

Resource

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The journalism platform for all at Wageningen University & Research

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in Wageningen

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debunk
misinterpretations

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'Bigger each year'

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FOREWORD

Soup and strong leaders

Once again, WUR is presenting itself as an institution ready to take a firm stand: in a report published last week, *WUR Outlook on Agriculture, Food and Nature*, WUR advocates an integrated approach to agriculture, food and nature. 'This muddling along has got to stop,' said Board President Sjoukje Heimovaara in a TV interview, and 'Dutch agriculture needs brave leaders with a vision'.

Last week also saw the publication of an overview of Dutch universities' most expensive caterers. WUR hadn't been included so we did our own research. It turns out you have to dig deep for a bowl of soup on campus: Wageningen has the most expensive broths in the Netherlands (page 5). Not only that, a hot meal in Orion has also become a lot more expensive, rising from 4.55 euros to over 7 euros. You might wonder whether the tendering procedure took students into account. Fortunately, plenty of thought has gone into the catering concepts and slogans such as *Crust*, *Life is what you bake of it* and *Dolce far niente*.

We just need to wait for strong leaders who can do something about those slogans and prices. But I fear there won't be much more on offer, literally or metaphorically, after what was undoubtedly a lengthy tendering procedure.

Willem Andréé
Editor-in-chief





ANIMAL DILEMMAS IN PHOTOS

The exhibition area next to Impulse has a new photo exhibition. It centres on animals and their role in society, WUR's research in this field and the associated dilemmas. According to the accompanying information, the aim of the photos is to make you think. They are the prelude to a Let's Explore dialogue series, scheduled for January 2024, on the topic of the role of animals. In this photo, researchers use a device developed for the Biodiversity Sensing Box (was Fish Sensing Box) project that can take samples underwater independently for DNA analysis and perform observations with a camera and hydrophone. [ME](#)

Photo Resource

Francerious Request keeps growing

Members of student society KSV Franciscus will once again be broadcasting non-stop radio for charity in December. 'It gets bigger every year.'

Like the Dutch national radio campaign Serious Request, for a couple of years the Franciscans have had a radio marathon to raise money for charity. This year's charity is the Van Wal Naar Schip foundation, which helps children in low-income families in Wageningen with gifts and other things at key moments in the year. Inge Verhoeven (21), Animal Sciences Bachelor's student and one of the organizers of Francerious Request 2023, explains: 'We will be broadcasting radio programmes for three days straight and organizing activities to raise as much money as possible. Last year, for instance, a group of first-year members collected beer crates and donated the

deposit money. This year, a year club wants to do a 350 to 400 kilometre skelter trip along the Rhine and raise money that way. But it could also be smaller scale activities such as selling Christmas baubles or arranging bingo for local seniors.'

Gifts

This year the student society wants to do something for children. Verhoeven: 'The Van Wal Naar Schip foundation helps low-income families get gifts for children on their birthday or for Saint Nicholas and Christmas. That doesn't sound like much but it means these children can have a more carefree childhood and reduces the gap between them and children from wealthier families.'

The first Francerious Request was organized in 2020, in the middle of the pandemic. It has now become an annually recurring tradition. 'It gets bigger every



In 2022, KSV Franciscus sold Christmas baubles for charity. • Photo Francerious Request

year,' says Verhoeven. 'The charity last year was Manege Zonder Dremfels.' They raised over 2500 euros that time. LZ

Emergency solution for homeless exchange students – again

For the second year running, dozens of exchange students who were still looking for a room at the start of the academic year got help at the last minute. In mid-August, it turned out some 70 of the 180 European exchange students still had no accommodation.

Thanks to efforts by the university, most of them now have a room in the Haarweg 333 complex or are sharing a room in Dijkgraaf. But some may have had to cancel their exchange, says Eric de Munck, WUR's Exchange Team coordinator. 'It has always been the case that European exchange students coming to Wageningen have to arrange their own accommodation,' says De Munck. 'The idea was this would automatically work out OK because every year about 1000 WUR students go abroad for an exchange or internship and about 400 exchange students come to Wageningen.' But then last year, there were still around 100 exchange students without a room just before the start of the academic year. Back then, it was possible to house most of these exchange students through emergency measures such as sharing a room. This year too, a solution has been found for most of

them. 'This year we were fortunate in being able to use the container units on Haarweg,' says De Munck. 'They can be rented out for one year max, because the contract ends then. And we were able to offer the 15 rooms for sharing in Dijkgraaf again. That leaves about 10 students. Some have found a solution themselves but I suspect two or three students have given up and returned home.'

There are currently four students still on the waiting list for a room. De Munck: 'You could say the net result is not that bad, but it is very stressful for the incoming exchange students. We need a new policy – although that won't be easy given the current student housing market.' LZ

See page 22 for the story of exchange students and room sharers Simone Tedoldi and Marika Moreschi from Italy.

3.10

Wageningen is the university with the most expensive soup for sale on campus.

Depending on the canteen, you pay between 1.95 and 3.10 euros. Radboud University (Nijmegen) is the only other place where you pay 1.95 euros for a bowl of soup. Soup often costs only half what it does here, shows a comparison of Dutch uni canteen prices by *UKrant*, the Groningen *Resource*. RK

Student loan rate increases

The interest rate on student loans will increase by a factor of five, financial newspaper *Financieele Dagblad* has calculated, from 0.46 per cent to about 2.55 per cent. That would mean annual interest repayments of 517 euros on a loan of 20,300 euros. The Dutch Cabinet will publish its own calculations this autumn. The rate is linked to the rate on Dutch government bonds. For years that rate has been negative, but it has climbed steeply since mid-2021. The new interest rate will not apply to everyone immediately. The Education Executive Agency DUO fixes the rate for five years so graduates making repayments know what to expect. The Dutch National Students' Association and National Students' Union say this is the umpteenth financial blow for students. They are calling for interest rates to be capped. Various election manifestos contain that idea too. HOP

Green prison workshops high entry in Sustainability 100

Plantje Voor Morgen ('plant for tomorrow'), the foundation WUR student Wiep Fokker chairs, has come 14th in the Sustainability 100, an annual ranking of sustainable civil society initiatives compiled by Dutch newspaper *Trouw*.

'I put us in for the Sustainability 100 hoping for a bit more publicity for our initiative,' says Wiep Fokker, Communication & Life Sciences Bachelor's student and one of the founders of Plantje voor Morgen. 'We never expected to come 14th.' Plantje voor Morgen was set up by four young women who know one another through the National Youth Council. 'We were wondering whether prisons have plants,' says Fokker. 'We wanted to do something about sustainability in a sector where that wasn't really happening at all.' After talking to people in the prison sector,

they discovered there were no plants because of the security rules. 'Pottery shards are sharp and therefore potentially dangerous, and you could hide drugs in the soil.'

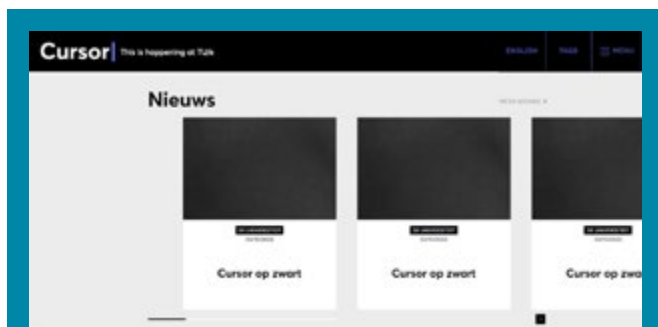
Learning gardening

'We then continued our search for how you *could* do something with sustainability in prisons. In partnership with a prison in Zwolle, we developed and tested an educational programme.' Plantje voor Morgen provides workshops on gardening and cooking sustainably. 'In these workshops, we try to teach prisoners something about sustainability in a very accessible way. When they return to society, we want them not just to be able to look after themselves, but also to look after the world around them.' Plantje voor Morgen has now grown to a team of eight young people, five of whom



Elaine van Helvoort, Wiep Fokker and Nynke Groenendijk of Plantje Voor Morgen in the vegetable garden of Zwolle Prison • Poto PI Zwolle

are current or former WUR students. The organization eventually plans to help prisoners find jobs in a sustainability sector, but in the coming years it will focus on the workshops and extending them to other prisons. DV



Eindhoven university magazine censored

Independent, critical journalism is under pressure at universities, as became clear last week when *Cursor* (Eindhoven University's equivalent of *Resource*) wanted to publish an article about the new rector and alleged conflicts of interest. The article was not published and the editor-in-chief was suspended. In protest, the editors blacked out the website. After an article about the incident in *de Volkskrant* newspaper, organizations including WOinActie and the Dutch Union of Journalists expressed their support for the editors. Political parties GroenLinks and SP submitted questions in Parliament to show their concerns about independent journalism in higher education. wa

Not much eureka in Wageningen

The theme for this year's History Month is Eureka. De Casteelse Poort Museum in Wageningen decided to use the occasion to highlight discoveries in agricultural science. Thirteen panels sketch a picture of developments in agriculture and WUR's role in these developments.

But anyone looking for WUR eureka moments will be disappointed. 'It's a tricky concept,' says Jan Schakel, one of the four people who put the exhibition together. 'My conclusion is that it's not the way to get a picture of the history of science. Science is not about sudden realizations; it's about a long process of developing and refuting ideas.'

