

WUR from within: straight, sharp, transparent

No 07

# Resource

DECEMBER 2022 VOLUME 17

The journalism platform for all at Wageningen University & Research

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for Recognition  
and Rewards

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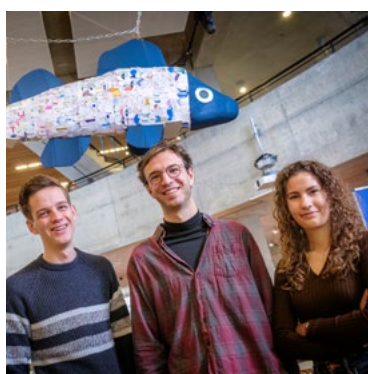
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## FOREWORD

### Compulsory

I can already see the headline: 'Grim mood in packed Forum during Xmas holidays.' The intranet item 'Time to switch: measures to save energy' tells us a lot of WUR buildings will be closed from 24 December 2022 to 8 January 2023, except for Forum. A sneaky way of enforcing compulsory working from home? No, says the WUR energy coordinator in the same article: Forum will stay open and lab work will continue as usual. Two weeks of not heating those other buildings will save a lot of money. Given that every little helps, should we just accept a packed Forum during the holiday period as the price we pay? These are tough times and Forum could be inundated.

Compulsory or not, working on campus hasn't become second nature again in WUR's daily life. At least, that is what Board President Sjoukje Heimovaara thinks. You can read her arguments on page 12. Let's hope we relearn how to do this, without all piling into our cars again. And I also think we should keep business flights to a minimum...

**Willem Andréé**  
Editor-in-chief





## NO MORE GAS

Atlas will be connected up in its entirety to the Aquifer Thermal Energy Storage (ATES) system faster than originally intended. WUR wants to come off the gas and that means using ATES to heat all the buildings. The system uses water-containing strata in the ground to cool or heat buildings. The water functions like a heat battery: water is pumped back and forth between the cold and hot sources via the buildings. Incidentally, this will not happen immediately: Atlas will not be completely connected up until spring, says one of the builders. <sup>WA</sup>

Photo Resource

# Green light for new resit policy

**WUR Council has given its consent to the new resit policy, subject to certain conditions**

This means the number of times a year a student can sit an exam in a given course will be reduced from three to two. The number of resit periods will go up from two to three, spread over the year. The policy will take effect next academic year.

Students who fail their exam will therefore only get one chance to resit it that year, instead of two chances. They will get two more chances the following year. In the original proposal the first resit period (for courses in period 1) was sched-

uled in January but one of the conditions for consent was to have that resit period moved to February. The second resit period is in May (for courses in periods 2, 3 and 4), and the resits for periods 5 and 6 will be in July.

## Workload

The proposal was made by the Executive Board. At present, WUR has the most lenient resit policy in the Netherlands. There have been discussions for years about changing the policy, mainly to reduce the considerable workload for teachers. WUR Council chair Jelle Behagel: 'Teachers are pleased that the number of exams will go down from three

to two. Students recognize the need for the change but they had concerns about the proposed schedule for the academic

**'Teachers are pleased and students also recognize the need for the change'**

year.' There were also worries about delays to graduation, says Student Council chair Sanne Vermeij. 'If you are at the end of your degree and you fail the resit in July, you have to wait nearly a year before you get another resit chance. That needs to be looked into.' LZ

# Recognition & Rewards proposal gets positive feedback

**The committee will present the new proposal to the Executive Board in January.**

After a series of roadshows in the science groups with the initial proposal, the Recognition & Rewards committee will assess the feedback it got and come up with a revised proposal for the main points, to be submitted to the Executive Board at the start of next year.

The appraisal system for academic staff at WUR needs to change. The Recognition &

**There will be one career framework with three paths: Lecturer, Professor and Researcher**

Rewards committee was set up in 2020 for this purpose.

Many academic employees are currently assessed in the tenure track system. They think that as a result there is too much emphasis on the number of grants, PhD students and top publications and not enough on team contributions, teaching, personal goals, impact on society and

academic leadership.

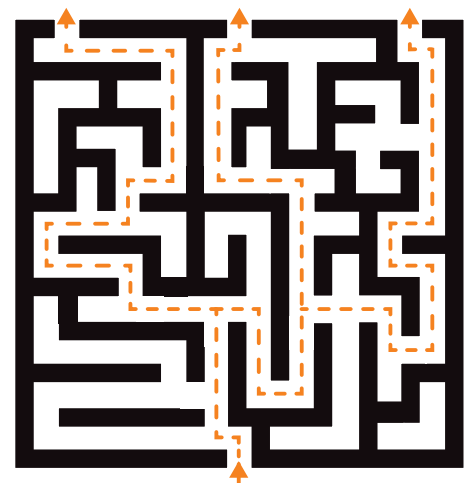
The committee has conducted interviews and organized a staff survey. Based on this, it came up with an initial proposal for a new system. In the past few weeks, the committee toured the five science groups with its proposal to get feedback.

## Changing career path

Put briefly, the proposal comes down to one career framework with three paths: Lecturer, Professor and Researcher. The idea is that in future, employees will not only be able to progress along one of those paths but can also be more mobile 'horizontally', switching between career paths.

It is also proposed that the appraisal system should apply to all academic staff, but with differences based on the field of research or discipline. Finally, there will be a more comprehensive set of assessment criteria that includes societal impact and academic services in addition to teaching and research.

Maarten Voors, associate professor of Development Economics and a com-



mittee member, says the proposal met with a lot of positive reactions during the tour, as well as some questions. 'For example, how WUR will make the transition from the current system,' says Voors. 'A lot of employees turned up to the presentations. Further comments on our proposal are still welcome and can be sent to the Recognition & Rewards Intranet Group.' ss

# 18

WUR has topped the student guide (*Keuzegids*) for the 18<sup>th</sup> year in a row, with an overall score of 71.5 out of 100 – 1.5 points more than last year. The Open University (66.5) and the University of Twente (64.5) are ranked second and third. Utrecht University (64) is the highest ranked of the generalist universities.

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

## Frans Timmermans to visit Wageningen

**European commissioner Frans Timmermans has accepted an invitation by Honours Programme students to come to Wageningen to talk about climate policy.**

The Let's Talk Climate Policy symposium (on 7 December in Forum)- will focus on 'the challenges in the world of climate policy'. The symposium is being organized by Bachelor's students Eva van der Wolf (22, Nutrition and Health), Gerline van Beusekom (21, Biology) and Floris Helmen-dach (20, Molecular Life Sciences). 'We hope to engage in a debate with a broad audience about the challenges in resolving climate issues,' says Helmen-dach. Students, staff and Wageningen residents are welcome to join the discussions. Timmermans is the European commissioner responsible for the Green Deal, which aims to make sure Europe achieves net zero emissions of greenhouse gases by 2050. LZ

## WUR Council criticizes building closures

**This year, most buildings on campus will close during the Christmas holidays, from 24 December to 8 January, to save energy and costs. Forum and the labs will stay open. WUR Council says the rushed decision raises questions.**

WUR Council chair Jelle Behagel: 'If you don't turn on the heating in the middle of the winter, you save a lot of money. But at what price? We heard about the plan to close the buildings on the grapevine. We asked questions about it in the meeting with the Executive Board, after which a technical meeting was quickly organized between the accommodation committee and the buildings manager. We were promised then that places would be arranged for staff to work, and that essential tasks such as lab activities could continue. But I don't think anyone expected nearly all the buildings would be closed for two weeks.'

Behagel thinks all office buildings should open again on 3 January. 'People can then start preparing their teaching before the first period starts. Now we have to do that at home because most of us don't have an office in a teaching building. Or go to Forum of course, but that's not ideal. You don't have your own things there, and if hundreds of people end up working there, they won't fit in. I think it's a radical decision. If you look at the collective labour agreement, it's at the limit of what's allowed: you can designate up to seven days a year as days when the office is closed.'

### Letter

Before this *Resource* went to press (Tuesday, 29 November), Behagel told us: 'In the WUR Council meeting on Wednesday, I will suggest writing a letter to express our annoyance.' Read about WUR's choices on the intranet in 'Time to switch'. WA



Photo Coretta Jongeling

# WUR drops slightly in citations list

**WUR has dropped slightly this year from 26 to 22 researchers in the Highly Cited list – the most cited scientists worldwide.**

It is striking how many changes there have been: 11 of the scientists who made the list last year are no longer on it.

They include such citation favourites as microbiologist Willem de Vos (now retired), environmental systems analyst Rudolf de Groot and the successful biochemist Dolf Weijers. Saskia Keesstra, who became WUR's first woman on the list in 2019, is also no longer among the Highly Cited Researchers. Her 'spot' has been taken by the newcomer, soil physicist Esperanza Huerta Lwanga.

The WUR names on the list include five women, as many as last year although as a percentage they now make up a quarter rather than a fifth. Alongside the many

changes, some top scientists have a more or less permanent place on the list. Plant scientist Martin van Ittersum has only missed one year since the list started (2014). The same applies to aquatic ecologist Marten Scheffer.

You make the Highly Cited list if you have been among the one per cent most cited researchers in your discipline over the past 10 years. This year's list has 6938 scientists from 69 countries around the world. <sup>RK</sup>

## The complete list of Highly Cited Researchers from WUR:

Gerco Angenent, plant scientist; Clara Belzer, microbiologist; Ellen Besseling, aquatic ecologist; Harro Bouwmeester, plant physiologist; Violette Geissen, soil physiologist; Ken Giller, plant scientist; Jan Willem van Groenigen, soil biologist; Gerard Heuvelink, soil scientist; Esperanza Huerta Lwanga, soil physicist; Martin van Ittersum, plant scientist; Michiel Kleerebezem, microbiologist; David Kleijn, plant ecologist; Laurens Klerkx, agricultural scientist; Bart Koelmans, environmental chemist; Marnix Medema, computational biologist; Dik Mevius, animal scientist; Hans van Meijl, economist; Liesje Mommer, plant ecologist; John van der Oost, microbiologist; Oene Oenema, soil scientist; Wim van der Putten, nematologist; and Marten Scheffer, aquatic ecologist.



