

# Resource

MAY 2025 VOLUME 19

The journalism platform for all at Wageningen University & Research

**No more  
smoking shelters**  
on campus

**Dreijen sold**  
Buildings may be  
demolished

**BioBlitz milestone**  
1000 species spotted

**'This will kill off  
student sports'**

**Double whammy  
for teachers**

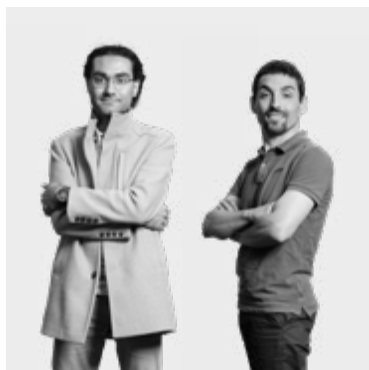
## Covid was game changer

More time at home, less  
flying and cycling | p.12



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## FOREWORD

### **Shameless**

I'll start with some shameless marketing for ourselves... Because we have revived the *Resource* Debate. In each edition of *Resource* magazine, we will publish an article on a topic that deserves further discussion. If you enjoy a lively debate that makes you think, we are inviting students and staff to Impulse on Thursday lunchtime 22 May to join three experts in a discussion. Our first *Resource* Debate will be on the subject of 'Mobility on campus and at work' (see page 12). To get you started, here are some suggestions to think about: WUR should charge for parking, there should be a flight cap for chair groups, and students should have internships closer to where they live. OK, that's the end of the marketing. This issue also has a first: two WUR people with differing opinions on the Palestinian flags during a demonstration against the cuts exchange views (page 16). It's a constructive conversation that makes you think.

On page 24, we hear from WUR people who fear the education cutbacks will be a double whammy for teachers. And my final recommendation is the wonderful article on page 26 about research into rice in Suriname — a real eye-opener. For now, we hope to see you at the debate on 22 May.

**Willem André**  
Editor-in-chief







## FEW WORMS, LOTS OF CHAOS

The annual Wageningen Worm Charming Championship was held at the start of May. Sixteen adult teams and one team of children had half an hour in which to charm as many earthworms as possible out of the ground by producing vibrations in the soil. In addition to a prize for the most earthworms, there were also prizes for the most original worm charming method and the most original costume. Chaos was guaranteed. 'There were hardly any worms because it was so dry,' organizer and soil biologist Jan Willem van Groenigen tells us afterwards. 'A tally of hundreds of worms is not uncommon if the weather is right.' But this time, the winning team had only ten earthworms. DV

For more photos, see [resource-online.nl](http://resource-online.nl)

Photo Ruben Eshuis



## Student sports under threat

**Dutch academic and applied universities will no longer be able to offer students and staff cheap sports facilities. Sports subscriptions have to cover the costs, says Education minister Eppo Bruins. For WUR students, that would mean paying 550 euros a year, says Henri ten Klooster (director of De Bongerd sports centre). 'That would kill off student sports.'**

Educational institutions are not generally allowed to use public funding for private activities. Now the minister has changed the policy to include sports facilities in the definition of private activities. Incidentally, along with cafeterias and cultural amenities. Universities are allowed to invest in such facilities, but then students and staff have to pay prices that are in line with the market. 'But what does "in line with the market" mean?' wonders Ten Klooster. 'There is no comparable market. You can't compare us with Basic Fit or something like that. There isn't a market player offering what we do.' The sports centre is used by around 7,000 students, 1,100 employees and 300 retirees. WUR has 32 sports clubs with a total of 3,000 members.

### Lack of vision

Bruins argues the cheap sports on campus are unfair competition for the sports market. Ten Klooster disagrees with this point of view. 'If we do our work well, we are actually helping that market. We go all out to get students to exercise. When they graduate, they will continue playing sports elsewhere. A few years of playing sports at cheaper rates is an investment.'

'There is a lack of vision in the whole approach,' continues Ten Klooster. 'Students don't have much money. In the past, that was always used as an argument for cheap student sports facilities. We built up a whole institution for this, and we employ 103 people. Now all of a sudden that is being questioned because of alleged market distortion.'

Behind the scenes, the association of Dutch universities UNL is holding discussions with the minister. The left-wing party GroenLinks/PvdA says they will be proposing a motion to get the minister to change course. RK

## Design thinking at WUR

4TU.Design United, the design collaborative venture uniting WUR with the design faculties at Delft, Eindhoven and Twente, recently got a new scientific director from Wageningen, Gert-Jan Veldwisch. He is hoping for more 'design self-awareness' at Wageningen. Veldwisch, an assistant professor in Water, Society & Technology, was previously responsible for coordinating Wageningen's contribution to 4TU.Design United for the Dutch Design Week. 'In that context, I constantly saw and heard how good WUR is in design thinking. But it is as if we don't really realize that at WUR itself. The role of design here is largely implicit, whereas there are so many great examples at Wageningen of design in research or education. Take the WUR Student Challenges, where design thinking is the main didactic principle.'

Veldwisch wants WUR to become more aware of this and to shine at the upcoming Dutch Design Week — from 18 to 26 October in Eindhoven — with appealing design-driven projects developed by staff or students. The call for the Design Week is open until 13 June. For further details, see the [4TU site](#). ME



Pole dancing teacher Lisa van Malssen, who recently graduated in Plant Sciences, has come second in the Dutch Aerial and Pole Championship. Van Malssen won silver in the Artistic Pole event. 'Getting across a story is very important in the Artistic Pole event,' explains Van Malssen. 'It's not just about tricks, it's also about expression.'

Van Malssen won her medal with an emotional act on the topic of dementia. 'I watched a series about that topic and it made a big impression on me. What if one day I completely forget who my boyfriend Rick is?'

Van Malssen started pole dancing five years ago at De Bongerd sports centre, where she now teaches. She also has her own dance studio. CJ • Photo Leon Hofenk

# 54,000

Happietaria, the pop-up restaurant for charity that operated from 21 March through to 24 April, has raised 54,000 euros. Three hundred volunteers — mainly students — helped run the restaurant on Dreijenplein, which received over 2,200 guests. The proceeds will go to Tearfund, an organization that helps people around the world escape poverty. <sup>12</sup>

*Read more at [resource-online.nl](https://resource-online.nl)*



Resource Debate

## Car-free campus

Paying for parking, capping flights for chair groups, an end to internships in exotic countries, and mandatory working from home more often. What can — indeed should — students and staff do to reduce their travel-related ecological footprint? See also p.12.

Join the live debate  
with *Resource*

**Thursday  
22 May**

12.30–13.30  
Impulse



## No more smoking shelters on campus

**The shelters near Forum, Orion and Atlas, which were originally intended as smoking areas, are still being used as such despite the ban on smoking. But that is set to change, says Martijn van den Heuvel, head of Integrated Facility Management. The shelters will be taken down.**

That is part of a new campaign to make the campus genuinely no smoking. The campus officially became a no-smoking zone in July 2020. At first, pretty much everyone obeyed this rule. But over time, students and staff have increasingly started smoking openly on campus. The old smoking shelters, rebranded as outdoor working sites, have regained their original function as a result.

But it is difficult to enforce the ban on smoking, says Van den Heuvel. 'We want to do it, but we don't have the tools. We aren't allowed to impose fines. We can't even ask smokers for their ID. And yet, as an organization, we can get fined if we don't enforce the ban.'

That gap in the rules means all they can really do is confront people who are smoking.

### Yellow card

Therefore over the next few weeks, teams of students, clearly visible in their yellow jackets, will go round campus confronting smokers about their behaviour. Smokers will get a symbolic yellow card. Van den Heuvel: 'We explain that the campus is no smoking and that this is a nationwide measure. Though two yellow cards don't make a red card. There are no sanctions. We assume people will be cooperative.'

Van den Heuvel says the will to cooperate is there. That is evident from conversations with smokers carried out by interns at Facilities & Services in the preparation for the campaign. 'Smokers were well-meaning but they often didn't realize the ban is a nationwide measure, not a WUR rule. They see the blue sign but interpret the tick as meaning smoking is allowed.' <sup>RK</sup>



Photo Resource

# Dreijen sold, site may be levelled

**WUR has sold its former campus, De Dreijen. The company Gebroeders Blokland Ontwikkeling en Bouw will be building 550 homes on the 11-hectare site. That may require the demolition of all the existing buildings.**

But that won't be for a couple of years yet, says Facilities & Services director Harold Swartjes. All the stakeholders (the municipality, WUR, the project developer and the housing corporation) have agreed the prerequisites for the construction of 550 homes in a range of categories. The design still has to be finalized. According to Swartjes, the agreement with the project developer doesn't say anything about maintaining objects of cultural value. 'We sold the land including the

buildings. Nothing was excluded. However, together with the project developer we will look at what is worth giving a new place. I don't think we will be talking about an entire building, though.'

## Purchase price

Various buildings have already been demolished (Biotechnion, Transitorium). Students live in the old Chemistry Building; they can stay there for now. Swartjes: 'At the start of this year, we agreed new rental contracts with the students for a period until summer 2027. So nothing will happen before then anyway. We expect the transfer of the land to take place at the end of 2027 at the earliest.' Until then, there will be no announcements about the purchase price. According to

Swartjes, the proceeds will not have any effect on the savings operation WUR is currently undertaking. 'Those proceeds are already accounted for in the construction of the current campus. Anyway, the savings operation is needed to bring about a permanent reduction in the budget whereas the revenue from the sale is a one-off. You can't simply say those numbers cancel one another out.' The current sale doesn't apply to all of De Dreijen, as the section on the north-west side had already been sold. Work will start soon there on the construction of 80 homes. RK

## Students can stay put for now

(advertisement)

**OUR CAMPUS IS SMOKE-FREE**

It is prohibited by law to smoke or vape on Wageningen Campus

TOWARDS A  
**SMOKEFREE  
GENERATION**

ACHIEVING A SMOKE-FREE GENERATION

**Spring is in the air!**  
Together for a smokefree campus!

**Let's keep it fresh and clean**

**WAGENINGEN**  
UNIVERSITY & RESEARCH



# Diet reflects social network

Someone who socializes frequently with vegetarians is more likely to eat vegetarian meals themselves. Most Wageningen folk probably figured that out long ago, but now it has been confirmed in scientific analyses carried out by assistant professor Kristina Thompson (Health & Society).

