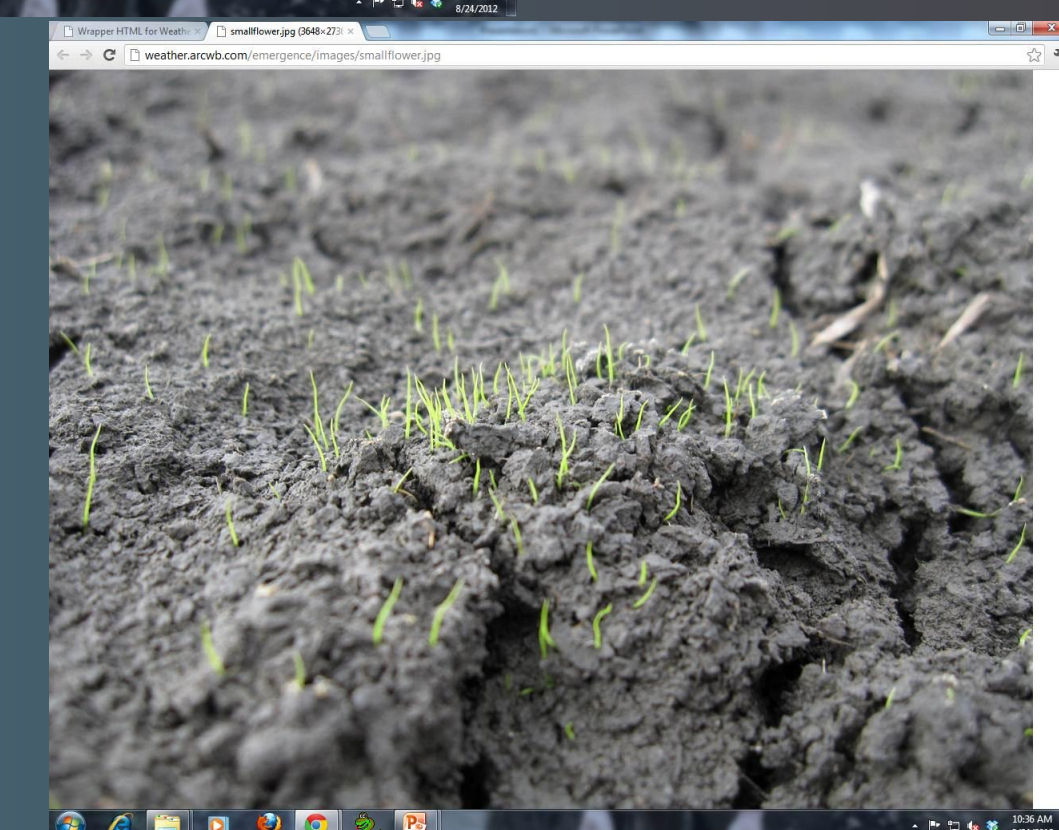
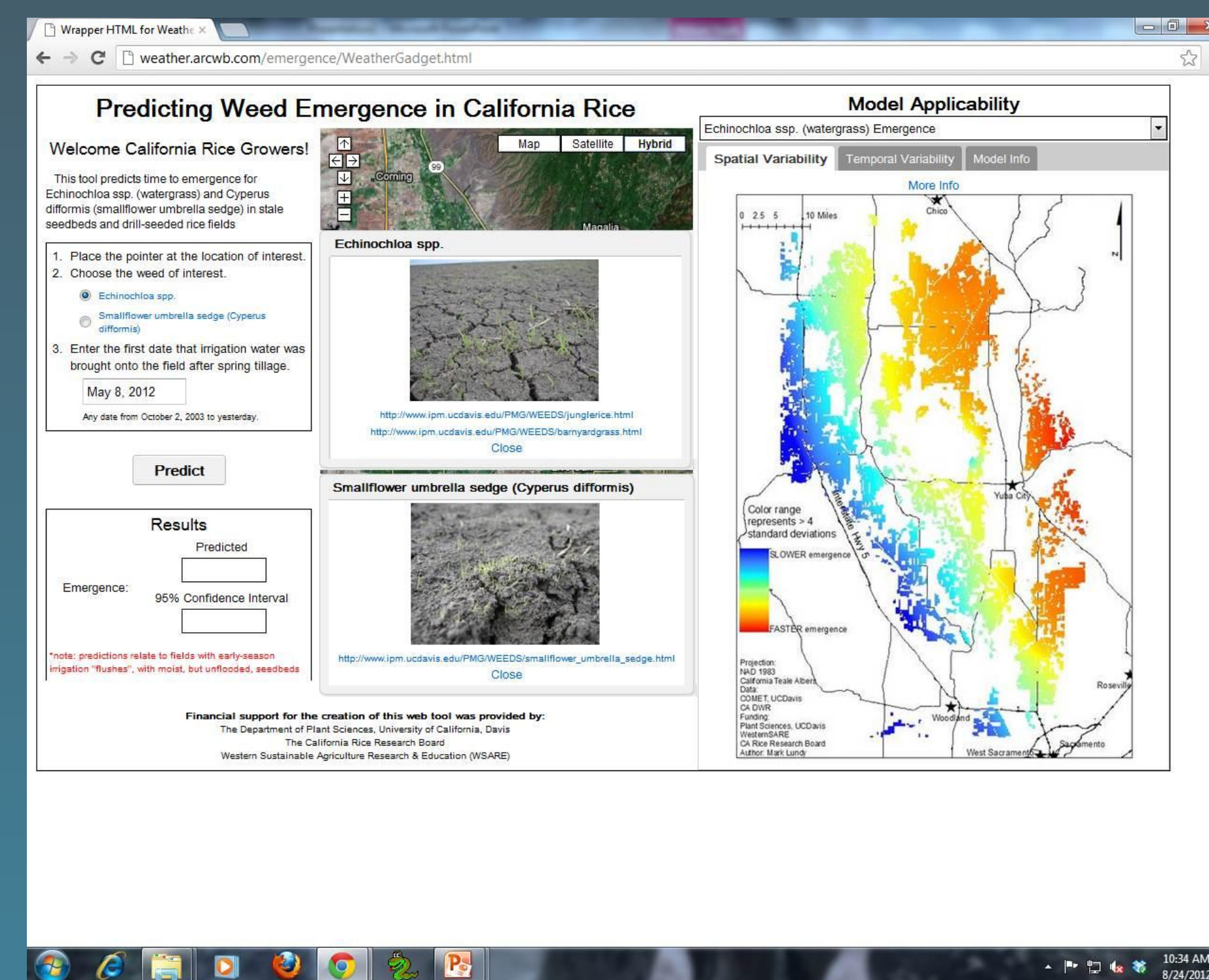
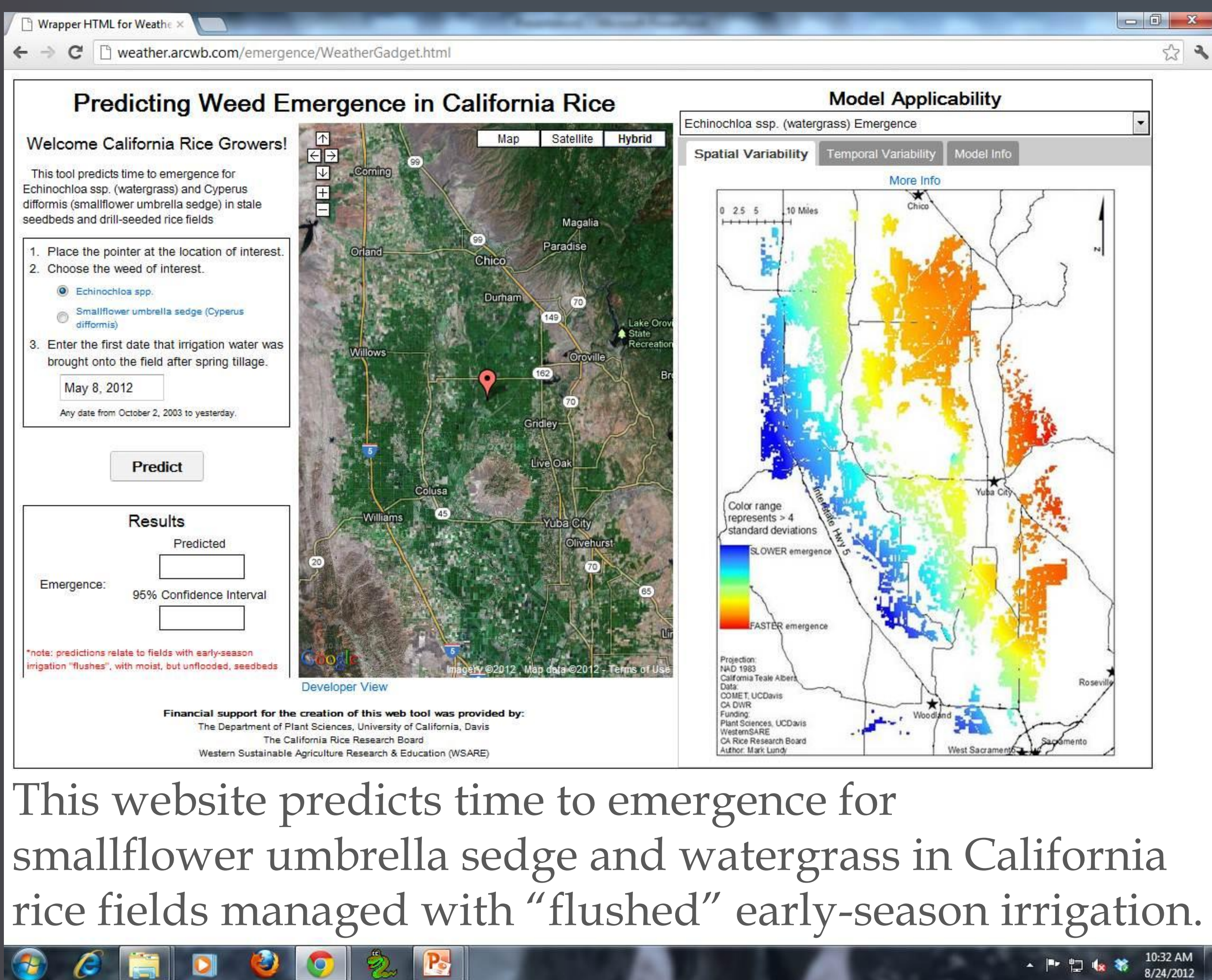


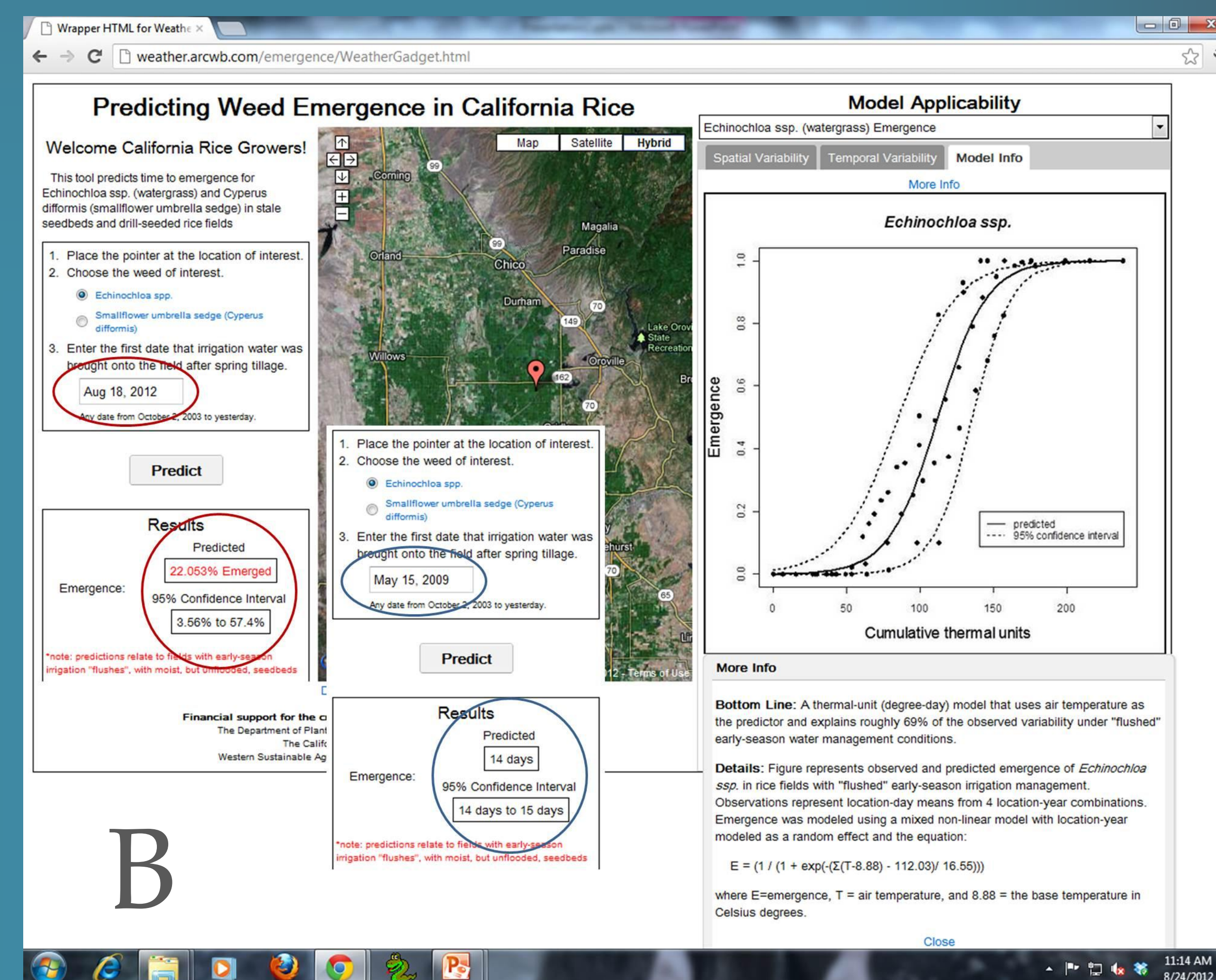
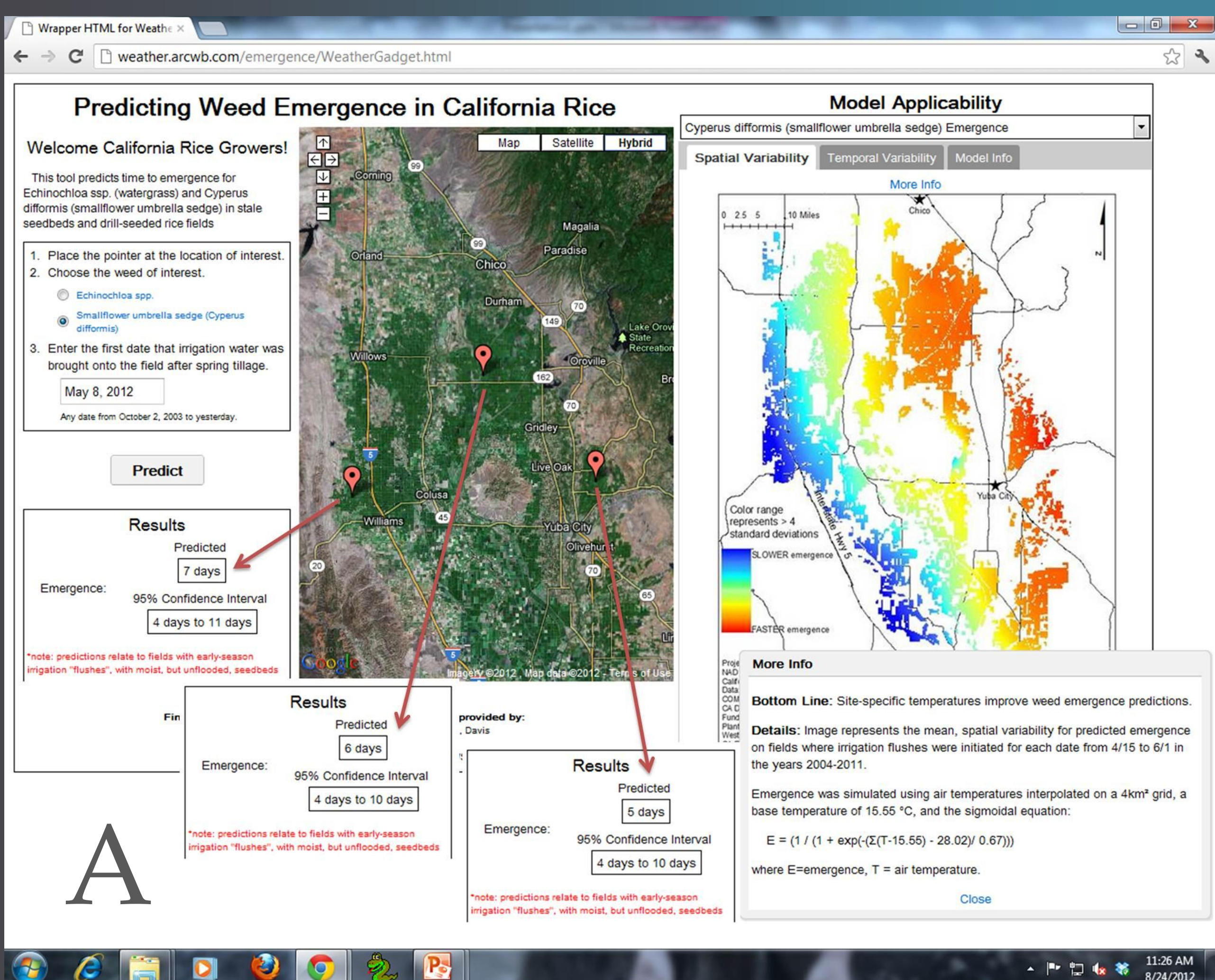
