

# Some farms emit more nitrogen than others

**Good farm management can halve nitrogen emissions from dairy farms. What is more, this can increase dairy farmers' profits by one third.**

These findings come from a study by a team of business economists and a soil scientist from WUR. The researchers Melina Lamkowsky and Frederic Ang studied data from 341 intensive dairy farms in the Netherlands between 2006 and 2017, looking at inputs, production levels and the amount of manure coming from the farms. What emerged was that the best farms not only made a 34 per cent higher profit but also produced a 50 per cent smaller nitrogen surplus thanks to better management. The gap between

**'Many dairy farmers could halve their nitrogen emissions without major investments'**

the best farmers and the rest increased in the period that was studied. The researchers are not sure exactly which measures taken by the farmers cut



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their nitrogen emissions. 'In our model, the farm is a black box,' says Ang. 'We only know what goes in and what goes out of it.'

Lamkowsky reckons that the successful farmers use some form of precision fertilization, through which more nitrogen ends up in crops and less leaches out into the environment. She also thinks the successful farmers pay more attention to the health of their cows, because they don't replace them as frequently and have fewer young cattle on their farms. This leads to higher incomes and less manure runoff.

Follow-up research should clarify which

management approaches the best farmers apply.

The study is interesting in view of nitrogen measures to be imposed by the new cabinet and the wish of certain civil society organizations to make the dairy sector more extensive and less intensive. But the researchers do not comment on this. Ang: 'We compared intensive dairy farmers with each other. We note that many dairy farmers could halve their nitrogen emissions without major investments. We think farmers should be advised on how to adapt their management strategies in order to do this.' AS