Of course the exhibition covers the usual suspects. Such as Kees de Wit, the founding father of high-productivity agriculture. Or Luitje Broekema, who developed successful new wheat varieties at the start of the 20th century. More recently, there was Marcel Dicke, who discovered that plants use chemical compounds to attract the enemies of pests.

'Agricultural science is a practical science,' says Schakel, 'in which small improvements can have a huge impact. For example, minor innovations that mean farmers can reduce their use of pesticides.' ^{RK}

Eureka! is on show until 5 November.

Kickstart Social Fund open all year

Now students can apply to this fund for financing social activities any time of the year, rather than during fixed periods.

The Kickstart Social Fund is for students who want to organize social events that are open to all students. In the past, the Fund has provided money

'It doesn't matter whether you are an individual, group of friends or society: organize something and don't hesitate to ask for funding'

for activities such as film evenings, festivals, pot lucks and workshops. Students can apply for amounts from

100 to 1500 euros for their event. Previously, the Fund had certain periods during the year when students could apply for financial support, says Mathias Genon (20), a student assistant at the Student Service Centre. 'We changed the policy this year and now the Fund is open all year round. That seems to be working, because we've had at least one application per week so far.'

Loan-system money

The budget for the Kickstart Social Fund was part of the quality agreements made with students, staff and the consultative bodies, which determined how WUR should use the money freed up by the introduction of the loan system for students. Activities need to meet certain criteria to be

eligible for funding, explains Genon. 'Firstly, the event must be open to all students rather than a specific group. Secondly, you must apply for the funding at least five weeks before the event. Thirdly, the money will be paid after the event has taken place.' Genon hopes Wageningen students will use this facility to organize social activities throughout the year. 'It doesn't matter whether you are an individual, a group of friends or a society: just organize something and don't hesitate to ask for financial help.' LZ

Apply here: QR code:



Pictogram to alert kids to influencing

It is often hard, especially for children, to tell the difference between commercial and non-commercial content in online videos. Sophie Boerman (associate professor of Persuasive Communications) and fellow communication scientists Eva van Reijmersdal (University of Amsterdam) and Esther Rozendaal (Erasmus) investigated whether a viewing-guide-style pictogram could be a solution.

When influencers start promoting something in return for a reward — whether money, free products or some other compensation — you basically have an advertisement. The Advertising Code Foundation says influencers need to state this explicitly. But at present, influencers are free to choose how they do so. A tiny hashtag (#ad) is sufficient. But as Boerman discovered in a previous eye-tracking study on Instagram, almost no one sees it.

Missed

The communication scientists wondered whether a viewing-guide-style pictogram could help 8 to 18 year olds spot influencer marketing in online videos. They assessed which pictograms are associated with 'signs of advertising', developed three new pictograms in a co-creation project with children and tested them in a survey among over 250 children. They then tested the effectiveness in an online experiment in which nearly 700 children got to see YouTube videos with popular influencers that had the new warning pictograms. The participants turned out to recognize the value of such pictograms. They also had clear preferences for suitable variants. However, Boerman didn't find much of an effect on the children's 'advertising wisdom'. 'Firstly, they often missed the pictograms in the videos.



YouTuber Kalvijn was open about this #collab with Pringles, but that doesn't apply to all influencers by a long way • Photo still from @Kalvijn

Secondly, there was a kind of ceiling effect: lots of children already realized the video clips contained advertising, or they were triggered to realize that because they were getting questions about it. As a result, we found the pictogram only had a limited effect: even without it, the children knew they were watching an advert.'

So Boerman carried out additional research. 'We thought: what if we show an information video explaining what the pictogram means? If the children saw the symbol soon afterwards in an influencer clip, would they notice it then? No, they wouldn't,' says Boerman with a laugh. 'The information video increased their understanding of what the pictogram meant, but they still mostly missed the pictogram in the influencer video.'

Sophisticated

The findings don't necessarily mean we need to despair, says Boerman. 'Habituation probably plays a big role. I can well imagine children noticing the pictogram once it has become a fixture, like the way you recognize at a glance the viewing guide icon for 'all

ages'. At any rate, my children aged five and seven are well aware it means

'Even I don't always know what it is I'm watching, after researching this for years. Is it advertising or not?'

anyone can watch the film or TV programme.' Boerman's findings don't mean the Advertising Code rules need to be abolished

either, she says. 'Transparency needs to remain the basis. Influencer marketing is a large grey area. Even I don't always know what it is I'm watching, although I've been researching this for years. Is it advertising or not? The influencer market is becoming increasingly professional and sophisticated. That is why transparency is so important: you need to be sure whether something is advertising or not.' ME

A botched experiment, a rejected article: in the sciences these things are soon labelled failures. As for talking about them — not the done thing. But that's just what WUR scientists do in this column. Because failure has its uses. This time, we hear from **Ingrid Luijkx, associate professor of Meteorology and Air Quality.**

Text Nicole van 't Wout Hofland • Illustration Stijn Schreven

'Day in, day out, we emit carbon dioxide by burning fossil fuels, and the oceans absorb some of it. Exactly how much they absorb was what I researched for my PhD, using apparatus of my own design that took air samples and measured the carbon dioxide and oxygen concentrations in them. I installed the apparatus on a remote oil rig 200 kilometres north of Den Helder, so that emissions from urban areas didn't affect the measurements. 'Instead of the planned one

'Instead of the planned year, it took me three years to get the measuring apparatus operational'

year, it took me three years to get the measuring apparatus operational. There was a series of technical hitches: one time the pump didn't take in any air, and another time the system leaked. I couldn't just fly up and down to the oil rig; I was dependent on there being an empty seat on scheduled helicopter flights. That was frustrating enough in itself, but it also caused a much bigger problem later in the research process. 'Due to the delay, I could only start writing up my results after three years. And the

writing process plays a very big role in the learning experience. Because science isn't just a matter of carrying out experiments and cobbling together measuring instruments, but also of data interpretation, literature studies and publicizing the results. When you write for publication, you delve deep into the literature to position your work in relation to previous research. You learn an awful lot from that and at the same time, it deepens your connection with your subject. Because I planned my writing for my final year, I benefitted a lot less from that. 'Nowadays I make sure that the students I supervise start writing early on. That gives them a more profound understanding of the subject than I ever had. What is more, it greatly reduces stress levels in the final year. Ironically enough, I now have enough data for a publication, but I can't find the time to write it.'



Crops thrive on solar farms

Solar farms and agriculture can go together well on the same plot of land. That is the message of a position paper published by WUR and Renergize Consultancy last week.

In fact, yields from 'agri-PV' (PV = photovoltaics, the industry term for solar cells) are higher in theory than when separate plots are used for crop cultivation and energy generation. Efficient use of space is a hot topic in the energy transition. That is why Dutch government policy is to no longer allow mono-functional solar farms, even if that restriction is not yet being applied rigorously in practice. Agriculture is one of the functions suited to a combination with the large-scale production of solar energy. However, saving space does not necessarily mean an attractive business case, stress the researchers.

More expensive

They see a future for agricultural solar farms, but note potential problems too. To maximize yields, the solar panels may need to be adapted to suit the crop cultivation, for example by becoming more translucent. Cultivation practices may need to change too. The researchers expect to be able to develop this knowledge in the years to come. They also advise changing the grant rules for electricity production: an agri-PV setup is more expensive than a standard solar farm and the extra costs need to be recouped somehow. In addition, they point to the legal context. As a prerequisite for the large-scale roll-out, the law needs to specify which guidelines a solar farm should comply with in order to serve as an agricultural solar farm. Furthermore, they emphasize that all the current rights and duties associated with farmland should remain in force, for example the Common Agricultural Policy (CAP) and manure rights.

The position paper *Producing Food and Electricity in the Same Square Metre* is part of the Sunbiose project funded by the Ministry of Economic Affairs and Climate Policy. ME

Wageningen nitrogen experts debunk false interpretations

In *NatureToday*, Wim de Vries and Gerard Ros (both at WUR Environmental Systems Analysis) put the nitrogen analysis by the University of Amsterdam and Mesdag Fund into perspective. They were irritated by the misinterpretations. They emphasize the results do not mean nitrogen deposition has been overestimated, as some people claim.

In mid-September, a report was published by the University of Amsterdam (UVA) on the spread of nitrogen from dairy farms. To investigate this, measurements were carried out at two farms. The researchers found most of the nitrogen (90 per cent) disappeared into 'the blanket' while the remaining 10 per cent is deposited very locally, less than 100 metres from the farm.

The Mesdag Dairy Fund, which commissioned the research, issued a press release about the report, saying 'this means the current policy targeting the farms that are major sources will not be effective' — which was not a conclusion drawn by the UVA researchers. *De Telegraaf* newspaper ran the headline 'New study shoots holes in nitrogen policy' while farming magazine *Vee en Gewas* went with 'Huge overestimation of nitrogen deposition'. The UVA researchers are not happy about this, according to university magazine *Folia*. 'Our study doesn't shoot holes in the policy at all; at most it causes minor ripples in the water,' they say in the magazine. Wageningen nitrogen experts Wim de Vries and Gerard Ros

(Environmental Systems Analysis chair group) are also irritated by the false interpretation. Last week, they explained in detail in an article in *NatureToday* and on wur.nl what they think the Amsterdam measurements do mean and what the relevance is for the current policy focusing on major sources. They stress the results of the UVA study do not mean the nitrogen deposition has been overestimated; the measured spread of nitrogen is in line with calculations by the National Institute for Public Health and the Environment (RIVM).