Text Dominique Vrouwenvelder

In general, the Dutch consume more protein than they need. It would be better for their health and the planet if they ate eat less meat, or no meat at all. However, only 4 per cent of Dutch people are completely vegetarian. Kristina Thompson thinks social networks could play a key role in encouraging a widespread transition to lower meat consumption.

She bases this conclusion on analyses she performed on data from the Groningen Lifelines cohort, a long-term observational study of healthy ageing. The participants have to fill in questionnaires roughly every 18 months and come back for a health check every five years. For her analyses, Thompson used data on 60,639 participants for whom dietary information was available at two points in time, and who could in turn be linked to at least one family member with known dietary information. This let her look at changes in eating patterns over time and the effect on this of social networks.

## Eating together

'People's diets reflect their social network, with partners playing the biggest role,' says Thompson, explaining her results. 'That is not surprising as these are the people you eat most meals with. Students will recognize that effect if they often eat meals together with their flat-mates. However, the effect works in both directions: you can eat more meat or less meat because that is what other people around you are doing.'

Roughly 4 per cent of Dutch people are vegetarians. 'But throughout the

study period, the probability of someone being vegetarian was twice as high if their loved ones were vegetarian at both measurement points. But if the person's relative was an omnivore at both measurement points, the chance of that person being and staying vegetarian halved. Encourage healthy diet

It sounds obvious, but you still need scientific proof of such assumptions, says Thompson. 'The effect of your social network on your diet had not yet been confirmed in the literature. Now we have figures supporting our intuition and we can look at how to encourage a healthy diet in practice.'

Other studies focusing on motivators of vegetarian diets might also be biased. Thompson: 'In the past, there

were studies claiming that social networks influence your diet, but those studies were mostly carried out by a lobby group or a vegetarian society, for example. They drew conclusions based on questionnaires completed by their supporters or members — in relatively small numbers. That data is not objective. The Lifelines cohort is objective and gives a representative picture of the average Dutch person.'

**'Now we have figures supporting our intuition'**

Thompson's department is now investigating how various interventions with social networks could be used to foster healthy diets and which is most effective. One thing she is certain of: 'As an individual, you have more influence on others with your own healthy diet than you think.'



What people eat reflects their social network. • Photo Unsplash/ Jaco Pretorius

## [Live&Learn]

**A botched experiment, a rejected paper: such things are soon labelled as failures in academia. As for talking about them — not the done thing! But that is just what WUR scientists do in this column. Because failure has its uses. This time it's Affif Grazette, research manager at Bioprocess Engineering.**

Text Nicole van 't Woud Hofland • Illustration Stijn Schreven

'Four months after starting my PhD, another research group published exactly the protein structure that I wanted to determine. That was a bummer, but I pulled myself together. I came up with a new project, this time on a protein involved in DNA repair. Towards the end of my PhD, I had found the structure, although it was not quite complete. After having been scooped before, I wanted nothing more than to publish these results. I worked out all the data for my thesis and marked parts that together would form a proper publication. I took this to my supervisor, but she thought it was still too weak. She said it would be better to wait for a high-impact article. I started to doubt myself. Was my work not valid or good enough after all? As a PhD student, I didn't feel confident enough to challenge someone who had been a professor for years.

'Two weeks before my defence, a *Nature* paper appeared featuring my protein structure. I couldn't

believe it. Scooped again. I had failed. Not because the research wasn't good — the other group had done about the same as me — but because I hadn't used my voice. I should have fought for that publication. I did get my

**'I should have fought for that publication'**

PhD, but in science your publication record is crucial. Without any publications, my chances of a postdoc and tenure track were gone. If I could have my time again, I'd definitely publish the paper. It's not common, but it is possible without your supervisor's approval. That article might have taken my career in a completely different direction.

'Now, I actively encourage PhD candidates in our group to follow up on promising data. See something interesting? Pursue it. Finish it. Even if it's "just" a method or a negative result. My message is: publish, and get your name out there.'



## CropMix now monitoring amphibians

**The CropMix biodiversity monitor has been extended to include amphibians. This is a pilot project at present to determine whether a follow-up study with transmitters is feasible.**

CropMix is a research programme that has received funding of 10 million euros from the National Science Agenda for research on crop-diverse cultivation systems. A key component is the ecological field surveys at the 25 participant arable farms, which count the insects and field birds, for example. Now the field researchers will also be surveying the amphibians at five of the farms. Amphibian populations have declined steeply in agricultural areas in recent years, but there are indications they perform better in strip cropping than in single-crop fields. The monitoring will show whether that is really the case. It is being carried out in collaboration with RAVON,

**'The idea is to be able to fit amphibians with transmitters'**

a CropMix consortium partner. RAVON helped to identify the most promising monitoring locations, for example because

they have ditches, ponds or other amphibian-friendly features.

RAVON also helped draw up the monitoring protocol, which will allow the amphibians to be catalogued using a standardized method. At present, that is only being done on land. In the course of the summer, the research team plans to go scooping in bodies of water.

### Transmitters

The monitoring is about more than spotting the creatures on an ad hoc basis. 'The idea is to be able to fit amphibians with transmitters for follow-up research. But that only makes sense if there are enough amphibians to fit with the transmitters,' explains field researcher Angelo Grievink.

So far, amphibians have been spotted in four of the five locations, says Grievink, including the great crested newt ('a typical resident of arable farms these days'). Recognizing and identifying amphibians is not a problem for Grievink, who is a trained herpetologist. His colleagues are also pretty good these days, he says. 'And if there is any doubt, RAVON has identification charts.' ME



# Sticking it to thrips

If you want to catch flies, you can hang up adhesive strips. PhD candidate Ralph van Zwieten has developed something similar to protect horticultural crops against thrips. Instead of hanging up strips, the plants are sprayed with little adhesive balls of oil. He recently won the WUR Research Award for this method. Text Roelof Kleis

**H**e got the idea from nature. Some plants do something similar to protect themselves against insect damage. Sundews are perhaps the best known example, says Van Zwieten. 'Many plants have tiny hairs called trichomes on their stems and leaves and some of these trichomes act like glands: they secrete moist globules of an adhesive substance.' Insects that land on a sundew leaf are making a big mistake. They are unable to break loose and the sundew ends up consuming them. Van Zwieten is trying to replicate that adhesive function using environmentally friendly methods. That is not particularly complicated as such, but there are extra considerations when applying the method in greenhouse horticulture. The substance used needs to be

'It's basically deep-fat frying'

environmentally friendly, harmless to the plant, something you can spray, and highly specific.

That 'highly specific' means it has to trap the pest but not its natural enemies or other useful insects such as bees.

Van Zwieten decided to use rice oil and olive oil. He oxidizes the oil so that the unsaturated fatty acids form chains and cross-links. The process changes the liquid oil into an elastic network of adhesive material. 'The number of unsaturated bonds is important in achieving good adhesion and a good balance between viscosity and elasticity,' explains Van Zwieten. 'So when choosing an oil, we look at the composition of the fatty acids. More



A thrips caught in a drop of the material that PhD candidate Ralph van Zwieten developed.

unsaturated bonds means more cross-links and therefore greater elasticity. Rice oil gives precisely the right balance.'

## Deep-fat fryer

The production process is straightforward chemically. 'It's basically deep-fat frying,' says Van Zwieten. 'That's how I often explain it. I heat the oil for a long time. Without any French fries, but even so. If you've ever cleaned a deep-fat fryer at home, that final sticky layer on the side of the pan is what I'm making.' Although it wasn't as simple in practice as described here. To illustrate that, Van Zwieten opens a cupboard in the lab. It contains the results of all his failed oil cooking experiments.

Tests on chrysanthemums have shown

that the product works. Van Zwieten: 'The product turns out to be effective in various ways. Either the thrips are trapped or there's less insect damage even though they aren't trapped. We are still investigating why that is.' The production process might be straightforward, but it still takes a long time. The oil only starts to turn viscous after 12 to 14 days at 90°C. 'In terms of commercial application and energy use, we need to have a good, hard look at that,' acknowledges Van Zwieten. 'You could reduce the cooking time by adding a desiccant, for example. As regards the energy aspect, I heat the oil in a glass beaker. If you scaled up, you'd obviously be using large vats in insulating jackets.' Van Zwieten will be obtaining his doctorate this summer, after which he will attempt to market his invention. He is already working on a start-up for this — Kairos Green Tech.

# PhD theses **in a nutshell**

## Combating aphids

It is often difficult to control aphids in greenhouses using chemicals. Mariska Beekman looked at why that is by studying the green peach aphid in the cultivation of bell peppers. The answer is a logical one: the aphids develop resistance to the insecticides that are used. Biological pest control using parasitic wasps is a good alternative, but that doesn't always work either: aphids sometimes carry bacteria that produce toxins that kill the wasp larvae. What is more, there are often multiple aphid strains, each with its own bacterial weapon. It's a complex system of attack and counterattack. <sup>RK</sup>

*Aphids out of Control.* Mariska Madelon Beekman ◀ Supervisors Bart Pannebakker, Bas Zwaan and Marcel Dicke

## Pathogens in canal water

The water in Amsterdam's canals is full of pathogenic bacteria such as *E. coli* and *Pseudomonas aeruginosa*. This is shown by the research of Sha Gao from China on the city's water quality. The bacterium *E. coli* probably gets in the water through bird poo. Lab tests show that the pathogens are deactivated fastest in the summer when temperatures are higher and the days longer. *E. coli* then degrades at least ten times faster than *P. aeruginosa*. That means that testing the water for *E. coli* only is not a great idea. Gao also shows what material can best be used to purify the water.