## The Orion 'Tesla'

This little blue van is often parked in front of Orion. It looks like something from a children's book. Who does it belong to and why is it there? 'We call it our Tesla,' says Tanja Borst of the Facilities Support for Practicals department and an enthusiastic driver of the little van. 'This electric van is for the people in our department. We try to have the same equipment available in all the education buildings, but sometimes something extra is needed. That's when we use our van.' <sup>IB</sup>  
Photo Ilja Bouwknegt



## Intake: school leavers delay starting uni

**Dutch universities have seen a drop in first-year students for the second year in a row.**

According to the latest figures, about 60,000 students enrolled in Bachelor's programmes in the Netherlands at the start of the academic year. That is 3000 less than last year and 5000 less than in the peak Covid year of 2020.

The decrease is mainly due to fewer school leavers from the pre-university stream (VWO). Usually about 70 to 75 per cent go straight to university after finishing school but that percentage was 66.7 this year. Some are probably taking a gap year because they will be able to get a basic grant from September 2023, but not this year.

In Wageningen too, the enrolment for Bachelor's degrees as at 1 October fell for the second year in a row, says data analyst Geertje Braat of Education and Student Affairs. 'There was a big increase in the number of first-year Bachelor's students in 2020, as the pandemic made taking a gap year less of an attractive option. That was followed by quite a big drop in 2021, and another fall this year.' <sup>HOP, LZ</sup>

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

# Goldcrest is as fast as the wind

A tiny bird with a transmitter flies 320 kilometres in less than a night.

Goldcrests are the smallest birds in Europe, but that doesn't stop them achieving top performances. One such performance was recorded for the first time by a WUR transmitter on a bird's back. On 19 to 20 October, the bird in question flew across the North Sea from Vlieland to Spurn (East Yorkshire) in less than eight hours. To be sure, it had a strong tailwind.

## The pilot is about preventing wind turbine casualties

'You need that,' says ecologist Sander Lagerveld (Wageningen

Marine Research). 'Otherwise it would probably not make the crossing.' The birds time the crossing carefully to make use of favourable wind conditions and dry weather. The goldcrest was fitted with a transmitter earlier that day in Lagerveld's presence. 'We hoped it would leave that day given the strong easterly to south-easterly winds.'

This was part of a pilot in which transmitters are fitted to goldcrests, skylarks and starlings and they are monitored. The project, commissioned by the Ministry of Agriculture, is in partnership with the bird ringing centres of Castricum and Vlieland and is part of the 'Development of Instruments for a Nature-inclusive Energy Transition' programme. Birds and bats fall victim to wind turbines, but it may be possible to prevent this.

The goldcrest with ID 42517 was spared this fate. It flew (or was blown) over the sea in a straight line from Vlieland. The signal from its 0.16 gram transmitter was



A Goldcrest with a transmitter. ♦ Photo Sander Lagerveld

picked up on the east coast of England, near Hull, by the Motus Wildlife Tracking System of the Spurn Bird Observatory. Dozens of such receivers are to be found on either side of the North Sea.

### Flight peaks

Lagerveld has been studying migrating birds and bats in relation to wind farms for years. He has a mountain of data on the migration of the Nuthusius' pipistrelle, for example. The pilot with the goldcrest could lead to a larger programme aimed at preventing casualties due to wind farms. Wind turbines could

for example be stopped during peaks in bird migration. To do that, detailed information is needed per species on their flight movements.

It is not known how the speedy little goldcrest (a male) is doing now. The transmitter stays attached for about a month, so it will have fallen off by now. The goldcrest's flight is probably a speed record. According to Lagerveld, this is the first time goldcrests have been fitted with transmitters. So this is a first at any rate. RK

## [ You win some, you lose some ]

**A failed experiment, an error in your model, a rejected article: in academia such things tend to be labelled failures. As for talking about failure? Not done! But that's just what WUR co-workers do in this feature. Because failure can be useful. In this instalment, we hear from Han Wiskerke, professor of Rural Sociology.** Text and illustration Stijn Schreven

I came back to WUR in 2001 as an associate professor. I successfully rewrote an EU project proposal that had been thought up by others and had been rejected, and I became the project coordinator. For the first time I found myself leading a three-million-euro research project, with 14 partners from seven countries and a lot of very experienced people. At the inception meeting, there was a big furore about the direction the project should go in.

### **'When I ended with a round of reflection, I met with stiff opposition'**

I felt control slipping through my fingers, but thanks to some tips from a colleague of mine, we got through that meeting without too much damage done.

The third meeting was a big disappointment, though. We had to decide on the methods for the case studies. I wanted everyone to have their say so that the chosen approach would have their full support. In retrospect,

that was naive. When I ended the meeting with a round of reflection, I met with stiff opposition. I wasn't well prepared for it, I didn't come up with enough ideas of my own, and I should have taken the lead more. I was in despair about how to bring it all to a successful conclusion.

But that harsh feedback was helpful as well. Besides the annual project meetings, I planned interim meetings in Brussels to prepare the agenda for the big meetings. This gave me more control over the project and at the same time we shared the responsibility.

That first project gave me a basic project management toolkit, which meant I had more peace of mind in other projects. And since then, I have only managed projects of which I wrote the entire proposal myself. That way I know the project setup from A to Z, and that gives you confidence. I have led a lot of EU projects since then. There are always ups and downs that you can't plan for, and that I learn from.



## Insect skins improve soil

**Insects poo and shed their skin. PhD candidate Azkia Nurfikari shows how useful this manure is.**

In fact, the manure not only enriches the soil with nutrients but also inhibits the growth of pathogenic microbes. An experiment with lettuce infected with fungus demonstrated this. The key substance in this research is the polymer chitin, the hard substance in insects' exoskeletons. It is known that chitin stimulates the growth of soil bacteria that are able to break down chitin. Some of the enzymes responsible for breaking down the chitin end up in the soil.

### **Chitin stimulates the growth of soil bacteria that are able to break down chitin**

The cell walls of pathogenic fungi also contain chitin. Could those enzymes also take on the fungi? Nurfikari's experiments show the answer is yes. She added the waste (excrement and skin) of soldier flies, crickets and mealworms to soils infected with the fungus *Fusarium*. This fungus causes the wilting disease that so many growers fear.

### **Black soldier flies**

The insect waste does indeed kill the pathogenic fungus, but only when the pressure of disease is low, says Nurfikari. Furthermore, after the waste has been applied to the soil, several weeks are needed for the bacteria that break down the chitin to grow. It works best with the skins of black soldier flies as that material contains the most chitin.

Incidentally, 'good' microbes also get broken down because of the chitin effect. Even so, the overall effect is positive, says Nurfikari. That is because the waste (skins and excrement) also serves as manure and therefore boosts the growth of bacteria. 'The net effect of the growth and breakdown processes is an increase in the total biomass.' RK





## Mealworms on Martian diet

**WUR researchers have been considering how to grow crops on Mars and the Moon for some time. Food Quality Management Master's student Lotte Bohlander came up with the idea of using animal protein in the form of mealworms.**

How well do mealworms grow on the waste streams of vegetables cultivated in Martian soil? The researchers of 'Food for Mars and Moon' are looking into this. This project, headed by ecologist and exobiologist Wieger Wamelink, initially only considered crops on the assumption future Martians would be vegan.

But humans need a well-balanced Martian diet, says Lotte Bohlander. 'Astronauts need to do strength training, for example, and that requires a lot of proteins. Animal proteins are easier for humans to break down and absorb. The high-grade proteins in mealworms fit well in the Mars scenario:

**'We ran a pilot to see whether the mealworms enjoy an Earth-bound diet'**

they are good quality and can be used to process waste streams.'

### Lose weight

Bohlander: 'We already ran a pilot to see whether the mealworms enjoy a diet of Earth-bound waste streams. They get fed the waste from maize, leafy greens, potato peel, carrots, basil and so on. Fortunately they survived on this, although they lost a little weight. We then came up with a better mix so they would put on weight again.'

Project manager Wamelink sees the mealworm as an opportunity to create a circular agricultural system for Space: 'You need to break down organic material to turn it into manure. Mealworms are very efficient, plus we can eat them ourselves.' <sup>1B</sup>

# Landscape sheds new light

Wageningen Landscape Architecture lecturers have written a big book with new perspectives on the spatial implications of the energy transition.

The generation of sustainable energy needs more space than fossil-based energy. Sustainable energy generation also needs to be located closer to residential areas. These are two reasons why the spatial impact of the energy transition is quite a challenge. Wageningen University Landscape Architecture associate professor Sven Stremke and assistant professor Dirk Oudes have recently published a substantial book (1.2 kilos!) on the relationship between the energy supply and the landscape, together with their colleague at the Amsterdam Academy of Architecture, Paolo Picchi. At the heart of the book is the Wageningen-Amsterdam research into high-density energy landscapes..

### New knowledge

The three authors examine energy landscapes of the past, present and future. In the section on present-day energy landscapes, they explore best practices in Europe and the United States. The historical perspective is also thought-provoking. The book makes clear that landscapes have been changing for centuries under

the influence of the energy supply. People's worries about the changes to the landscape are not a new phenomenon either. The book pays homage to Sylvia Crowe, for example, a landscape architect who wrote back in 1958 about the challenge of reconciling the fast-growing demand for electricity with liveable landscapes. The title of their book, *Power of Landscape*, is a reference to her book: *Landscape of Power*.