Easy to explain

In the article, they also delve deeper into the situation on Schiermonnikoog, which is often cited in attempts to cast doubt on the effect of reducing livestock numbers. While farmers on the island had reduced livestock numbers by almost 40 per cent, higher ammonia concentrations were measured in some places last year. 'That sounds contradictory, but is easy to explain,' say the Wageningen experts. Incidentally, they believe the Netherlands should take emissions rather than

deposition as the basis for its policy. Together with Martin van Ittersum (Plant Production Systems) and Roel Jongeneel (Wageningen Economic Research), they developed a proposal for an alternative approach. They advocate converting the nationwide environmental goals for

The spread of nitrogen measured by the UVA researchers is in line with the RIVM calculations

agriculture (not just nitrogen but also methane and CO₂ for example) into specific targets per farm, with an emissions ceiling that is reduced annually. 'That will definitely spur Dutch agriculture to take action,' they said in a previous interview with Resource. The UVA study was prompted by farmers' doubts about the reliability of the RIVM calculations of nitrogen deposition, which are based on models. The Mesdag Fund therefore asked UVA to perform 'actual' measurements. The measurements show slightly higher nitrogen deposition at a short distance from the dairy farm than the numbers from the model calculations. ME



According to the Amsterdam University report, the spread of nitrogen measured around two dairy farms (not the farm in the photo) is in line with RIVM calculations • Photo Resource

PhD theses **in a nutshell**

Insect feed

Insects are increasingly being used as a source of protein in livestock fodder. Is the farming of these insects negatively affected by residues of insecticides in their feed? Yes, concludes Nathan Meijer. But it depends which insecticide is used. He studied this in the case of the black soldier fly and the litter beetle. Spinosad reduces the growth and survival rate of both insects. The notorious bee poison imidacloprid has varied effects: in low doses it actually stimulates the growth of the black soldier fly.

*Effects of dietary exposure to insecticide residues on *Hermetia illucens* and *Alphitobius diaperinus* reared for food and feed.*

Nathan P. Meijer ◀ Supervisors **Joop van Loon** and **Ine van der Fels-Klerx**

Chew properly?

Chewing has a big impact on how we digest our food. And one of the factors affecting chewing behaviour is the structure of the food. We chew differently on nuts than on carrots. And that also depends on the other ingredients in the meal. Just try and figure all that out. Yao Chen, from China, made a valiant effort. She got test subjects to chew on foods including chicken and vegetarian chicken. What did she discover? We chew on them at the same rate: about 1.4 times per second, but for very varying lengths of time: from seven to 40 seconds. The longer you chew, the better you digest the protein. But there's more to it than that. A test using brown rice and chickpeas showed that chewing for longer improved the digestion of starch but doesn't affect the blood sugar.

From ingestion to digestion.

Yao Chen ◀ Supervisor **Markus Stieger**

Success without sex

Arbusculaire mycorrhiza live in symbiosis with plant roots. The fungi reproduce via spores, but there is probably a hitherto hidden sex life going on among them. Jelle van Creijg had demonstrated this in his study of the genome of the model fungus *Rhizofagus irregularis*. But the organism gets on fine without sex too. The single-cell fungus has a large number of two different types of cell nucleus, with different DNA. The fungus adapts to its host (Van Cleij used chives, Medicago, tobacco and tomato plants in his experiments) by expressing the genes of both nuclei to different extents. A smart trick for responding to its environment adequately without sex.

Dynamic genome organization in an arbuscular mycorrhizal fungus.

Jelle van Creijg ◀ Supervisor **Ton Bisseling**

THE PROPOSITION

PhD candidates explain their most thought-provoking proposition. This time it's Barbara Vital, who received her PhD on 11 September. Her research was on fouling and process design in reverse electro dialysis in natural waters.



'The behaviour of an individual serves as a model for the rest of the society'

'With a background in environmental engineering, I am deeply concerned about the environmental impact of the waste generated by our consumption patterns. Two years ago, I started making my own laundry detergent. All you need is a bar of natural soap, alcohol and baking soda. It works just as well as shop-bought products, and the added benefit is that there is no packaging waste and no toxic ingredients polluting our water. Initially, my friends and flatmates scorned my DIY approach, thinking it was a waste of time and not significantly cheaper. But as they watched me make and use the products, some of them became

interested and eventually tried it themselves. I have now shared my laundry detergent recipe with several friends and they all love it! I realize that my individual efforts may not have a significant impact on the environment, but what's important is that my actions can inspire others, and that together, our efforts can move society towards more environmentally responsible behaviour. So my advice is, if you believe that doing something is good for the environment, don't let others discourage you. In the end, your behaviour could serve as a model for society, creating a wave of positive change that we all need.'

My cup of joy

From 1 January 2024, disposable cups are no longer allowed at the office. In anticipation of that, there are now white china cups by our coffee machines. A good development. The only thing is, we foresee problems in Leeuwenborch because there are 'no washing-up facilities yet'. And never to wash up your coffee mug — like a now retired colleague, whose mug had a brown patina on the inside — is going a bit far for some of us.

'I try to figure out how much sentimental value I attach to my coffee mug'

system is being set up with the caterer for washing up the cups every weekday.' There are two trays on every floor now, one for clean cups and one for used ones, which will be washed up in the kitchen every day. You're allowed to put your own mug on that tray, but there is a risk of it getting lost or broken. 'So it's important not to send any cups of sentimental value.'

Luckily, people are keen to come up with solutions. We got an email saying that a



Sjoukje Osinga

I try to decide out how much sentimental value I attach to my coffee mug. Not much, to be honest. Certainly a lot less than I do to my daily soup bowl. Until recently we had standard soup bowls in the canteen, which held at least two ladles of soup. That soup always tasted delicious.

But with all those extra cups to wash, the new caterer has done away with the familiar soup bowls and we now get our soup in shallow dishes that hold only one ladle of soup. Three sips and it's gone, just when you're starting to enjoy it. Of course, you could take two dishes of soup, but that will give the caterer even more washing up. What's more, they've also raised the price by 50 per cent. For that price you're better off going to a restaurant where they bring your soup on the tray and ask you if everything's alright. I study my coffee mug again. Nice and big, and it has a handle. Maybe I can make a deal with the caterer. If I can have my soup in my mug, I'll wash it up myself.

Sjoukje Osinga (56) is an assistant professor of Information Technology. She sings alto in the Wageningen choir Musica Vocale, has three student sons and enjoys birdwatching with her husband in the Binnenveldse Hooilanden.

Cum laude makes a (cautious) comeback for PhDs

WITH DISTINCTION AND WITH BIAS

After a dip lasting a few decades, the number of PhD candidates being awarded their degrees cum laude is on the rise. Not for women and internationals, though.

Text Roelof Kleis • Illustration Valerie Geelen

WUR aims at excellence. But for several decades that has not been reflected in the number of PhD candidates completing their programmes *cum laude* — with distinction. This trend started around the turn of the 21st century, suggests research by *Resource*, when the number fell below the national ‘norm’ of five per cent. Over the past 20 years, it has hovered around two per cent, with a low point in 2014, when only two out of 287 PhD candidates graduated *cum laude*, which is 0.7 per cent.

That low point is a glaring contrast with the ‘glorious years’ of the Agricultural University, when it comes to *cum laudes*. In the University’s first 10 years from 1918, as many as 36 per cent of PhD candidates (18 out of 50) graduated *cum laude*. In the subsequent decades, that proportion rapidly fell to less than 10 per cent, dropping below the lower limit early this century — a development that coincided with a massive growth in PhD numbers in the last 30 years.

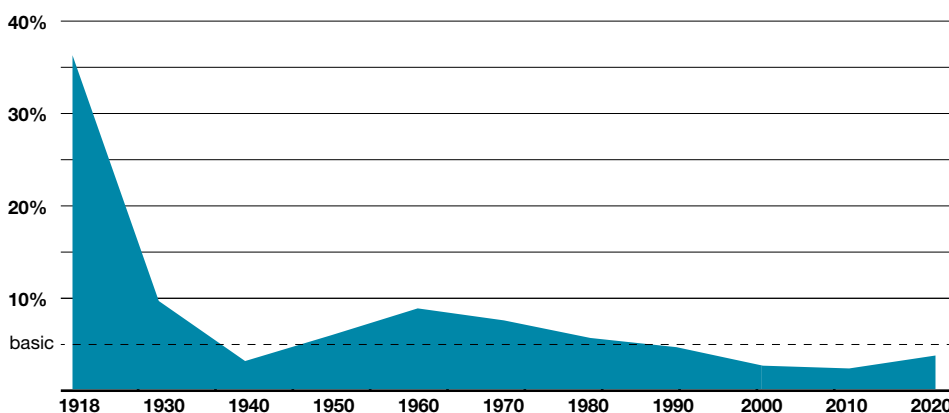
Supervisor

The meagre harvest of *cum laudes* has not escaped the attention of the Academic Board, says Dean of Research Wouter Hendriks. In an effort to turn the tide, the procedure for awarding

cum laude has been adjusted in several respects in recent years. One of the main changes is that the initiative for awarding *cum laude* no longer lies solely with the examining committee but also with the supervisor. ‘It used to be up to the four ‘opponents’ to say that the thesis was worth a *cum laude*,’ explains Hendriks. ‘The supervisor would then be asked if he or she supported that. Then two new opponents were asked to assess the thesis. That’s been changed and now the supervisor can take the initiative by submitting a letter to the opponents with the thesis, asking them to consider awarding *cum laude*.’

