

Wacky weather could squeeze Florida's citrus season

July 21 2010



Assistant Professor Betsy Von Holle suggests that subtropical crops such as oranges that depend on mild winters and springs could get squeezed out of Florida. Credit: UCF/Jason Greene

Citrus growers, beware. Florida winters are getting more extreme, causing plants to flower later and potentially shrinking the growing seasons for some of the state's most vital crops.

If a recent trend continues, more frequent freezes and larger temperature swings between winter and spring, followed by hotter summers, could threaten oranges and other crops, according to a team of University of Central [Florida](#) researchers.

"The [weather](#) in Florida has been getting wacky," said Betsy Von Holle, the assistant professor of Biology who led the study. "And that's

definitely having an impact beyond simple temperature changes. If the trend continues, it may affect everything from when we start seeing flowers and birds migrating to what foods we can grow."

Von Holle suggests that subtropical crops such as oranges that depend on mild winters and springs could get squeezed out of Florida. The team's findings will be published today, July 21, in [PLoS ONE](#), a peer-reviewed journal from the Public Library of Science.

The researchers' work highlights the complexity of a [changing climate](#) in a warming world and the need for more research on seasonal and regional changes in climate, especially in subtropical areas that have received less scientific attention because they're not warming as quickly.

Research on the impacts of climate change and the reproductive patterns of different species traditionally has focused on the mid- to high latitudes, on average as far north as Calgary in Alberta, Canada. Those areas generally have experienced strong spring warming trends that are linked to earlier flowering times.

The UCF team studied more than 50 years of data on seasonal and regional changes in climate and the flowering times of 70 native and non-native plant species throughout all of Florida's counties.

The researchers found an overall rise in Florida's average annual temperatures. However, unlike past studies, their work took an innovative approach by focusing on a more limited geographic region, allowing for a better understanding of regional trends that differ by season. This limited scope actually permitted the researchers to better understand seasonal variations that are masked by a focus on larger trends, such as annual average temperatures.

"There is a desperate need for more modeling on [climate](#) change to be

conducted at the regional level and in tropical and subtropical regions," Von Holle said.

Provided by University of Central Florida

Citation: Wacky weather could squeeze Florida's citrus season (2010, July 21) retrieved 18 April 2024 from <https://phys.org/news/2010-07-wacky-weather-florida-citrus-season.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.