### Changing narrative

The authors stress that their book provides 'many new narratives' by shifting the focus in the energy transition from the technology to the landscape and by taking the richness and variation in types of landscape into account in the energy transition. 'This book is the first to bridge the gap between the world of sustainable energy and the world of spatial designers. The power of the landscape is that it can make that connection and thereby give us pointers to how we can shape the man-made landscapes of the 21st century,' says Stremke. <sup>ME</sup>



Solar Orchard among the almond orchards of Granada, Spain, with the Sierra Nevada in the background. ♦ Photo Dirk Oudes

## THE PROPOSITION

For PhD candidates, their thesis propositions are an opportunity to publicly express their professional and personal convictions about science and society. In this feature they explain their most thought-provoking proposition. This time, a proposition from Jing Jin, who graduated with a PhD in Toxicology on 9 November.



# ‘How you live your day is how you live your life’

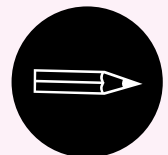
‘Every day, time is limited, so we need to treasure it. How you treat your time is how you treat your life. I learned a lot from my supervisor, who is super-efficient. When we did an experiment, she would remind me to write down the introduction and methods. That made it easy to finalize the report after the experiment.

She also taught me to find a direction in my work: have your goal clearly in mind and follow your plans for the day. My goal during my PhD study was to learn more, because I want to be a good scientist to contribute to the world. If I were to spend a lot of time playing games, I would feel relaxed but find my work unfinished at the end of the day. Then I wouldn’t be able to make my

dream come true. It’s not that my life is all about work, it’s about having the right work-life balance.

I rely on a few tips. First, the two-minute law: if you decide to do something, start doing it within two minutes. Second, develop good thinking habits: most people are good at working diligently if the work is practical, but thinking diligently is harder. Reminding yourself of your end goal helps to clear your mind. Finally, when I am tempted to play, I tell myself first to finish work, and then you’ll enjoy playing more afterwards.’ ss

## Viewpoint



# ‘Health nudge doesn’t always work’

Customers in six Coop supermarkets were subjected for one year to nudges aimed at getting them to buy healthier food. Healthy products were displayed at eye level or in easy-to-reach places. The trial by researchers at Amsterdam UMC had little effect. ‘Supermarket nudges are not effective’ were the media headlines. Emely de Vet (EV) and Merije van Rookhuijzen (MR), who study nudges in the Consumption & Healthy Lifestyles group, are more nuanced.

**EV:** ‘It was a good study but to conclude nudging doesn’t work would be going too far.

It is just one study with a few nudges in an unhealthy environment. Eight out of ten products in the supermarket are not on the recommended balanced diet. It’s difficult to measure the effect of small nudges in such a complex context.’

**MR:** ‘They also don’t seem to have used one of the most effective nudges, the default nudge, where you change the default option. An example would be offering water as the default option in a menu, or fruit as the default dessert. In Austria, Burger King changed the defaults in July. All the

burgers were vegetarian unless you asked specifically for meat. It is harder to implement the default nudge in a supermarket.’

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**‘A nudge is a drop in the ocean, but better than no drop at all’**

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**EV:** ‘Health nudges won’t necessarily work everywhere. Customers make impulse purchases at the cash till because they want something unhealthy. Apples wouldn’t work.’

**MR:** ‘In the trial, healthy

products were placed next to unhealthy products, both competing for attention.’

**EV:** ‘The availability of unhealthy food needs to be tackled more systematically. A nudge is a drop in the ocean, but better than no drop at all.’  
**MR:** ‘It depends too on the situation. I studied nudges in people’s homes. That is where most food is consumed and the environment is more clearly delimited than in a supermarket. It turned out people could give themselves effective nudges, for example by putting fruit on their desk or at eye level in the fridge.’ ss

## Rutger Bregman #2

The week got off to a nice start. On Monday and Tuesday, I helped facilitated a Wageningen Academy course on the future of gastronomy, in which Wageningen scientists told people from the sector things about the senses, the importance of chewing and the latest proteins in the protein transition.

It was a really enjoyable blended online and offline course, with a largely plant-

**'I'm glad see that Bregman and Dier&Recht have won the legal case'**

by professor Markus Stieger, and a barista from Utrecht talking about the best bubble structure for a cappuccino out of the various plant-based milks.

The importance of good plant-based milk takes me back to my column of last January, in which, I criticized Rutger Bregman for calling for an appeal court ruling to be ignored. In that appeal, the court ruled that there was not enough evidence in the cited literature to support Dier&Recht's claim that taking calves away from their mothers at birth causes serious animal suffering.



### Guido Camps

The organization was therefore prohibited from talking about 'severe animal suffering' in its public campaign aimed against dairy consumption.

On 24 November, Bregman wrote on LinkedIn: 'Great news!!! I just heard that Stichting Dier&Recht has won the court case against the farmers' lobby club Agractie! [...] Freedom of speech (and truth) have triumphed after all.' The post came quite late, given that it was on 10 October that Agractie announced they would not be putting forward a defence 'because of the costs of proceedings on the merits of the case', which meant that Dier&Recht's demands would automatically be granted.

But I'm glad see that Bregman and Dier&Recht have won the legal case, and I repeat my invitation to join an open discussion in Wageningen on the importance of dairy, human nutrition and animal welfare. Or even on gastronomy or plant-based milk, because ultimately, we will find the answers to such complex issues in Wageningen and not in court.

Guido Camps (38) is a vet and a researcher at Human Nutrition and OnePlanet. He also enjoys baking, beekeeping and unusual animals.

Sjoukje Heimovaara: concern about too much working from home

# CREATIVITY SUFFERS

We are all in a kind of living lab, looking for the best way to integrate home-working into our jobs. And it isn't going well, if you ask Sjoukje Heimovaara. She wants to start a conversation about it.

Heimovaara is concerned. Her concern stems from discussions with the management teams of the sciences groups, from casual conversations and from her own observation. And Facilities and Services showed her some worrying figures about the number of departmental staff absent from the office on particular days. This bothered her and she started reading publications on the effect on teams of working in-person or digitally, on the effectiveness of teamwork, and on job satisfaction. 'Hybrid working is changing all the time so I sometimes find older research tricky to interpret. But I do read and hear that there are demonstrable effects when employees are not together enough. Teamwork suffers and the sense of "togetherness" diminishes. Unstructured encounters are important for understanding each other, and proximity is necessary for creativity.'

Heimovaara draws from her own experience. She started at WUR in Covid times. 'I hardly saw my colleagues in-person and contact felt awkward as a result. When we did meet face to face, I could at last say what I was struggling with or ask in passing where I could find a report. Then you get those brief moments of contact that generate mutual understanding about what you are doing; togetherness is the oil in the machine if you want good cooperation.'

## Mentoring

Heimovaara also worries about the lack of mentorship and the integration of new colleagues into teams. 'When you are new somewhere – especially in a complex



Text Willem Andréé

organization like ours – and you don't see much of your colleagues, you don't feel part of a team. You don't have a colleague you can quickly ask a question; you don't get to know the workplace culture. Newcomers need mentors, for personal and professional growth'.

Working from home does have its advantages, Heimovaara acknowledges. It's nice to read a report undisturbed, or to work on difficult material that calls for full concentration. 'And some people enjoy the autonomy. I am sure there are experienced colleagues with pleasant home conditions who can work just as well from home. They tell you what they've been doing at the weekly team meeting, and work from home for the rest of the week. But the danger is that you end up creating your own bubble, whereas what you really need is "unsought

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CREATIVITY REQUIRES  
CLOSENESS

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TO UNDERSTAND EACH OTHER,  
UNSTRUCTURED ENCOUNTERS  
ARE IMPORTANT



Sjoukje Heimovaara: 'At home, it is easier to overlook the fact that you are part of a team and important to the group. Anyway, a sense of belonging to a team is an important motive for setting to work every day. It helps you enjoy the job.' ♦ Photo Duncan de Fey

contacts". Someone who offers unsolicited critical comments and stimulates self-reflection. At home, it is easier to overlook the fact that you are part of a team and that you are important to the group, including in the mentoring role. And that you can share information with colleagues that is crucial to our work. And a sense of belonging to a team is an important motive for setting to work every day. It helps you enjoy the job.'

### Five days

'I do realize of course that there are many places on campus and in the other locations where it really is too busy,' Heimovaara continues, 'especially in and around

the labs. That's not easy to solve and we are working on it. But there are also places where people – and I hear this from every science group – have very much retreated into their own bubble.' 'And empty buildings can have a self-perpetuating effect,' says Heimovaara. 'Suppose a colleague goes into the office in order to see some colleagues, but there's no one there. They'll stop coming in. WUR is what it is because of our commitment, creativity and teamwork. And those things are under pressure. I believe that can negatively affect the quality of the work we do.'

Heimovaara sees coming in to the office five days a week as an option, even though working at home reduces travel and WUR's housing plan expressly encourages working from home. 'Cutting travel for the sake of the climate really matters to me. If a lot of people have to travel long distances for a meeting, it should be held online or alternate between in-person and online. And please, let's limit flying. That's already a win. But it should not be at the expense of human contact, because then we lose something necessary and something beautiful. And yes, it may even be better if people come every day. For instance, if your home situation demands it. Or because you have a central position in the team as a secretary or lab manager; then you should be able to come five days a week. It could also mean that someone who likes to work at home comes to work more often because it helps the team move forward. The basic idea is to work where you are most effective as an employee. We have to think how we are most effective as a team. That's the appeal I want to make.'

### Managers

Reinventing working, in other words. But how? 'I know a lot of people are busy trying to figure out how to do it. It's as if we live in a living lab, a kind of continuous experiment. I too don't have the definitive answer. I do think managers have to take their role in this. They should have the guts to start the conversation and say: I see we have a problem, cohesion is disappearing, people are lost or isolated. Let's start the conversation. And have the guts to say: we are going to agree fixed days that everyone is there. It requires employees to think in the team interest and managers to ensure that good agreements are made in the group interest. It requires commitment from everyone.' ■

# What's the package deal?

December is parcel time. That's noticeable at the student residences in Wageningen too. Even more packages than usual are piling up in the hall. And even more packages than usual are getting lost or damaged. *Resource* went to investigate.



