

Technology increases milk yields by 9 percent

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A Holstein cow, a common dairy breed in Ireland. Credit: Frans de Wit/CC

Milk yields from cows increased by 9% when they wore a new product from UCD spin-out Equilume.

Equilume was founded by Dr Barbara Murphy to commercialise her research in the UCD School of Agriculture and Food Science. Founded

in 2012, the company quickly became a world-leader in light therapy solutions for horses.

The new Equilume Bovine Light Mask delivers artificial light into the eye of a cow, stimulating the [hormone melatonin](#) that encourages breeding. This triggers the lactation cycle the dairy industry needs to achieve its milk yield.

A current method of achieving this requires cows to be kept inside under artificial lighting for up to 18 hours each day during autumn and winter months. The Equilume Bovine Light Mask makes this unnecessary.

By identifying the precise amount of [light](#) required to regulate the hormone melatonin, the mask allows cows to remain outdoors at grass but still maintains higher yields. It will also prevent an increase in [greenhouse gas emissions](#) that are usually associated with herd expansion.

"We have nearly finished our initial lactation study, conducted in collaboration with Teagasc. The data from the first 12 weeks reveals that multiparous cows show a nine percent increase in milk production when wearing the Bovine Light Mask," Dr Murphy said.



The Equilume Bovine Light Mask in use. Credit: University College Dublin

Equilume won the Agri-Technology Established Company Innovation Award as part of the Enterprise Ireland Innovation Arena Awards at 2017 National Ploughing Championships last week.

"The results of our trial are very promising in terms of increasing dairy [milk](#) yields. Our next step is to utilise the prize won at the Innovation Awards and to work with Design Partners to expedite a final design of our new Bovine Light Mask offering to bring to the market," Dr Murphy added.

Provided by University College Dublin

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