

Resource

OCTOBER 2024 VOLUME 19

The journalism platform for all at Wageningen University & Research

Zooming in on Zembla
and pesticide lobby

New research centre
called Bioma

Societies will be
at open day

What next
for nitrogen?

Cannabis in
the spotlight

Good idea or dubious plan?
Limited tenure for chairs | p.12



Contents

NO 2 VOLUME 19



20

Activism
'Not for fun'



26

Students:
get a job
or a loan?



28

Marine biologist
Mardik Leopold
retires (not)

4 Rowing boats to
Ukraine

8 Vitamin B12 from
brewer's grains

8 Live & Learn:
down the drain

9 Plant growth in 4D

11 Guido Camps' column:
Wolves #2

34 Meanwhile in Mexico

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background stories at
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FOREWORD

Persevering

The higher education cuts are hurting both universities and their students. The slow student fine is returning, tuition fees have gone up by 9 per cent and the basic grant for students not living at home has fallen by 165 euros. The Dutch government has taken measures that affect the country's future; it's enough to make a person depressed. But the Wageningen students *Resource* spoke to are more upbeat. They are defiant and keen to persevere and deal with the situation. 'I've decided to do lots of paid work every summer.' 'My buffer is shrinking, so I'll have to borrow.' 'I tutor kids and I'm hired to take photos at parties, but I'll still need a loan.' Their responses give a glimpse of the financial world of Wageningen's students (p.26).

We also give an insight into the world of student activist Matijn, who has been part of the camp on the bridge between Forum and Orion since the start, five months ago. He talks candidly and defiantly about why he is continuing the occupation (p.20).

We delve into various other WUR worlds too, as we do every issue — issues that have been monthly since the start of this academic year rather than once a fortnight. How are you finding that? OK, or not at all? We'd love to hear your thoughts via resource@wur.nl!

Willem André
Editor-in-chief





VENI VIDI TEREBRAVI

On a rainy Wednesday evening, about a thousand students wearing weird and wonderful clothes gathered in a muddy field along Haarweg for the annual soil drilling championship. This involves teams trying to drill a hole 1.20 metres deep as fast as possible using the Edelman drill. This year's theme was 'the Romans' ('I came, I saw, I drilled'). In addition to the legionaries and people wearing laurel wreaths and togas, there were also some brave Gauls. Team Summer Holiday won the drilling prize and The Knitting Club – dressed as bunches of grapes – won the best costume prize. LZ

*See resource-online.nl
for more photos*

Photo Ruben Eshuis

WUR not ruling out lobby groups

There is no blanket ban on research for lobby organizations, but researchers need to reflect seriously on what they should and should not do for such clients. This is the message from Executive Board President Sjoukje Heimovaara in response to an online publication by *Zembla*, the investigative TV programme, that questions Wageningen's research for CropLife, the pesticide industry association. In 2021, WUR economists investigated the consequences of halving pesticide use. The (unsurprising) finding was that food prices would rise. The conclusion was one reason why the EU policy to tackle the use of pesticides was blocked. The *Zembla* publication zoomed in on the role of the scientists. 'We don't rule out anyone a priori,' says President of the Executive Board Sjoukje Heimovaara. 'Our Principles of Collabora-

tion give general information on who we collaborate with and under what terms and conditions. Almost every organization we work with has interests of its own, even the government. Those interests are crystal clear in the case of lobby organizations. So you need to be alert. Before starting the study, you should look at

Almost every organization we work with has interests of its own

what question is being asked and whether you have any say in it. After completion, you should look at how the study and your name are used and what say you have in that.' 'I think it's fine to collaborate with a group like CropLife,' continues Heimovaara. 'But it was not a good idea to take part in a meeting organized by CropLife, present-

ing the provisional results of the study – which had yet to be completed – when the meeting was clearly aimed at influencing EU policy. There was also an interview with a researcher in a newsletter intended for lobbying. At that point, you know you are being sucked into CropLife's lobby machine and you are at the very least creating the appearance of a conflict of interest.' According to Heimovaara, it is not her intention to give the researchers a telling off. 'I am most distressed to see *Zembla* take aim at two of our researchers like this. But it's a lesson we can learn from. It is an example of the complexity we have to deal with and a nice case study for discussing dilemmas of this kind. Now this issue is being debated in every coffee corner.' RK

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Photo Sybrand Treffers

Rowing boats go to Ukraine

At the end of September, the Argonaut and second-year Agrotechnology student Sybren Beeksma took some rowing boats to Ukraine. A young Ukrainian rower who had fled to the Netherlands had shown his coach in Utrecht pictures of his old rowing club in Odesa. It was destroyed last December by two exploding rockets and a fire.

A collection was held to raise money and buy rowing equipment. Beeksma and various other drivers transported 36 boats and 140 oars from the Netherlands to Odesa. DV

56

The average Dutch household would have to pay 56 euros extra annually for meat, eggs and dairy produce if the costs of the measures in the Animal-Friendly Livestock Farming Covenant were to be passed on to the consumer in full, calculated Wageningen Economic Research. If farmers pick up the tab, that would mean a rise in costs of 12 per cent. 'In the end, it is a political choice who has to pay the extra costs,' explains WEcR. ^{ME}

Read more about the research on resource-online.nl

Student societies at open day

The university is looking for ways to show people attending the Bachelor's open day more about student life. So now shuttle buses will run between campus and student association Ceres, where representatives of about ten student societies will be available to tell prospective students more about Wageningen student life while they enjoy snacks and drinks.

The societies are pleased with the plan, says Christel Konings, chair of the Wageningen Federation of Student Societies. 'We still have a bit of a reputation of being a Hicksville, but with a university attached. One school leaver asked me last year whether any students actually lived in the town. I said: hey, you should come and see the centre. This is a real student town.' ^{LZ}

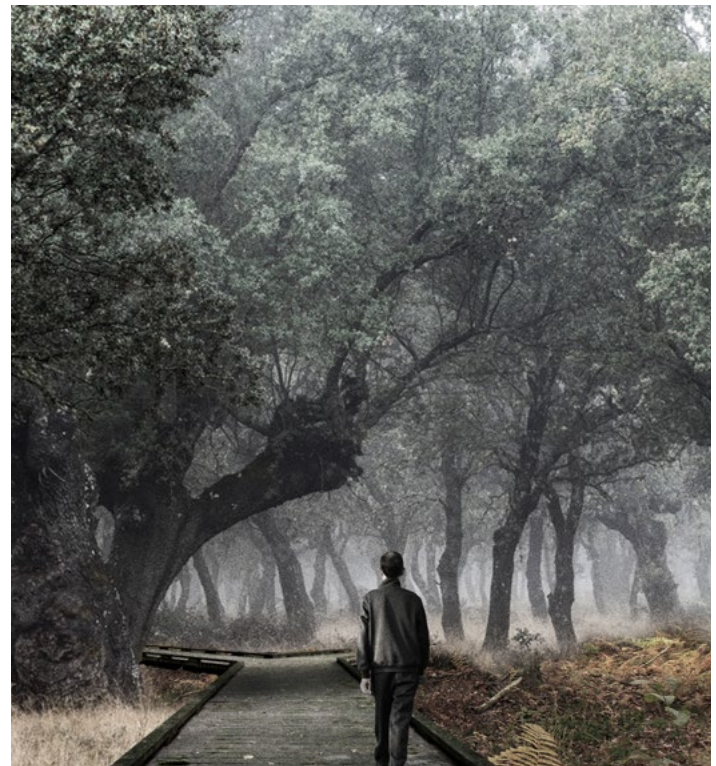
This year's Bachelor's open day is on Saturday 9 November.

Wageningen in Eindhoven

The 2024 edition of Dutch Design Week (DDW) in Eindhoven will once again have a Wageningen presence through Design United, the design section of the 4TU partnership between the four Dutch science and technology universities. If you can't make it to Eindhoven, an impression of the DDW will be given in a Design Dialogue in Impulse (date to be announced).

Dutch Design Week starts next Saturday. Wageningen is involved in three of the five daily public debates (in English) on key design themes: Living Environments, Thriving Planet and Equal Society. In addition, Design United is showcasing a number of Wageningen projects in the prestigious exhibition in the Klokgebouw building. That includes Landscape Architecture student Arend van der Kam's Master's project (see photo), a design based

on the principles of Dark Ecology for a park in the Hague district of Binckhorst, where the soil is severely contaminated. The design is both a memorial for what was lost in the Anthropocene and a form of recovery, with plants that can cope with the toxins in the soil and even absorb them. ^{ME}



Research centre to be called Bioma

The first brick has yet to be laid for the new centre for research on the micro-biome. In fact, a builder hasn't even been contracted. But we do have a name for the centre. A competition among the intended users of the new building resulted in the name **Bioma**, with the stress on the 'o'.

The name was chosen from among 43 submissions. The lucky winner was Anet van de Wouw of the Animal Sciences Group. She was honoured earlier this week during a presentation about the building to the prospective users. Van de Wouw and her colleagues in the Host-Microbe Interatomics chair group will get a place in Bioma.

Most of the occupants, however, will come from the Agrotechnology and Food Sciences Group (AFSG), namely the chair groups Microbiology, Systems & Synthetic Biology, Bioprocess Technology and



The Bioma atrium recalls the Aurora atrium, which was also designed by the LIAG firm of architects. ♦ Image LIAG

Toxicology. The Dutch Research Council Unlock programme will also be housed in the building. The plans for the new building were announced in February. Now architecture firm LIAG from The

Hague has come up with a design, notable for its use of wood for both the structural design and the facade. In fact, it looks similar to Plus Ultra III, which is currently under construction. There will be an atrium in the centre of the building with a striking staircase (see image), says the process supervisor Ans Koning. In that respect it is like Aurora, which was also designed by LIAG.

2026

The new centre will be built on what is now the car park next to Axis on Bornsesteeg.' The construction work will be put out to tender this winter and building can start in the spring. It will take about a year, so the centre will come into use in the course of 2026. RK



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Shedding light on Cannabis

Of course, we all knew this long ago: cannabis plants need a lot of light. But now the link between light and yields has been demonstrated scientifically, as Wannida Sae-Tang (from Thailand) shows in her PhD thesis *Shining the spotlight on medicinal cannabis*. Text Roelof Kleis

In her doctoral thesis, Sae-Tang examines the cultivation of medicinal cannabis, but the results are equally relevant for home growers. In fact, the thesis reads as a manual for growers of all kinds. Sae-Tang focuses on the effect light has on the plant in the various stages of development, from the formation of roots through to flowering.

The researcher had never grown a cannabis plant before she came to Wageningen. 'I wanted to do research on the growth of medicinal plants in a controlled environment,' she explains. 'My supervisor Leo Marcelis asked whether I would be interested in a project on cannabis that was just starting. Thailand had just begun the legalization of medicinal cannabis around that time, so it was a good fit.'