Text Luuk Zegers

**T**o test how package delivery is working (and in the hope of speaking to a delivery person), *Resource* ordered a package to be delivered to a Dijkgraaf flat. The package was due to be delivered by PostNL between 10:05 and 12:05, but after a two-hour wait outside without seeing any sign of a delivery driver, there came an email saying 'left at the parcel delivery point'\*. The two hours spent at Dijkgraaf were not a waste of time, though. They provided a chance to ask residents about their experiences. Student of Plant Sciences Ruben Kuipers, for instance, says he only has parcels delivered here that will fit through the letterbox. Anything else he gets delivered to the nearest delivery point. 'Chronically overworked and underpaid delivery drivers work under pressure and aren't going to figure out how the extraordinary house-numbering system at Dijkgraaf works. So they

just dump everything downstairs and then a package can disappear.' He lost a charger that way. 'According to the delivery service, the package was delivered, but I never received anything.'

## As hard as possible

Biology student Maartje van der Linden lives at Dijkgraaf too. She finds some delivery services better than others. 'PostNL often takes parcels straight to a delivery point, which is OK actually. But I get packages delivered by DHL sent to my parents' house, because that often goes wrong here.' In the Dijkgraaf Facebook group, Van der Linden sees a lot of posts about packages that have got lost or damaged. 'Today there was someone whose parcel from Hunkemöller had been opened. Apparently, the person who did that didn't think much of the contents and left the package where it was. How many of the packages that disappear are stolen or returned to a parcel point without notification, I don't know.' Even when the delivery person does deliver the packages to the right place, it can still go wrong. Van der Linden: 'The address system for this building is complicated. We all live at Dijkgraaf 4. The building has 18 floors, each with three wings – A, B and C – and then there are rooms in each wing. And that's all got to fit on the address line. So a package addressed to *Dijkgraaf 4-gang 4b kamer 12* is supposed to end up on the fourth

## 'It's as though the block was designed to make it as hard as possible for delivery drivers'

floor in the B wing, but it might equally end up being left on the 12<sup>th</sup> floor.' The lifts are not particularly handy for the delivery drivers either, says Van der Linden. 'There are three lifts, but each of them goes to just one in three floors.' When you look at it this way, it seems almost as though the block was designed to make it as hard as possible for delivery drivers. 'Yes, I do get that idea sometimes.'

## The driver's perspective

Then through the grapevine we managed to talk to a delivery driver from an

unnamed delivery service (name known to the editor). 'In the student flats there is often a sticker saying: don't leave anything in the hall. And below it is a pile of packages.' The student residences are quite a source of frustration for delivery staff. 'At Bornsesteeg you can't ring a bell downstairs, so you have to go all the way up. If neither the person nor

the neighbours are at home, then before you know it, you spend ten minutes on a parcel you can't deliver.' When she had just started as a delivery driver, she dutifully went to the different floors,

but she doesn't always do so anymore. 'If I've had a long day and I've still got to deliver something to one of those flats, I leave the packages down in the hall. I do then add a note to the delivery notification saying that the parcel is in the hall.' She also sometimes gets parcels addressed with only the name and the number of the building on them. 'We can't do anything with those.' The delivery driver is sorry to hear that some parcels get damaged or stolen. 'We prefer to hand the parcels over to the recipients. But that isn't always feasible in these buildings. Perhaps parcel lockers could be installed? Or a central parcel point at each building?'

### Answers?

Idealis is aware of the situation, says spokesperson Hellen Albers. 'Parcels are sometimes left unattended in the hall, where anyone can access them, despite a clear statement from us that this is not the idea. We do arrange with suppliers that they should not deposit the parcels in the hall but should hand them over in person to the recipient. Unfortunately, that's not what always happens. Idealis regularly tells its tenants they are better off collecting their parcels from collection points whenever possible. And we are looking into affordable options for improving parcel delivery at the flat buildings.' ■

*\*Inquiries at PostNL revealed that this delivery service now only delivers letter-box parcels to some student flats in Wageningen. A spokesperson: 'Because parcels haven't always reached the right people, our delivery staff take larger parcels directly to a PostNL point nearby, so that the addressee picks up the parcel themselves.'*

## 'Perhaps parcel lockers could be installed?'



Dijkgraaf student flat resident: 'Chronically overworked and underpaid delivery drivers work under pressure and aren't going to figure out the crazy house-numbering system at Dijkgraaf. So they just dump everything downstairs.' • Photo Steven Snijders







## FIERY SONGS

Any unsuspecting person walking to the bus or Albert Heijn supermarket in Wageningen last Friday evening would have come across an unusual scene in front of the door to the KSV Franciscus premises. In accordance with the student society's tradition, on six Fridays a year new graduates organize a dinner for friends and family. The graduates are picked up from their homes and taken to the society in a special vehicle — the chariot in the photo. There they are welcomed by fellow society members who form a line with torches and sing to them from the steps. After which the party indoors can really get going. [cJ](#)

Photo Juliët Nieuwenhuis

## Will EU open door to GM crops in 2023?

# OPPOSITION IS WANING

In 2001, the current EU directive on genetically modified (GM) crops made their cultivation in Europe almost impossible. That position seems due for revision now, in the light of new techniques, applications and understanding. Text Tanja Speek • Photo Guy Ackermans

**A**groecologist Bert Lotz has been researching and debating this issue for more than 25 years. In 2023, the European Commission will come up with a proposal for revising the directive. ‘And that’s big news,’ says Lotz. His first research on GM crops was done in 1996. At the behest of the Ministry of Agriculture, Nature and Food Quality, he and his colleague Jos Bijman did a literature study on what was known about the risks and opportunities associated with the first GM crops in America. ‘I will never forget the day I presented that report in The Hague. On the same day, Greenpeace were protesting at Rotterdam port. They blocked the first ship seeking to dock in Europe with a cargo of GM soya for livestock feed. We made the front page of the *Volkskrant* newspaper right away. Neither Greenpeace nor the US GM soya producer Monsanto agreed with our report. As a researcher, I was used to staying behind the scenes. It took a few days to sink in.’

### Awkward introduction

The outcome of that first report was a nuanced conclusion. It was about crops

that had been modified to be resistant to the herbicide Roundup, or glyphosate, so that the crops go on growing when the grower sprays against weeds. The researchers saw risks, especially for the development of resistance to Roundup in weeds. But there also seemed to be opportunities: with a limited use of Roundup at the right time, and as a complement to mechanical weed control, spraying against weeds could be significantly reduced. ‘Findings that still stand today,’ confirms Lotz. ‘The first resistant weeds showed up within four years.’ And that actually led to even more Roundup being used. ‘In retrospect, that was an awkward introduction of Monsanto’s first application for a GM crop.’ It set the tone for the genetic engineering debate. In 2001, the EU adopted legislation that made the admission of GM crops almost impossible.

Much has changed since then, and a better understanding of the risks and new DNA techniques have made the debate relevant again. A big first step towards this was the emergence of Bt crops such as corn plants with a gene from the *Bacil-*

*lus thuringiensis* (Bt) bacterium, which produces a substance toxic to specific groups of harmful insects. ‘The beauty of this crop is that the benefit is very clear: the grower doesn’t need to apply nearly as much insecticide.’

### Cis or trans

The next step came with a project Lotz himself participated in, the DuRPh programme that ran from 2006 to 2016. In this programme, Wageningen researchers worked on a potato with multiple resistance to *Phytophthora* disease. This time, not with genes from other species, but with genes from wild varieties of the potato. They called this form of genetically engineered breeding cisgenesis, as opposed to transgenesis, which makes use of genes foreign to the species. ‘With conventional breeding it would take dec-

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‘WE MADE THE  
FRONT PAGE OF  
THE VOLKSKRANT  
RIGHT AWAY’



Agroecologist Bert Lotz: 'I suspect that if restrictions are eased, a lot of plant breeding companies will head to Wageningen.'

ades to make an existing potato variety multiply resistant, whereas with genetic engineering it can be done in a few years. Based partly on our research, the European Food Safety Authority has concluded that cisgenic potatoes are as safe as conventionally bred varieties.' The potential benefit is a massive decrease in the use of fungicides.

The last important development was the discovery of CRISPR-Cas. For the first GM crops, researchers used the bacterium *Agrobacterium tumefaciens* to insert new DNA into crops. This bacterium can do this naturally, but the method has two drawbacks. You cannot determine where the new gene ends up in the plant genome, so it could end up in the wrong place, where it harms the plant. And secondly, a small amount of bacterial DNA always stays behind in the plant. 'Although within the DuRPh project we have managed to minimize this with smart techniques.' Another advantage is that CRISPR-Cas can also be used for very minor modifications. For example,

recent research by Wageningen Plant Breeding shows that particular resistance genes are already present in potatoes, but in a deactivated form. 'With CRISPR-Cas you can switch those genes back on. That's called gene editing.'

### Public opinion

Lotz has seen a gradual shift in public opinion on GM crops. Part of the DuRPh project involved participating in the debate on the cisgenic potato, and he talked to political parties, churches, farmer organizations, students and other groups. 'More and more groups are now seeing opportunities for using techniques like cisgenesis to make agriculture more sustainable.' A party like Greenpeace remains vehemently anti, although the opposition seems to have become less visible. 'I always used to know the campaigner involved, but now I don't know who they are.' In the second quarter of next year, the European Commission will come up with a proposal for a new directive. 'That's really big news, although it then has to be voted on.' An exciting time, for WUR too. 'I suspect that if restrictions are eased, a lot of plant breeding companies will head to Wageningen to join forces in new research. To develop crops with

disease resistance or drought tolerance, for instance, or gluten-free grains.'

