



Weather Forecasting: Myth or Reality

Is it Possible to Accurately Forecast the Weather Months in Advance?

By IA ROBINSON

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Humans have always wanted to predict the future. Never has this been truer than when it comes to the weather. For years, meteorologists have given five-day forecasts and precise hour-by-hour predictions, but imagine if you could give a 360-day forecast.

Though most experts say it's nearly impossible to predict anything yearly as accurately as you can from day to day, don't tell that to farmer Jack Ponticelli.

Ponticelli and his son Aron are proud owners of the Piedmont Truffle Farm in North Carolina. They expect multimillion-dollar returns this year and happily give some credit to "The Old Farmer's Almanac."

"We use the almanac to help us schedule our workers, to schedule planting, and for general weather patterns over the year, for our irrigation system and also for fuel budgeting," explained Ponticelli.

Dartboard Science

For 216 years, "The Old Farmer's Almanac" has given its day to day predictions, 18 months in advance, on everything from scattered thunderstorms to sunshine. For Ponticelli, the almanac is a tool that he believes few farmers will be quick to abandon.

"As science becomes more advanced, they may not use the almanac as much as they used to in the past but they'll still rely on the almanac," he said. "Farmers are very traditional people and they tend to use things that they know and understand."

But not everyone trusts the almanac's information. Paul Knight teaches a class on long-range meteorology at Pennsylvania State University, and, like many in his field, he regards the almanac as "dartboard science."

"I think it's difficult to buy any science that is not explaining how they do their work. So, certainly anybody can say anything they want about what it'll be like a year from now, but if you want to claim any credibility in the scientific sense, and also be able to have people buy into what you're forecasting, you have to show your technique," Knight said.

Regardless of the controversy surrounding the science behind the almanac, nearly all meteorologists agree that forecasting long range, or any time frame further than 10 days ahead, is possible. The difficult part is getting the forecasts correct.

Knight explained the different criteria between long-range and short-range forecasts: "The information that's available in a longer term is much more of the trend variety, so ... the temperatures will average above or below normal, or a heat wave or a cold wave. It's nothing specific, as in short-range."

Predicting Weather for Big Name Corporations

Yet, giving specifics is exactly what a handful of meteorologists are daring to do by predicting next year's weather right now. For Bill Kirk, CEO of Weather Trends International, forecasting general weather trends a year from now is only the beginning. His predictions already include daily temperatures, weekly amounts of rain and monthly amounts of snow one year from now.

His clientele list reads like a who's who of name brand products. "We work with huge corporations: Wal-Mart, Khol's, Anheiser Busch, Duraflame, I mean these are huge corporations that, for six years ... for the fees we charge if we were wrong, they wouldn't subscribe next year," he said.

Kirk is quick to defend the data and techniques behind his company's results. "Traditional meteorology, as you know, does not work beyond 14 days. You cannot use that to project next year's weather. So, we have a proprietary process □ statistics, math, climate, secret formula, if you will □ that projects these trends."

But why would companies selling beer, first aid or even orange juice be so concerned about weather in the first place? Kirk said that what's happening outside affects when and how much we dig into our wallets.

"We consume more orange juice □ 60,000 more bottles of orange juice □ for every one degree colder it is nationally," he said. "So, this week, here, is 13 degrees colder than it was a year ago. We're talking about hundreds of thousands, if not millions of boxes of orange juice that are being sold because of weather."

Kirk firmly believes the uses of long-range prediction will only gain in popularity. "I think this will change the world. We are talking to the travel sites and Googles of the world □ imagine you getting the same value as my large national retailer that spends a lot of money for this service, so you can plan your vacations, your golfing trips, with a little bit more degree of skill. Get the wedding in a more likely period to have the weather that you want.

"So, you can do that, maybe it's not eight times out of 10 when you're speaking about a real finite period of time, maybe it's six or seven times out of 10, but it's still better than guessing or waiting to see what happens."

Despite those meteorologists on the cutting edge of business-meets-weather, most conventional experts in the field still contend that the science on long-range meteorology will never get as precise as a five-day forecast. They argue true accuracy is too uncertain, especially for events, such as hurricanes, which profoundly affect weather results.

Unfortunately, it's not possible to know if it will rain on that fishing trip you have planned for 2009. As Knight asserts, "It's smart to use climatology for business decisions, but as far as the type of info that has a climatic theme to it □ that is, it tells you normal conditions in the various parts of the country that you're interested in marketing too □ that's smart. [But] to believe that specific events are going to happen is stupid."

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