A useful study. <sup>RK</sup>

*Pathogens in Urban Surface Water.* Sha Gao ◀ Supervisor Huub Rijnaarts

## What do pigs want?

Low-protein pig feed reduces the amount of nitrogen that ends up in the environment. But you get more tail biting with feed that is low in protein and amino acids. Adding extra amino acids counters this effect. Can pigs themselves decide how much extra they need? Ilaria Minussi from Italy investigated this question. In experiments where pigs had choices, they showed a preference for feed with extra tryptophan. That choice seems to be connected to health and welfare, concludes Minussi. Pigs with extra tryptophan in their feed are more playful. It seems pigs are smarter than we think. <sup>RK</sup>

*What do pigs want?* Ilaria Minussi

◀ Supervisors Walter Gerrits and Liesbeth Bolhuis

## THE PROPOSITION

PhD candidates explain the most thought-provoking proposition in their thesis. This time it's **Rikke Linssen**, who received her PhD on 6 March for her study about energy storage in sulphide-oxidizing bacteria.  
Text Ning Fan



'The phrase "I don't have time" is characteristic of people who are bad at prioritizing'

'These days, people often want to take on more responsibilities, get involved in more activities and stay busy. We often hear someone say "I don't have time". This makes me wonder: is it really a lack of time, or is it a matter of priorities?

'In my opinion, when someone says they don't have time, what they often mean — without realizing it — is that something else is simply more important at the moment. I think it's perfectly fine to say "I have other priorities at the moment". After all, it's not about a lack of time — it's about making choices.

**'I think it's perfectly fine to say "I have other priorities at the moment"'**

'A day has 24 hours; that is something that is outside of your control. But what you can control is how to spend your time based on what is important to you. So the next time you hear yourself say it, stop for a moment and ask, "Is this really about time, or do I need to figure out my priorities?"'



# PhD Council is toothless

Every academic year, two seats in the Student Staff Council are reserved for and required to be filled by two PhD candidates through an election. For the second year in a row, there were no elections for the PhD Council, which represents over 2,400 PhD students. However, two PhD candidates have fortunately stepped forward to ensure continued representation of the PhD community. But have you ever wondered how to evaluate

**‘The PhD Council remains ineffective, with its elected members only taking on administrative roles’**

particularly for the WUR PhD Council. Over the years, there has been a constant and drastic decline in students willing to stand for elective positions. This also includes non-elective positions in the WUR Council, particularly among staff. However, competitiveness within the Student Council, representing Bachelor’s and Master’s students, remains strong thanks to the three council parties that are competing to win the votes of their constituents. Convincing voters isn’t an easy task. It requires articulating clear messages that are factual, realistic and visionary, addressing underlying issues affecting students, such as the quality of education, mental health and well-being,

the success of previous councils? This is the elephant in the room,

teacher capacity, sustainability and so on. The best evaluation is when notable and identifiable policies and initiatives are emerging from this representation.

While one may say WUR’s policy and decision-making is a collective action, this isn’t the case for the PhD Council. The PhD Council remains ineffective, with its ‘elected’ members only taking on administrative roles within the WUR Council, neglecting their critical roles to voice issues affecting the PhD community. There is limited reaching out, no communication on past or current topics and potential achievements, and no single long-term agenda to influence upcoming policies or decisions in favour of the PhD community. The top-down approach has become common on matters related to the PhD community, which is already disadvantaged in many respects. This raises a critical concern: good representation can be undermined. There is a need for the inclusive development of a new strategy and policy to guarantee true representation. And (international) scholarship PhD students must be allowed to represent themselves in the central participatory council. It’s time to decolonize the WUR representation system.



**Joshua Wambugu**

Joshua Wambugu (41), from Kenya, is a PhD candidate in the Marine Animal Ecology and Environmental Policy groups. He is a Social Safety Guide and loves cooking, hiking and birdwatching.

# Greener thanks to Covid

Since the Covid pandemic, WUR employees have been flying on business much less than before. But we are also now less likely to cycle to work. Text Roelof Kleis • Illustration Valerie Geelen

Covid has had a dramatic impact on the world of work. You could even say working from home has been the most tangible lasting effect of the pandemic. We all spend much less time on campus: only just over half our working hours on average. That is good for our ecological footprint, the latest mobility survey shows.

Sustainability policy officer Erna Maters has put together some figures from the monitor (from 2024, not yet published) for *Resource*. It clearly confirms what a game-changer Covid has been for mobility — and therefore sustainability. The most eye-catching result is that there are far fewer business flights across the board at WUR. In 2024, WUR employees flew a total distance of 31 million kilometres, the equivalent of 780 times round the world. The figure before the pandemic was twice that. It was barely possible to fly at all during the Covid pandemic, and that dampening effect has persisted in the years that followed.

The change in air travel is evident from other data too. Half of the employees say they fly less than in the past. At the same

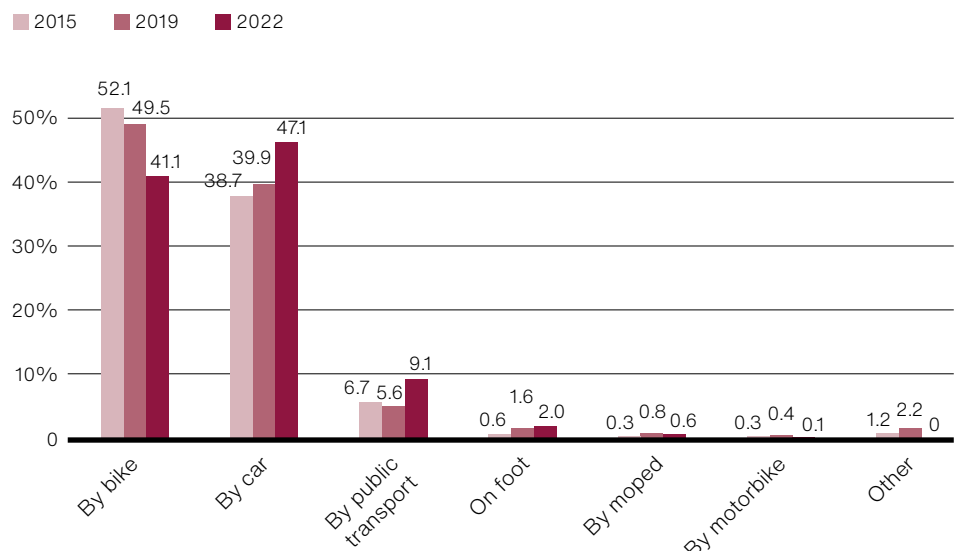
time, more people than in the past say they do fly on business at least occasionally. So more people are flying but much less often in total. WUR has had restrictions on flights within Europe since 2020. The WUR travel agency no longer offers plane tickets for destinations that can be reached by train within six hours. Permission from your manager is needed for journeys of between six and eight hours. However, Maters says this policy doesn't explain the drop in flight hours. 'WUR researchers have very international work fields and they don't fly much within Europe. So this measure isn't reflected in

the emissions. After Covid, people started flying again but not nearly to the same extent as before. That is despite the big increase in the number of employees. So there genuinely seems to be something going on.'

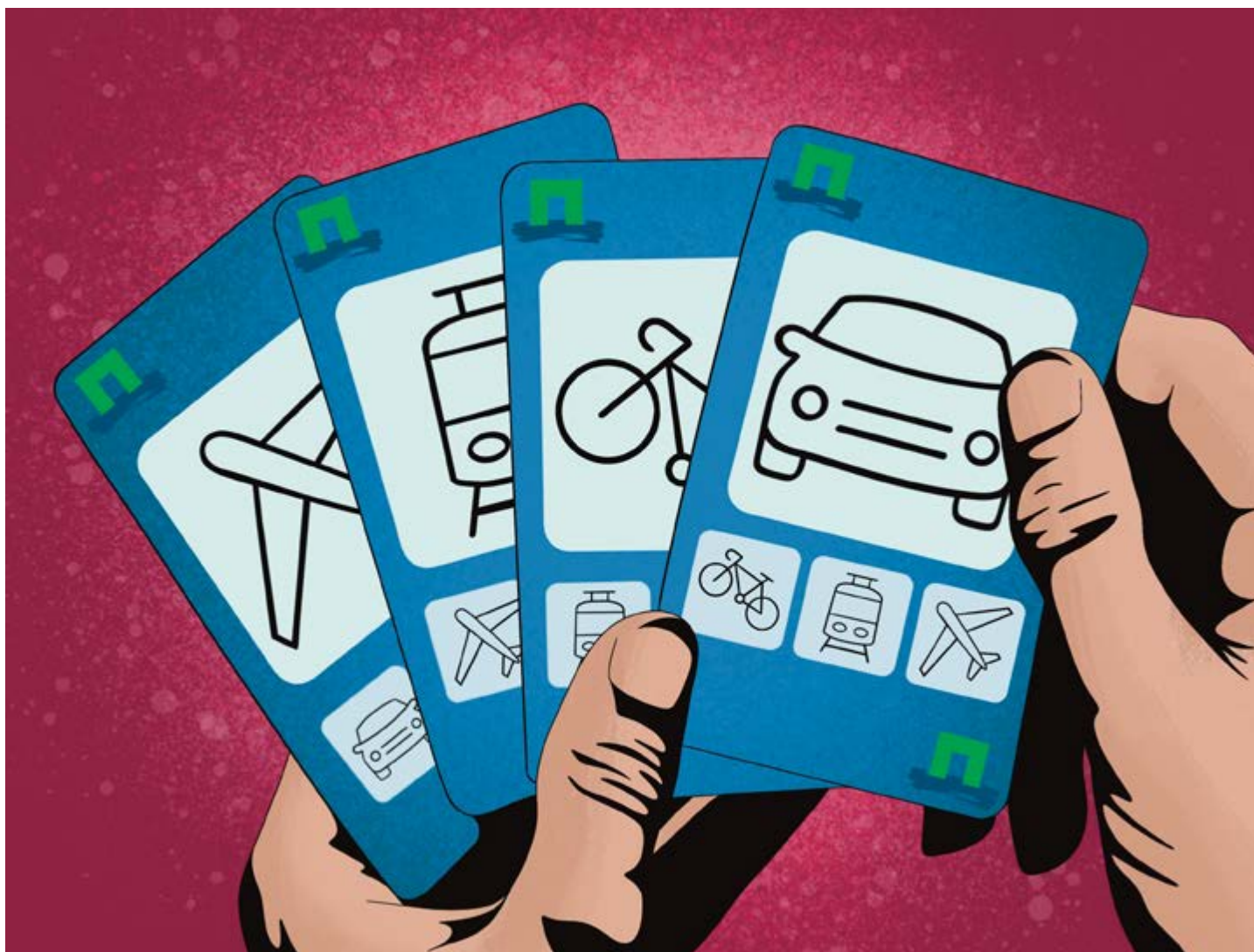
## Cars

'Flight shaming' means that flying is no longer (quite) the biggest source of travel-related CO<sub>2</sub> emissions at WUR.