Lotz expects that easing of EU rules will come and that cisgenic and gene-edited crops will gain easier access to the European market. 'But it remains to be seen exactly how they'll go about that.' ■



- 1994** First GM crop, a tomato that keeps longer
- 1996** First Roundup Ready soya on US market
- 2001** EU regulations, GM crops banned
- 2006** Start of DuRPh project with cisgenic potato
- 2013** First GM crop created with CRISPR-Cas
- 2018** EU labels CRISPR-Cas as a GM technique
- 2023** European Commission proposal for updating legislation

What you didn't learn at school but still want to know

# About menstruation

Oh, so that's why you can shift mountains of work at times, while at others you can hardly get out of bed. And that's why you keep filling up your diary and then don't feel like doing any of it when the time comes. And speaking of 'feeling like it': does this also explain why your response to flirting is glacial at times and at others... well, fill in the blank? Check!



Text Marieke Enter

**T**he workshop on 'Your Natural Cycle' was always bound to be one of the hits of this year's Surf your Stress week: it was fully booked in no time. And Impulse was indeed pretty packed on that particular evening. About 100 students turned up, including a handful of men. Great, said workshop leader Anneke Valk, a biology lecturer at Experimental Zoology. Because no matter whether you menstruate yourself: about half of the world's population does, so you'd better have some understanding of what it entails. 'One day I want to give a workshop like this specially for men,' she told *Resource* later. 'I wonder who at WUR would have the nerve to hire me to do that.'

## Beyoncé hormone

On this occasion, the audience is predominantly female. Valk gives a neat trigger warning beforehand ('menstruation can be quite a sensitive subject') and an inclusivity proviso ('not all women menstruate and not all people who menstruate are women'). She starts off on

familiar territory, with the well-known biology textbook image of the vagina, uterus, fallopian tubes and ovaries that everyone saw in high school. But then she really gets going. About how your cycle starts not in your abdomen, but in your brain because that controls the release of the hormone that is dominant in the runup to ovulation, the 'Beyoncé hormone' oestrogen. About how after that, the calmer progesterone ('a bit like Emma Watson') helps the body and mind prepare for the potential implantation of a fertilized egg. About how those fluctuating hormonal levels cause different phases in a cycle, which British author Maisie Hill, who wrote the book *Period Power*, compares with the four seasons. Because both physically and mentally, they feel distinctly different.

## Pure hubris

During Valk's workshop, you can practically hear various pennies drop. Ah, that's why you can shift a lot of work so effortlessly in your 'summer', or want to party and flirt endlessly (and more): it's your Beyoncé hormone. And that's

why you fill your diary with all kinds of appointments pure hubris, when two weeks later you're in the middle of your 'winter', the days when you menstruate, and you don't feel like doing any of it. Or maybe you are still in your 'autumn', often the most difficult phase because hormone levels fluctuate the most at that time. Result: snappy, tearful, depressed, poor sleep, binge eating – did someone say PMS? Not the best time for a jam-packed schedule.

Up to a point, something can be done about these 'seasonal influences', says Valk. First and foremost: avoid stress. Because stress stimulates the production of cortisol, which puts progesterone out of action: both hormones have the same receptor. Secondly: by exercising, eating healthily and surrounding yourself with people you like – or cuddling a pet, that

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**At Valk's workshop, you can practically hear the pennies drop**

works too – you stimulate the production of the feel-good hormones serotonin, oxytocin and dopamine. And make sure you get enough sleep. ‘It’s normal to feel more tired in your winter. If you still feel tired in your spring, you could well be seriously overloaded,’ says Valk.

### Work with the cycle

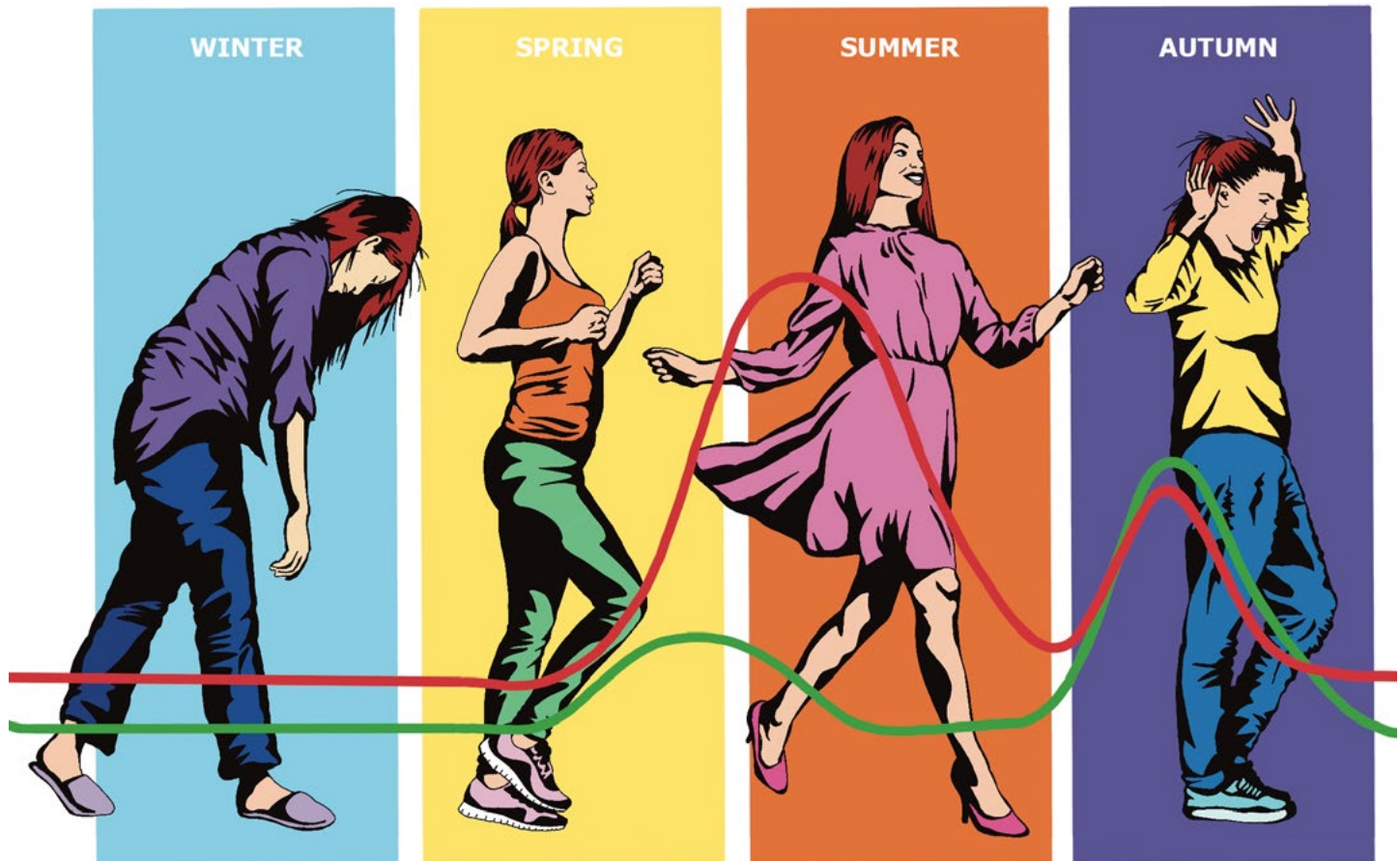
When Valk asked at the start of the evening who keeps track of their cycle, three quarters raised a hand. By the end of the workshop, nearly everyone is convinced of the value of doing so. Tips on user- and privacy-friendly apps for the purpose are eagerly exchanged. Those who recognize the pattern in their cycle – 28 days on average, with some fluctuations – can estimate roughly when each season will start. And you can work with that by keeping enough me-time free in your winter, or by planning challenging tasks in your summer, when you are physically and mentally at your strongest.

There’s an important detail, though: this only applies to women who are not on hormonal contraception, such as the pill or a hormone coil or ring. Because as soon as your body is absorbing synthetic female hormones, the production of natural female hormones drops, explains Valk: the highs and lows of a natural cycle flatten out. And on that subject, the students are bursting with questions: how bad is the pill really, how long does it take for the natural cycle to get started again, is a copper IUD really completely hormone-free, and also: do you see periodic abstinence as an option? Valk is totally frank with them. About factoring in the risks, whether or not to accept the consequences and also the mind-over-hormones aspect: ‘Let’s be honest: when do you most feel like sex? Exactly, when you’re incredibly fertile. That’s when you really don’t fancy a bit of periodic abstinence, right?’ The audi-

### Hormones & the menopause

When the menstrual seasons stop because you are getting older, that creates new hormonal storms. Valk will give another workshop on that with equal enthusiasm, together with Ingi Alofs, a sports instructor at De Bongerd and a menopause expert with personal experience. Find out more from the Vital@work intranet group (for employees).

ence laughs in confirmation. So yeah, in your summer, you’ll just have to resort to condoms, even though they end up as waste. ‘I comfort myself with the thought that a baby causes a lot more waste,’ Valk jokes. She has a tip on that subject too, by the way: Merle Bombardieri’s book *Baby Decision, How to Make the Most Important Choice of your Life*. But that’s a workshop in itself. ■



Fluctuating hormonal levels cause different phases in the cycle. British author Maisie Hill, who wrote the book *Period Power*, compares these to the four seasons (red line is oestrogen; green line is progesterone). • Illustration Valerie Geelen

# Cameras keep an eye on the cow's health

Detecting hoof diseases even before the cow starts limping: that would benefit both the cow and the farmer. Wageningen researchers are finding out how automatic video analysis can help with this. 'This is information we have never gathered before.'