# Site-specific temperatures improve weed emergence predictions in California rice: introducing a web-based decision support tool

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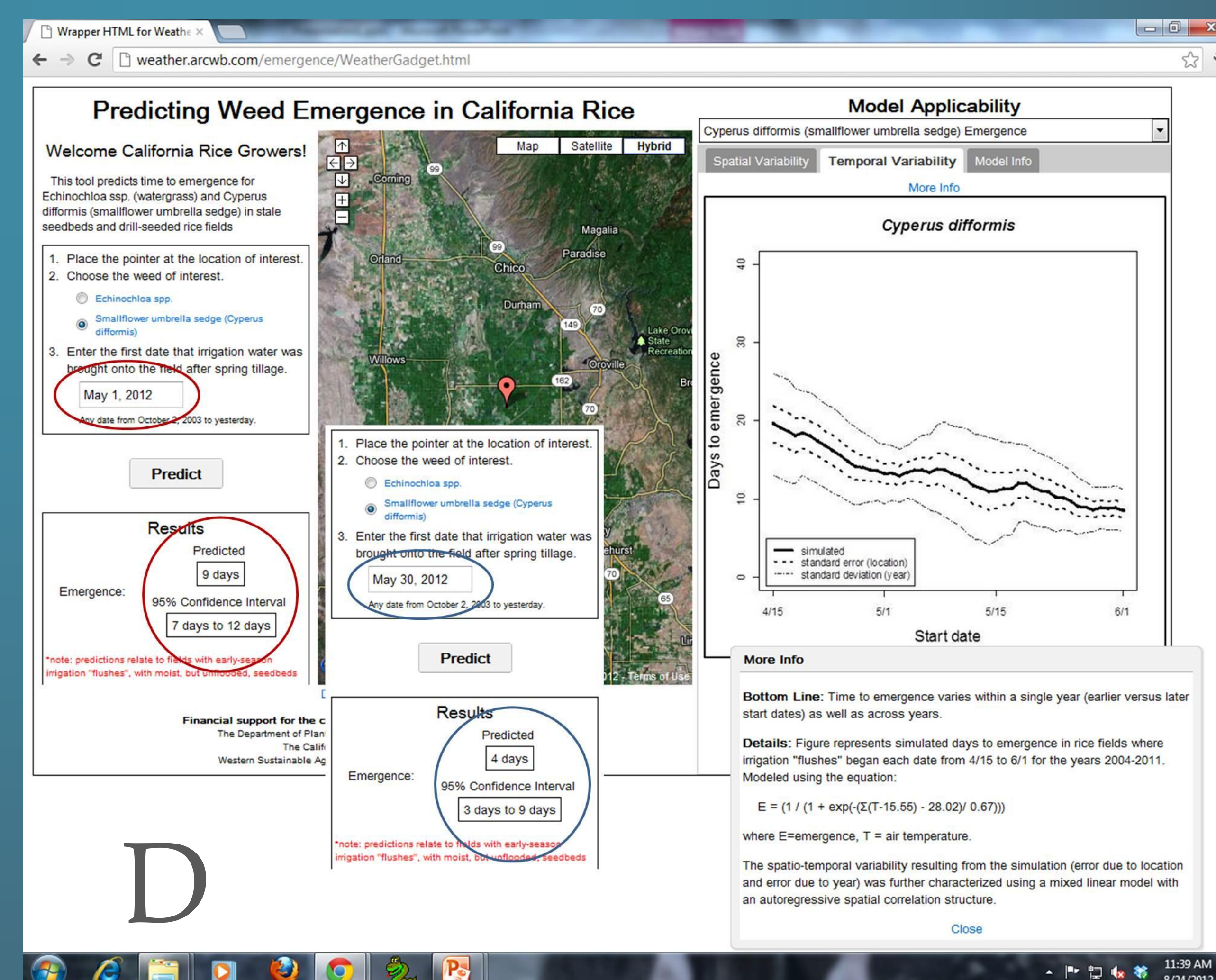
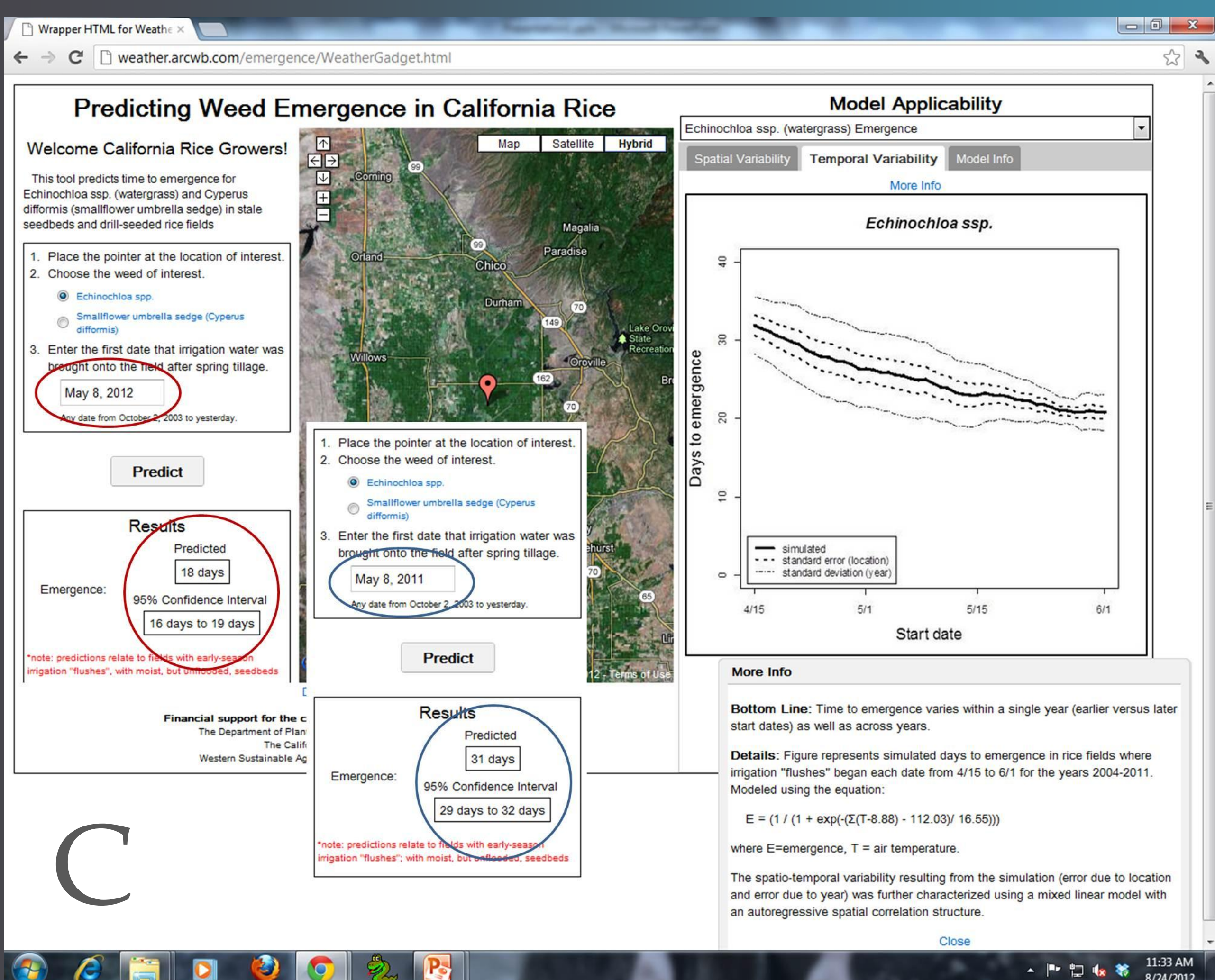
**Rationale:** Alternative stand establishment systems employ early-season irrigation flushes and post-emergence herbicide applications to control weed populations. For post-emergence control of weeds to be effective, populations must be fully emerged. Therefore, the minimum time to emergence is relevant management information because it influences the efficacy of control. The working hypothesis behind this web tool is that, because early-season (4/15-6/1) temperatures are spatially and temporally heterogeneous, site-specific temperatures will improve the accuracy of weed emergence predictions, which will, in turn, improve the efficacy of alternative stand establishment approaches to weed control in California rice.



This website predicts time to emergence for smallflower umbrella sedge and watergrass in California rice fields managed with "flushed" early-season irrigation.