Online lessons

Sae-Tang learned how to grow the plant from Aphria, the German producer of medicinal cannabis (and co-financer of the project). She got her grow lights from the Dutch lighting company Signify, another co-financer. The start was not easy. 'Three months after I came to Wageningen, the Covid pandemic broke out in the Netherlands.' So the cultivation lessons were online to begin with.

Sae-Tang's experiments made one thing clear as daylight: cannabis likes the light. The plant can cope with at least three times as much light as other plants. That extra light has a beneficial effect too.

One per cent more light in the flowering

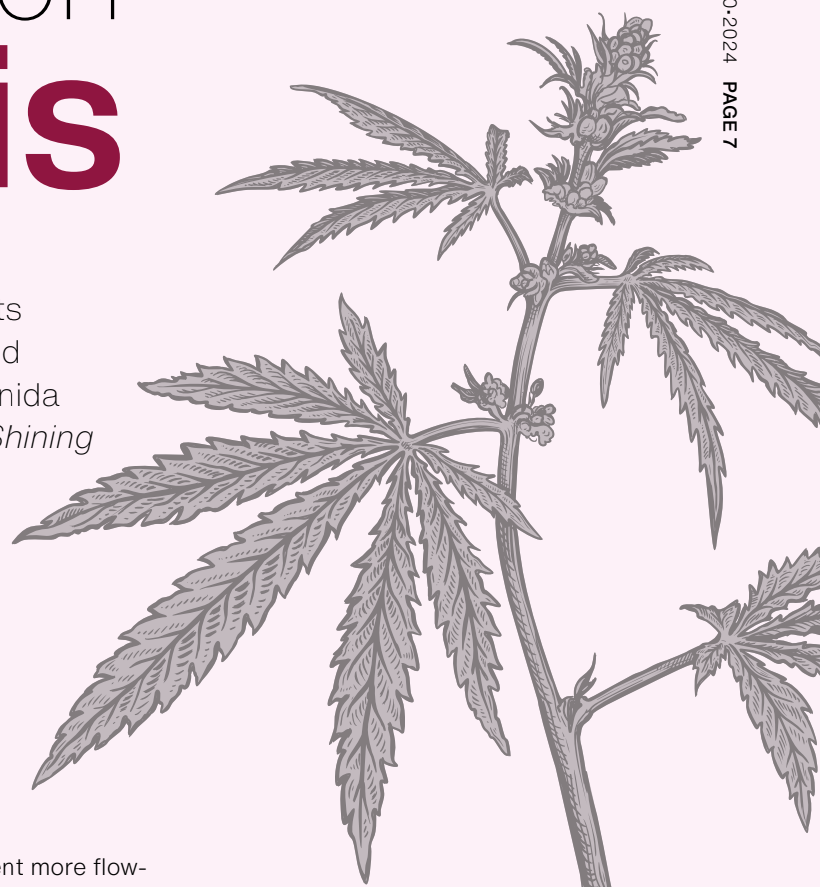
stage leads to one per cent more flowers and an equal increase in the useful substances that can be extracted.

The plant can cope with at least three times as much light as other plants

According to Sae-Tang, that doesn't mean you can expose the flowering plants to unlimited amounts of light. 'I assume there is a limit, even if we didn't reach that saturation point with our light-



Wannida Sae-Tang with the cannabis plants she grew: 'More far-infrared light boosts root formation in cannabis cuttings.' ♦ Own photo



ing. But if you give a plant more light, it also needs more CO₂, more water and the right temperature. That requires careful monitoring and alignment.'

In addition to the amount of light, Sae-Tang also studied the effects of the colour of the light. She found the colour doesn't matter much when the plant is flowering. That is good news for growers. 'It means you don't need any special lighting treatment and so you can make do with cheaper lights. But more research is needed on this topic.'

However, colour does have an effect during root formation. 'Cannabis plants are propagated by taking cuttings,' explains Sae-Tang. 'Root formation is usually encouraged by dipping the cutting in a solution containing the growth hormone auxin. I discovered that far-infrared light (just beyond visible red light, ed.) boosts root formation. The use of auxin for medicinal cannabis is not permitted everywhere, so far-infrared light could be a good alternative.'

[Live&Learn]

A botched experiment, a rejected paper: such things are soon labelled as failures in academia. As for talking about them – not done! But that is just what WUR scientists do in this column. Because failure has its uses. This time, we hear from Nicole de Roos, Assistant Professor of Nutrition and Disease.

Text Nicole van 't Wout Hofland • Illustration Stijn Schreven

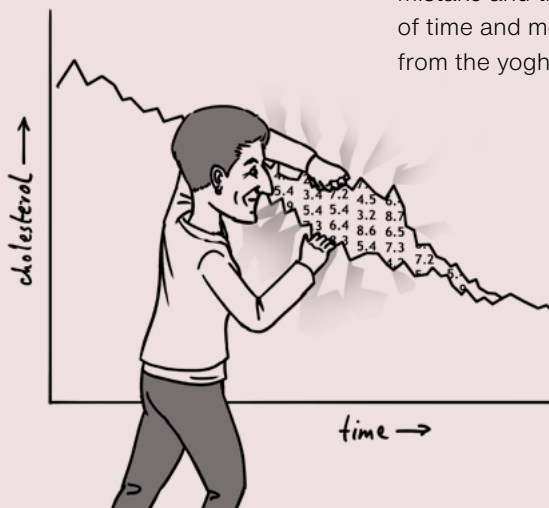
'After I graduated, I worked on various projects in the Human Nutrition department at Wageningen as a research assistant. One of them was about cholesterol-lowering yoghurt that a company had launched on the market. The company had already had research done in America, but wanted evidence from the Netherlands as well that the product lowered cholesterol. This was partly for PR purposes. 'My supervisor and I designed a study with nearly 80 test subjects. Half of them ate the cholesterol-lowering yoghurt every day, and the other half ate regular yoghurt. After two months we had the final results: we saw no difference in the cholesterol levels of the two groups. 'Disappointed, I told my contacts at the company about the results. They were dismayed and concluded that the study was a failure. But we had built in all sorts of quality controls. For example, we could show from blood values that the participants had faithfully eaten their yoghurt. One of my colleagues delved into the

raw data for the American study and analysed it afresh. And what was the case? The original study contained an error in the statistical analysis: their study didn't show a reduction in the cholesterol among test subjects either. I thought: there goes a year of my

'I thought: there goes a year of my life down the drain'

life down the drain because we weren't alert enough.

'I had read the study beforehand too, but the error was in the calculations that the reader doesn't see. That was an important lesson. Scientific research is largely based on trust, but it is important to keep a critical eye on earlier research and to check raw data – both in published research and your own data. I tell my students that now too. I always emphasize that several people should do the same calculations and check whether they get the same outcomes. Because it's so easy to make a mistake and that can cost a lot of time and money – as I learned from the yoghurt debacle.'



Making vitamin B12 from brewer's grains

It is possible to enrich this beer-making waste product with vitamin B12, discovered Hermien van Bokhorst and colleagues at Wageningen Food & Biobased Research.

'Every year, six to eight million tons of brewer's grains are generated as a waste stream from the manufacture of beer in Europe. This is mainly turned into animal feed. It would be nice if we could turn this waste stream into something valuable humans can consume,' says Van Bokhorst. Everyone needs vitamin B12. In nature, it is only found in meat, fish, eggs and dairy produce. 'Now more and more people are going vegan, it's important for us to be able to extract B12 from other sources,' explains Van Bokhorst. 'Our project started with a literature review. That revealed *Propionibacterium freudenreichii* and *Priestia megaterium* as promising bacteria for producing vitamin B12 from plant matter via fermentation.'

Fermentation

'Using information from the literature, we applied the expected optimum fermentation conditions – for example in terms of acidity and temperature – to the brewer's grains we got,' says Van Bokhorst. 'The propionic acid bacterium turned out to perform better than the *Priestia megaterium*.' At first, this got them about 0.5 to 1 microgram of

'It would be nice if we could turn this waste stream into something valuable humans can consume'

vitamin B12 per 100 grams of brewer's grains. 'But the advice is to have about 2.5 micrograms

of B12 per day for a healthy diet.' The researchers then tried altering the dilution of the grain solution, the incubation time, the availability of oxygen and the temperature. 'That let us get over 20 micrograms per 100 grams in a lab setting.' Finally, the researchers tested the process on a bigger scale. This time, they got more than 7 micrograms of B12 per 100 grams. 'A good baseline position for scaling production up further for our industrial partner, which provided us with the brewer's grains.' DV

Plant growth in 4D

The NPEC greenhouses on campus have BABETTE, a device that meticulously records plant growth in space and time. BABETTE stands for Bucher And Brouwer's Environment for Time Traversing Experiment. Its developer Johan Bucher refers to the device as his time machine: it lets you travel through time to track the life of a plant. Text Roelof Kleis

Johan Bucher calls himself a molecular analyst. After studying at an applied university, he came to WUR 15 years ago. He did a lot of research on the growth and development of plants, and kept running into the same problem. 'We often missed essential parts of the growth process.' Time-lapse recordings can do wonders in such a situation, but that didn't work well either. 'Things were happening just out of view or on the shadow side of the plant.' A different approach was needed. So Bucher invented BABETTE, a series of cameras rotating around the plant to record time-lapse images. 'These individual images are then digitized and linked together to create a video that gives detailed insights into the growth process. Bucher: 'You can fast-forward or rewind the film, and zoom in and out. Sometimes you only understand or recognize changes after you've seen them ten times.'

Cube

Bucher first got the idea for his design seven years ago, and he cobbled together a prototype two years later. Then came the Engineering Doctorate programme, the two-year post-Master's degree that aims to turn existing knowledge into technological solutions. In Bucher's case, the machine is his 'doctoral thesis'. In January he hopes to be one of the first students graduating with the new degree at WUR. From the outside, his 'proof of aptitude' is nothing more than a large grey cube.



Photo Guy Ackermans

Inside, a series of five stacked cameras are rotating 360 degrees around the plant on a plate, pointed at different angles. Behind the plant, a blue-coloured screen rotates in sync to spread the flashlight evenly and prevent shadows. During the four-minute cycle, images of the plant are taken.

For hire

Bucher stresses that he didn't design BABETTE by himself. He developed the technology with Rick Hendriksen (Wageningen Technical Solutions) while his colleague Matthijs Brouwer developed the software. His supervisor Richard Visser (emeritus professor of Plant Breeding) and co-supervisor Gerrit Polder (expert in machine vision and robotics) complete the team. A patent for the idea is in the works. Meanwhile, BABETTE is no longer alone. Elsewhere on campus, a jet black and

'Sometimes you only understand changes after you've seen them ten times'

enlarged version is ready for delivery to a university in Germany. Not that this means his device will be going into production. Bucher: 'That's not possible. Each machine is unique.' And it's not necessary either, as BABETTE's services will soon be available for hire through NPEC (Netherlands Plant Eco-phenotyping Centre).