Text Nienke Beintema

Here they come, walking through the narrow passage in an orderly line. The dairy cows at Dairy Campus in Leeuwarden are returning to their barn, freshly milked and checked.

There are two cameras suspended in the corridor, pointing at the cows as they pass by. Back in the milking carousel, their hooves have already been automatically photographed. And there is more equipment up ahead in the spacious barn: another eight cameras, plus four anchors positioned high up in the four corners. These anchors pick up signals from tags the cows wear on their collars. The tags emit high-frequency radio waves with which a computer tracks the exact position of every cow. Together, these systems locate the cows on the farm 24 hours a day, and know whether they are moving fast or slowly, eating or resting, standing or lying down.

## Painful swelling

'This system is part of our innovation programme called Next-Level Animal Sciences,' says Claudia Kamphuis, a researcher at Wageningen Livestock Research. 'We are studying the use of sensor technology in combination with artificial intelligence to monitor particular health traits and the welfare of farm animals.' One of the things this project focuses on is Mortellaro's disease, a common bacterial hoof infection that causes painful swellings. The disease not only makes it harder for animals to walk, but also makes their stools looser and affects their

general health, their fertility and their milk yield. It is a contagious disease, which, according to some estimates, affects 40 per cent of Dutch dairy cattle.

Ideally, farmers aim to detect the infection before the cow has visible inflammation, explains Kamphuis. 'We are investigating the extent to which sensor technology can help with that early detection,' she says. 'Then farmers can treat their cows sooner, preventing any further spread of the disease.'

This research is taking place at Dairy Campus, a high-tech experimental farm run by Wageningen Livestock Research with several partners. Here, all cows wear the kind of collar with an identification chip that many dairy farmers have adopted to make their operations more efficient. 'What our sensor technology adds is the behavioural monitoring aspect, says Kamphuis. 'That fits in with the development we are seeing: society and farmers alike are going to give increasing importance to animal health and welfare. Farmers with large farms can't keep a close eye on every cow. That's why we are keen to automate that.'

## Limping

The images from the cameras in the passage are automatically analysed with image processing techniques. 'Together with our colleagues in the Agricultural Business Technology chair group, we created a model that identifies 17 key points on the cow,' says Kamphuis. 'Taken together, these tell us something about the cow's gait. Things like the curvature of the spine, or the stride length, or the extent to which the head moves up and down. If this system tracks an individual cow daily, it "learns" what that cow's normal gait is like, and

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'It's nicer for the farmer to work with healthy animals too'

can sound the alarm if there is any change, perhaps because the cow is limping.’

The researchers are now ‘training’ this system by manually validating the data. They do this by viewing and analysing images, and by looking at automatic photos of the hooves taken during milking.

The four sensors in the barn record the cow’s position in two dimensions to the nearest centimetre. The researchers use camera images to manually validate the data from this system, but also to record other details about the cow, such as whether she is standing or lying down. ‘You can derive a lot of information about a cow’s health from those patterns,’ says Kamphuis. ‘How long does it take the cow to get up, for example, or to lie down? If a cow is in pain, we expect it to take longer than usual. So far, we have never collected that information systematically.’ Here again, the earlier you detect health problems, the better you can treat them, Kamphuis emphasizes. ‘That is better for the cow, but it’s nicer for the farmer to work with healthy animals, too.’

### Prototype

In time, the researchers believe they will be able to collect all the information farmers need with the cameras – without the 3D location. ‘Thanks to the combination with position measurements, we can now develop very efficient image-processing software for this purpose,’ says Kamphuis.

‘The NLAS innovation programme on Dairy Campus will run until mid-2023, by which time Kamphuis hopes to have a prototype ready. How realistic is it that these technologies will then be adopted in barns around the Netherlands? ‘The use of cameras is definitely going to take off; I have no doubt about that, replies Kamphuis. ‘The cameras are relatively cheap, whereas the sensor for the 3D tracking are still expensive. But eventually we hope that we won’t need those anymore.’ ■

### More sensor technology

There are other WUR researchers working on the use of sensor technology for monitoring animal welfare, too. Wageningen Livestock Research, for example, is developing a camera system for recording and analysing the movements of broiler chickens. This system looks at the flock as a whole: the white chicks move as pixels against a black background. The changing pixels reveal exactly how the chicks are moving and the computer extracts information about their welfare from that. Researchers at Wageningen University are developing a capsule that pigs can swallow, which contains a sensor that collects information about the pig’s digestion and health.



In the milking carousel, the cows’ hooves are automatically photographed. Researchers are exploring how sensor technology can help in the early detection of Mortellaro’s disease, a bacterial hoof infection. ♦ Photo Jeroen Bouman

## Students up their game in Wageningen Honours Programme

# ‘This calls for dedication and sacrifices’

Extra work on top of your regular degree courses – who would volunteer for that? Honours students do. With unique projects and assignments, they earn an extra 30 credits spread over two years. ‘I sometimes wondered, how am I going to get through this busy week?’ Text Steven Snijders

**L**et’s start by introducing them: Noë Baljet (23, Nutrition and Health), Floris Helmdag (20, Molecular Life Sciences), Tanguy Heesemans (24, Molecular Life Sciences) and Nikoline Marxen (23, Environmental Sciences). Students from a diverse range of disciplines, all participating in the Honours Programme.

For that programme, Baljet recently organized an activity focused on speech-making, with the mayor of Wageningen; the other three are working together on a research project on drug residues in wastewater; and soon there will be a symposium with European Commissioner Frans Timmermans. And all this comes on top of their regular degree programme. What does the Honours Programme actually entail? And more importantly, is it worth all the effort?

### The programme

Honours students work on three dimensions over two years of their Bachelor’s programme: broadening and deepening their knowledge, and personal development. The broadening usually takes the form of the Honours Investigation Project (HIP): a two-year multidisciplinary

research project for which nine credits are awarded. A coach provides the topic, but the content and form are up to the students themselves. Floris, Tanguy and Nikoline made a fish (see photo), together with their HIP peers.

Floris: ‘This project is about drug residues in wastewater. They are hard to filter out and that causes problems in nature. Some fish suddenly change sex because of these drug residues, for instance. Currently, medicines that are past their use-by date or are no longer needed get discarded and end up in the wastewater. It would be better if we collected them at pharmacies, where they can be disposed of correctly. We’ve launched a campaign to this end. We want to draw attention to the issue with this fish, whose scales are made of medicine packaging.’ Tanguy: ‘We are also going to measure the impact: whether more people actually start handing in surplus drugs at the pharmacy.’

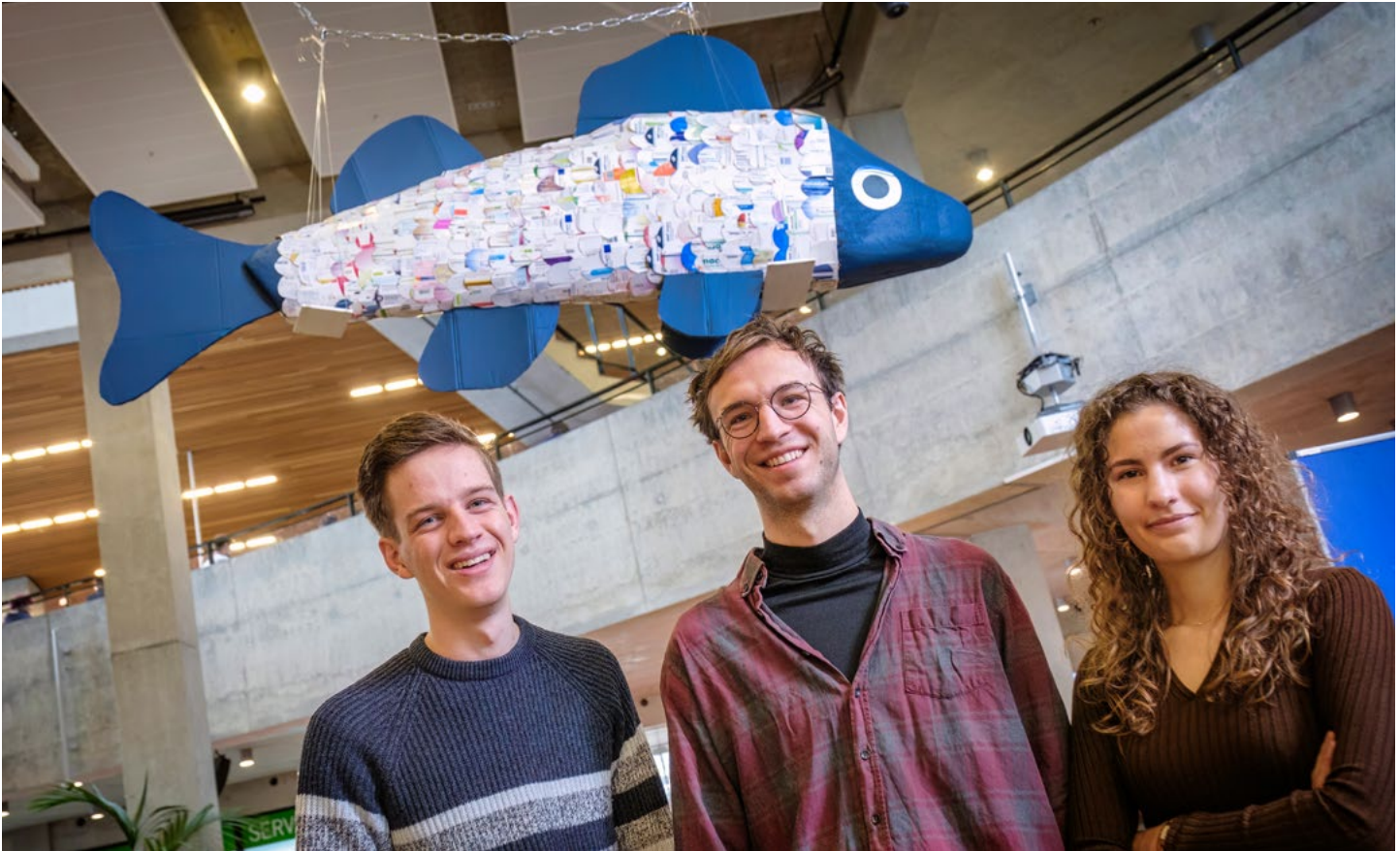
Noë Baljet sought added breadth not in an HIP, but through an activity: a training course in public speaking over two evenings. Noë: ‘That way you practise leadership, instead of just talking about it. On the first evening, we invited the

### ‘I think Honours opens doors’

mayor of Wageningen to come and tell us what makes a good speech. On the second evening, students gave speeches in front of a jury.’