How we travel to work







‘After Covid, people started flying again, but not nearly to the same extent as before’

That position is occupied by commuting to work by car. Commuter travel by car also fell during the pandemic, but not by nearly the same extent as business flights. Despite the increase in working from home, commuting by car is almost back up to pre-Covid levels. That is partly explained by the growth in WUR’s workforce. The number of employees has risen by almost 30 per cent since 2019. But that’s not the whole picture. Staff are driving to work more than in the past.

Ten years ago, more than half of staff were cycling to work. That was still the case just before Covid. Now, the figure is four in ten employees, and car use has increased accordingly. One explanation is that more employees live a long way from their work than in the past, says Maters. ‘Many employees live in Wageningen, Bennekom or Ede, and they mainly cycle to work. But the group that lives further away has grown bigger. That’s a nationwide trend: people live further from their place of work.’ In figures, before the pandemic 82 per cent of the people driving to work lived more than 15 kilometres from their work, and that percentage has increased to 86 per cent.

A link with the increase in working from home seems an obvious possibility given

#### BUSINESS TRIPS

Not all WUR employees travel for work by a long way. Half never go on business trips. Of those who do, 40 per cent sometimes take the plane. That is far more than before Covid, when 28 per cent flew sometimes for work. Half of the people who fly say they do so less than before the pandemic. Based on a workforce of 6000, that means about 600 employees are flying less than before.



‘That’s a nationwide trend: people live further from their place of work.’

that working from home makes it easier to live further away. ‘That’s certainly one factor,’ agrees Maters. ‘It has become easier to work remotely since the pandemic. I hear that too from people who live a long way away.’ She also points to the effect of the housing market. ‘A specific factor in Wageningen is that it’s so difficult to find appropriate, affordable housing. That means you can’t move here, even if you wanted to.’

### Public transport

In addition to commuting by car, there has also been an increase in the use of public transport. Less than 6 per cent used public transport before the pandemic, compared to 9 per cent now. That could be because it is now free. ‘Since 1 July 2022, public transport costs have been reimbursed in full to encourage the use of public transport,’ explains the

head of HR, Martijn Scheen. ‘This is a sustainability measure. We are one of the few universities to do this.’ Drivers get an allowance of 14 cents per kilometre. ‘That’s a reasonable reimbursement,’ says Scheen, ‘and above the average for other universities. It is not too high, because that would be encouraging people to come by car. Not everyone can get to work by public transport anyway. Incidentally, distance isn’t the key determining factor in deciding whether or not to work somewhere.’

The developments described above have led to a substantial decline in overall mobility-related CO<sub>2</sub> emissions following the pandemic. Compared with 19 kilotons in 2019, CO<sub>2</sub> emissions last year were under 13 kilotons. The question is whether emissions could be reduced further still. For commuter travel, that basically boils down to stopping people

coming by car. The answer seems to be: not really without any additional measures or policies. The mobility survey shows that 16 per cent of the people who come by car live less than 15 kilometres from their place of work. For that distance, they could use a bike or e-bike or they could car pool. But there is not much enthusiasm for that. That seems to be linked to the limited acceptance of any extra journey time. The journey for WUR employees who drive to work takes 40 minutes on average, and they would only be willing to accept an extra five minutes in journey time. ■

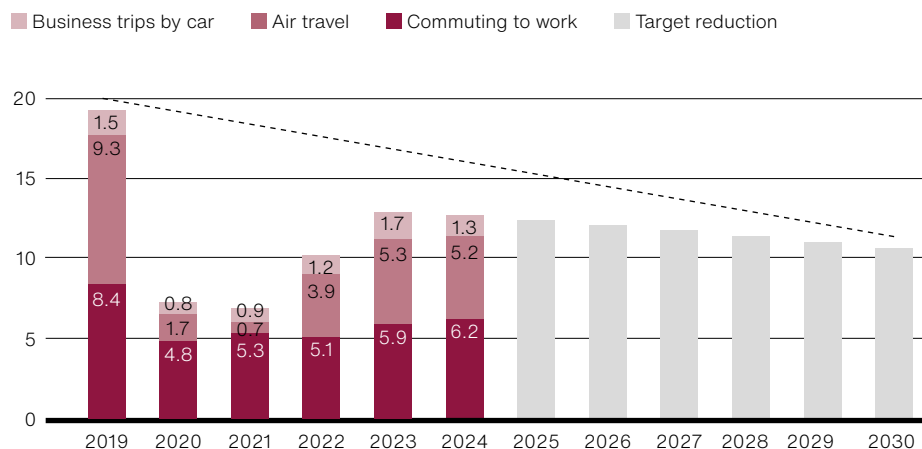
### STUDENTS

Students mainly go to the campus by bike. Two thirds cycle, one fifth take the bus or train and 4 per cent walk there. Interestingly, 7 per cent of students drive to the campus. That might not seem a lot but given a student population of 14,000, that means nearly 1000 students take the car.

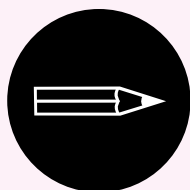
### RESOURCE DEBATE

What could and should WUR do to make staff and student mobility even more sustainable? That question is the focus of a debate on mobility that Resource is organizing in Impulse on Thursday 22 May. The event will be from 12:30 to 13:30. It will include thought-provoking statements on paying for parking on campus, internships abroad, working from home and a cap on flights.

### CO<sub>2</sub> emissions in kilotons







LETTER TO THE EDITOR

# The awful rigidity of Dutch universities

When reading the article 'Everyone's a Professor' in *Resource* last January, I was immediately reminded of the revolt within our Water Purification (WZ) department against the inflexible university governance structure, a legacy of the half-hearted University Governance Reform Act (WUB), which was introduced in 1970. Since then, scientific staff with PhDs have lobbied for the right to confer doctoral degrees as a way of: i) helping achieve an HR policy that is suitably flexible for the senior positions in the university; ii) making optimum use of the available scientific talent; and iii) giving research groups the necessary status — in short, maximizing the agility.

I felt I was one of the people called upon to act, all the more so because an appointments committee was working on finding a successor for the vacant professorship in the Water Purification department. Our research on the application of anaerobic purification with the development of the famous UASB (Upflow Anaerobic Sludge Bed) bioreactor was by that point attracting worldwide attention. We were getting more and more talented PhD candidates from abroad with their own research budgets. We deserved and needed the associated 'status', certainly when dealing with the companies active in our field.

I therefore needed the right to confer doctoral degrees and so I applied for the job, based on my wish for a 'temporary appointment in the position and a permanent appointment as an associate professor, with the grant to staff with PhDs of the right to confer doctoral degrees.' The appointments committee rejected the proposal out of hand, but the department embraced it!! To my disgust, the committee was not remotely interested in my research or vision. We felt we had been saddled with a completely incompetent appointments committee, which went on to select a candidate who was totally unacceptable. To our dismay, the university administrators approved the choice and we then had to put up with it due to the authoritarian administrative action, despite our perfectly reasonable opposition. And we had been functioning fine as a department for nearly two years without a professor!

In the university newspaper *Wageningen Hogeschool Blad* of September 1981, the editors Gerard Barendse and Simon Vink gave a detailed account of our battle (entitled 'An appointments procedure: playing the game and winning'). Three weeks earlier, a PhD candidate called Wim Wiegant had expressed his concerns in a letter printed in the same newspaper ('Agricultural University, put your own house in order'). The arrival of the new professor did



'Since the introduction of the half-hearted University Governance Reform Act (WUB) in 1970, scientific staff with PhDs have been lobbying for the right to confer doctoral degrees.'  
Illustration Valerie Geelen

indeed lead to such big problems that the administrators eventually (about six years after the appointment) had to take action. They accepted a part-time professorship in anaerobic purification for me funded by the private sector, initially for three years and subsequently extended without any problems until my retirement on 1 April 2001. I had obtained the right to confer doctoral degrees, hallelujah!

Of course, having been revealed to be a rebel, I had no hope of a professorship holding a personal chair (former dean of research Wouter Hendriks advocates this as the ultimate improvement)! To our great satisfaction, 'our' professor was transferred and we were assigned a full-time professor of purification technology. That meant justice, but not an end to the 'rigidity'. All due respect for Professor Kees Storm, who did manage to achieve this at Eindhoven University of Technology. And well done to the water purification department, now known internationally as ETE, which celebrated its 60th anniversary on 9 May.

*Gatze Lettinga, emeritus professor of Environmental Technology*

Two sides

# Are Palestinian flags appropriate at a protest against the cuts?

Around 2000 staff and students joined the protest on 14 April against the nationwide education cuts. The long march from the campus to Wageningen town centre had the support of the FNV trade union and was organized by WUR folk. People who support the Palestinian cause were also given the opportunity to share their views. To the surprise of some. Text Willem Andrée • Photos Guy Ackermans



Mehran Takallo (PhD candidate in Microbiology) and his colleagues kept brooding about it. They came to the protest to voice their opposition to the cuts but discovered the pro-Palestinian cause was also on the programme. In a letter to the editors of Resource, they expressed their concern about this political symbolism, which they hadn't expected. The letter writers argued for transparency in future demonstrations so participants can choose what to give their support to. They think the focus should be kept on the core message — protecting research and education. Livio Carlucci, a lab employee in the Environmental Technology department, was involved in the organization. He talks to Mehran about the issue.

**Mehran:** 'Many colleagues didn't feel represented, or even felt deceived. Despite the fact that some support the pro-Palestinian activists. They had turned up for a protest against the cuts. There was nothing in the communi-

cation about other causes. Some left the demonstration because they felt they had been lied to. It's not about the political standpoints, it's about the mixed message. In the current political climate in the Netherlands with the PVV (far-right party, ed.) in power, the link between the pro-Palestine movements and the cuts could be used to make the policy even stricter.'