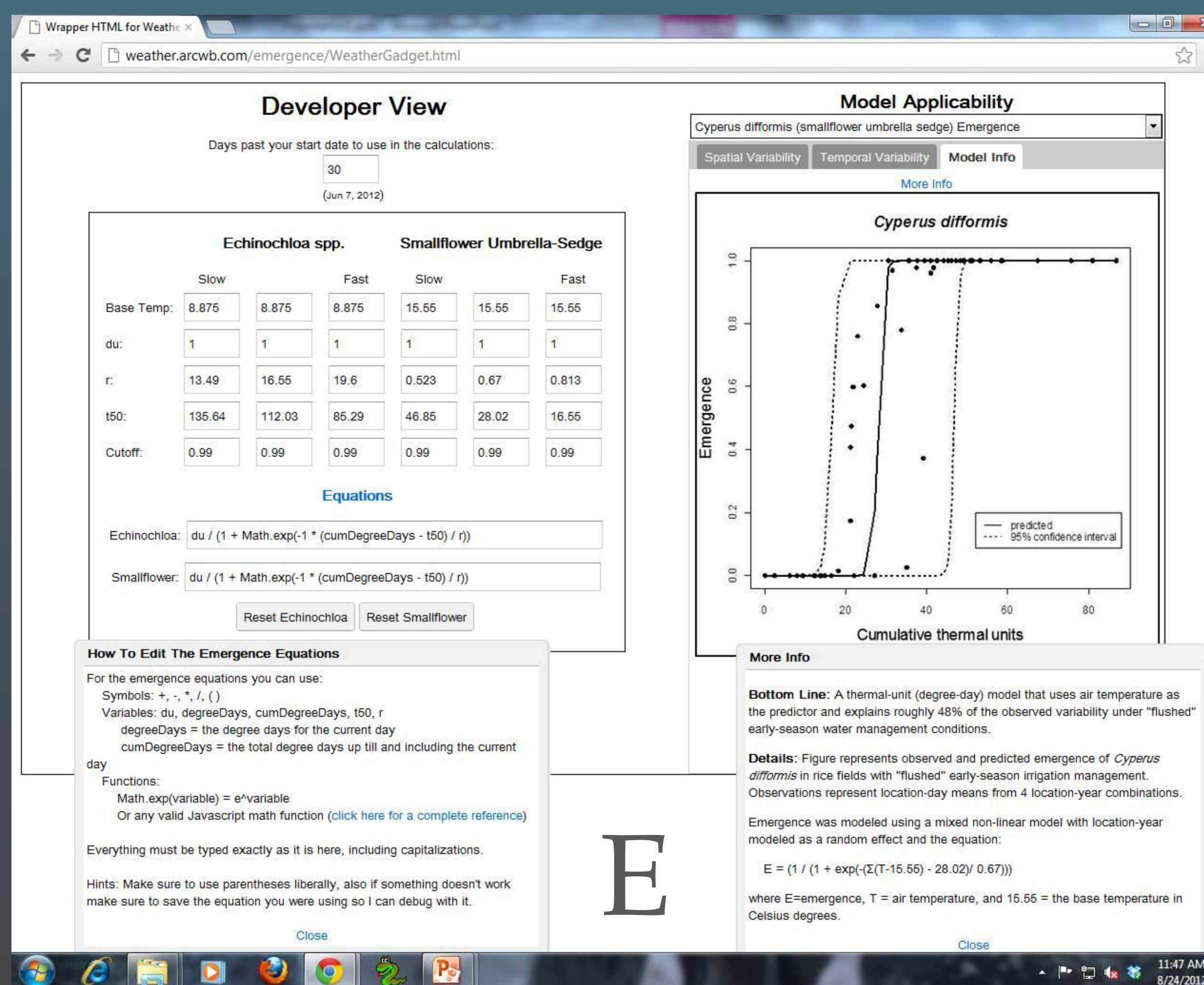


A) Predictions are site-specific.  
B) The tool will model emergence in real-time or from any historical start date after 2003. However, the empirical models were developed under early-season (4/15-6/01) conditions and are only meant to apply to fields managed with early-season irrigation flushes.



C) There is a great deal of variability in the time to emergence from year-to-year,  
D) as well as between different start dates within the same year.

**Summary:** Because early-season temperatures are heterogeneous across time and space in the California rice growing region, modeling weed emergence as a function of real-time, site-specific temperatures improves the accuracy of the output.



E) The site can also serve as a platform for model development and, in the future, could support other temperature-based models.

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