PhD theses **in a nutshell**

River plastic

Flooding is doubling the amount of plastic transported by rivers worldwide. Even moderate flooding, the kind that happens once a decade, can increase the transport of plastic by a factor of ten. Caspar Roebroek reaches these conclusions in his PhD thesis on the transport of plastic by rivers. The day-to-day weather has little effect on that transport, but extreme weather has a big impact. Roebroek says this needs to be taken into account when coming up with solutions for tackling plastic pollution. He also says preventing plastic waste in the first place is even better, of course. ^{RK}

The Role of Hydrometeorology in River Plastic Pollution. Caspar Roebroek ◀

Supervisors Ryan Teuling and Martine van der Ploeg

Storing electricity

Being able to temporarily store sustainable electricity is becoming increasingly important. One possibility is to use methane: carbon dioxide is converted into methane in a biobattery with the aid of bacteria. Micaela Brandão Lavender, from Portugal, studied the electrical aspects of such a system. How can you design the system so that a lot of methane is formed, minimizing the loss of energy? Her results show this is no easy task. The demands of storage capacity, efficiency and speed pull in different directions. It seems that nature cannot easily be moulded to suit human purposes. ^{RK}

Power-to-methane in a Bioelectrochemical System. Micaela Brandão Lavender ◀

Supervisor Annemiek ter Heijne

Meningitis

Streptococcus suis is a bacterium that can cause severe disease in pigs. The pathogen can also be transmitted to humans, where it causes meningitis. The Chinese researcher Tiantong Zhao studied how the bacterium manages this and how it reaches the brain. To do this, the bacterium 'hijacks' plasminogen in the blood. A protein called enolase on the surface of the bacterium converts plasminogen into plasmin. The plasmin helps the bacterium cross the blood-brain barrier and carry out its destructive work. A smart trick by the bacterium. ^{RK}

Crossing Barriers: how Streptococcus suis hijacks the plasminogen-plasmin proteolytic system to invade the brain. Tiantong Zhao ◀

Supervisor Jerry Wells

THE PROPOSITION

PhD students explain their most provocative statement. This time it's **Christian Lamping**, who received his PhD on 1 October for his research on deep learning for robust animal monitoring in uncontrolled environments. Text Ning Fan



'A response depends more on who asks than on the question itself.'

'During my PhD, we once wanted to access a chicken farm for an experiment, but obtaining permission was very difficult. However, when someone who knew the farm manager personally made the same request, permission was granted almost immediately. This made me realize that responses often depend more on who is asking the question than on the question itself. The same applies in academia. When sharing a scientific finding with the public, we often emphasize the positive outcomes while downplaying the limitations. In contrast, when discussing the same results with a fellow researcher, we tend to be more transparent, openly sharing the challenges

and difficulties of the research. We frequently react differently depending on whom we're interacting with, just as others respond to us in different ways. This feels so natural that we often don't even notice it. What I've learned is that it's crucial to know your audience. Whether you're asking for a favour or giving a presentation, you need to tailor your approach to the people you're engaging with. This will make your message or request much more effective.'

Wolves #2

No new topic for this edition: I need to go back to my column on the wolf of 18 May. A column in which I called for a clearer policy and more nuance around the subject of 'wolves in the Netherlands', including from WUR. I was pleased to see that the *Faunabescherming* (the Dutch Society for the Protection of Wildlife) reads my columns and shares them on X. Nice that my column calling for more policy and nuance is shared

'Once again, I call on all parties: come up with a serious policy on the wolf'

people on that platform held it against me that I would like to let my children play in the woods near Zeist. I can reassure those people: my children's after-school care centre has cordoned off the play area so the children can't go into the woods. So the children are inside a 'wolf-proof' fence now too. This measure was taken because a toddler and then an older child were 'harassed by a large animal' on the Utrechtse Heuvelrug, in the words of the Midden-Nederland police. The tension around this issue is demonstrated, in my view, by the number of hours a spokesperson must have sweated to find a formulation that avoided the words 'wolf' and 'bite'. Because the toddler wasn't bitten:

on the former Twitter – surely the go-to medium for consensus-forming. Sadly, some



Guido Camps

although the toddler, the father and the daycare centre staff all say otherwise, the experts from the Mammal Society see 'no possible sign of a bite' on the photos of the wounds. What a relief!

Once again, I call on all parties: come up with a serious policy and recommendations on how to deal with the wolves. Thanks to a court ruling in response to opposition from the Dutch Society for the Protection of Wildlife, and from Animal Rights, the provincial government is prohibited from trapping, stunning, tagging or paintballing this particular wolf that has an interest in children and dogs. From a legal perspective, nice for the wolf perhaps, but it only makes opponents keener to amend European legislation to enable policymaking on the wolf. And there, potentially, lies a greater danger for wolves and for nature as a whole. As the left-wing MEP Bas Eickhout wrote in the *Financieel Dagblad* newspaper: 'The Commission may say it only wants to change the status of the wolf, but the moment the law is broken open, everything is on the table. Right-wing politicians will seize the opportunity to weaken all the European nature legislation. And then the political storm surrounding the wolf will pose a danger to all of nature in Europe.'

Guido Camps (40) is a vet and a researcher at Human Nutrition and OnePlanet. He also enjoys baking, beekeeping and unusual animals.

‘A lifetime appointment is very long indeed’

LIMITED TENURE FOR A CHAIR?

The term of office of chairholders should be limited, as is standard practice for directors of science groups and board members at WUR. This suggestion was a parting shot from the outgoing ombudsperson Jacqueline Schoone in her last annual report. A good idea or a dubious plan? Text Marieke Enter • Illustration Valerie Geelen

Wageningen ‘chairholding professors can end up staying in their posts for an extremely long time, Schoone noticed. She understands the reasons for this. ‘Unlike the way it works at many other universities, leading a chair group in Wageningen is a serious post, not a something you do a stint at. Academically, chairholders can really leave their mark on their group. The downside of that is that people are not keen to give up such an influential and prestigious job, even when there are

actually good reasons to do so.’ Generally speaking, a move sideways feels like a move backwards to chairholders, suggests Schoone. ‘Demotion always has negative connotations.’ So they stay a long time – the majority of them, at least. As ombudsperson, she is critical of that clinging to power, especially by chairholders ‘whose use-by date has been reached’. Anyway, given the need for renewal and innovation in the groups, she thinks there should be a regular changing of the guard among chairholders. What do Wageningen chairholders, past and present, think about this themselves?

Wageningen chair groups & full professors (as of 1 September 2024)

Chair groups	95
Chairholders	88 (and 7 vacancies)
Personal professors	89
Special professors	47
Distinguished professors	1

A chairholder is a full professor who bears the final responsibility for academic and organizational matters in a chair group. The appointment is currently still for life. Besides the chairholder, one or more personal professors may be attached to a chair group. These professors have their own research fields and teams, and their appointment is reviewed every five years. Special professors are on temporary appointments (generally a maximum of five years and parttime: one day a week), funded by external parties. Finally, WUR has distinguished professors who are appointed for a maximum of seven years. This is an honorary title for excellent professors who have brought WUR a lot of prestige, projects, prizes and research funding. A particular stipulation is that WUR may only have five distinguished professors. Currently, Maarten Scheffer is the only one.

You can read more about Wageningen professors and policy related to them – and how you qualify to join their ranks – on WUR’s professors page.





'Limiting the tenure like that strikes me as a good idea, mainly to reduce the risk of abuse of power.'

ABUSE OF POWER

At his own initiative, Marten Scheffer handed over the chair of Aquatic Ecology and Water Quality Management to Bart Koelmans in 2018, and has since been concentrating once more on the practice of science, as an honorary 'distinguished professor'.

'Limiting the tenure like that strikes me as a good idea, mainly to reduce the risk of abuse of power. On the whole, all goes very well with chairholders. But occasionally it goes wrong and then it can be hard to get rid of a "tyrant". And it certainly doesn't happen without a lot of damage being done. I would think five years was a suitable period to lead a chair group, and if you ask me, the chairholder needn't always be a full

professor. Just rotate the position of coordinator, and then you will get a broader leadership team to share tasks and ideas on an ongoing basis. That is good for quality, flexibility and continuity.

'I have never regretted asking Bart to take over the office of chairholder. In reality, we had already been doing it together for 20 years, with Bart as my "right-hand man". We had shared ideals about how to facilitate a group in a way that makes everyone feel valued and able to complement each other. Socially and academically, the group turned into a lovely bubble, something we were tremendously proud of. We very carefully checked whether everyone in the group supported our hand-over, and took two years to do it. Bart

'DEMOTION ALWAYS HAS NEGATIVE CONNOTATIONS'

was also reviewed by a committee for his "professorability". It's still going terrifically. It gives me a real peace of mind not to have that responsibility, and that leaves me with the freedom to delve even deeper into the science.'





'A LIMITED TERM OF OFFICE CAN PUT PEOPLE OFF BECOMING CHAIRHOLDERS'

CRUDE INSTRUMENT

Bregje Wertheim has been chair-holding professor at the Laboratory for Entomology since 1 September, when she succeeded Marcel Dicke who retires at the end of 2024. She came from the University of Groningen, where she established her own research group with a Rosalind Franklin Fellowship.

'My first response is that a limited term of office feels like a crude instrument for something that needs tackling with more precision. If someone isn't doing a good job, specific action should be taken. Another factor is that a limited term of office like that can put people off accepting the position of chairholder. After all, the time devoted to management and coaching as chairholder is inevitably spent at the expense of your research time. That has an impact on your chances of still competing successfully for a research-only job or for personal grants later. I think a more promising option is to give chairholders the chance to pass on the chairholder baton to someone else while retaining their personal chair. That gives people the space to step aside if they or the chair group feel the need for that. That kind of approach

can also facilitate a smooth handover to the new chairholder. Personally, I am currently in a handing-over phase with my predecessor, which I am benefitting from and enjoying.

Yes, in my case, a limited term of office might have put me off transferring to WUR. I had a very nice position as professor in Groningen, where I could effectively engage in both research and education. It wasn't easy to give that up.'

SHARED LEADERSHIP

Rens Vliegthart told *Resource* on a previous occasion that when he first moved from the University of Amsterdam to WUR, he didn't mind whether he or personal professor Sanne Kruikemeier became head of the Strategic Communication chair group.