**Livio:** 'I think that the cause was one, supported by different perspectives. For example, there was a speech by someone from JOPS (a WUR department for people at a disadvantage in the labour market, ed.). Like the people at JOPS, Wageningen for Palestine also wanted to share some effects of the budget cuts. Firstly, the cuts are mainly affecting the social sciences, as we already experience also in Wageningen, where most of them study or work, and that is precisely where

< “Too many flags”  
undermines the main  
message’

Mehran Takallo



# 'A lot is at risk with this government, not just education'

Livio Carlucci

critical thinking and activism often start. Secondly, the money saved by the cuts will be spent on defence, including investments in the Israeli industry.'

**Mehran:** 'I understand what you are saying but I don't think you can mix all this in a single demonstration of this nature — certainly not without any communication. This way, we could have talked about veganism or LGBTQIA+ rights, things I totally support and would be prepared to demonstrate for, but then as a clear-cut issue. If you have too many "flags" and opinions to a protest not meant for intersectionality, that undermines the main message.'

**Livio:** 'I realize we could have done better in terms of communication. But in the way of these things, the final list of speakers was only known a few days before the protest. In addition, on 1 April we had a meeting about the demonstration with 80 WUR people, where I wore a keffiyeh (Palestinian scarf, ed.) and made the connection between the cuts and military financing. Someone asked explicitly whether we were allowed to bring Palestinian flags and I said "yes". No one objected then. Incidentally, on a day like that we can't control who brings what flags. But as the organizers, we do decide who the speakers are on the stage. And I still stand by that line-up. I don't think there were different messages — everyone there was against the cuts, but each from their own perspective.'

**Mehran:** 'A public announcement of the speakers would have helped, because now a lot of people thought they had

turned up for one cause whereas they were unwittingly contributing to another cause. That makes them feel they were deceived.'

**Livio:** 'What would have helped you in terms of communication?'

**Mehran:** 'For example, you could have used posters or social media to share the programme of speakers, or you could have made it clear that Wageningen for Palestine was one of the organizers. I understand why you have so much sympathy for pro-Palestinian activism, but having Palestinian flags on display can undermine all your efforts in the eyes of the right-wing PVV politicians who are now in power.'

**Livio:** 'I'm not sure that is the case. The government's policy is already hitting universities really hard, probably also happy to punish places where a lot of opposition to them exists. I believe strongly in the concept of intersectionality, the idea that various oppressed groups should join forces to fight injustice. This Dutch government is endangering a lot of things, not just education. If people from the education sector, activists against genocide, people from the LGBTQIA+ community, the unemployed and pensioners can join forces to fight back, that would be great. I would also be pleased to see the red squares (symbol of opposition to the cuts, ed.) at the next Palestine protest, or rainbow flags at the next strike on 10 June.'

**Mehran:** 'Of course I too have strong views on many different issues. I could have brought along four different flags, but that was not the right day for it. Politicians don't care about our feelings. In Iran, we were shot at in protests and friends of mine were murdered. It's a



tough and complicated environment, so we need to be smart and make sensible choices. I hope this dialogue will help with subsequent demonstrations because at the moment the atmosphere in many groups is not very positive. If you make smarter choices, you can get more people joining in support of the causes you care about: Palestine, the environment, the cuts and many other issues.' ■

**What do you think? Respond to this article on [Resource-online.nl](https://resource-online.nl)**

PICTURE







## CATTLE BATTLE

Freshly washed, neatly trimmed and with a touch of baby oil on the udders: all five dairy cows in the exhibition ring are looking their best. But which cow has the best build and what do you base that evaluation on? That is the key question for the national student cattle-judging championship, which was held this year at the Van Ginkel dairy farm, in the vicinity of the campus. Five student teams took part: WUR, Veterinary Science at Utrecht, Van Hall Larenstein, Aeres and HAS Den Bosch. Wageningen came second in the team competition and WUR student Arjen Peters won the individual championship, with an impressive score of 9.3 for his oral exam. See [Resource-online.nl](http://Resource-online.nl) for a report on the event. ME/DV

Photos Resource





# Pill collects data in your guts

OnePlanet Research Center has just won the Klokhuys Science Prize for its smart toilet seat. The centre, a collaborative venture that includes WUR, develops smart technology for healthcare — including sensor pills you can swallow that take measurements inside your gastro-intestinal system.



Text Dominique Vrouwenvelder

‘so we have to figure out what works and how we can make best use of the pill with all its data in our studies.’

**T**he pill, which is the size of a vitamin supplement, has a mini-window containing five sensors. This lets the smart device measure temperature and acidity, for example, as it travels through the gullet, stomach and intestines. The pill performs a measurement every 20 seconds during the whole journey from mouth to bum. The little pill has three tiny printed circuit boards that control the pill and process the data. The pill uses a built-in antenna to communicate with an external device — the size of a pack of cards — that the subject wears and that provides additional storage. A further connection between that device and a central computer lets the researchers watch what is happening in the body in real time.

PhD candidate Roseanne Minderhoud (Human Nutrition and Health) is using these sensor pills to study protein fermentation in the large intestines of humans. ‘We are the first to use these sensor pills for research,’ she explains,

## Lots of data

In her first study — the results of which she will soon be publishing — all the test subjects were given a controlled diet. They had to take the sensor pill at five specific moments — including at the start of the study, after a night without food and after a day of eating.

‘The pill progresses at the same speed as the food through your digestive system. If you haven’t eaten that night, it will travel through your body much faster because your stomach is empty. If you eat three big meals in a day, your stomach will be full and so the pill will spend longer in the stomach.’

In addition to the sensors, all the pills contain an accelerometer. That lets us measure how fast the pill travels through the body, but it also picks up if someone plays sport or exercises,’ says Minderhoud. ‘At the moment, we can’t tell those two types of movement apart.

In future, we could use smartwatches to collect data about movement to distinguish between physical exercise and the pill moving through the body.’

## Collecting poo

‘We are working on ways to predict when the pill will exit the body,’ explains Minderhoud. At present, the test subjects have to collect their faeces and hand the poo in to the researchers so they can filter out the pills. ‘But in future, perhaps the people will get a message from the external device they wear when the pill is about to exit their body.’

All the participants in the pilot study had to collect their poo at any rate. ‘That was partly for safety reasons: it let us confirm that all the pills had been excreted. But we also wanted to recalibrate the pills and see whether the sensors could still perform measurements as well as before. That turned out to be the case: all the sensors’ responses were exactly the same



Smart capsule, developed by OnePlanet.

after travelling through the body.'

### Biologically relevant

Now that the initial glitches have been dealt with, the researchers can look at the biological relevance of the sensor pill, for example by measuring what happens in the gut for a range of diets. 'We gave the test subjects two different standard diets. We were curious to see whether a difference in the source of protein led to a different acidity due to fermentation. There were almost no other differences between the diets.'

The pills can also provide information about other health parameters such as the redox potential. That is the balance between oxidants, aggressive substances that can cause harm to cells and tissues, and the antioxidants that combat such

harm, explains Minderhoud. 'It is very difficult to measure in the lab because the potential is highly sensitive to oxygen. This sensor lets us measure exactly what happens in the body without external disruptive factors. An imbalance in the redox potential will tell us more about the resulting oxidative stress — a lot of stress damages the cells from the inside.'

### Healthy and sick

In addition to fundamental scientific knowledge about what happens in the intestines, Minderhoud thinks the pills could help the medical world too. 'We now have data on a small cohort of healthy people with a range of ages. In future, we

could compare them with patients with intestinal conditions such as Crohn's disease or colitis, for example. The pills let us find out what is happening in the intestines using a non-invasive technique, without having to insert tubes.'

OnePlanet is also working on pills that can collect samples, for example of intestinal juices. 'The sensor data lets us work out where the pill is in the gastrointestinal tract. You press a button and the sampling pill opens up a tiny bit to collect the fluid in an internal cavity, then it closes again. We still need to check whether the pill does indeed open up when we press that button, and make sure it closes again sufficiently so that the sample doesn't get contaminated with fluids further along in the gastrointestinal tract. The technique is promising though, especially for samples in the small intestine and the start of the large intestine, because it would avoid the need for an endoscopy, which causes so much distress.' ■

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**The pill performs a measurement every 20 seconds throughout the journey from mouth to bum**



## 6 TIPS

# LEARNING DUTCH

The Dutch government wants international students and staff to improve their Dutch language skills. But let's be honest, Dutch isn't the easiest language to master: from the famous Dutch 'g' throat sound or the 'ui' sound that doesn't exist in many other languages to the confusing word order in sentences.

We asked the international members of our student editors team for advice for those brave enough to give this language a chance. Drawing from their own experience and that of their friends, they came up with six tips to make learning Dutch a bit more manageable — and maybe even fun! Text Luuk Zegers ♦ Illustration Shutterstock



### Take language courses at the university...

One of the best ways to learn a language is to sign up for a language course. As a WUR student, you can do so for free! Wageningen in'to Languages offers Social Dutch courses at four different levels. The first two levels are free for WUR students, as long as you attend at least 80 per cent of the classes (otherwise, a fee of 90 euros applies). Intensive courses are also available during the summer and winter breaks — a great way to boost your skills in a short time! As the Social Dutch courses are popular and fill up quickly, make sure to sign up on time.

If you're a staff member, PhD candidate or external person, there are Dutch courses available at Basic, Intermediate and Advanced levels, including intensive summer options. In many cases, employees and even their partners can join for free.

To find out more, visit the in'to Languages Dutch classes page for details.



### ...or elsewhere

If Social Dutch is full, or you simply want to try somewhere else, the International Student Organization of Wageningen (ISOW) offers language courses, Dutch being one of them. To take these lessons, you must sign up for ISOW membership, which currently costs 20 euros per year.

Another option is to sign up with Wageningen Volksuniversiteit for one of their Dutch courses. These will start again in September. For 310 euros, you get 25 lessons of 75 minutes.