Floris too has invited a prominent public figure: ‘European Commissioner Frans Timmermans is coming here on 7 December to discuss climate policy with students. Everyone is welcome by the way, including non-Honours students.’ Besides broadening their knowledge, Honours students must also deepen it and work on their personal development. The extra depth is sought through an assignment the students have to think up for themselves. Together with Floris, Tanguy devised a new practical for a course. And Nikoline and Tanguy explored a possible application for data collection in Mathematics: ‘I felt the lack of application on that course. It stayed abstract, whereas I wanted to know what you could do with it.’ For the personal development compo-





Honours students Floris Helmendach (left), Tanguy Heesemans and Nikoline Marxen made a fish from medicine packaging to draw attention to the issue of drug residues in wastewater. 'Some fish suddenly change sex because of these drug residues, for instance!' ♦ Photo Guy Ackermans

ment, students attend a leadership weekend and shadow a leader from the political scene or the business world. There is also a tutor, who coaches students in their personal development.

### The benefits

A recent study on the Wageningen Honours Programme highlighted the positive long-term effects of the programme. Honours alumni say that the programme improved their ability to transcend disciplines and to tackle complex problems. Noë: 'I think Honours opens doors. I meet all sorts of interesting people and widen my network that way. And I get to know myself better and learn to recognize my limits. Because sometimes I've sat with my head in my hands wondering: how am I going to get through this horrendously busy week? That was instructive.' Floris recognizes this: 'You are really thrown in at the deep end. That is hard but it's also one of the programme's strong points. You have a lot of freedom

and autonomy and that helps you learn to find your own way.' In retrospect, Nikoline is also glad there wasn't too much guidance and supervision: 'I did feel a need for it at first, but now I'm actually

glad we figured it all out ourselves.' The full Honours Programme does put a lot of pressure on the students. Tanguy: 'It requires dedication and sometimes sacrifices. Sometimes you spend your Saturday morning working on something. But I think it's worth it.' ■

### Not for everyone

Students whose grades are in the top 10 per cent in periods 1, 2 and 3 get invited to apply for the Honours Programme, but others are free to apply as well. Ultimately, the Honours Team coordinators decide which 60 students get to join.

The programme doesn't suit everyone, as it turns out. Students Gerwin Pol (23) and Daphne Schoop (25) quit the programme after a few months. Daphne: 'With my social sciences degree, I was the odd one out in our group. I found it difficult to contribute based on my talents and interests. Guidance in this area could have helped us a lot, on how to make decisions as a group, for example. I decided to do a board year; I got more energy from that.'

Gerwin: 'I didn't feel comfortable with the idea that the best-performing students get extra attention and resources from the university. I still think we should strive not for equal opportunities but for equal outcomes, so that students from all backgrounds can keep up.'

*Interested? You can apply up until the end of January.*

## Mimicking reef and sea in the lab

# Breeding coral feels the heat

At the new Caribbean Lab, marine biologists are studying what a heatwave does to coral.



Text Roelof Kleis

The reefs off the coast of Curaçao came under sudden pressure last year when the temperature of the ocean spiked dangerously. The danger was to the corals there, because they cannot withstand such heat. Warming water causes coral to bleach and eventually die. Reefs worldwide are threatened by global warming.

In the new Caribbean Lab in one of the Carus buildings, Robbert-Jan Geertsma studies the effects of warming on the accretion and growth of baby coral, a line of research that has only become possible quite recently. A year or so ago, Geertsma and his colleagues managed to get coral to reproduce in 'captivity', a feat that paves the way for experiments on a large scale. It was also a stepping stone towards the Caribbean Lab, which opens on 6 December.

The lab is really a room housing several aquariums. These tanks of water contain corals in various stages of development, with LED lights above them. Nothing special to the casual observer. But it is, explains PhD student Geertsma. It all starts in the first aquarium on the right, the lab's nursery. 'This is where we collect the larvae of the Caribbean golfball coral (*Favia fragum*). We've already got a first, second and even third generation of corals.' And he points to a small tub of water full of tiny, barely visible larvae barely a millimetre in size.

## Clean water

'They are extremely vulnerable,' he continues. 'But we are managing to keep them alive here under controlled conditions and to provide them with a substrate they find attractive enough to latch onto. Then they undergo

a metamorphosis: they develop a "mouth" and tentacles with which they can catch prey. We nurture them through to the next stage and they start growing, until they are so big that they release larvae of their own.' The secret of breeding corals lies in the quality of the water, says Geertsma. 'We filter the water to half a micron, which is half of one thousandth of a millimetre. This enables you to remove bacteria and even viruses from the water. So the larvae get off to a super-clean start in life. We can control all the conditions here: the light, the nutrition, the water, the current, and the diurnal rhythm. And it's all fully automated, thousands of kilometres away from the warm ocean around Curaçao, where they come from.'

In effect, what they are breeding here are 'Olympic corals', concludes Geertsma. Corals that are optimally fit to withstand the impact of warming. And precisely that is tested in the aquarium next to the nursery. Under a roof of special lamps, this aquarium simulates the heatwave that hit Curaçao's corals last year and caused them to fade. A total of 120 baby corals, prima-

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'We grow Olympic corals here'



Adult corals in the new lab. The bleached corals have just come from the wild; the others are 'Olympic corals' bred by the researchers. • Photo Robbert-Jan Geertsma

ry polyps, are about to undergo the same warming here that their counterparts were subjected to in the wild. The coral's response to that heat stress is being carefully mapped. Geertsma: 'We take weekly photos so we can measure growth. We measure the photosynthesis activity of the algae, which tells us when they are about to let go of the coral, causing it to bleach. That's how we measure the survival of the coral.'

### Catching prey

During the heatwave, the hatchlings' ability to catch prey is measured as well. 'This research is really unique in that regard,' says Geertsma. The measuring is done in a so-called flow chamber, a device that allows you to monitor the catch of an individual baby coral. 'Then we can quantify how much energy coral gets from prey and whether that increases under higher temperatures and is enough to survive. Because it could be that there is enough prey, but the coral is too exhausted to eat.' Catching their own prey is important for the corals. The reason they fade with warming is that they lose their algae and thus their main source of nutrition. Algae use photosynthesis and supply nutrients to coral, which does not use the process itself. With the loss

of algae, coral has to try and fend for itself. Geertsma: 'So it matters whether they can switch to catching prey and whether they can catch enough to stay alive. Baby corals are essential in this respect. If they don't make it at that stage, you lose an entire generation. So in this research, we are looking at how the characteristics of a species determine whether it can survive on a future reef.' ■

### North Sea Lab

In addition to the Caribbean Lab, the new North Sea Lab will also be launched. For the next two years, this lab-in-the-making will mainly be working on the ElasmPower project, which is researching the impact of power and data cables on North Sea fauna, focussing on rays and sharks. The current through those cables causes an electromagnetic field that can be disturbing for animals that use magnetic fields to orientate themselves or catch prey. PhD student Annemiek Hermans is studying those effects. Part of the research takes place in the lab on shark embryos, ray eggs and juveniles.



# THE SIDE JOB

**You've got to make ends meet somehow. We can all borrow from Uncle Duo, but there are also students who earn money in unusual ways. In this series, we put some interesting side jobs in the spotlight. Wisse Zwanenburg (23), a Master's student of both Management, Economics and Consumer Studies and Animal Sciences, works as a pallbearer at funerals.** Text Steven Snijders

'I often have to explain what my side job entails. It raises questions. We carry the coffins at funerals, in a team of four to six people. The coffin rests on our shoulder. We carry the coffin to the grave as carefully and respectfully as we can. Keeping in step with each other,

**'This job doesn't make me more preoccupied with death in my daily life'**

we walk to the prepared grave and lower the coffin into it. We are dressed stylishly, and we sometimes wear hats. My employer's name, Ferentes, is Latin for 'those who carry'. While we are carrying the coffin, we are very focused. You only get one chance to do something like this right.'

'Maybe it sounds a bit intense to work at funerals. When I heard about this job, I also thought: doesn't it feel really weird to do that? It turned out that wasn't the case. While we are carrying the coffin, we are just very focused on our task. Sometimes you hear someone crying, but emotionally I keep a professional distance. Contrary to what people

sometimes think, this job doesn't make me more preoccupied with death in my daily life. What's more, there is even time to relax and socialize with your colleagues. During a funeral, we work in several short bursts. In between those moments, we are waiting and we're not near the relatives. Those are breaks for us, just like in any other job. Our employer also organizes get-togethers to keep the atmosphere good. You don't get a specific type of student coming to work here; it is a diverse group. I worked in a beach bar this summer. I didn't feel as appreciated there as I do in this job. What I like best about it is that I can do something for the mourners.'