On top of this, the assessment by the four opponents has become less stringent. The bar for *cum laude* used to lie at a minimum of three ‘excellents’ and one ‘very good’. Now the lower limit for considering *cum laude* is two ‘very goods’ and two ‘excellents’ or one ‘good’ and three ‘excellents’. And the assessment has been made more objective by introducing rubrics — scoring tables. This new approach

Cum laudes through the years





Cum laude is unevenly awarded. Women and international PhD candidates don't come off well. And non-Western candidates score particularly poorly.

'IF YOUR GOAL IS EXCELLENCE, YOU'VE GOT TO ACKNOWLEDGE IT TOO'

appears to be working, judging by the number of *cum laudes* in the past 10 years, which has been going up since 2017 and is currently back up to four per cent.

It is only right that the initiative for a *cum laude* should lie with a PhD candidate's supervisor, says Professor John van der Oost. With eight *cum laudes* to his name, he is the undisputed king of *cum laude* at WUR. None of the professors has produced more *cum laude* graduates in the course of their careers than he has. 'An opponent doesn't usually know the

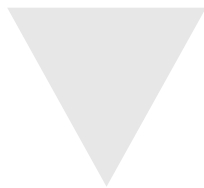
candidate very well. So they have to assess them on the basis of their thesis, which includes chapters that have been co-written with others. Once the work is published, it's been tinkered with a lot. It's good that you can now share your impression of the candidate with the opponents at an early stage in a half-page statement.'

Women

So the number of *cum laudes* is moving in the right direction. But there's another story that the statistics tell as well. And that is that *cum laude*

is unevenly awarded. Women and international PhD candidates don't come off well. Of all the women PhD candidates in recent decades, only 2.2 per cent passed *cum laude* — as opposed to 2.9 per cent of men. The bias is even bigger in the case of international PhDs: although 60 per cent of the candidates are international, they only receive 39 per cent of the *cum laudes*. Non-Western PhD candidates score particularly poorly. Not a single African graduated





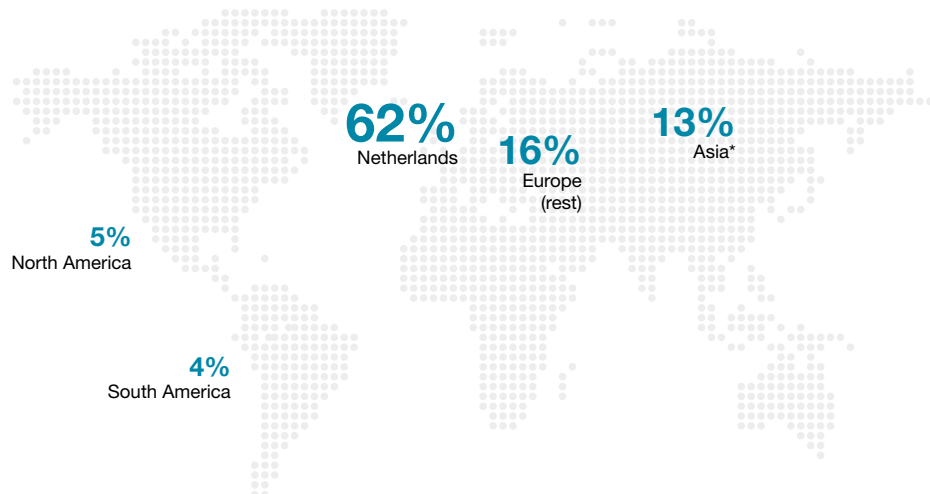
cum laude. The large contingent of Chinese PhD candidates netted two *cum laudes*. A big exception is India, with five *cum laudes*.

The gender bias has been noted at other universities too. But the WUR figures were new for Hendriks. But, striking as they are, on closer scrutiny he concludes that the difference is not statistically significant. It could be a matter of chance. The low score among international PhD candidates is definitely not coincidental, however. Hendriks thinks it's down to cultural differences. 'The admission requirements for our PhD programme are the same for everyone. But while a Dutch PhD candidate doesn't take long to adapt to the programme, a foreign candidate is faced with a whole new culture. So it may take them longer to integrate and get used to how the courses are run.'

Cultural differences

That cultural factor is the strongest for PhD candidates from South-East Asia. 'A supervisor is treated with great respect by someone from that region. In the Dutch culture it is normal to question and discuss things. That is

Cum laudes by region, 2013-2022

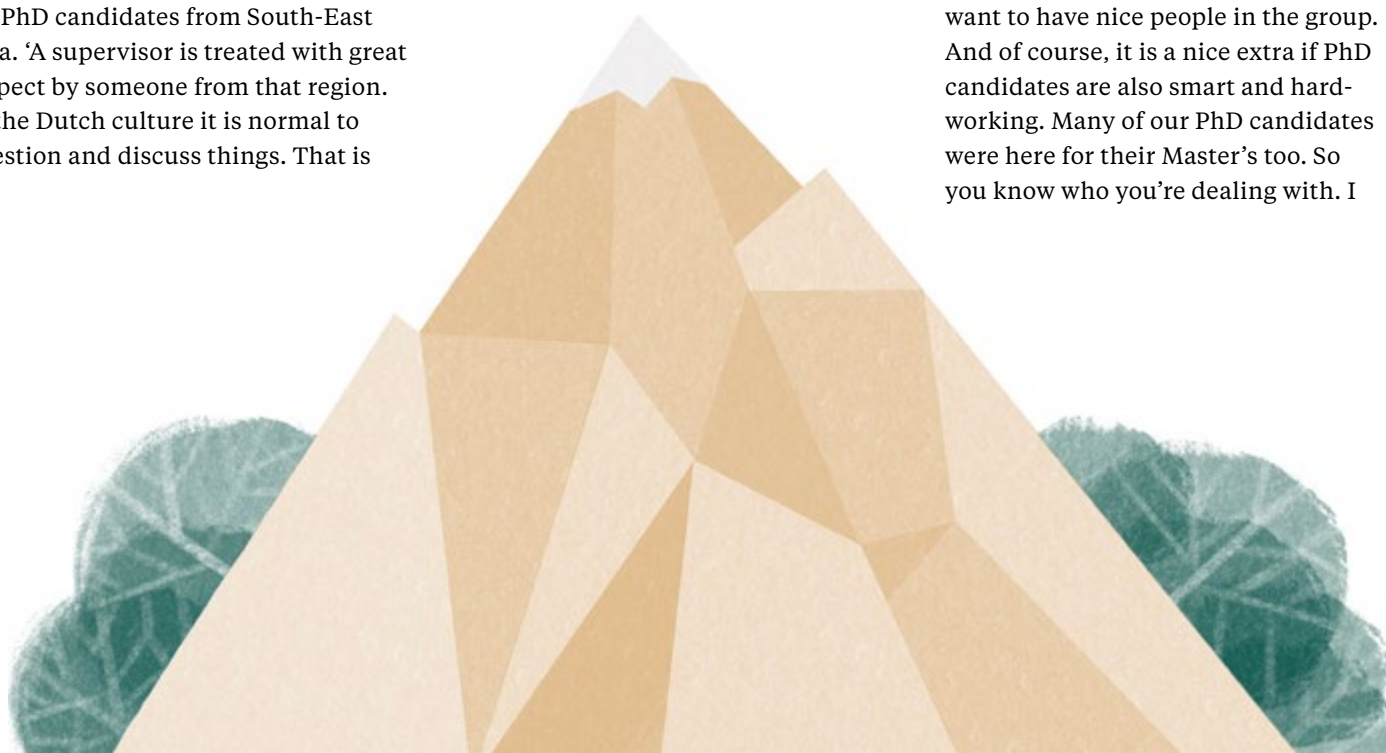


*with 5 for India, 2 for China, 1 for Indonesia and 1 for Iran

not a natural response for a South-East Asian. They are more inclined to do as their supervisor tells them.' Hendriks cannot say for sure whether that leads to poorer work, content-wise. 'It may be — but this is just a hypothesis — that they put less of themselves into their research, because of that cultural difference. Fewer of their own ideas.' Van der Oost confirms the importance

of initiative. 'During their PhD research, a candidate is supposed to develop into an independent researcher. The more maturity they show in the way they think up and run experiments, and analyse and write up their results, the higher they score. Taking initiatives and entering into collaborations are very important to that.'

Of Van der Oost's 54 PhD candidates, eight have passed *cum laude*. That is 15 per cent. How does he do it? 'A good atmosphere is important. I simply want to have nice people in the group. And of course, it is a nice extra if PhD candidates are also smart and hard-working. Many of our PhD candidates were here for their Master's too. So you know who you're dealing with. I



also give my students a lot of freedom. When PhD candidates come to me with a good plan that they really believe in, I let them implement it, even if I don't think it will succeed. That was how my own CRISPR research started back in the day, too. In 2005, I had just been given a large Research Council grant when we happened upon CRISPR. I put two people to work on that. I took that liberty and it worked out well.'