### Daily Duolingo

Then there are the language learning apps. There are multiple options, but the best known is undoubtedly Duolingo. Every day, Zhou Yijun Master's student Sustainable Supply Chain Analytics from China spends between five and fifteen minutes with the famous Duo green owl. 'I'm on a 275 day streak so far,' Zhou says proudly. 'Dutch is not too hard for me. Currently, I'm on chapter two, subsection 24, which you can compare to A1 level. I can already read the labels of some of the items in the supermarket, which is quite useful.' Duolingo is free, but there is a catch: if you make too many mistakes, you run out of 'hearts' and have to wait before you can play again. If you are serious about learning Dutch, consider signing up for the premium version, says Zhou. 'Now I can make unlimited mistakes. This speeds up my learning process because I don't have to wait anymore before I can play again.'





### Practise, practise, practise

If you want to learn a new language, the key thing is to practise a lot. That is exactly what you can do at the Netherlands Taalcafé, every Wednesday evening at Thuis Wageningen. From beginners to experts, everybody's welcome to practise speaking Dutch. It's free of charge, but participants are encouraged to bring cookies or other goodies to share with the rest.



### Make Dutch friends (and play squash)

It is easier to learn something that you enjoy doing, says Oliver Kalengi (24), a Master's student in Resilient Farming and Food Systems from India. 'So if you really want to learn a language, you have to make it fun. How do I do it? By playing squash with one of my Dutch friends. When we play, he often speaks to me in Dutch. So far, he has taught me how to count, how to say things like "well done" — *goed gedaan* — and how to order coffee in Dutch. This way, I'm learning Dutch while playing sports and having fun with my friend at the same time. So make some Dutch friends, ask them to practise with you and make it fun!'



### Be tough on your friends and fellow students

The fact that most Dutchies are reasonably fluent in English is both a curse and a blessing. Arohi Natu, a Master's student: 'When you're trying your best to talk Dutch, and Dutchies notice you're struggling with words, they will probably switch to English. Bye-bye opportunities to learn! Be tough on your friends and agree on a date from which you will speak Dutch only – unless you specifically ask for help. It will be hard initially, but you'll learn much quicker.'



# Cuts : a double whammy for teachers

The education side will have to contribute 7.3 million euros to the structural cuts of 80 million euros that WUR needs to make as of 2028. The chemistry lecturer Marga van Voorthuizen wonders if there is sufficient awareness of the cumulative effect on teachers, who are facing challenges on various fronts.

Text Dominique Vrouwenvelder • Photo Marte Hofsteenge

**M**arga van Voorthuizen works in the Physical Chemistry and Soft Matter department. She teaches the basic chemistry courses that are compulsory for all WUR students doing science degrees. 'There are five of us teaching three basic courses; we jointly have about 3 FTEs for that, with 0.8 for me personally. That will soon change because I discovered last summer that my contract won't be renewed. Because of the financial situation, our chairholder was unable to renew my temporary contract this year. Now my colleagues will have to figure out a way to keep all the practicals going, even though everyone is already really busy.' While the news about her contract was obviously a blow for Van Voorthuizen, she is now mainly concerned about the cumulative effect these cuts will have. 'Departments are having to terminate temporary contracts and deal with the shortfall by deploying researchers and other support staff. That means there is less time available for securing research grants. Which indirectly leads to even

less revenue for the department. At the same time, degree programme staff are looking more critically at how much money should be spent on a course. On top of this there is the effect of falling student numbers.'

Van Voorthuizen expects the cuts to lead to an increasing workload and work pressure. 'I already see that among my fellow teachers who are being kept on. Throughout WUR, our dedicated teachers will have to work even harder to maintain the same quality of teaching, resulting in greater work pressure. Sooner or later, that is going to hurt them.'

## Developing the education

'In addition, since I was appointed in August 2023, we have had more scope to develop the education further. We not only gave classes, we also worked on updating the teaching materials and methods and thought about what knowledge and skills students need for the various degree programmes. We looked for new methods for conveying our knowledge efficiently too and we improved ways of testing students. If a practical

activity no longer met the needs of the programmes, we considered alternative activities or improvements to an existing experiment. I wonder whether there will still be enough time for that next year.' Fortunately, Van Voorthuizen's personal situation was resolved in the end. 'WUR was looking for a study adviser for the new Bachelor's programme Data Science for Global Challenges and the associated Master's, which has already been going for three years. I was able to start on that from 1 May, with a permanent contract.' Dean of Education Arnold Bregt understands teachers' concerns. He can't deny that the problems teaching staff are experiencing are real, but he explains the cuts WUR has to make are not the main culprit. 'Only 7.3 million of the 80 million euros in structural cuts that WUR will have to make as of 2028 will be borne by the education side. The cuts are divided into four categories: teaching, teaching support, teaching facilities and buildings such as Aurora, and student facilities. The first category (teaching) will account for the smallest percentage, about 2.6 per cent, which is a bit over two million



Teachers are worried whether there will be enough time in future for educational improvements, such as tailoring practical activities and experiments to the course needs.

euros per year. The other categories will account for double that percentage. We are sparing the primary teaching process as much as possible.'

### Student numbers

According to Bregt, the falling student numbers are a more important factor financially. 'Those numbers have been falling for some years but we are only starting to notice the effects now.' WUR gets 15,000 euros a year per student for education. That money is used to pay for the hours staff spend teaching. The fewer students, the less money for this. Bregt: 'At the moment, preliminary registrations for Bachelor's degrees are ten per cent down on last year. Broadly speaking, that will cost us two million euros. Which is as much as the education side will lose due to WUR's cutbacks.'

'Income from research funding is also falling,' continues Bregt. 'Many chair groups combine the money from research funding and teaching income. If the one source generates less revenue, they compensate for that with the other

source. It means staff barely notice this in their daily work. Now that both income sources are facing cuts, we are finally seeing problems, for example because there is no longer any money for appointments.'

Bregt is keen to put this into perspective, though. 'The ten per cent drop with respect to last year corresponds to about 150 students. The Netherlands has 640 secondary schools. If a quarter of those schools each has one extra pupil choosing Wageningen, we would be back up to where we were last year.'

### Work pressure

'I share Marga's concerns,' says Eva Meijer, a teacher and member of WUR Council. 'Although the cuts haven't yet really been implemented, I can see they

are already having an effect on the work pressure. Even the fact that we know we will soon have to do the same amount of teaching with fewer staff is causing stress among my colleagues. Also, an investigation by the Labour Inspectorate showed the pressure of work among teaching staff is structurally too high anyway. WUR Council wants teachers to have more of a say at the university, including on policy at the preparation stage. Teachers have an important perspective on such topics as work pressure, development possibilities and renewing the education. Over the next while, we will keep a close eye on what is going on with teachers and how they experience the cuts.' ■

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**'Our dedicated teachers will work even harder to maintain the same quality'**



# OF RICE AND MEN

The maroons of Suriname grow an incredible range of rice varieties. PhD candidate Nicholaas Pinas presented a picture of their rice culture.



Text Roelof Kleis

**T**he Dutch diet regularly includes a helping of white or brown rice. We also have basmati, pandan and jasmine rice, but that is about the limit of Dutch people's adventure with rice. To be honest, even Nicholaas Pinas, who is from Suriname, hadn't expected such huge diversity when he started four years ago on his investigations into the rice culture of the maroons in his country of origin.

The maroons are the descendants of African slaves who managed to escape. Pinas himself comes one of Suriname's six maroon communities. 'I am a member of the Okanisi community,' he explains. 'Both my parents come from the Cottaki area, around a small river in north-eastern Suriname.' However, Pinas was born and brought up in the city of Paramaribo. 'In the school holidays, I would often visit my grandmother in Moengo. I regularly helped harvest the rice with my cousins.' He laughs. 'I had to, because my grandmother would never leave you alone at home. It was hard work. Temperatures can climb as high as 40 degrees in August and September.'

## 300 varieties

In his research, Pinas and his PhD supervisor Tinde van Andel (professor by special appointment of Ethnobotany) interviewed 106 maroons in four communities

in Suriname and neighbouring French Guyana. They also collected plants and grains from more than 300 different varieties of rice. At least, that's what they thought. Pinas: 'We had multiple samples for some varieties, and further investigations by the Surinamese rice institute (SNRI/ADRON) revealed that there were in fact over 500 different varieties.'

That huge variation is the result of more than 300 years of cultivation, adaptation to local conditions and crossing. Some maroons grow up to 20 different varieties. For good reason. As Pinas explains, it is a way of spreading risk. 'It's a management strategy. You have water-loving plants that do well in wet years and you have sun-loving varieties that can cope with dry conditions. Growing several varieties lets you make sure there is always enough to eat, regardless of whether it's a wet year or a dry year.'

## Women's work

The maroons farm on a small scale to provide enough food for themselves. They measure the harvest not in weight but in time: how long a family can live off it. Their rice fields are not neatly raked plots; they use a slash-and-burn method and a field is only used for two years at most. Yields are small compared to commercial rice cultivation. But that depends on how you look at it. Pinas: 'Commercial rice cultivation in Suriname

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'The maroons tend to think of rice as female'

yields six to seven tons per hectare, whereas you get barely one ton with the same rice variety in a maroon field. However, some of the maroons' varieties yield more than two tons.' That is demonstrated by a comparative study in which two commercial cultivars were grown using traditional methods alongside a large number of traditional rice varieties. The relatively high yield shows how the rice plants have adapted to the environment.

### Dark chapter

In addition to rice and information about how it is grown, Pinas collected a lot of stories. Rice is more than just food for the maroons; the crop plays an important cultural role in their rituals and customs. That is why he gave his thesis the title *More Than A Grain*. As well as those stories, Pinas recorded 284 unique names for the rice varieties. The names often refer to the visible characteristics of the rice. Many others are named after women. That is no coincidence, explains Pinas. 'Cultivating rice is mainly women's work. The men prepare the soil for cultivation: they cut down trees and clear the vegetation. But the women plant, tend and harvest the rice. So the maroons tend to think of rice as female, not just because the women do all the work but also because rice symbolizes fertility. One grain produces many descendants.'

*More Than A Grain* is not only a scientific publication, but also an ode of sorts to the women and the essential role they played in the community's sur-

vival in the jungle. In addition, Pinas says, his thesis demonstrates the importance of biodiversity. 'The maroons don't keep track of when it rains and how much, but despite that lack of technology they have still developed strategies for producing sufficient food. A life without technology *is* possible. That is an important lesson.'

