NITROGEN PROBLEM DEMANDS MIX OF MEASURES

Nitrogen levels in nature areas can only be reduced sufficiently by applying a combination of far-reaching measures, according to a Wageningen study.

In a project for the nature organization WWF, scientists at Wageningen Environmental Research calculated the effect of various measures on nitrogen deposition in Natura-2000 areas. There is currently much too much deposition. Averaged over all nature areas, concentrations are one third too high, but there are nature areas where that figure is almost a half.
Agriculture is responsible for 42 per cent of the nitrogen deposition in nature areas. The WWF therefore assumes the sector can make a similar contribution to the solution. If you just look at the figures, they could achieve this by modifying barns so that less ammonia is emitted. But that is not realistic, says researcher Edo Gies (Regional Development and Spatial Use). 'That would mean three quarters of barns switching to air purifiers. The impact would be huge.'
The same applies to a rigorous transition to circular agriculture. That too is theoretically a solution. 'But it would have to be a closed cycle for the Netherlands as a country,' explains Gies. 'And that means halving the livestock population.' Five-kilometre buffer zones around nature areas, where you purge intensive farming and only allow extensive agriculture, would work in principle as well. 'But that would take up one third of the total area of farmland.'
Gies says only a combination of these measures will achieve the required reduction in nitrogen deposition. And that is merely the contribution from agriculture. Gies emphasizes that the other sectors will also have to contribute their share of the solution. Traffic and industry are responsible for 20 per cent of the nitrogen deposition in nature areas. It is not yet known what major measures are required for those sectors.
The Wageningen researchers also stress the need for tailored solutions, looking at each nature area to see what the effects would be of both general measures and area-specific interventions. Furthermore, we must beware of focusing exclusively on the nitrogen problem, warns Gies. 'There are other challenges facing farming in terms of the environment, climate and public health that we also need to find solutions for.' RK