'I think a chair group benefits from making the role of chairholder a rotating position. A term of four or five years, with the option of one more term and a certain amount of flexibility seems appropriate to me. And make sure as well that the typical tasks of the chairholder can more easily be delegated to group members – a kind of shared leadership. Examples would be HR-related issues, consultations at section and department levels, financial matters and hundreds of other things that currently land on the chairholder's plate. This would give more people

the chance to develop their leadership skills. There are certainly advantages to the Wageningen chair group system: groups have a lot of autonomy and as chairholder, you can keep the focus sharp.

At the same time, I think as it stands, the differences between chairholders and personal professors are too big. With their considerable formal decision-making powers, there's a risk that the personal preferences and bias of the chairholder predominate for a long time in decisions that are crucial for the



group. The chairholder can also be very dominant in decisions about the personal development of group members. In my view, the organization could do with being more egalitarian. I think you should form the chair group together, with an important role for personal professors and other group members with something to contribute.’

LITTLE DICTATORS

At 62, Ellen Kampman is giving a lot of thought to the long-term prospects for her Nutrition & Disease chair group, and discusses this regularly with the group.

‘For me, the move to a chair was a conscious one. Not for the prestige, quite the opposite in fact. To me, being a personal professor is more of an ego-boost. I’m not so interested in being named as a co-author of articles, or obtaining personal grants. As chairholder, I play a coaching role and work in a broader field. What do we want to work towards as a group, and how can I ensure that everyone can grow? Currently, you get appointed to the chair of a group for life. That can be a very long time. Actually, there should be a formal evaluation at least every five years, in which the group members give their evaluations (anonymously),

More clarity soon?

The suggestion that the tenure of chairholders should be limited is not new. It features, for instance, in the most recent Chair Plan that Resource could find (2019-2022). From the Executive Board we learn that a new Chair Plan is in the pipeline, and is currently awaiting input from the WUR Council. Spokesperson Vincent Koperdraat declines to say where the plan mentions the tenure of the chairholders. ‘It’s not good practice to say anything about that while the WUR Council is still looking at the plan.’

Judging by the previous Chair Plan, it seems likely the subject comes up in the latest one. The last one noted that chairholders, with their unlimited term of office, usually stay for a long time, and that long period ‘doesn’t necessarily meet the needs and wishes of the chairholders themselves or of the organization’. The paper outlines a number of alternatives, such as a five-year appointment or the option of enabling chairholders who step down to stay in their group as personal professors. But we also read, ‘These different scenarios beg the question of the attractiveness (of the position, ed.), the difference in pay between chairholders and personal professors, the allocation of responsibilities, and so on.’ The Chair Plan therefore announces that the period concerned (2019-2022) would be used ‘to study the options and come to a decision about the preferred model’.

Professorial chairs pretty much form the academic backbone of WUR. The Chair Plan, which is revised every few years, describes the academic brief for the professors. The plans are drawn up according to formal procedures: the Executive Board decides on them, based on recommendations from the rector magnificus.

possibly followed by a further term of office. For the big egos among the chairholders it would be good to hear now and then what people really think of you. Luckily, there aren’t many of them, but there are a couple of little dictators. If you put people on a pedestal, it isn’t always good for their character and behaviour.

Depending on the size and composition of the chair group, I would be happy with a kind of management team with a rotating chair. Maybe that would keep us all more on our toes. I’ve been in the post now for about 10 years. Of course I sometimes wonder whether I’m still doing a good job, or whether it’s time for a new broom. I talk about that openly with the group too. I don’t mind moving aside when the right time comes, although I’m not sure quite how I could then further my career. By now I’ve been out of my subject area for too long to become a personal professor. But there must be other worthwhile things to do.’ ■

‘IT CAN BE HARD TO GET RID OF A “TYRANT”’

‘A LIMITED TERM OF OFFICE CAN PUT PEOPLE OFF BECOMING CHAIRHOLDERS’

The quest restarts with pig experiment

IS ORGANIC FOOD HEALTHIER?

WUR's stalls welcomed 96 new piglets this month. They are playing the leading role in a study to answer the question of whether organic food is healthier.



Text Roelof Kleis

Let's start with the disclaimer. The experiment says little or nothing about the health effects of organic food on people, as project leader Herman Vermeer (Wageningen Livestock Research, Animal Health & Welfare) makes very clear. 'The experiment gives absolutely no answer to the question of what organic food does in people. For that, you need to do studies on humans. But if you don't find any effects in this experiment with pigs, it doesn't make much sense to go looking for effects in humans.' The pig experiment was commissioned by the then Ministry of Agriculture, Nature and Food Quality and has a long and turbulent history (see inset), dating back to a similar experiment in 2007 but with chickens. This time, pigs were chosen instead of chickens. 'Humans and pigs are much more similar physiologically,' Vermeer says. 'We are basically vertical pigs.' An experiment with humans would be the most ideal, but that is not feasible. 'We can keep all conditions the same with these pigs, so only the feed is different. That's impossible with people, and you would therefore need to run the experiment for decades to get the same information. It's practically and ethically unfeasible.'

Virus and fast food

The pig experiment is simple in essence. Piglets are reared on organic or conventional feed and are then exposed to one of two interventions: a vaccination or unhealthy feed. The consequences of that on the animal's health and resilience are meticulously assessed.

The vaccination is an attenuated live PRRS virus, where PRRS means porcine reproductive and respiratory syndrome. The unhealthy fodder is like fast food, food with a lot of sugar. Both interventions provoke a response in the immune system, and therefore test the pig's resilience.

A lot of preparation is behind this basically straightforward approach. Even getting the permits for the experiment took a year and a half, according to Vermeer. 'It's about a nutritional challenge: the animals are given meals they aren't used to. To measure how the immune system responds to that, a cannula is inserted in them that allows us to tap blood. And at the end of the experiment, all animals are put to sleep so we can take various samples.'

'THE EXPERIMENT GIVES NO ANSWER TO THE QUESTION OF WHAT ORGANIC FOOD DOES IN PEOPLE'



Herman Vermeer with some of the piglets in the experiment • Own photo

In addition to the permits, compiling the feed also took a lot of time. Vermeer: ‘We purchased conventional feed and organic feed — from multiple parties from all over Europe for both categories. The fodder was then examined extensively and screened for composition and contaminants. Then mixtures were made for use throughout the trial.’ Just to be clear, the pigs are given normal pig feed, not a human diet with vegetables or animal protein.