'The period of slavery is a dark chapter in human history,' concludes Pinas, 'yet the enormous diversity of rice varieties cultivated by the maroons came about partly because of it. These people were innovative enough to cope with the difficult circumstances they were in. In the eye of a crisis, you don't have to fall and die.' ■

### SEEDBANK

Nicholaas Pinas' work led to the foundation of the Mma Paanza Community Seedbank. This seedbank stores all the rice varieties that he collected. All Surinamese people can obtain seeds from it free of charge to experiment with. Many varieties have also been stored in the Global Seed Vault on Svalbard (Spitsbergen).



Own photo

## Entomologist Marcel Dicke's farewell lecture

# THE SILENT SPRING OF 2025

Rachel Carson's book *Silent Spring*, published in 1962, was a global wake-up call. But the environment is not in a much better state today, says Professor Marcel Dicke. Text Roelof Kleis

In her shocking book, Carson exposed the damage to the environment caused by the excessive use of pesticides. They were killing not only the pests they were designed for; all insects were affected, making birds starve to death. The result was silence in springtime. The parallels with today are clear. 'In fact, it has got even quieter,' says Dicke. *Silent Spring* is more relevant than ever since scientists showed that the biomass of flying insects and the numbers of birds in the European countryside have plummeted. 'The point is that we barely notice. It's only when you get older and can look back over a longer period that you can see the long-term developments. Someone aged 20 today would never have had to wash the car windscreen because it was covered in dead insects. I'm part of the generation that remembers doing this.'

In his farewell lecture entitled *Bugged Ideas* on 6 June, Dicke will deal at

length with this concerning situation and how to turn the tide. The title has multiple meanings. 'It's about how insects – bugs – inspired my ideas. But it also refers to the issues that I think and worry about, that are bugging me.' How pesticides are poisoning nature is one such issue. Or more precisely: the persistent paradigm that we can't do without pesticides and chemicals to feed the world.

## Pesticides

In Carson's day, the main culprit was DDT. Today's systemic pesticides are supposedly smarter. Dicke: 'The narrative is that they are ideal because the insecticide is in a coating around the seed, so it no longer gets into nature by being sprayed or blown around.'

But, as one of Dicke's PhD candidates

showed in 2019, the situation in practice is rather different. Insecticides such as the notorious neonicotinoids still end up in the environment via sucking insects such as aphids and the honeydew they secrete. Three of those insecticides have since been banned in Europe. 'But European companies still export them in enormous quantities to the rest of the world,' says Dicke indignantly. 'Why is that allowed? If they are harmful here, surely they are in the rest of the world too?'

'I read a news item today saying that

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**'WE ARE POISONING OUR ENTIRE ENVIRONMENT'**





Marcel Dicke: 'Someone aged 20 today would never have had to wash the car windscreen because it was covered in dead insects' ♦ Photo Ruben Eshuis

a lot of pesticides have been detected in the leaves of oak trees. When people hear such things, they often say: oh well, the amounts are only small. But the effect of the combination of all those small amounts has rarely been tested. A recent German study showed that a combination of seven herbicides and two fungicides, which are present in the air all over Germany, have a negative effect on the reproduction of insects. These were products designed to kill weeds and fungi – not an insecticide among them! We are poisoning our entire environment.'

### Growing things differently

A different approach is needed, thinks Dicke. But that requires radical change. We need to let go of the idea that pesticides are essential for feeding the

### BUSY AS A BEE

Marcel Dicke (Dordrecht, 1957) studied Biology at Leiden. After graduating (1982, with distinction), he came to Wageningen, where he worked for nearly 42 years. He obtained his doctorate in 1988 (with distinction) for the ground-breaking discovery that plants 'call for help' when attacked. They secrete volatile substances that attract the attacker's enemies. Dicke became a professor by special appointment in 1997 and was appointed to the chair of Entomology in 2003. He has been awarded the Spinoza prize (2007), a Vici (2002) and the Dutch Research Council's Eureka prize for science communication. He was one of the initiators of the biennial series of lectures Insects & Society. He is the author of *Blij met een dooie mug* and has co-authored various other books on insects, including *The Insect Cookbook* and *Muggenzifters en Mierenneukers*. Dicke has supervised 115 PhD candidates, has co-authored 549 scientific articles and is a member of the Royal Netherlands Academy of Arts and Sciences (2011). He now plans to write a book on insects in art. For decades, he has been visiting museums and recording which insects, if any, are depicted in paintings. He now has a collection of over 5000 items.

world. Biological crop protection can play a key role. 'But cultivation needs to be organized differently too,' says Dicke. 'The whole system needs to change. To give an example, plant breeders currently focus on production and resistance to diseases and pests. But these two criteria aren't necessarily aligned. If a plant invests in growth, it invests less in defence. That is a trade-off. You spray pesticides to compensate for the poorer defence. What we need to

do is start breeding crops that can take on the pests in combination with biological protection. So we need to change





## 'WE NEED TO LET GO OF THE IDEA THAT PESTICIDES ARE ESSENTIAL FOR FEEDING THE WORLD'

what we focus on in our research. The switch from conventional cultivation to organic cultivation will lead to a drop in yields, but you might be able to minimize that effect by breeding crops that are much better adapted to the circumstances.'

A change like this takes time, says Dicke. 'We need to work on it gradually together with the growers. Like the first market gardener who stopped spraying pesticides and used predatory mites to

tackle spider mites instead. You have to build up an entire system and that requires support. I am an optimist, maybe even an idealist, who believes things can be achieved if you work together step by step. After all, it took decades to build those cathedrals in

the past. That was done by people who believed in the future. We need to adopt that mindset today too.'

### Parkinson's

We don't have much choice anyway, says Dicke. 'Or do we all want to end up with Parkinson's?' he says, referring to the possible link between this disease and the use of pesticides. That direct effect on our health could well be the *Silent Spring* we need to bring about change. Dicke: 'I think it's a game changer. However painful that is, we only take action once we are directly affected. In 1970, Kees Ooms made four iconic posters for Nature Conservation Year: bye-bye birds, bye-bye fish, bye-bye flowers and bye-bye humans. That was in 1970! Nothing has changed. Well, we're closer to "bye-bye humans" now. Humans are in the picture these days because it is directly affecting our own health. Of course that was always the case really, as Carson pointed out. Whatever affects our environment also affects us. We aren't separate from nature; we are part of it. We are hurting ourselves when we poison our environment.' ■



Posters designed by Kees Ooms in 1970 for Nature Conservation Year. Dicke: 'Nothing has changed. Well, we're closer to "bye-bye humans" now.'



# 'I want to spot the smallest insects'

**The 2025 BioBlitz has been going for two weeks now. The first milestone, of 1,000 species spotted, will soon be achieved. The numbers of species of insects and plants are roughly equal, which is weird because there are far more insect species than plants on the planet. And therefore on campus too.**

Text Roelof Kleis

Luc Elshout (third-year Biology Bachelor's student) wants to put that right. But the insects need to do their bit too. In this specific case, by crawling into his traps. He has dug 20 plastic pots into the ground, spread around the campus. He uses yoghurt pots, the simplest version of a pitfall trap. He hopes the traps will let him add numerous small crawling insects to the BioBlitz.

Elshout is mainly interested in the insects that people don't notice. 'Everyone can see an insect on a flower, but a tiny bug crawling across the ground



Photo Resource

**'Not many people look at sawflies, so there is still a lot to discover'**

is much harder to find. It's precisely those smaller, inconspicuous insects on campus that I want to spot.' Incidentally, he doesn't just use pitfall traps; he also set up three traps for flying insects this week.

## Sawflies

He is actually specialized in sawflies, a small niche in the extensive insect world. 'Not many people look at sawflies,' he

says, explaining why he chose them. 'So there is a lot left to discover. It's also a manageable group with its 560 species.' He knows most of those 560 species. As befits a true specialist.

The insects caught in his traps aren't usually sawflies, so he could use some help in identifying his catches. In fact, people from the Biosystematics chair group and the KNNV Wageningen nature society are organizing a series of Wednesday evenings to 'give a name to' the species spotted. Anyone who wants can come along to the IVN clubhouse *Het Groene Wiel* on Wageningse Berg. As a taster of what you might see, Elshout dips a tea strainer in a trap next to the Forum pond. There is water at the bottom of the trap. The water has a function, he explains. 'The insects drown in it, which stops the large insects from eating the small ones. Otherwise you would miss the little ones.'

He has a good haul. A copper green-clock beetle catches the attention. 'We

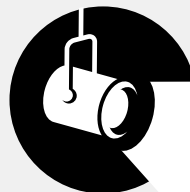
need to examine it under the microscope because there are three of them,' says Elshout. He also notes various daddy-longlegs, an earthworm, spring-tails and an ant. Plus a hoverfly and a bluebottle. 'Which is surprising given that they are flying insects.' Idiots are clearly a universal phenomenon.

## UNUSUAL

Last week, Luc Elshout spotted a sawfly next to the Lumen pond that hadn't been seen in the Netherlands for 50 years. The sawfly in question is *Aprosthemella melanurum*. The fly was spotted not just on campus but also on the dyke in Wageningen. In both cases it was on a slope in the sun, which Elshout says is logical because this species likes the warmth.



# Limelight



**21-24 May**

Junushoff Theatre, Wageningen

**Four evening shows and  
one matinee**

Tickets 25.75 euros

Students 20.75

It is a theme as old as time itself: parents want the best for their children, but the children often have very different ideas about what to do with their lives. The Wageningen musical society Sempre Sereno will be performing their version of this story in the Junushoff theatre. Text Coretta Jongeling

## Musical: *Children of Eden*

Biotechnology student Céline Brouwers is one of the students preparing for the marathon of five performances in four days. She has a role in the ensemble.

'The ensemble is involved in the background in many of the scenes. I play an animal, a tree, a barbarian and a rock, for instance. It isn't a solo role but I have to learn a lot of details off by heart: text, dance routines, which scenes you appear in and where.'

The cast of Sempre Sereno consists of 36 people, about a third of whom are students. The preparations for the

performances started back in September. 'We do everything ourselves, from building the sets to the PR. That means we're a bit like a student society, with a committee for each task. In addition to the weekly rehearsals, we organize weekends to work on the costumes, for example.'

The music was written by Steven Schwartz, who is known for *Wicked* and *The Hunchback of Notre-Dame*.