## Wisse carries coffins

**Who:** Wisse Zwanenburg

**What:** pallbearer at funerals

**Why?** to do something for the mourners

**Hourly wage:** €12.50 to €14 per hour



Photo Guy Ackermans

Do you have an unusual side job or know someone else who does? Send an email to [steven.snijders@wur.nl](mailto:steven.snijders@wur.nl)

# Flower hunting

In this series, student editor and MSc student of Plant Breeding Julia van der Westhuyzen (photos and text) and professor of Plant Ecology Joop Schaminée (stories) go looking for the loveliest campus flora.



## Dog rose

**Common name:** Dog rose

**Scientific name:** *Rosa canina*

**Flowering time:** June to July

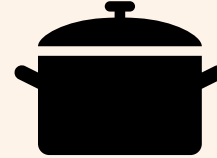
**Fruiting time:** late summer to late autumn

**Location on campus:** near the roundabout on Droevendaalsesteeg

There are 17 rose species native to the Netherlands. One of these is *Rosa canina*, commonly known as the dog rose. Some see this as a derogatory term because this rose is so common and (slightly) less spectacular than other rose species such as the sweetbriar rose (*Rosa rubiginosa*). Other, much older explanations stem from Roman times when it was believed that the root of this rose could heal bites from a rabid dog.

Pictured here is the fruit formed from the flowers, which stays on the plant into late autumn. This fruit is called a rose hip, and is used for oil, syrup and tea to treat a range of ailments from stomach ache to arthritis.

You encounter all the flavours of the world in the WUR community. Mathilde Richard (21), a BSc exchange student of Environmental Sciences from France, shares her recipe for tartiflette.



Flavours of WUR

## Tartiflette

'Tartiflette is a dish from the French alps, where I come from. It is my favourite dish to make in winter, and at home we have it several times a week in winter. This is the vegetarian version; for a non-vegetarian version you can add bacon. It is made with Reblochon, a cheese from the French alps, but you can also use a different soft French cheese such as brie or camembert. This is an oven dish, but you can also make it in a pan.'

- 1 Preheat the oven to 175 degrees.
- 2 Boil, peel and slice the potatoes.
- 3 Fry the onion and garlic in a pan until the onion is translucent.
- 4 Mix the potatoes, onion, garlic and parsley together with a dash of the cooking liquid in a baking dish.
- 5 Halve the Reblochon lengthwise. Chop one half into small pieces and mix with the other ingredients. Season with salt and pepper.
- 6 Slice the second half of the cheese in two and place on top of the mixture.
- 7 Bake for about 15 minutes, or until the cheese is melted.

### Ingredients (for 2 people)

- 500g of potatoes
- one Reblochon cheese (or similar)
- one onion, coarsely chopped
- a clove of garlic, finely chopped
- a handful of coarsely chopped parsley
- 250 ml cooking milk



**Mathilde Richard**

a BSc exchange student of Environmental Sciences from France

### 10-euro lunch voucher

Share your recipe with *Resource* and get an **Aurora voucher worth 10 euros**.  
resource@wur.nl

# Irregular Opening Hours

## Christmas Holidays 2022

Forum		Building	Library	Student Service		Restaurant	Grand Café	Wageningen in'to Languages
				Centre	ServicePoint IT			
Sat / Sun	10/11 Dec	9 am - 7 pm	9 am - 7 pm	closed	closed	closed	closed	closed
Mon - Thu	12 - 15 Dec	8 am - 11 pm	8 am - 11 pm	10 am - 2:30 pm	8 am - 5:30 pm	9 am - 3 pm	8 am - 5 pm	10 am - 2 pm
Friday	16 Dec	8 am - 11 pm	8 am - 10 pm	10 am - 2:30 pm	8 am - 5:30 pm	9 am - 2 pm	8 am - 5 pm	10 am - 2 pm
Sat / Sun	17 / 18 Dec	9 am - 7 pm	9 am - 7 pm	closed	closed	closed	closed	closed
Mon - Thu	19 - 22 Dec	8 am - 11 pm	8 am - 11 pm	10 am - 2:30 pm	8 am - 5:30 pm	closed	10 am - 2 pm	10 am - 2 pm
Friday	23 Dec	8 am - 11 pm	8 am - 10 pm	10 am - 2:30 pm	8 am - 5:30 pm	closed	10 am - 2 pm	10 am - 2 pm
Saturday	24 Dec	10 am - 6 pm	closed	closed	closed	closed	closed	closed
Christmas	25 Dec	closed	closed	closed	closed	closed	closed	closed
Christmas	26 Dec	closed	closed	closed	closed	closed	closed	closed
Tue - Fri	27 - 30 Dec	8 am - 8 pm	8 am - 6 pm	closed	8 am - 5:30 pm	closed	closed	closed
Saturday	31 Dec	10 am - 6 pm	closed	closed	closed	closed	closed	closed
New year	1 Jan	closed	closed	closed	closed	closed	closed	closed
Monday	2 Jan	8 am - 11 pm	8 am - 6 pm	closed	8 am - 5:30 pm	closed	8 am - 5 pm	closed
Tue - Thu	3-5 Jan	8 am - 11 pm	8 am - 6 pm	12:30 pm - 2:30 pm	8 am - 5:30 pm	closed	8 am - 5 pm	closed
Friday	6 Jan	8 am - 11 pm	8 am - 6 pm	12:30 pm - 2:30 pm	8 am - 5:30 pm	closed	8 am - 5 pm	closed
Sat / Sun	7 / 8 Jan	10 am - 6 pm	closed	closed	closed	closed	closed	closed

The buildings below are closed from 24 December until 8 January. Employees and student are welcome in Forum building.

Orion		Building	Bike basement	The Spot	Restaurant
Mon - Fri	19 - 23 Dec	8 am - 7 pm	8 am - 9 pm	8 am - 8 pm	11:30 am - 2 pm
Saturday	24 Dec	closed	closed	closed	closed
Christmas	25 Dec	closed	closed	closed	closed
Christmas	26 Dec	closed	closed	closed	closed
Tue - Sat	27 - 31 Dec	closed	closed	closed	closed
New Years	1 Jan	closed	closed	closed	closed
Mon - Sat	2 - 7 Jan	closed	closed	closed	closed

Aurora		Building	Bike basement	Your Barista	Blend	Plant	World Flavours
Saturday	24 Dec	closed	closed	closed	closed	closed	closed
Christmas	25 Dec	closed	closed	closed	closed	closed	closed
Christmas	26 Dec	closed	closed	closed	closed	closed	closed
Tue - Sat	27 - 31 Dec	closed	closed	closed	closed	closed	closed
New Year	1 Jan	closed	closed	closed	closed	closed	closed
Mon - Sun	2 - 8 Jan	closed	closed	closed	closed	closed	closed

Leeuwenborch		Building	Coffee Bar / Restaurant	Library
Mon - Fri	19 - 23 Dec	7 am - 10 pm	10 am - 2 pm	Closed
Saturday	24 Dec	Closed	Closed	Closed
Christmas	25 Dec	Closed	Closed	Closed
Christmas	26 Dec	Closed	Closed	Closed
Tue - Fri	27 - 30 Dec	Closed	Closed	Closed
Saturday	31 Dec	Closed	Closed	Closed
New Year	1 Jan	Closed	Closed	Closed

# DAILY UPDATES ON STUDENT LIFE AND WORKING AT WUR?

Follow us on Facebook, Instagram, LinkedIn, Twitter and TikTok for the latest news, photos, videos and more.

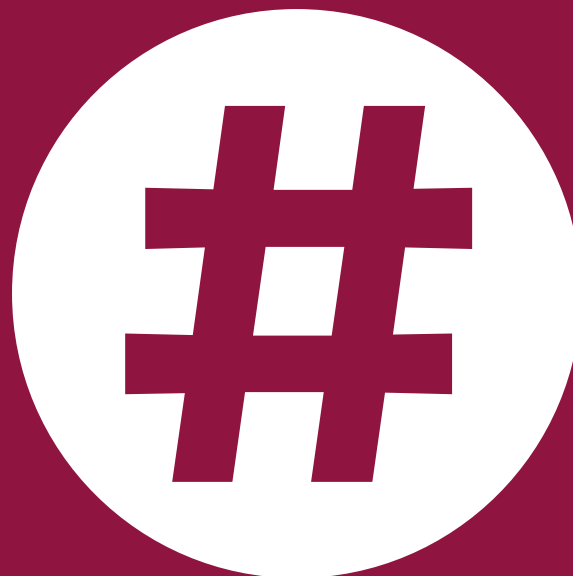
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## Resource

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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](http://resource-online.nl). The magazine is published every fortnight on Thursday.

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## THERE IS SUCH A THING AS A STUPID QUESTION

Teachers often say there's no such thing as a stupid question, but there really is. That's clear from field research by sociologist Irina Gazpacho.

Gazpacho walked around campus for years and attended hundreds of lectures. 'Stupid questions are a lot more common than is generally assumed,' Gazpacho says. 'In fact, someone will ask one in almost every lecture.'

One of the frequently asked stupid questions is what you need to know for the exam, says Gazpacho. 'Any question to which the answer is literally word for word in the study guide or on Brightspace is just stupid. And you can generally assume that if a teacher covers it in class, you need to know it. Why else would the teacher pay attention to it?'

Questions like 'can I do the practical another time because I'm going shopping with my girlfriends on that day?' are also classified as 'stupid'. Gazpacho: 'Come up with a good excuse, at least. What happened to 'The dog ate my homework'? Where has all the creativity gone?'

'Did you guys know we were going on a field trip?'

This was a question a student recently asked his course mates on a course that's famous for its 10-day excursion. 'He asked that as the bus pulled away. He just didn't get it, poor soul. Seriously stupid.'

Gazpacho expects to publish recommendations based on her research by the end of the year. In the report, *Dumb questions for dummies*, she will advise teachers on the best way of dealing with stupid questions. 'What the best answer is depends on the type of stupid question,' says Gazpacho. 'You can totally ignore it, get cross with the student or heave a big sigh and ask: are you serious?'