In fact, that new research field may go a long way to account for his *cum laude* success rate. 'CRISPR is hot. That makes it easier to get published in

journals with a high impact factor. And that goes down well with an examining committee.'

Hendriks points to the same advantage. 'Microbiology is all the rage at the moment. My chair group, Animal Nutrition, doesn't have many *cum laudes*. There's nothing wrong with our science, but we'll never get into *Nature* or *Science*. That's very difficult to do in our domain. Our scope is too broad for that. Anyway, it's harder for a small chair group to achieve the same level as a larger chair group can. That's because of the advantages of scale, which gives you more apparatus, greater mass and more collaboration.'

Excellence

In spite of his stunning score, some of the blame for the gender bias can be laid at Van der Oost's door. 'Of the

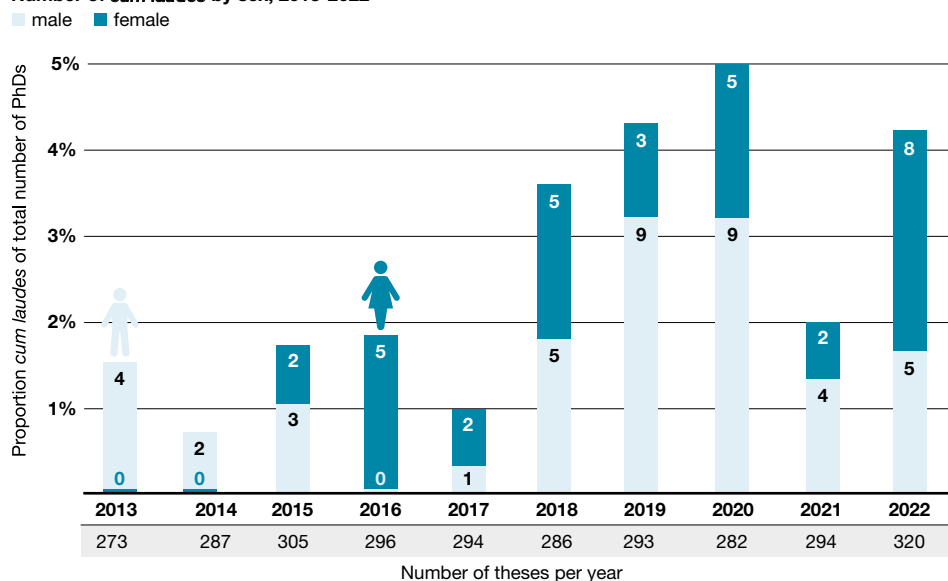
'THE M/F BIAS IS BIG BUT HAS NOTHING TO DO WITH GENDER-BASED SELECTION'

eight *cum laudes*, the first five were white Dutch men,' he admits. 'The last three were non-white foreigners, one of them a woman. The gender bias is certainly very big, but it has nothing to do with gender-based selection.

That's not how I work at all. It reflects the students who come here, and that has to do with the subject area. I have no influence on that. But it does seem to be going in the right direction: one quarter of the students in the group are women. And more than half the 12 post-docs we have appointed in the last three years are women.'

Could the inequality in the awarding of *cum laude* be a reason to scrap the system? Hendriks has no time for that idea. 'Basically, this is about whether you want to differentiate or not. If you only assess whether a thesis merits a PhD, the quality doesn't matter anymore. It makes no difference whether you get a six or an eight. If a six is enough, where's the incentive to do more? If your goal is excellence, you've got to acknowledge it too. Science isn't about "good enough", science is about delivering quality.' ■

Number of *cum laudes* by sex, 2013-2022



Cum laude, and then?

Cum laude looks good on your CV. But does it help you in your career? All eight researchers who got *cum laude* with John van der Oost have done well, anyway. The first, Thijs Ettema (2005) is chair-holding professor of Microbiology, so he's Van der Oost's current boss. Stan Brouns (2007) was recently appointed full professor at Delft. Matthijs Joore (2010) is an assistant professor at Nijmegen and has a Vidi grant in the bag. Edze Westra (2013) is a full professor at Exeter, with an ERC grant. Daan Swarts (2015) is an assistant professor in Biochemistry and recently got a Vidi. Prarthana Mohenraju (2019), the only woman in the group, is a postdoc in Leiden and has a Veni grant. Ioannis Mouggiakos (2019) left for Germany with a Rubicon grant, but is now a senior researcher with a company in Denmark. Mihris Naduthodi (2021) is working in New York, with a Rubicon grant. But graduating *cum laude* isn't everything. Van der Oost himself did not graduate *cum laude*, but he did win the Spinoza prize in 2018.





WORLD ROWING CHAMPIONSHIP

Rowers from student rowing club Argo competed in the World Rowing Coastal Championship last weekend in Barletta, Italy. Cox lede Adrichem steered the bright yellow boat past the buoys with (from the left) Thomas Janssen, Igor de Koning, Stan Jansen and Jorik van Veen rowing. Wageningen's 'Coastal Boys' came ninth in the preliminary rounds on Saturday morning, just enough to qualify for the final on Sunday. They were the last to cross the finishing line in that race.' DV

Read the story about their training on resource-online.nl

Photo Detlev Seyb

Veni winner Imre Kouw wants:

To cure patients with nutrition

In August, researcher Imre Kouw (37) secured a Veni grant from the Dutch Research Council (NWO) to do research on feeding strategies for intensive care patients. 'I want patients to leave the hospital in a better state and be able to play with the grandchildren again sooner.'

Text Dominique Vrouwenvelder

'I want to work with very ill patients and see what we can do for them with nutrition,' dietician Imre Kouw told her professor at her PhD graduation ceremony. She received an ESPEN fellowship, ended up in Australia, continued her career there on a Rubicon fellowship, and is now back in Wageningen with a Veni grant in the bag.

You have perseverance and luck on your side?

'As a scientist you can apply for the available grants and fellowships. Grants are often for a specific research project, whereas the ESPEN and Rubicon are personal fellowships. Fellowships help you steer your research career in a particular direction. The Rubicon enabled me to apply the knowledge I had gained during my PhD research in research among IC patients, a target group I didn't have much experience of.

And what you need when you apply for a grant is for all

the pieces of the puzzle to fall into place. Take the Veni, for instance. I gained experience abroad and I can use the techniques I learned there in follow-up research in the Netherlands. It's a combination of the right timing and the right place. But to be honest, you also have to write a lot of applications to get one of them honoured. 'You should also give careful thought to what is appropriate for which application and which funding body. At one point I got a grant from the Australian diabetes foundation, even though I wasn't doing research into diabetes patients directly. But intensive care patients have disturbed glucose levels and therefore a raised risk of getting diabetes after a stay in the ICU. So you have to "sell" that well in your application. You need that kind of tactical wording when you write about yourself and your qualities too. Sometimes I write mainly about problems in clinical practice, drawing on my background as a dietician. And in other applications, I focus more on physiology and the underlying mechanisms that I want to be able to apply in practice.'

Tell us the story from the beginning.

'In Maastricht I was an intern during my Master's and then a research assistant and a PhD student in Professor Luc van Loon's research group. They are one of the few

'I can't usually talk to the patients; they are connected to tubes or under sedation'

groups in the world working with intrinsically labelled milk proteins: cow's milk with proteins that are given a label so that researcher can use them in human trials. By taking blood and muscle samples from test subjects or patients at set times, we can measure how much milk protein is absorbed in the gut and built into muscle, and how fast.

'During my PhD research I told the professor, "I want to work with even sicker patients and see what we can do for them with nutrition". And just then, we were contacted by a researcher from Adelaide who wanted to do research among ICU patients using the labelled proteins method. I was interested in that target group and I had been in Australia during my Bachelor's degree. What is more, I had gained a lot of experience in Maastricht of using this research method with clinical patients. I was keen straightaway and the professor put me in touch with the Australian researchers. And off I went to Australia with 30 little pots of dried milk

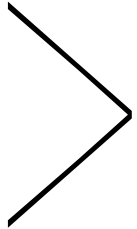
powder in my hand luggage. The professor wouldn't let me put it in my checked-in luggage as it was 50,000 euros' worth of research material.'

After your PhD you went to work as a postdoc at the Australian Catholic University in Melbourne. Then 18 months later the Covid pandemic started. How did that affect you?

'My boyfriend had moved to Australia with me. I was working as a postdoc in Melbourne and he was doing so in Adelaide. That doesn't sound far but it is about 800 kilometres away. For the first year and a half we lived apart and flew up and down to see each other regularly. I was keen to work with ICU patients, which wasn't possible in Melbourne. I still had contacts in Adelaide but I didn't have any funding to work there. Through



Photo Australian Catholic University



the Dutch Research Council I then applied for and got a Rubicon fellowship. And that's how it came about that I moved from Melbourne to Adelaide in the middle of the pandemic.

'Australia was in total lockdown at the time. We looked for housing online. There was a very strict lockdown in Melbourne: no one was allowed more than five kilometres from their home, whereas Adelaide wasn't as badly affected by Covid. On the day of the move, we drove 800 kilometres to Adelaide in Southern Australia with all our stuff. We arrived after dark at our house, which we had chosen via a video link. Because we had come from a different state, we then had to go into

quarantine for two weeks in that house, so we had no idea what kind of neighbourhood we were in. We camped in our new house for those two weeks. Every three days, the police came by to check whether you were at home.'