The music for the performances will be played live by an orchestra. Brouwers: 'This year, we will have our biggest orchestra yet, with 19 people playing.'

The first time we heard them accompanying us live during a rehearsal made quite an impression.'

They're currently working on the finishing touches to make sure the four days of performances go without a hitch. Stress? 'Everything is going quite smoothly this year. I know I always get nervous just before the first show — after all, a couple of hundred people will be watching you. But I never have a problem after that.'

For more info and for tickets,  
see [sempresereno.nl](http://sempresereno.nl)



### TIPS

**SAT 17 May**

**Segunda, Hesken and Crush (metal)**

De Patio

**SAT 17 May**

**Barbaboefjes - International Day Against  
Homophobia, Biphobia and Transphobia  
edition (dance)**

Loburg

**WED 20 February**

**Quiet is the New Loud with Maas  
(singer-songwriter)**

Bblthk



Members of the Wageningen musical society Sempre Sereno during a rehearsal for the musical *Children of Eden*.  
Foto Sempre Sereno



You can spot great-looking people and cool outfits on Wageningen campus. This column highlights some of them. This time, meet Tabita Garvi (19), a Forest & Nature Conservation BSc student from Niger.

Text and photo Eva de Koeijer

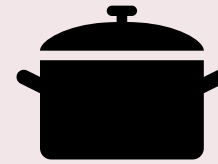


'I would say I don't dress conventionally. I usually just go for something I like, inspired by my surroundings and my upbringing. I grew up in Niger and that's why I like to wear fabrics that make me think of home.

'I made the dress I'm wearing now myself — like about 30 per cent of the items in my wardrobe. As a child, I was used to us passing on clothes or making or mending them ourselves, so I find it hard to shop for clothes in the Netherlands. When I buy something, I try and think about where it comes from.

'My style is an expression of my identity. I reveal part of my life story without having to explain it all in great detail. At the same time, it's not that important; if I want to wear something simple on a particular day, I do so. But I always wear smaller, less visible parts of my story, such as my ring. 'Style has always been important to me, but I constantly remind myself that it needs to stay fun. It mustn't become an obligation to look different; that doesn't strike me as healthy. The main thing is to wear something that looks good and is comfortable.'

You encounter all the flavours of the world in Wageningen. *Resource* editor Luuk Zegers shares his favourite Italian side dish: grilled vegetables.



Flavours of WUR

## Verdure grigliate alla studentesca

'I recently cycled with my dad from Bologna to Rome. In addition to the cycling, Italian cuisine was a big part of that trip. At every place we ate, we ordered *verdure grigliate*. That is a plate of delicious grilled pepper, aubergine and courgette, usually just with some high-quality olive oil, pepper and salt. The taste is amazing, it's easy to prepare and it goes well with everything. I call this version *alla studentesca* (student-style) as I always use a toaster grill to make it.'

- 1 Wash the peppers. Remove the stalk and seeds. Cut each pepper into four to eight pieces of equal size, depending on your preference and what will fit in your grill.
- 2 Wash and cut the courgette. I usually slice it lengthwise, but you can cut it into rounds instead. The slices should be no more than one centimetre thick.
- 3 Wash and cut the aubergine. Like the courgette, I usually slice it lengthwise, but you can cut it into rounds instead. The slices should be no more than one centimetre thick.
- 4 Heat the toaster grill. Place a sheet of baking paper, put the first batch of vegetables on top and grill them until they have nice grill stripes. Continue until all the vegetables have been grilled.
- 5 Arrange the grilled vegetables on a dish, sprinkle olive oil over them, add salt and pepper and

### Ingredients (for 4 people) :

- two bell peppers (I usually use the sweet pointed peppers)
- courgette
- aubergine
- good quality olive oil
- pepper, salt
- grated Pecorino Romano (optional)

### Preparation time :

20 to 30 minutes

grate some delicious Pecorino on top if wished.

*Tip: Make sure all the slices in the grill are about the same thickness so they cook evenly.*

*Tip: Grill some green asparagus as well. Amazing!*



**Luuk Zegers**  
*Resource editor*



## Meanwhile in... Estonia – Threat of invasion

WUR is incredibly diverse, with hundreds of internationals working and studying here. In the *Meanwhile In* column, we ask one of them to comment on events in their home country. This time, Master's student **Anett (23)** talks about the rising tensions between Russia and Estonia. Text Machteld van Kempen

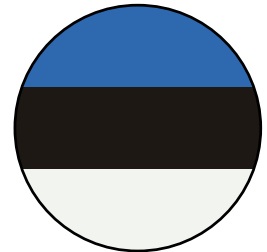
'Right now, tensions with Russia feel worse than ever, especially since Trump got elected. His private discussions with Putin have made many of us uneasy. This is why our military budget has grown: we now have one of the highest per capita in Europe. I also feel like divisions are growing at home. Some Russian-speaking citizens are openly pro-Putin, which I find very unsettling because they won't fight for Estonia.

'I was born in a free Estonia, but at school we did learn about the Soviet occupation. And this reality – and the threat of occupation again – still lives with us: military service is mandatory for men and even I had a week of training in high school, with basic shooting, survival and first aid. Most homes still have emergency supplies. My grandma always used to say, "Go to Finland if war breaks out." That kind of preparedness is normal in Estonia. People from older generations like my grandmother

remember what it was like before independence. She knew people who were deported to Siberia, for example. Even if I've never lived under occupation, the fear is inherited. It's still somewhere, quietly crippling. Today, some of my friends who are ready to start families are hesitating. Estonia is a great place to raise children, but with our "lovely neighbour" we wonder: should we wait, move or risk it?

'Living in the Netherlands now, I see how different other people's experience of war is. Most other Europeans don't worry daily or keep food stocked. For us, fear is always present. NATO gives hope, but some doubt remains. Would other NATO countries really risk war for us? If Russia wins even a piece of Ukraine, what's next?

'I love Estonia, but I'm not a fighter. If a war broke out, I would want to help with aid or support, but I'm not the one who's going to save the country. I'm too afraid to die. That feeling of wanting to run is hard, but it's survival, not disloyalty. These are scary times. Still, I try to stay hopeful. I have to.'



## Column Willy Contreras-Avilés

### Freedom

On 5 May, people from all over the country witnessed the 80th commemoration of Liberation Day in Wageningen. It is a privilege to enjoy such peaceful and celebratory times here in Wageningen, and naturally this privilege came thanks to the sacrifice of predecessors.

The current state of the world's most influential societies is sending a message where oppression seems to be the new status quo. It is a world where politicians do not care about education and evidence-based decision making. Where women, trans, gays, lesbians, people of different ethnicities and creeds are still being discriminated against because of who they are. A place where economic worth is more important than any human right and the future of our own

existence on Earth.

Under such daunting circumstances, I dare to reflect and urge everyone who is reading my column to not only enjoy the apparent freedom we have in front of us, but also to ask yourself: what can I do to maintain this freedom for the time to come?

Every single person who is part of WUR has or will have the power of influence and leadership, which can and will set the course of our societies. Let us not forget: 'Hard times create strong men. Strong men create good times. Good times create weak men. And weak men create hard times', in the words of the American best-selling author and former marine G. Michael Hopf.

I think we ought to use any privilege we may have to always be strong humans.



**Willy Contreras-Avilés** (34) from Panama, is a second-year PhD candidate in the horticulture and biochemistry of medicinal cannabis. He likes to dance (*perreo*), cook Italian food and swim.



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## Colophon

*Resource* is the independent medium for students and staff at Wageningen University & Research. *Resource* reports and interprets the news and gives the context. New articles are posted daily on [resource-online.nl](https://resource-online.nl). The magazine is published once a month on a Thursday.

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**Design** Alfred Heikamp, Larissa Mulder

**Overall design** Marinka Reuten

**Cover illustration** Valerie Geelen

**Printing** Tuijtel, Werkendam

**Subscription** A subscription to the magazine for one academic year costs 59 euros (135 euros if abroad). Cancellations before 1 August.

**ISSN** 1874-3625

**Publisher** Corporate Communications & Marketing,  
Wageningen University & Research





Predator expert Kitty Swift is not so easily cowed: 'I'm as stubborn as a mule.' ♦ Photo Shutterstock



## SOMETHING FISHY ABOUT BIOBLITZ

A Dutch decision to include *animalus lingus* — animals hiding in words like ‘scapegoat’— in the BioBlitz is bugging internationals. While the Dutch are having a whale of a time, internationals find the decision hard to swallow. Their grouse is that *animalus lingus* is endemic in Dutch but rare in English, making it a catastrophe for internationals who want to be top dog in the BioBlitz.

The inclusion of *animalus lingus* in this year's BioBlitz was an initiative of Dutch zoologist Dik Schaap, but international Biology student Robin Lamb finds it hard to bear. ‘It's a mite fishy. My mates and I were beavering away ferreting out critters and cataloguing them. I was feeling bullish about our score, but now the whole thing has gone to the dogs. Our Dutch friends are swanning around and hogging the limelight with dozens of examples of *animalus lingus*, whereas our sole catch so far is “zebra crossing”.

Jay Finch agrees. ‘I decided to chicken out and made a beeline for the snack bar instead. Did you know “tent herring”, “pinch cat” and “meeting tiger” are words in Dutch? I kid you not. How can we compete? I feel as sick as a parrot. Although that could also be the five hot dogs I just wolfed down.’

Predator expert Kitty Swift (Instagram name @foxylady) is not so easily cowed. ‘I'm as stubborn as a mule. It was

**‘I feel sick as a parrot.  
Although that could be the  
hot dogs I wolfed down’**

a shrewd move by Schaap, but I won't be hounded out of the competition so easily. Others

are carping about the decision, but not me. I prefer to ape the Dutch. I secretly worm my way into their groups, quiet as a mouse, and as they rabbit on about their *animalus lingus* examples, I steal their words. You could say I'm a cheetah, ha-ha.’

When asked about internationals' complaints that his decision gives the Dutch an unfair advantage, Schaap looks sheepish at first. ‘I must admit I didn't think of that’. But then he adds, ‘We're not dogmatic. If internationals are floundering, we'll accept variant spellings — as long as the word isn't irrelephant.’