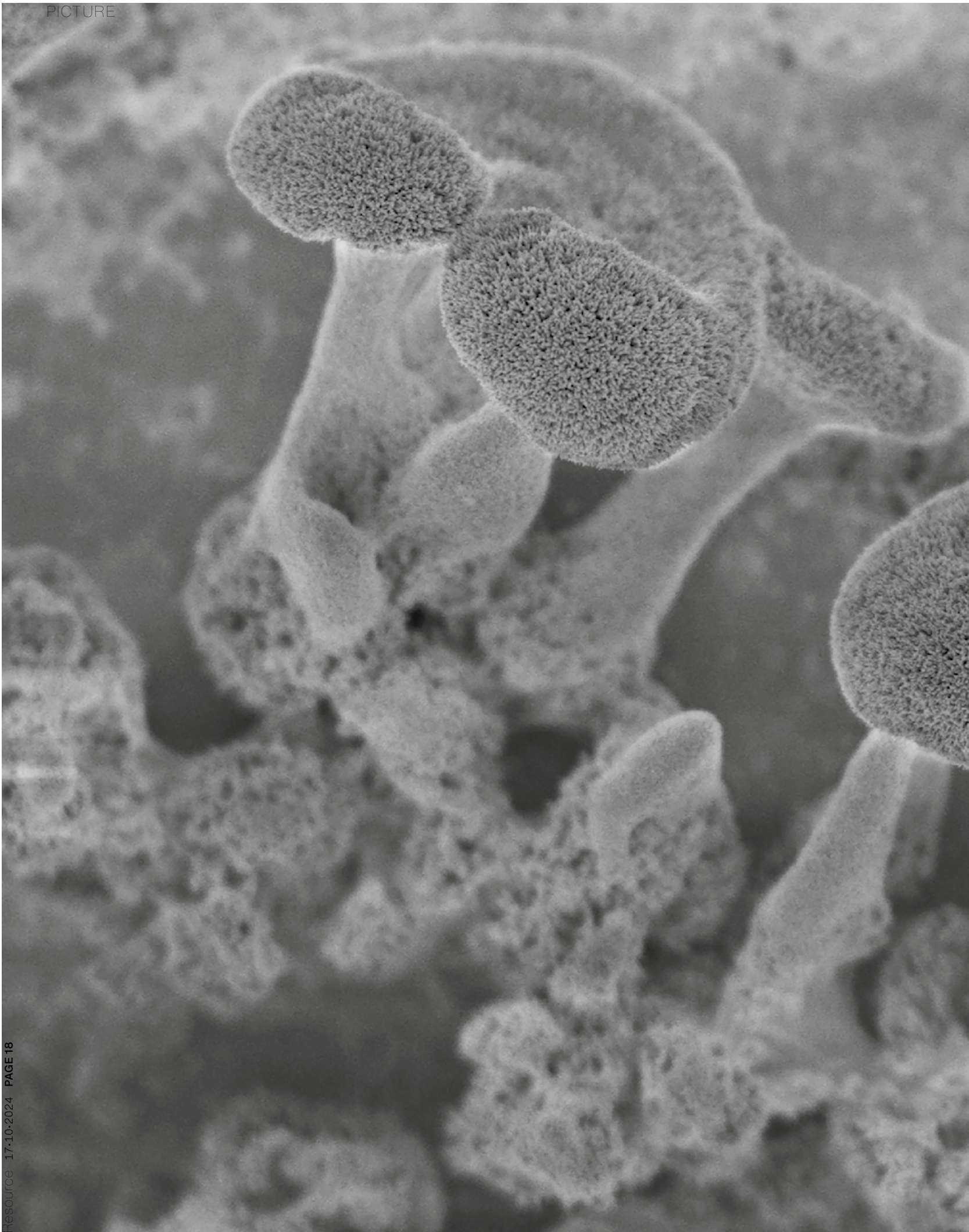
Sows

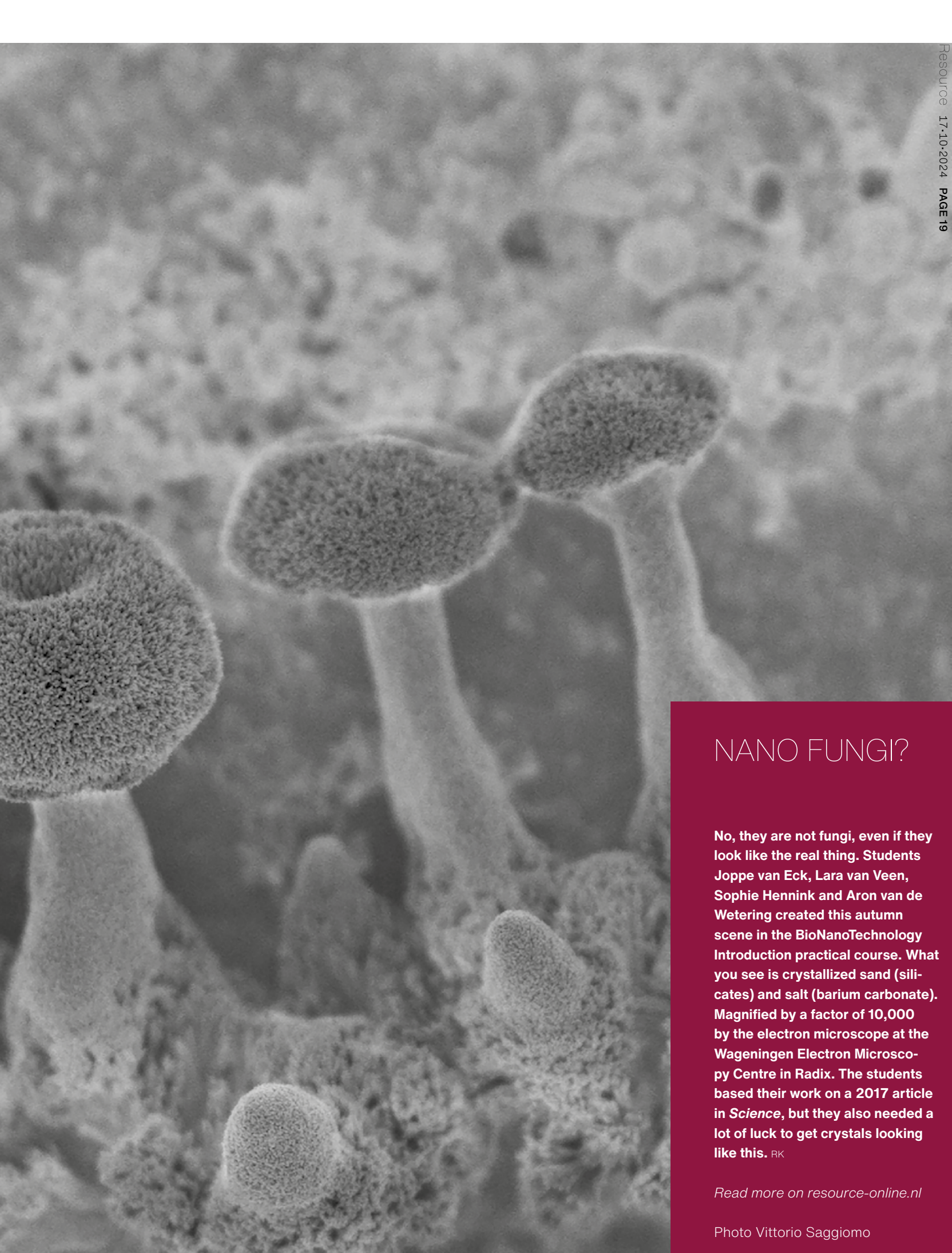
The 96 piglets now being reared on campus are the daughters of 24 sows. They were born on a breeding farm and all have the same father to eliminate genetic differences as much as possible. Remarkably, half of the piglets have been raised on organic feed from conception, meaning the mother was fed organic feed during pregnancy. ‘If you start the experiment at a later age, the effect is probably smaller,’ says Vermeer. ‘And so the chance that you discover an effect is also smaller. We want to create as big a contrast as possible due purely to the feed.’ The choice for one sex was made to prevent m/f hormonal influences. ‘We chose to go with females because they might react more to the interventions.’ The experiment ends in March. The piglets will then have grown into pigs weighing about 80 kilos. Vermeer says the results of the investigation are not expected

until the end of next year. The organic world is eagerly waiting for those results. The researchers are already considering how to prevent any bickering about the conclusions this time. Vermeer: ‘We are working on identifying all the possible outcomes and scenarios. Suppose one indicator points one way and another points in another direction, what would your conclusion be? We are trying to reach a consensus with all the parties about that beforehand. You don’t want to have any arguments afterward.’ ■

ZEMBLA

The pig experiment has a long and turbulent history. It started in 2007 with the presentation of the report *Biologisch Gezonder?* (‘Is Organic Healthier?’), about an experiment with chickens that were fed conventional or organic feed. The report concluded that the scientific evidence for positive health effects from organic feed is too weak. The TV programme *Zembla* questioned that conclusion four years ago. It claimed positive health effects were swept under the carpet under great pressure from TNO, one of the participating parties. The broadcast led to Parliamentary questions and eventually the commission of a new investigation by the then Agriculture minister Carola Schouten. WUR is now carrying out this study in partnership with Utrecht University and the Louis Bolk Institute.





NANO FUNGI?

No, they are not fungi, even if they look like the real thing. Students Joppe van Eck, Lara van Veen, Sophie Hennink and Aron van de Wetering created this autumn scene in the BioNanoTechnology Introduction practical course. What you see is crystallized sand (silicates) and salt (barium carbonate). Magnified by a factor of 10,000 by the electron microscope at the Wageningen Electron Microscopy Centre in Radix. The students based their work on a 2017 article in *Science*, but they also needed a lot of luck to get crystals looking like this. ^{RK}

Read more on resource-online.nl

Photo Vittorio Saggiomo

Five months of camping out on the bridge

‘Activism is not for fun’

Activists have been occupying the bridge between the Forum and Orion for over 150 days now. They demand that WUR publicly cuts all ties with Israeli institutions. What inspires them to keep going? A conversation with a bridge activist who was there from the start: Matijn, a Master’s student of Biology.



Text Dominique Vrouwenvelder

‘When we launched this campaign in May and set up our tented camp, it was by far the most important thing in my life at that time. I put quite a lot of things on hold in order to focus on that: my studies, my job, and my social life. Luckily, I could plan my internship and thesis flexibly. But of course, such an intensive period has consequences: I will take longer to graduate, and I will incur more costs. I accept that. I am currently working on my final thesis, as you can’t earn your living from activism. Everyone in our camp is doing this alongside their studies or job.

‘It is tricky to find the right balance between campaigning as hard as possible and taking breaks to recharge your batteries. Knowing that the Israeli army is murdering dozens to hundreds of innocent people every day in Palestine, and now in Lebanon too, makes it feel

wrong to relax, and easily makes you feel guilty. After all, I could have used that time to help, couldn’t I? That inner conflict makes activists vulnerable to burnouts. We talk about that in our group: if someone gets burnout, we won’t achieve our goal.

‘At the start, we held regular film and games evenings, and there were communal meals every evening for big groups. After more than 150 days of campaigning, most people don’t have the energy for that anymore. We sleep out of doors on the bridge, the lights stay on at night, and there have been many difficulties. We had a lot of storms, rain and cold temperatures this summer. The camp collapsed a couple of times and there were leaks. And now it’s getting colder. It definitely isn’t a camping holiday.’

Civil disobedience

‘And yet I believe what we are doing is worthwhile and I think the approach we’ve taken is justifiable. I looked into the

history of activism, and civil disobedience has been an effective way of bringing about change for thousands of years. In the context of the Israeli occupation of Palestine and the genocide of the indigenous population going on there, a bit of civil disobedience here on the campus is justifiable. By continuing to collaborate with Israeli institutions, our university contributes in a subtle but significant way to the continued suffering. ‘But activism or protest is a long-haul job. Because after an – often stressful – campaign, you usually have no idea whether it has made any difference.

‘I believe what we are doing is worthwhile and I think our approach is justifiable’



Activist Matijn at the camp on the bridge near Forum • Photo Guy Ackermans

That is frustrating, that you have put so much energy into something without seeing any immediate results. But I do think it has an impact in the end.'

High points

'On 6 May, the Israeli army began the invasion of Rafah. The situation was acute and camps were set up throughout the Netherlands to protest against institutional links with universities in Israel. I am enormously proud of the fact that our Wageningen movement managed to set up our camp within a week, with the help of over 100 students, staff and Wageningen citizens. Another high point was the public debate we organized, at which

we had invited the Executive Board to publicly defend their position. In the end the board didn't show up – no surprise – but it was a very interesting evening with a diverse group of people – including people who didn't agree with us.

'The occupation of the access roads to the campus was a high point for me personally. Just before we carried it out, I was very nervous. We knew the situation would get tense, and that onlookers could get angry or aggressive, and we could be exposed to police violence. We had prepared well by talking about how we could de-escalate the situation if tension rose. And there were indeed some tense moments, but fortunately it went well. And we got a lot of support and encouragement from passers-by.'

Stereotype

'The stereotypical image is that activists are lazy and unemployed. But why would "lazy" people devote hours or days of their time to organizing and

'Of course there are consequences: I will take longer to graduate, and incur more costs. I accept that'

implementing protests? I don't think many people realize that you don't do this for the hell of it, and you don't block a road and risk police violence for fun. You put yourself in a dangerous position without any reward. My motivation to do this is intrinsic. I want to make a contribution to positive social change. History shows clearly that activism is an extremely effective way of achieving that.' ■

Field study on the Maas

The mysterious catfish

More and more catfish are being spotted in the Netherlands, at more and more locations. And there are more and more XXL specimens among them. The question is whether that is good news, ecologically, and particularly with migrating fish in mind. A field study involving tagged catfish aims at clarification on this point. Text and photos Marieke Enter

Fishing for catfish can be just like gaming,' says Master's student Max de Koning (Aquaculture & Marine Resource Management), pointing to the LiveScope, a gadget that reveals what is going on underwater using sonar. On board with angler Paul Swinkels, you see what he means. The brightly coloured figures on the screen hold your attention and it gets very exciting when one of them approaches the place where De Koning and Swinkels' bait is hanging in the water. The angler and the student are fishing with a scientific aim in mind. Because although the European catfish (*Silurus glanis*) is being spotted in Dutch waters more and more frequently and in increasingly impressive sizes, questions remain about the predator. For a start, we don't know exactly what its diet consists of. All sorts of anecdotes circulate among anglers – catfish are said to regularly gobble up waterbirds and rats, for instance – but these might just be tall stories. Nor do we know exactly how and where catfish go hunting.

It is still not clear what the fish eats exactly

Wageningen Marine Research (WMR) is now doing research into both questions at the behest of the ministry of Infrastructure and Water Management (Rijkswaterstaat) and the ministry of Agriculture, Fisheries, Food Security and Nature.

