Innovative and sustainable systems combining automatic milking and precision grazing

Result in Brief

Sustainable grazing and automatic milking

An EU team has developed technologies for automated monitoring of dairy pastures, in conjunction with automatic milking (AM). The research also yielded optimal grazing strategies for sustainability and several management tools.

European dairy farms have adopted AM, whereby cows come in for milking whenever they want. However, adoption of AM has also meant an undesirable decrease in the use of pasture feed for dairy farms.

The EU-funded AUTOGRASSMILK (Innovative and sustainable systems combining automatic milking and precision grazing) project developed precision grazing technologies to be used in conjunction with AM. The goals were to develop feeding strategies that incorporate grazing and AM, to increase grazing sustainability, and finally to develop and disseminate new farming management tools.

Partners developed various strategies to maximise milk output from AM and integrated grazing across a
wide range of production conditions. Work yielded recommended feeding strategies for periods of grass inadequacy and for various cow breeds, as well as automated grass measurement tool. Researchers also produced guidelines for operation of rotary and mobile milking systems.

Team members produced web-based decision-support and sustainability tools. Both tools permit more informed decisions and greater economic returns. The tools also provide access to topics of interest to farmers, including research results.

Various dissemination activities included a public access website, detailing the project’s many conferences, seminars and workshops.

AUTOGRASSMILK outcomes enable farmers to achieve increased productivity through grazing. The system also helps remove the dilemma of AM or grazing, allowing more farmers to utilise the two together, improving both the product and the soil.

Keywords

Grazing, automatic milking, dairy farms, AUTOGRASSMILK, precision grazing

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