Why did you return to Wageningen?

'In Adelaide, I was researching the differences between continuous feeding and bolus feeding (feeding in portions, ed.) in ICU patients being tube-fed fluids. In most ICUs, patients are fed 24 hours a day, but that's not how people normally eat. We suspect that it is better for a number of metabolic processes to give the patients portions – boluses – at intervals throughout the day. But doctors are afraid that patients will have a bad reaction to that. They might suffer vomiting or reflux, for instance, increasing the risk of pneumonia; or a patient's blood sugar might go too high or too low. 'We loved living in Australia. But after we had a baby son, it started to bother us that we still couldn't see our families because of the pandemic. At that point, my Rubicon grant was coming to an end, so I started to look into the possibilities for finishing my research from the Netherlands. I still knew a few professors of Human Nutrition and Health from my time in Wageningen.

'In quarantine in Adelaide the police checked up on you every three days'



Imre Kouw with her son Mads (9 Months) and Bart in Australia (April 2022) • Photo Pippy Mount

Since May 2022 I've been working at WUR on research on the effect of the timing of feeding on the metabolism of ICU patients.'

It sounds as though you can settle somewhere new quite easily. Is that true?

'From the age of three, I lived for more than three years in West Africa with my parents and brother. My parents always used to take us on trips as children – we saw a lot of the world. When I told my parents that I wanted to do a Master's in Nutrition Sciences at the Karolinska Institute in Sweden, they were enthusiastic from the get-go. So I grew up being encouraged to discover the wider world.

'Maybe in terms of career, I wanted to do something a bit unusual. Everyone on my Bachelor's in Dietetics who wanted to do a Master's went to VU University Amsterdam or WUR. I wanted to do a Master's taught in English. I wanted to stand out, I think, and to be independent. It helped me get where I am now.

'Actually I would happily move back to Australia. We had a four-wheel drive there with a roof tent, and we regularly went camping in the wild, even with a three-month-old baby. You often don't have a phone signal there, so it's much easier to leave work behind and relax – wonderful. I enjoy living in a foreign country, discovering a new culture and meeting people. You take bits of their culture home with you. The Dutch love planning ahead, for instance, but it's no good coming to me anymore with a question like: can we make a date for a Sunday in six weeks' time at two pm?'

What do you hope to achieve with your research?

'I want to study how we can support patients better through the feeding method we use: both people who are admitted to hospital for a few days, and people who are seriously ill like ICU patients who are dependent on medical feeding. I want a patient to be discharged from hospital faster and in a better state, and for them to be capable of living independently at home, and to be able to work in the garden or play with the grandchildren again sooner.

'We're talking about my research and my ideas now, but I'm doing this in order to help patients make progress. Because if we demonstrate that bolus feeding is safe and has a positive impact on metabolic processes, why go on feeding patients continuously, day and night? Why don't we opt for meals spread over the day? Doctors, physiotherapists, dieticians and nurses think it's a very interesting study too. That is a big incentive for me to carry on with this research.'

Why are you keen to work with ICU patients?

'More than half the patients in the ICU are on oxygen or under sedation. Machines temporarily take over the functions or organs that are failing due to illness or trauma. Patients are connected to tubes. You can't usually talk to them, so as a researcher I mainly have contact with their immediate family. They are extraordinary conversations: I ask them to decide on their relative's behalf to participate in a study that doesn't directly support the healing process.

'In Adelaide I was working at a very big ICU with 60 beds. By way of comparison: the Gelderse Vallei hospital in Ede has 17 beds. In Australia, patients come to the ICU from thousands of kilometres away because there aren't extensive medical facilities where they live. They have often had bad accidents, have severe burns, are seriously ill or have been bitten by a shark.'

How does it affect you to work with such seriously ill people?

'There are so many extreme cases that you do learn to distance yourself a bit. You learn to cope with it. But the really bizarre and extraordinary stories stay with you. And I still remember the time when I came at eight in the morning to take blood from a patient I had been monitoring for my research for several days. When I entered the room, it was empty. Even the bed was gone. The patient had died that night. You need to take the time to process situations like that.' ■

'I went to Australia with 30 little pots of powder in my hand luggage'

'One morning on the ICU I found an empty room'

It's hard for exchange students to find a room themselves

From chancing it to sharing

European exchange students coming to Wageningen have always had to find their own rooms. That's been difficult the last couple of summers and the university and student housing provider Idealis resorted to the emergency measure of room-sharing.

Every year, WUR reserves 850 rooms for new international students with Idealis. But no rooms are reserved for European exchange students, who are expected to be able to find sublet rooms for themselves. You would think that would be easy enough, given that about 1000 WUR students go off on exchanges or internships every year, while about 400 exchange students come to Wageningen.

But in mid-August in the summer of 2022, there were suddenly 100 exchange students without a room. The same was true for 70 exchange students this summer. Through emergency measures such as room-sharing, WUR and Idealis managed to find most of them a roof over their heads, but the situation is far from ideal, says Eric de Munck, the coordinator of WUR's Exchange Team. 'WUR should help exchange students

more. I'm not saying we don't help – just look at how we manage to find a room for most of them in a crisis. But such last-minute operations cause the students a lot of stress. That's got to change.'

Skipped the AID

Exchange students Simone Tedoldi (23) and Marika Moreschi (24), from Italy, know all about it: 'I have searched on Room.nl, Kamernet and other student housing platforms since June, without success,' says Tedoldi. 'I expressed interest in a lot of rooms on Facebook too, but most houses are just looking for Dutch students. Often I wouldn't even get a reply.' Moreschi had the same experience. 'I was surprised that it was so difficult, because Wageningen University allowed 10 students from my university to come on exchange, while most other universities offer only two or three spots.' In the end, six students from her university came to Wageningen. 'But the only one who found a room was an Iranian student who got priority because of visa requirements.'

Because he still didn't have a room, Tedoldi skipped the AID week. 'That was sad because I really wanted to attend

it.' He even considered cancelling his exchange altogether. 'When the start of the academic year came closer, I was very stressed because I still didn't have a room. I thought: what if it doesn't happen? But I decided to keep on looking and on 31 August I chanced it and flew to the Netherlands. One day before my flight, Eric de Munck told me there was a room for me from 1 October. In September I stayed with a friend.'

Not ideal

A room was found for Moreschi at the last minute too. 'The Exchange Office emailed us to say there were some single and double rooms available. I signed up for a shared room with a friend. It was available from 1 September.' Happy as she is that her search is over, Moreschi feels the current situation is far from ideal. 'The room is clearly meant for one person, so it is quite small for the two of



Text Luuk Zegers

us. But that's fine because we are friends. The problem is that we are not the only people sharing a room on our corridor: there are 22 of us in a flat meant for maybe 18 people. The kitchen is much too small and we've got to buy an extra fridge. I don't want to complain: I'm happy to be here and I have great housemates. But it is an uncomfortable situation.'

Both of the Italians think that something's got to change. Moreschi: 'If you offer 10 places for exchange students, make sure there are enough rooms. Or limit the number of exchange places.' Tedoldi: 'I agree. If you don't have more rooms, be stricter about admissions.'

Subletting

Like De Munck, these students favour a new policy. But you need to figure

out what is going on first, says Ingrid Hijman, head of the Student Service Centre. 'Since the pandemic, it's been more difficult for exchange students to rent rooms. In the first year after Covid, there was a big general shortage of rooms and a lot of Dutch students started sub-renting rooms too. We thought that would be temporary, but it was difficult again last year. Maybe students prefer to sublet their rooms to a Dutch student or a friend. We're going to look into it.'

Whatever the reason, she doesn't see an immediate solution. 'Reserving rooms

is tricky because of the costs of empty rooms, which are higher in the case of exchange students than they are with regular international students, because not all students stay exactly six months, and more students arrive in September than in February. You could look for a room rental agency that focuses specifically on exchange students, perhaps charging a higher rent because of the costs of empty rooms. But the question is whether you will help exchange students that way.'

Admitting fewer exchange students is not an option either, says Hilman. 'Fewer incoming students means fewer outgoing students too, and we have more outgoing than incoming exchange students.'

'It seems more logical to make sure that exchange students can get sublets,' Hijmans concludes. 'Hopefully we can steer things in that direction a bit more.' ■

'There are 22 of us in a house meant for 18 people'



Monitoring fish on the Marker Mudflats

ON A DESERT ISLAND

Researching fish on a desert island – it sounds like a children’s adventure story, but what is it really like? *Resource* delved into the world of fish monitoring on the Marker Mudflats and spent 24 hours with researchers from Wageningen Marine Research.

In a green rubber wading suit, WMR researcher Joey Volwater strides into the water in the small marina on the Marker Mudflats. After about five metres, he stops, grins and declares the water temperature ‘piss-warm’. Very different to early April, when Volwater and Amsterdam University Master’s student Elizabeth Manoloulis stood on exactly the same spot, blue in the face from the cold. Back then it was five degrees at most, and there was a chilly northeast wind. Shivering at the memory, Manoloulis had described that experience on our boat ride from Lelystad.