All you can eat

There are indications that catfish feast en masse on migrating fish that are held up at locks, weirs and other obstacles. There are also reports that they eat a lot of American crayfish and Ponto-Caspian gobies, two invasive exotic species. That would be good news for the indigenous ecology, but the massacre of migrating fish would not. 'Many indigenous migrating fish species are not thriving,' says project leader Jacco van Rijssel. 'Various measures are being tried to increase their numbers, including release programmes and additional fish passages. Before you do that, you want to know whether the migrating fish constitute a sort of "all-you-can-eat buffet" for the catfish.'

Van Rijssel hopes to tag 30 catfish for this study. That is being done on the River Maas, near the hydroelectric plant at Lith, both up- and downstream. Some of the catfish are part of the bycatch of professional fishers. But amateur anglers who Marine Research works with play a big role too. They have already spent many evenings out on the Maas, because catching a catfish is no child's play.

Not small fry

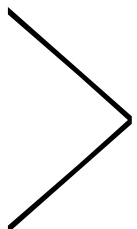
And that's clear on board Swinkels' boat. He and De Koning cast their rods out near a gully in the riverbed and let the boat float with the current. For a while,

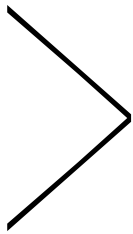


Project leader Jacco van Rijssel (left) and Aquaculture & Marine Resource Management Master's student Max de Koning use a jet of water and a sieve to retrieve the stomach contents of the sedated fish.

not much happens. Now and then a patch of colour appears on the screen and De Koning can feel through his rod that a fish is investigating the bait – but they don't really bite. Meanwhile, dusk is falling, and that is 'the time of day when the catfish is most active', Van Rijssel has told us. And to be sure: on the screen

appears a large red and yellow figure that swims lazily towards the spot where Swinkels' bait is hanging in the water. The patch lingers there a moment and then swerves away, only to turn back quick as a flash. 'Hang!' roars Swinkels as he jerks his rod up. Yes, a catch – and not a small one. The rod bends deeply under the weight of it, the reel slips and Swinkels nearly busts a gut reeling in the fish: this is no small fry.





A little later, Swinkels' boat is speeding over the Maas to rush the freshly caught catfish to Van Rijssel, who has his research equipment at the ready next to the hydroelectric plant. The fish is carefully hoisted up on a kind of stretcher and laid in a basin full of 2-phenoxyethanol to anaesthetize it. After a few minutes, once the fish is sufficiently sedated, the research ritual can begin.

Grazes

The researchers try to retrieve the contents of the fish's stomach using a water jet and a sieve. If the fish is large, the researchers sometimes extract the leftovers by hand – wearing a sturdy glove as the sandpaper-like tissues of a catfish's mouth can cause severe grazes. Today, De Koning only finds an otolith-like object (a 'stone' from the inner ear of fish); previously the researchers found the remains of a wild duck. Then they weigh and measure the catfish, De Koning takes a DNA sample by clipping tissue from a fin, and the



Angler Paul Swinkels with the catfish he caught. On the right are screens with sonar images of what is going on underwater.

fish is fitted with a tag just below the skin. 'At the fish passage next to the weir there are two antennae that can read this tag, so we can see which direction it's swimming in,' explains Van Rijssel.

Big enough catfish – and at 120 and 137 centimetres, both Swinkel's catches this evening qualify – are also fitted with an acoustic transmitter the size of an AA battery. It is placed in their abdomen and will work for about 10 years. The transmitter is used for fish of over 80 centimetres. Van Rijssel: 'Salmon and silver eels that pass here on their way to their spawning grounds can be 60 to 100 centimetres long. To be capable of devouring such large prey, a catfish needs to be substantially bigger.'

Once the incision in the abdomen has been neatly stitched – Van Rijssel is qualified to do this – the fish goes into a tank with flowing Maas water to recover. That doesn't usually take long, says Van Rijssel, who almost immediately feels two jaws clamping down on his thumb. 'Ow! Well, this one is well on the way to recovery: its biting reflex is back,' he grins. It is nearly midnight before the work with the catfish – now legally classified as lab animals – is done. They are carefully returned to where they were caught: upstream or downstream. And now let's hope they reach a good old age, so they generate lots of data that help solve the mysteries of the catfish. ■



With a view to maximizing the number of reported sightings, the catfish get a visible marker (FLOY tag) in addition to the tag below the skin so people can see at a glance that it's a marked fish.

RECORD-BREAKING CATFISH

On the River Waal near Nijmegen a catfish was caught recently that was 2.54 metres long: a new record for the Benelux region. In an earlier number, *Resource* interviewed Sophie Nietzel of Wageningen Marine Research, who is involved in this project too, about record catfish catches. In angling circles she is known as one of the best catfish anglers in the Netherlands.



Nitrogen series:

Wageningen experts on what happens next

Nitrogen experts at Wageningen were surprised too when Agriculture minister Femke Wiersma announced the end of the National Programme for Rural Areas, which was aimed at tackling the issues with nitrogen and water quality. Resource asked WUR researchers Roel Jongeneel, Edo Gies, Karin Groenestein, Jan Dijkstra, Gerard Migchels and Wim de Vries for their views on this move. The interviews have been published as an online series on our website (scan the QR code). Here is a taster. Text Marieke Enter

A lot of time, money and energy have been invested over the last few years in the development of provincial area plans for the NPLG. 'To pull the plug on all that is essentially destruction of capital,' says **Roel Jongeneel**, a researcher at Wageningen Economic Research and the first in the interview series. Despite Wiersma's decision, he

'It has generated a lot of ill feeling to see the minister ditching this approach'

sees a lot of money in the agricultural budget going on things related to an area-specific approach. 'All told, it's an amount in the order of magnitude of one billion euros. I think that's a lot. So certain things will continue after all; the only question is what that means exactly.'

As a Regional Development and Spatial Use researcher, **Edo Gies** would be pleased if the area-specific approach was not ditched entirely. 'I have seen how farmers and other stakeholders joined forces in the area plans to find solutions, making smart use of the dynamics in their area. That led to some really nice ideas that everyone was prepared to stick their necks out for. It has generated a lot of ill feeling to see the minister ditching this, and also scrapping the transition fund worth 25 billion euros.'

Steel barn floor

It is not clear what will happen next. But people in the Hague seem to like the idea of target management: national targets are translated into specific targets per farm, and the farmers themselves can decide how to achieve them. That freedom to choose may mean the low-emission barn floors option is reconsidered, thinks **Karin Groenestein**, a senior researcher in the Environment and Livestock. 'After all, the floors are already in



Agriculture minister Femke Wiersma cancelled the National Programme for Rural Areas (NPLG) at the start of September. ♦ Photo Alexandros Michailidis / Shutterstock

place everywhere.' The problem is that Groenestein and her colleagues have not been able to confirm a reduction in emissions in practice, at least not with cattle. 'The potential is there, but both in terms of application and in terms of enforcement we can point to factors that explain why it doesn't work.'

Resource also spoke to animal scientist **Jan Dijkstra**, an expert in feed — what you could call the ultimate source measure. He says changes to rations in dairy farming to reduce the protein content can lead to a reduction of 10 to 15 per cent in nitrogen excretion and ammonia emissions. Without any harm to the cows. 'If the government opts for target management, I'm convinced this approach will be back in the picture.'

Online series

The interview series can be accessed using the QR code. New interviews will be posted soon, including with stakeholder networker **Gerard Migchels** and Environmental Systems Analysis professor

Wim de Vries. De Vries recently turned down an invitation by the Dutch Parliament to talk about yet another nitrogen norm, a calculated lower limit. As he told the newspaper *NRC*, he did so because he wanted to send a message. 'I'm not interested in getting involved in this discussion. The nitrogen from agriculture needs to go down, not up.'



The cost of being a student is going up, so...



Get a job or a loan?

Tuition fees have gone up by over 9 per cent to 2,530 euros, and the basic grant for students living away from home is going down from 467 to 302 euros. So the cost of being a student is going up. How are students solving this? Text Luuk Zegers • Illustration Shutterstock



JOB ON TOP OF BOARD WORK

Yara Linnekamp (23), MSc student of Forest and Nature Conservation

‘Outside school and uni hours I’ve been working in a supermarket since I was 16. I started on my pre-master in 2022, and took a room in Wageningen. **At the moment I’m doing a year on the board of Argo, which I spend about 60 hours a week on. And I still try to work alongside that: anything to have as small a debt as possible when I’m done.** As a board member I get the FOS financial support, which is roughly enough to cover my tuition fees with a little bit left over every month. After this board year I’ve still got a year and a half to go, without a grant because I won’t qualify for one anymore. I don’t want to borrow any more but if I have to, I’d rather borrow from family than from the government. ‘The basis grant was reintroduced last year. A good decision, but if the government screws the student loans generation even more by increasing the interest rate on their loans, I think: how can you be like that? It is so unfair.’



NOT BY BORROWING

Casper Cats (19), BSc student of Marine Sciences

‘How politicians can decide to abolish the grant supplement that was introduced to compensate for inflation, when you read every week in the news how bad inflation is getting, is something I really can’t get my head around. But okay, studying has got a lot more expensive and we’ll just have to deal with it. How am I going to do that? Not by borrowing; I don’t believe in that. I get a bit of support from my parents and I don’t spend much. Recently I’ve been earning a bit from football, in my home town Almere. You get a bonus if your side wins a match. I go back to Almere three times a week, to train and to play matches. Then I eat at home, which saves some money too. **And I’ve decided to do lots of paid work every summer.** No real holiday then, but financial stability at the start of the new academic year.’



A WELL-PAID JOB

Femke* (25), MSc student of Geo-information Science

‘As a student from the generation that had loans rather than grants, I’ve always had jobs on the side to avoid ending up with too big a debt. First they were typical student jobs like working in a restaurant, but during the pandemic I started working for the health service. That paid well and since then I make sure my side jobs are enjoyable *and* well-paid. **Last summer I worked enough to cover my spending for six months.** I’m also a student assistant, which pays better than other side jobs. I’m amazed at how some students are satisfied with jobs that don’t pay well. It’s possible to find better paid jobs in which you make a useful contribution to society if you look for them. ‘I’ve nearly finished my Master’s and I’ve earned enough to pay off my student debt. I won’t do that because I fixed my interest rate at 0.46 per cent. Investing in index-linked funds earns you an average of 7 per cent per year, so that is far smarter financially than paying everything off straightaway.’



