



## Sports apps for dairy cows!

In order to maintain high yielding dairy herds, providing the cattle with enough food is essential. When the cows are kept indoors, this is pretty easy. But for grazing cattle, keeping an eye on food intake can be a bit more difficult. Farmers are led to wonder, are the cows getting enough grass into their stomach? Will my herd eat enough to deliver enough milk? The Autograssmilk research project was set up to develop and implement improved sustainable farming systems that integrate the grazing of dairy cows with automated milking.

### Digital technology to combine grazing and automated milking

A group of farmers, technology companies and researchers from different countries recently joined forces through the project Autograssmilk to look for opportunities on how to manage grazing combined with automated milking for highly productive dairy cattle.

A number of technological solutions already exist for cattle herds, for example stepping counters to monitor behaviour, and ruminating sensors. But Autograssmilk is going a step further and imaging new ways of using this technology for the purpose of combining grazing and automated milking.



One of the integral parts of the project was presented at the **18<sup>th</sup> EGF Symposium Grassland and forages in high output dairy farming systems**. The project is looking how for example stepping counters can also be used to monitor grass intake. The idea is the more steps a cow makes during grazing, the less grass is taken up. Monitoring grazing behaviour also gives the farmer indirect information on the availability of grass. The project has also shown that existing sensors such as head movement sensors can be adapted to measure grazing behaviour. Together with farmers, the researchers are analysing the possibility of using the input from the sensors with information on grass availability. This means that together with the animal feed intake needed based on the expected milk production, farmers will have a tool which helps them in their decision-making: ie. when there is not enough grass, the cattle needs to move to another pasture. The project is still ongoing.



### New ideas which could be taken up by Operational Groups

Ad Ketelaars milks 130 dairy cows a day with two automated milking machines. He participated in Autograssmilk because feels that the issues tackled by the project were very relevant to him: "It is really a challenge to combine automated milking and grazing: getting enough milk out of the robot and at the same time getting enough grass into the cow. Modern sensor techniques can help us manage the farm, for example activity sensors help detect sick cows. As an individual farmer, I am looking for solutions myself. In the Autograssmilk project, ideas from other farmers and research is shared and further developed." Inspired by his role in this project,

he suggests some further possible developments: "What I am looking for now is a 'where are my cows grazing' app. Currently, a digital grass height sensor is more realistic in estimating potential grass uptake. Grazing sensors is a bit too far in the future, but maybe within a few years this is within reach. Now for me it is more important to get the cow from the pasture to the milking machine on time. So I am looking for a wakeup call for the cow to go to be milked."

More info: [www.autograssmilk.eu](http://www.autograssmilk.eu)