Research projects

Volwater and Manoloulis have made the boat trip about 10 times this season, having visited the Marker Mudflats for a

24-hour period every three to four weeks since the beginning of April. They are documenting the numbers and sizes of the fish species living there between early April, the start of the spawning season, and late September — when the fish begin their winter resting period (although that seems to be shifting due to warm late summers). This work is part of KIMA II, the follow-up to the Marker Mudflats Knowledge and Innovation Programme (KIMA) in which organizations including the Directorate-General for Public Works, Deltares and Natuurmonumenten are monitoring the development of this brand-new island chain’s ecosystem. Wageningen Marine Research is taking care of the fish research, as the Marker Mudflats have the potential to provide important habitat types for a variety of freshwater fish species.

Today, fish are also being fished for other research: the annual IJsselmeer-Markeermeer shoreline fish count. With



Text & Photos Marieke Enter

the construction of the Marker Mudflats, these large bodies of water have gained almost 100 kilometres of shoreline, adding much more variety, which the IJsselmeer shoreline lacks. On the advice of Wageningen Marine Research, the Marker Mudflats are therefore now being included in that study by the ministry of Agriculture, Nature and Food Quality (LNV). And then there is a third study for which the Wageningers are documenting

Constructed nature

The Marker Mudflats consist of seven uninhabited islands about nine kilometres from Lelystad as the crow flies, created out of about 30 million cubic metres of sand, silt and clay pumped up from the bottom of the Markermeer lake. The Netherlands once planned to reclaim the entire area, as had been done with the Noordoostpolder and the Flevopolders. The lake was sealed off with a dyke in 1976, but the planned reclamation never came, and was officially scrapped by the Dutch government in 2002. In part because it lacked natural shoreline zones, gullies and shallows, the Markermeer gradually changed over the years into, frankly, a dead tank of water full of swirling silt. To restore the lake’s ecology, work started on the Marker Mudflats in 2016. So far it is a success: the silt is settling and flora and fauna are recovering. Together with the Markerwaard, Oostvaardersplassen, Lepelaarplassen and Trintelzand, the islets form the New Land National Park.





The mesh of the hatchery seine net is examined carefully to check for any small fish caught up in it. From the left: MT member Cas Wiebenga (on a work visit), Utrecht University student Emma Eggert and WMR shoreline researcher Olvin van Keeken.

fish stocks in and around the Marker Mudflats, explains project leader Joep de Leeuw. This is a project on fish as a food source for spoonbills, for the New Land National Park.

Hauling in the net

This last research day of the season still feels summery, with a temperature of around 21 degrees, abundant sunshine and a light breeze — hence the ‘piss-warm’ water. Volwater has waded in waist-deep to deal with the net researcher Olvin van Keeken is letting out from his rubber dinghy. It is a long hatchery seine net that hangs vertically in the water thanks to floats at the top and weights at the bottom. Carefully, Van Keeken spreads the seine in a semi-circle in the water, after which he and Volwater gently pull the ends towards each other. When the circle closes, the fish swimming on

the inside can only go one way: towards the bulge in the centre of the seine.

When the researchers haul in the seine, it catches all the fish like a sack.

The big question, of course, is which fish are in there. To find that out, the researchers carefully empty the seine into a large plastic container with plenty of water in it. At first the fish look like one floundering, silvery mass, but they soon calm down. Volwater wets his hands and expertly grabs the largest fish from the tank, which measures about 30 centimetres. He measures the bigger fish first, he explains, because they are relatively stress-sensitive. This one is a

bream. A surprise, says project leader De Leeuw. ‘We don’t often see them this big here at this time of year.’

Measuring tray

The researchers determine the exact size of the fish with a measuring instrument they made themselves: a tray with a ruler screwed onto it, with a smoothly sanded gap in the rim on both sides. A thin layer of water allows the fish to slip onto the tray without getting damaged. The measuring tray simplifies the careful measuring procedure: place the fish with

‘At this time of year we don’t often see bream this big here’



The measuring tray lets the fish be measured rapidly and then released into the water, minimizing damage.

its nose against the crossbar, hold it firmly so it doesn't wriggle away, and read out the size by its tail ('in whole centimetres and rounded down') for Manoloulis to note down. And then: whoosh, with a swift hand movement, the fish slides right back into the water through the gap in the tray's rim.

All the fish in the tray are identified in this way. Where the lay person just sees lots of tiddlers, the researchers can identify them at lightning speed - even if they are no more than a centimetre or two long.

'You see, this mouth is facing upwards. Then you know it's a bleak, a surface predator, and not a roach,' explains De Leeuw. He clarifies the identity of another tiny fish by offering it his fingertip. Snap! Obviously a predatory fish, a pikeperch to be precise.

When the bin is empty, the A4 sheet on Manoloulis' clipboard is full of ticks: a record of the fish species identified by Volwater and De Leeuw, and of their length in centimetres: 'Pikeperch nine. Blackmouth gudgeon four. Perch five.

'THE MARKER MUDFLATS HAVE GIVEN IJSSELMEER AND MARKEERMEER 100 KILOMETRES OF EXTRA SHORELINE'

Ruffle four. Carp six. Roach four. Chub four. Another roach four.' All offspring from this breeding season that are now big enough for a connoisseur to identify them. For the tiny larvae caught earlier in the season, this is done in the lab, under the microscope.

Motionless

At the next sampling location, the seine contains so many young fish that the researchers decide to work with a subsample: three quarters of the numerous small fish go straight back into the water, while a quarter of them are identified and measured. The numbers in Manoloulis' record are then quadrupled. This keeps the data reasonably reliable, while limiting the death rate among the vulnerable young fish: the shorter the time they spend in the catch basin, the better. Because fish sampling is not entirely casualty-free; sometimes a fish will float motionless on the surface of the water after leaving the measuring tray. Several more samples are taken that afternoon, using exactly the same procedure. If the seine does not unfold perfectly because a float is entangled in something, Van Keeken intervenes immediately: 'Stop again!' After all, for the catch results to be scientifically comparable, it is important to take the sample in the same way every time. 'In the riparian sampling project, Olvin (Van Keeken, ed.) is our scientific role model,'

says De Leeuw half-jokingly – and that’s certainly how it seems, with Van Keeken directing operations every time the seine net is hauled in.

Traps and wings

In the early evening, it is time to set the traps, in little waterways of different habitat types that connect the open water with the creeks deeper in the ‘interior’. This too is done with great precision: one trap for outgoing fish and one for incoming fish, right opposite each other, and the position of the ‘wings’ of the traps prevents fish from swimming past them. Dawn the next morning paints the sky and water of the Marker Mudflats bright orange. The first place where the traps are emptied is ‘flamingo’: the researchers named the trap locations after an exotic bird they saw there. In addition to the usual fish species, the traps also appear

to contain two spotted American crayfish and some sturdy-looking eels. The crayfish get parked in a cuvette for a while, so that Utrecht University student Eggert can have a good look at them. She is researching invasive exotic species. For the eels, the researchers produce a new homemade measuring instrument, the ‘eel flume’, which saves both humans and fish the awkwardness of attempts to get hold of such a slippery customer. The eel flume makes the measuring a lot more relaxed: add a layer of water, manoeuvre the flume under the eel in the trap, wait for the eel to stretch out, and then quickly read the size, dictate it to Manoloulis and let the eel slide back into the water.

Establishing reedbeds

At the next site, ‘bearded tit’, it’s obvious why the researchers gave the location this name. Dozens, perhaps hundreds of the little birds flutter around, over and in amongst the reeds. And their calls! ‘As though you were knocking two stones together,’ is how Volwater describes the sound. Besides the flock of bearded tits,

the researchers also found some nice new species in the traps: thinlip mullet, ide, rudd, and a young pike. The presence of the latter two fish in the catch tells us something about the establishment of the reed beds, Volwater explains. Reed growth on the Marker Mudflats is not yet optimal, partly due to grazing by geese and ‘unnatural’ water level management: the water is kept higher in summer and lower in winter. But the presence of young pike and rudd suggests that the reed beds are nevertheless gaining a function as spawning grounds for adult fish and as nurseries for the larvae and young of these typical reedbed inhabitants.

End-of-season fieldwork

The last trap is emptied at around 11 o’clock and all the fish caught are recorded. The traps and seine nets are hung out to dry at the boathouse, the dinghy’s plug is pulled out and all the materials from six months of fish monitoring are collected for carrying to the boat. When it leaves the harbour for Lelystad in the afternoon with all the research equipment and people on board, the 2023 Marker Mudflats fish monitoring season is over. The fieldwork, that is. Now for the data analysis: distilling trends, making connections and drawing conclusions. A sneak preview: 21 different fish species were found this season, including four newcomers: pike, Prussian carp, rudd and tench. ■

WUR students welcome

Wageningen Marine Research will continue to be actively involved in monitoring fish on the Marker Mudflats in the coming years; KIMA II is a multi-year project. WUR students who would like to help next season and perhaps study their ‘own’ topic can apply to Joey Volwater.

‘THE PRESENCE OF YOUNG PIKE AND RUDD SHOWS THE REED BEDS ARE GAINING A FUNCTION AS SPAWNING GROUNDS’



A cuvette is used to examine unusual catches more closely or to photograph them, as done here by project manager Joep de Leeuw.

student officer

WUR student Jonna Brantjes (24) started work on 1 September as Wageningen municipality's first student officer. 'Lots of policy issues affect students.'