LIVING ON THE CHEAP

Hugo van Driel (18), BSc student of Environmental Sciences

'I've only just started at uni, so I haven't noticed that the basic grant has gone down. I can pay my rent and other living costs from everything I get from the government: the basic grant and housing benefit. Beyond that, I try to live cheaply. **I budget 3 to 4.50 euros a day for food. That is tight, but I try to bulk-buy things on special offer and cook large quantities, some of which I freeze for later.**

'At Argo rowing club I spend 4.50 euros a week on food, plus money for activities and membership fees. Because I worked a lot in the last summer holiday, I've got a reasonable buffer. But there isn't much extra money coming in now. I tutor secondary school students and sometimes I'm hired to take photographs at parties, but that doesn't pay very well. My buffer is shrinking, so I'll either have to borrow or find a way of earning a bit more. But my studies and Argo are a lot already, so a job on the side will leave me short of time.'



BORROWED THE MAX

Pieter* (27), MSc student of Biology

'When I turned 18, I got a nice sum of money from my family for my student years. For a long time, I also borrowed the maximum amount, with the idea that the interest on that money made borrowing advantageous. So I always had a nice amount in the bank. My spending habits were quite free and easy as a result: if I needed a new laptop or some equipment for DJ-ing, I didn't give it much thought. I had the money.

'Two years ago, I realized that the

'Studying has got a lot more expensive and we'll just have to deal with it'

interest wasn't bringing in much, and I stopped borrowing. Since then, my bank balance has been shrinking as there's nothing coming in, while I am still spending. I'll have finished my degree in a couple of months. I've built up a big debt. Do I wish I'd done more jobs on the side? Maybe, but mainly for the experience. And I have always done a lot of stuff on a voluntary basis, and I'm in a DJ collective. **I've made the most of the time that I could do these things.** I'll pay that debt off later when I've got a job.'

* Full name known to the editors



Marine biologist Mardik Leopold retires (not)

'I AM ALWAYS AT IT'

Seabird pioneer and porpoise expert Mardik Leopold retires on 1 November. But on Monday morning he'll be in the office at 8:30 as usual.

Text Roelof Kleis • Photos Gertha Wessels

From 1 November he can concentrate entirely on his research as a guest worker. 'Marvelous, I'm really looking forward to it. No more meetings, no more acquisition, no more keeping timesheets.' He 'can't stand' administration. 'I've always avoided it. I'm a biologist. Administration is a skillset that you should leave to the professionals.' That's Mardik Leopold all over. To-the-point, idiosyncratic and never afraid to speak his mind. Journalists seek him out, although that also has a lot to do with his subject matter, according to Leopold. 'I'm lucky enough to work on charismatic megafauna such as marine mammals and bird. They're always getting in the press. The research field I work in attracts a lot of attention. And I enjoy explaining things.'

To call Mardik Leopold a workaholic would be an understatement. Our interview on the first Monday of autumn starts three quarters of an hour late. He first has to preserve the DNA collected over the weekend. Between Friday and Sunday, he has had 248 Sandwich terns that died of bird flu on his dissecting table. Mate-

rial enough for five articles, he reckons. He is particularly interested in Sandwich terns. 'They are an iconic seabird. There was a large colony of them 800 metres from our house on Texel. If the bedroom window was open, you could hear them screeching. I'm a seabird biologist. If they brood that close to your house, you've got to make use of it somehow.'

Rings

'Somehow' turned into a serious study. Leopold started ringing the baby birds 10 years ago, and went on to monitor them intensively. 'We ring about 300 of them every year. And I read those rings at every opportunity. If you want to analyse survival rates and distribution, every ring you can read counts.' He's pretty obsessive about his ring-reading. In the corner of his room there's a large telescope, focused on Den Helder harbour. On the boat to work, he lures the birds with bread, to get good close-up photographs with the rings clearly visible. Even holidays are sacrificed to it. 'I hate holidays,' he says. 'Especially if they fall in the brooding season. And if we do go away, then preferably somewhere where I can read rings. I'm always at it.' Mardik Leopold studied biology at Utrecht University. 'At secondary school I liked three subjects: Dutch, gym and biology. I thought biology gave me the biggest chance of an adventurous life. I pictured myself driving through the Serengeti in a jeep. And I've succeeded

'YOU STUDIED SEABIRDS ON DRY LAND BACK THEN; NO ONE LOOKED AT BIRDS AT SEA'



Mardik Leopold on Texel with a young herring gull that was found dead.

in having that adventurous life. I've done loads of fun stuff: not in the Serengeti but at sea.' The longing for adventure took him to the island of Texel, where he studied the food ecology of oystercatchers for his Bachelor's thesis, at the NIOZ research institute. He never left. After graduating, he embarked on a lifelong study of seabirds on the North Sea.

'At that time, the late 1980s, the North Sea was still a blind spot when it came to studies of birds and mammals,' says Leopold. 'You studied seabirds by looking at colonies on dry land. No one looked at birds on the North Sea, except through binoculars from the coast. We started making inventories of seabirds from ships. We went to sea on all the ships we were allowed to board. Research ships, coastguards, buoy-laying vessels. I didn't care what kind of ship it was, as long as I could sit on the roof. At first, we hung up a tarpaulin to

provide us with some shelter. Later we used portable cabins. It was great: one big voyage of discovery. I've been going to sea for over 25 years to make inventories and count birds.'

Bird count at sea

For the counting, the researchers used a method previously developed by the Seabird Team in Aberdeen, Scotland. Out of the collaboration with British researchers, and later with Belgians and Germans, came the ESAS (European Seabirds At Sea) database in 1991. Distribution atlases of the bird populations of the North Sea were created. Leopold was one of the founder members of that organization. The maps that were made had a specific purpose. 'Originally, the aim was related to oil slicks: to be able to advise where it was most important to clean up. On the British side, the work was even sponsored by the oil industry.' The Natura 2000 designated conservation areas also rely heavily on the counts, says Leopold. 'In that regard, I and people like me have left our mark on our map of the sea. Details of the landscape of the Netherlands have been filled in because we've been counting seabirds for decades. I see that as a considerable service to society.'

Leopold made the move from the NIOZ to what later became WUR in 1992, when he continued his work of counting seabirds at the RIN (National Institute for Nature Management), a predecessor of Alterra. That was also when he found his research niche: stomach research. 'Counting birds is mindless work, really. But

'I HATE HOLIDAYS,
ESPECIALLY IF THEY FALL IN
THE BROODING SEASON'



understanding what makes these creatures tick, and trying to get inside the brain of a bird – that’s where it gets interesting. The distribution map of birds is a landscape with peaks and troughs. If you want to know why that is, you end up looking at what food is available.’ Leopold specialized in studying and analysing the contents of birds’ stomachs. With a star role for otoliths. Seabirds eat fish and fish have these tiny bones in their middle ears. A godsend, says Leopold. ‘They are rock hard and are the last part of a fish to be digested. Their shape varies according to the species, and they grow with the fish.’ So you can identify a fish species from otoliths, and tell how large the fish was. ‘Nice proof that there is a God,’ grins Leopold, who now has a collection of 11,000 otoliths. Hundreds of specimens of over 100 species, distributed over the entire life cycle of the fish. Fine electron-microscopic photos of the collections are available online.

Painstaking work

Analysing the stomachs of birds and porpoises is painstaking work. Besides his otoliths, Leopold has another collection to show for it: his ‘stomach girls’. On the wall by his chaotic desk hangs an array of photos of (almost exclusively) blonde women. These are the interns who have worked on the stomach research over the years. ‘Stomach girl is an honorary title. But I didn’t select them. Only women students are drawn to working on marine mammals. For seabird studies you get mainly men students.’ That most of the stomach girls are blonde is ‘a happy coincidence’, says Leopold. And one of them, Eileen Hesse, is going to be his successor. ‘She will get her PhD in Germany soon, for DNA and isotope research on the diet of porpoises, otters and fish.’

Provoking

Leopold got his own PhD in 2015, after two previous attempts. It wasn’t on seabirds, but on porpoises. ‘I felt really that in my position I ought to get a PhD. A title like that can open doors sometimes. It makes things easier. So I wanted to have jumped through that hoop at some point.’ His thesis, *Eat and be eaten*, drew a lot of attention, mainly because he demonstrated that grey seals eat porpoises. ‘That was quite a discovery. It earned me an angry letter from Lenie ’t Hart, from the Seals Centre. She was furious. The idea that seals eat porpoises undermined her business model, which is based on the idea that seals are cute and should be saved.’

Partly due to the way he expresses himself, Leopold has a knack of provoking people. ‘Absolutely, but that’s

‘NOTHING WORKS BETTER THAN RUBBING PEOPLE UP THE WRONG WAY’

‘IF ANOTHER PORPOISE GETS BEACHED SOMEWHERE, I’LL BE FIRST IN LINE’

just the way I talk. And I do it on purpose, by the way. You get your message across better if you confront the issues. It’s a communication technique. If you want something to be memorable, you have to use nice metaphors. I try to set people thinking. And nothing works better than to rub them up the wrong way. If people get cross and come to have words with me, you get a conversation going. I much prefer that to the wooliness of information officers who just want to cover all their bases. I’ve been dealing with angry information officers all my life. And that’s fine by me.’

Leopold has seen the conditions on the North Sea change over the course of his career. ‘The pollution of the 1970s, with oil and toxins such as PCBs, aldrin and dieldrin, has gone. That is a massive plus for environmental management, which shouldn’t be underestimated. Rules were established and they are observed. Then came the intensive fisheries that fished everything out of existence. That is calming down now because diesel has become too expensive. From a fisheries ground with a lot of extra food for seabirds, the North Sea is now changing into an industrial area with wind turbines. That costs bird lives because much less fish waste is being thrown overboard. For birds, the fisheries were a blessing. From our diet research we can see that birds now go hungry at sea. I have no idea how these changes are going to work out. There are interesting times ahead.’

And Leopold will witness those interesting times, albeit somewhat from the sidelines. He is welcome to stay on as long as he writes articles. And he reckons to have about 80 of those in the pipeline. Too many, of course. Although? His motto is: ‘There are 24 hours in a day. And then you’ve still got the night’. ‘I’ll just start with the most interesting. And I’ll carry on with the diet research on the side. So if another porpoise gets beached somewhere, I’ll be first in line.’ ■

Limelight



SAT
9-11-2024

Loburg, Molenstraat 6
in Wageningen

22:30

Entrance 10 euros

Blink-182 emerged in the heyday of pop punk in the late 1990s and are still filling stadiums. But for anyone who loves their greatest hits like 'All The Small Things' and 'What's My Age Again', there is good news: the Dutch band BLINK-182 TRIBUTE will be in Loburg on 9 November.

Text Coretta Jongeling

BLINK-182 TRIBUTE

In 2018, guitarist and singer Callum Stamp was a co-organizer of the BlinkFest in *De Melkweg* in Amsterdam: a night in which numerous bands played numbers by Blink-182. 'We enjoyed that so much that once the whole Covid pandemic was over and everyone was ready for live music again, we were itching to launch a tribute band ourselves. And in this genre, pop punk, Blink-182 really was the trendsetter. Back

in the day, you were either a fan of Green Day or of Blink-182.'

