

# Calves conceived in winter perform better

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Researchers, including UF/IFAS animal sciences associate professor Albert De Vries, seen here, found that calves conceived in the cool season fared better from day 1 of their pregnancies. Now researchers want to know whether the biological mechanism that causes that effect on day 1 or later. Credit: UF/IFAS

Cows and humans have something in common: If you take better care of the mother during pregnancy, her children are likely to be healthier – and this impact should last a lifetime, a University of Florida scientist says.

In the case of cows, cool conditions are key. A new UF/IFAS study shows calves conceived during winter went on to produce more calves and milk.

That's a critical finding for [dairy farmers](#) and for people looking for a nutritious glass of milk because each Florida cow produces an average of 2,408 gallons of milk per year.

"This is important to figure out because maybe we can improve the conditions from conception on in order to get an animal to do as well as possible throughout its existence," said Albert De Vries, a UF/IFAS associate professor of animal sciences. "The current thinking is that the environment plays an important role from at least conception on."

Florida has about 124,000 [dairy cows](#), the study said.

For the study, researchers examined 667,000 cow lactation records for the years 2000 through 2012 from the Dairy Herd Information Association database. They obtained weather data from the National Oceanic and Atmospheric Administration. Scientists considered a heat and humidity index higher than 68 to cause heat stress in the cows.

Through these records, De Vries and lead author Pablo Pinedo of Colorado State University documented effects of [heat](#) stress during conception on the calf's performance when it becomes a cow. A calf grows into a cow about two years after birth.

They found that calves conceived in the cool season fared better from day 1 of their pregnancies. Now researchers want to know whether the biological mechanism that causes that effect on day 1 or later.

"Perhaps we can do something during early gestation, even if the mom is still under [heat stress](#)," De Vries said.

The study is published in the *Journal of Dairy Science*.

Provided by University of Florida

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