Why does Wageningen need a student officer?

'The municipality doesn't particularly want to take a target group approach, but students are quite a special group. Students make up over a quarter of Wageningen's population and a lot of policy issues affect this group. That's why it seemed a good idea to the municipality to appoint someone who can pick up signals among students and alert the municipality. Some other cities already have a student officer so I think that's where Wageningen municipality got the idea.'

How did you get appointed student officer?

'I saw the vacancy last year and thought: that's something I could do. I was previously study commissioner for the Food Sciences study association Nicolas Appert, which meant acting as the link between the students and lecturers. This is similar, only now I'm the link between students and the municipality. I applied, and after a round of speed dates and an interview, I got offered the job. It's for eight hours a week, so I can't take on any really big projects. Anyway, I'm doing this alongside my thesis.'

Do you have your own desk in the Town Hall?

'Oh, no! Almost nobody does as they have hot-desking, but it's also because the job is very flexible and you

'I hope to cultivate students' connection with the rest of Wageningen'

can decide yourself how to spend your hours.

At the moment I'm still in the induction stage and getting to know my fellow workers at the municipality. I also sit in on

meetings with the university and Idealis, I attend talks and I maintain contacts with societies.'

Are there student issues you already plan bringing up with the municipality?

'I'm currently looking at the possible closure of the bars in the student flats. Students are worried about this. Annie's is due to close soon, but students are afraid Woeste Hoeve and the Bunker will be next. The flat bars are owned by Idealis but are also used by students who don't live in that block of flats. In the planned refurbishment of the flats, Idealis wants to make those areas better suited to the need of the flat occupants. Which is understandable but the bars serve an important wider



Jonna Brantjes in front of Wageningen Town Hall • Photo Sterre-Lotte Lemereis/Larissa Mulder

social function in Wageningen, for example for small societies that don't have their own premises.

In the end, everyone — the municipality, Idealis and the university — benefits when students have a place in which to organize activities. I think they therefore also have a shared responsibility to ensure such spaces are available. I want to see what the municipality can do in that regard. In an issue like this, I also ask student officers in other cities for advice.'

What do you hope to achieve this year?

'I hope to cultivate students' connection with the rest of Wageningen. Apart from that, it's all very well having ambitious aims but the main thing is to make sure people know this new position exists and they know how to find me if there is anything.' LZ

You can contact the student officer at studentambtenaar@wageningen.nl.

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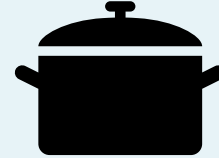
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You encounter all the flavours of the world in our WUR community. Putri Monalisa (26), an MSc student of Development and Rural Innovation, shares one of her favourite Indonesian dishes with us: *Opor Ayam*.



Flavours of WUR

Ajam Opor

'Opor Ayam is chicken cooked in coconut milk. Unlike most other Indonesian dishes, Opor Ayam is not that spicy. So it is ideal for everyone who loves the Indonesian flavours but can't handle the spiciness.'

Preparation

- 1 Grind the onion, garlic, coriander powder, salt, pepper and chillies to a smooth paste. If you are using tofu, cut it into cubes.
- 2 Heat some oil in a pan and stir-fry the spice paste till fragrant, 2-3 minutes.
- 3 Crush the lemongrass and lime leaves. Add them to the spice paste.
- 4 Add the chicken or tofu and sear it evenly for 1-2 minutes.
- 5 Add water and coconut milk and bring to a boil.
- 6 Reduce the heat and simmer for about 20 minutes. The liquid should be reduced to a smooth sauce.
- 7 Serve with rice, and garnish with kerupuk (kroepoek) and fried onions.

Ingredients (for 2 persons) :

- 8 chicken drumsticks, (or a 500g packet of tofu for a vegetarian version)
- 1 blade of lemongrass
- 3-4 lime leaves
- 500 ml water
- 200 ml coconut milk
- 2 onions
- 4 cloves of garlic
- 2 cm of fresh ginger
- 2 teaspoons of coriander powder
- 1 teaspoon of salt (to taste)
- 2 teaspoons of pepper
- 1 or 2 chillies (or more)
- Oil to fry

Equipment

Blender/food processor/
pestle and mortar



Putri Monalisa

Master's student of Development and Rural Innovation from Indonesia

Which dish reminds you of home? Share it with *Resource* so we can all enjoy it!
resource@wur.nl



THE SIDE JOB

You've got to make ends meet. We can all borrow from Uncle Duo, but some students earn money from unusual side jobs. Like Ari Balata, a Master's student of Medical Biotechnology. Ari teaches Aerial Silks at the circus in Nijmegen.

Text Steven Snijders

'It was love at first sight, ha-ha. And I have a fear of heights, just imagine! The first time I hung in the air in a cloth, I was reviewing all my life choices. Why am I doing this, actually? But when I got back down, I felt really

ecstatic. Aerial Silks is a sport or art form in which you perform a dance with lengths of cloth of one or two metres. The lengths of cloth hang in a large hall or perhaps from a tree. The dancer poses, climbs and performs 'drops'. This involves particular costumes, choreography and music. The friction between your body and the cloth keeps you up in the air. The danger of an uncontrolled fall is very small. The cloth feels like a strong

arm around you; it never lets you go. It's less dangerous than it might look. In fact you have to watch out for the opposite risk, of getting stuck in a knot that's too tight.

'I teach Aerial Silks every Monday in Nijmegen. I help my pupils work on their strength, fitness, suppleness, building up their vertigo tolerance and conditioning their skin. The skin needs some resilience. I am much less ticklish these days! In the end the cloth almost becomes an extension of yourself. You have to learn not to



Photo Jetske Adams

Ari dances with silks

Who: Ari Balata

What: teacher of Aerial Silks

Why? He gets a big kick out of the sport

Hourly wage: 25 euros an hour (ranging up to 45 euros)

'The cloth feels like a strong arm around you: it never lets you go'

grasp the cloth but to put your hands around it in a kind of stranglehold. My pupils are generally very happy: it's an outlet for their creativity. The height activates a kind of survival instinct, which gives you a real kick. Pupils sometimes laugh hysterically after a good drop, because it releases so much serotonin. It is a sport that feels like play. And that's a feeling that you sometimes lose as you get older. I teach both beginners and advanced pupils between the age of 18 and 46. Everyone can learn this!'

WEEKLY UPDATES ON STUDENT LIFE AND WORKING AT WUR?

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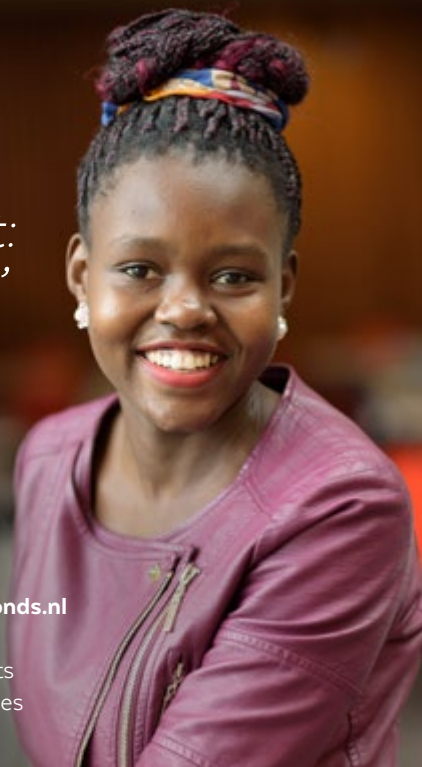
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Photo Guy Ackermans



SOIL DRILLING TEAM FINDS STUDENT ROOM

During the annual Soil Drilling Championship organized by study association Pyrus, one of the teams came across several vacant student rooms. The rooms seem to be part of an Idealis complex that had sunk without trace.

The Drillmaster team were competing for the second year running in the championship, which always takes place in a field on Haarweg. Halfway through his go, Soil, Water and Atmosphere student Harm-Jan Heukema's drill hit something hard. 'At first I thought it was a large stone but when we drilled another hole nearby, the drill got stuck again.' It was clear by then the team were not going to get a prize, but they were curious to see what they had found and so they got digging with spades. Heukema: 'To our amazement, it wasn't a stone; it was the roof of a student room. We found bitumen rotting away, then a gutter and an empty beer crate.'

It looks as if the soil drillers had chanced upon the basement of a building used in the 1960s as temporary housing when there was a shortage of student accommodation. 'It may sound crazy but I'm actually not surprised,' says Idealis director Art van Bas. 'There are various student housing complexes

on Haarweg and even I get confused about where ABC or 333 are exactly. One building less and you wouldn't really notice. Plus Idealis has moved offices several times over the years and the archives didn't always come with us in their entirety. It's possible

'We found rotting bitumen, then a gutter and an empty beer crate'

there are a few boxes with blueprints for this complex in the Duivendaal cellar.' The Dutch Archaeology Society will start further excavation of the student rooms this

week. Then the renovation work can start. This is expected to be complete by next spring. 'Great news, a real stroke of luck,' says Van Bas. 'It means we'll once again be able to make sure all students have accommodation by May. I have even thought of a name for the complex: Earth House 2.'