Stamp (32), who has been around in the music world for many years and used to tour the country with Bounds Of Modesty, asked bassist and friend Tom Ruys (34) to join him. They held

auditions for a drummer and found Jordy Kuijpers (21). 'He didn't even know who Blink-182 were,' recalls Stamp.

'There are young Blink-182 fans who got to know the band through hearsay, but Jordy had never heard of them. He thought they sounded great and he turned out to be rock-solid too.'

The band has a busy festival season behind them and is now playing every other weekend. What does the 'real Blink' think about that, actually? 'They certainly know of our existence. Their drummer, Travis Barker, sees our stories on Instagram and sometimes gives them a like. I think he thinks it's rather fun. It's not called a tribute band for nothing – it's an honour, after all. And we get the chance to feel 16 all over again.'



Callum, Jordy, Maxime and Tom at Pinopop

TIPS

THU 17 October
Emma's Comedy Night (stand-up comedy) in Theater de Wilde Wereld

FRI 18 October
Het Eindhoven (live music and performances) in the Superette

SAT 19 October
Soundience (bluesy psychedelic rock) in Café Daniels

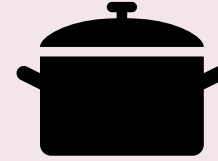


You see great-looking people in the coolest outfits around the Wageningen campus. In this feature, we put one of them in the spotlight. This time Jurian Leune, a BSc student of Landscape Architecture. Text and photo Coretta Jongeling



'Last summer I took over a sewing machine from a housemate of mine, and it opened up a whole new world for me. My housemate had made some trousers a bit like the ones I'm wearing in the photo. I wanted some too, so that's what I started with. I made the top with the leftover fabric. 'Making your own clothes really is the answer. I can now make clothes that exactly match how I want to express myself. I can't get that from fast fashion. I also buy second-hand clothes, at Emmaus or on Vinted. I often buy clothes that are sold for women. I try to blur the definitions of women's and men's clothing a bit. Clothes are not for a man or a woman, they are just clothes. 'My style changes every day. If I'm not feeling so good, I might put on a tracksuit, and if I'm feeling energetic, I go for colour and cheerful things. My wardrobe is full of all sorts of different garments. 'I get a lot of reactions to the way I dress. Last weekend I was at a festival where I wore this outfit too. I think I got at least 50 compliments. Sadly, there are also some people who feel the need to say they think it looks awful. That doesn't bother me too much, but I do hope it sets them thinking.'

You can encounter all the flavours of the world in the WUR community. Szonja Lippert (24), an MSc student of Bioinformatics from Hungary and Australia, shares a recipe for lángos.



Flavours of WUR

Lángos

'Lángos is Hungarian street food. It was a part of my childhood and a favourite treat when I visited my grandparents and we explored small local towns, or just walked around the touristy food markets of Budapest. Lángos is a sort of deep-fried bread with sour cream (and lots of garlic) and grated cheese on top. Not particularly healthy, I know, yet as popular in Hungary as bitterballen are among the Dutch, and therefore a good way to bring a taste of Hungary into your home!'

- 1 Combine the flour, salt and sugar in a bowl. Add yeast and mix again. Stir in the milk quickly.
- 2 Mix with the mixer on a low speed for 3-4 minutes until the dough is soft and sticky.
- 3 Cover the bowl with plastic wrap and a clean tea towel. Let it rise in a warm place until it has doubled in size (around 1 hour).
- 4 Transfer the dough onto a well-floured worktop. Divide into 4 equal pieces and form them into balls.
- 5 Roll the balls out with a rolling pin until they are about half a centimetre thick and about 17 centimetres in diameter.
- 6 Heat the oil in a pan and deep-fry each flatbread for about one minute on each side until golden brown (a few paler patches are fine).
- 7 Place each flatbread on kitchen paper to absorb excess oil.
- 8 Spread each flatbread with a mixture of crushed garlic and olive oil.
- 9 Top with the sour cream and grated cheese and serve warm.

Ingredients (makes 4 fried flatbreads) :

- 2 cups all-purpose flour (280g)
- 1/2 teaspoon salt
- 1/2 teaspoon sugar
- 1 teaspoon instant yeast
- 1 cup lukewarm milk (250 ml)
- mild cooking oil
- 2 tablespoons olive oil
- 2 garlic cloves
- sour cream
- grated cheese



Szonja Lippert
MSc student of Bioinformatics

Meanwhile in... Mexico

WUR is incredibly diverse, with hundreds of internationals working and studying here. In this column, we ask one of them to comment on certain events in their home country. This time, Biosystems Engineering MSc student **Noé Malagón (30)** shares his thoughts on the election of Mexico's first female president.

Text Youssef el Khattabi

The first woman president



Malagón: 'The expectation that a woman would be elected president of Mexico has been in the air for months. Two of the three largest coalitions were led by women, while the third candidate, a man, didn't seem to stand much chance. So, when I heard that Claudia Sheinbaum had won, it felt like a reaffirmation of something most people already expected.'

'I hope the election of our first female president helps reduce the deeply rooted sexism in Mexican society. Her science background also gives me hope that she will bring fresh perspectives to leadership. I think younger generations like mine are ready for a shift in values, and her presidency might reflect that change. So far, it seems the influence of the former president and the ruling party played a bigger role in her election than her individual actions. She'll need to step out of his shadow to truly define her leadership.'

'Based on her previous role as head of Mexico City's government, I'm worried she may

struggle to make the rapid, significant changes we need. The biggest challenges she'll face are related to the decisions made by the previous administration. She'll need to restructure the judiciary, for example, as it lacks a functioning legal framework. She'll also need to address the country's long-neglected issues, like labour reform. Right now, Mexicans work 48 hours a week, but there's growing pressure to reduce that to 40 hours, and to increase the number of paid vacation days. Security has also been a persistent problem in Mexico for more than 20 years. There seems to be no light at the end of the tunnel. Tax reform is urgently needed too. Right now, inheritance isn't taxed in Mexico, which allows wealth to stay concentrated in the hands of a few. That has to change if we want to reduce the gap between rich and poor.'



Column **Ilja Bouwknecht**

The cat and the bike

I am doing a three-week stint looking after a cat in Wageningen. The cat lives up a hill. In the morning I cycle to the cat's place, have my breakfast there, try to stroke the cat before it scarpers, then cycle to the library to work further on my thesis proposal. Then it's back to the cat (evening meal and second attempt at stroking it) and off home. And I cycle everywhere on my rickety old student bike. The bike is incredibly noisy. The chain needs oiling (but I really don't have time for that), there is a dynamo that sounds like a combination of a moped and fat bike, and the rear mudguard is loose. If you squeeze the right handbrake, the bike makes a deafening screech as if a centuries-old dragon has just awakened (and is not too pleased about the fact). Then there is the lump in the back tyre that makes me bump up and down with every turn of the wheel as if I were riding a horse.

The bike is at least 20 years old. It cost me just over 100 euros second hand because it had three gears. That's useful if you need to go up Wageningen's steep hill. The gears need fixing on a regular basis. The last time I visited the bike repair shop, the guy sighed: 'If it were up to me, I'd declare this thing a total loss.' No way! You repair it! Apart from anything else, I've got another cat to look after next week. Although perhaps I shouldn't have said yes to that request. I'll have to cycle between the two cats, the library and my bed on my awful but still just about functioning bike (rattling, booming, clattering, screeching and bumping along) until I collapse. Or my student bike does.

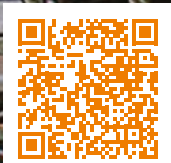


Ilja Bouwknecht (25) is a Master's student in Forest and Nature Conservation. Ilja is interested in the relationship between humans and nature and would ideally like to try every hobby at least once. At the moment, that's ceramics and Japanese literature, but writing is still the undisputed favourite.

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Resource

IN MEMORIAM

MARC KROONEN

Our highly valued colleague Marc Kroonen died suddenly and completely unexpectedly of a stroke on 1 September, at the age of 59. The shock, disbelief and grief are intense.

Marc Kroonen was farm manager of the WUR Plant Sciences Group's Field Crops trial fields in Vredepeel. His team describes him as a team player, inspired, driven, versatile and spirited. He put his heart and soul into his work. Marc was a strong personality and a natural leader. In addition to his position as farm manager, Marc was a welcome presence at meetings, study days, demo days, at the table with management and in policymaking processes. Marc's presence was a guarantee that there would be dynamism,

conviviality, and substance (with both breadth and depth), as well as analysis and good conversations. He disliked political processes and was never shy about expressing his opinions and views. Marc got on well with both practically and academically trained people. So colleagues, growers, researchers, policymakers and politicians were all eager to interact with him.

We have a lot to thank Marc for, and we will miss him sorely. We wish his wife Brigitte and their children much strength in bearing this loss.

Thie Arend Brouwer, Team leader of WPR Field Crops experimental farms

Colophon

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The WUR-wolf costume is going back in the cupboard for good • Photo Resource



WUR - WOLF TO BECOME CUTE LAMB

WUR's mascot the WUR-wolf will not be returning. In recent years, the wolf has acquired an image that is inconsistent with the values WUR seeks to embody. That is why as of 2025, we will be seeing a cute WUR lamb instead on open days and festive occasions.

The WUR-wolf costume was getting a bit tatty anyway. Years of being worn by sweaty students has caused considerable damage to the costume with its synthetic material, and now sources (names known to the editors) say it stinks like a 'dead animal'. According to WUR spokesperson Willem Jan Wol, the decision to replace the wolf costume with a lamb costume was not taken lightly. 'WUR has to made huge cuts so we were hoping we could continue to use the wolf suit if we took it to the dry cleaners. But the wolf's reputation has just got too bad in recent years. It has been attacking innocent prey, harassing joggers and pushing up costs for livestock farmers.' The rotting corpse smell of the WUR-wolf costume only increases the association with murdered animals, says Wol. 'In addition, WUR wants to steer clear of controversial, polarizing topics. It's bad enough that people keep

asking us to state our position on the nitrogen issue, for example, or climate change or certain wars we don't wish to mention. We can't have the wolf debate on top of that.'

So after 17 Let's Explore sessions, a lamb has been chosen as the new WUR mascot. 'Lambs are known for being meek, docile and cute. Those are precisely the characteristics WUR wants to be known for too. Also, by choosing the lamb

'The wolf's reputation has just got too bad in recent years'

we will be boosting the morale of the suffering sheep farmers. The only downside of the lamb option is that it limits the scope for WURdplay. Though perhaps we can do something with a wolf in sheep's clothing.'