board in Washington, D.C.

Taylor and Rippey expect, if the pendulum goes over to El Niño conditions this fall, dry areas in the southern U.S. will get some rain and overheated areas will get some cooling.

"The El Niño is typically 14 months long. Sometimes it goes on for more than three years. We seldom have that early killing freeze, we seldom have a real long growing season," Taylor says. "It's considered a better condition for pastures and winter cereals. Historically, the Midwest has not had widespread drought during

an El Niño winter or growing season, and we've had widespread flooding only twice in 150 years."

Rippey says, "On that basis, we could see some relief for our North American dry spots, particularly across the southern U.S. and northern Mexico. But that wouldn't happen until the main growing season is over.

"Typically, there's a lag time between the formation of El Niño and the effect on atmosphere," he continues. "So any impact on climate could be delayed until the fall, winter, and spring of 2012-13. That takes us beyond the primary 2012 summer crop season."

If the neutral period transition pattern provides insight, Rippey says, this year's pattern coming out of La Niña and into the neutral phase is very similar to what occurred in 2006.

"For the Midwest in general, 2006 was a



**The El Niño forecast is by no means a given.**

— Brad Rippey



relatively average year, and we had a very warm spring in 2007, particularly March. I'm not saying that will happen again, but it is something to keep an eye on," he says.

## IF LA NIÑA, THEN ...

**I**t's wild card time, though, if the tropical Pacific has started to cool again.

"Every La Niña and El Niño has a different flavor," Rippey says. "With a short break between, we've had consecutive years of La Niña until just a few months ago."

The flavor of La Niña in 2012 was entirely different from 2011. The first winter was very cold and unusually long. One year later, people were looking at springtime temperature conditions

through the winter months.

"From a global climate standpoint, you can't put all your eggs in one basket or the other," Rippey says. "There are other oceans and other influences on the global

climate. If you look at all of history, you can get some clues or ideas as to what to expect, but that doesn't always pan out."

A return to La Niña this fall is quite possible, Taylor says, due to the fact that

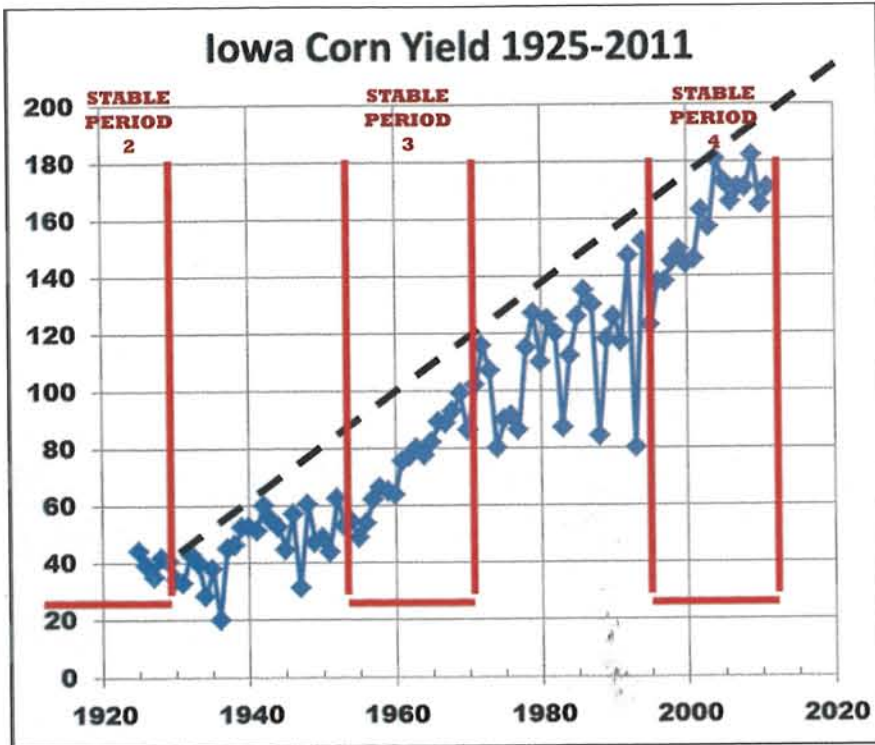
larger patterns also are occurring.

Historically, climatologists describe long-term trends of benign and extreme years for weather and crops. Each trend can include cycles of La Niña and El Niño.

Since 1996, Taylor says, North America has mostly enjoyed consistent benign weather, compared to the previous 25-year period.

"The U.S. began keeping track of corn yields in the 1860s. We have had four high-volatility weather and yield periods. Each lasted 25 years. We have completed three benign periods of consistent yields. Each lasted 19 years," Taylor says.

"Now (in 2012), we are in our nineteenth year of this benign period. Unless climate change has been so extreme that it overrides the cycle, we are expecting that the next 25 years will have extremes of weather and crop yields," he says. •



The current 19-year cycle of benign weather and consistent yields ends in 2012. Climatologists predict the onset of a 25-year period of extreme weather and crop yields.

#### LEARN MORE

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## Southern Hemisphere Outlook

### ARGENTINA & BRAZIL

If a new El Niño has begun, it's probably good news for crop production in South America, according to World Agricultural Outlook Board meteorologist Mark Brusberg.

"Historically, that's been good news for the farmers in South America. The La Niña is typically a drier period for Argentina and southern Brazil," Brusberg says. "The prospects right now, you'd have to deem as very favorable if the El Niño does develop the way it's forecast."

Argentina corn was hit hard by drought in 2010 and through the first half of 2011. On the other hand, southern Brazil had timely early rains and a bumper 2010 soybean crop.

Assuming El Niño has returned, there is a potential parallel from 2006 in the transition from La Niña to a neutral period to El Niño at the end of the calendar year.

"If the forecast pans out, this year would look similar to 2006. That was indeed a good year for Argentina and Brazil. That's as far as I can go, by looking at the other forecasts and at what happened in other years where we see similarities," Brusberg says.

### AUSTRALIA

Australia specialist for the WAOB Harlan Shannon says the arrival of El Niño would be negative news. The southern continent normally has marginal rainfall and does best in La Niña conditions.

"El Niño tends to have a negative impact on winter grains and oilseeds. During some El Niño cycles, you literally see the winter

wheat crop halved," he says.

Despite the dour outlook for Australians, Brusberg points to two brighter possible outcomes.

1. The situation in June was still unfolding. There was potential that Australia could see good growing conditions for a while before El Niño begins to take hold. There can be extended periods, many months in a row, in which conditions remain neutral or weak.

2. El Niño is unpredictable for Australians. "The forecast of El Niño isn't necessarily a death forecast for the crop. Timely rainfall could save the crop. Australia's key month for wheat is September, and we've seen years with terrible drought for most of the year. But a few shots of rain at the right time have saved the day," Brusberg says. •