Purdue forecast: Better weather forecasts

March 1 2006

A Purdue University research team has used improved satellite imaging and computer modeling to more accurately forecast storms.

Dev Niyogi, assistant professor of agronomy and earth and atmospheric sciences, said the key to the new weather prediction model is a more precise simulation of the amount of moisture surface vegetation is releasing into the upper atmosphere.

Niyogi, who is also Indiana's state climatologist, said current weather prediction models represent vegetation at a very simplistic level.

"How well we are able to represent one leaf in a weather forecast model can be a key to predicting thunderstorms," he said. "In fact, the amount of moisture plants are emitting during photosynthesis may be considered the local trigger that trips fronts into violent weather."

The research was published in the January issue of the Monthly Weather Review, a publication of the American Meteorological Society.