WUR from within: straight, sharp, transparent

No 19

Resource

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The journalism platform for all at Wageningen University & Research

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for societies

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FOREWORD

Do the survey

‘If there are concerns about *Resource*, you should focus on the argument that you guys are one of the few bodies that unite students and staff at WUR.’ This response came from a reader following the readers’ survey we started two weeks ago. Cost cuts mean we may have to reduce the publication frequency of our magazine, which currently appears every two weeks. At present, it is not clear what we will be doing as of September and in what form. A crucial factor for us in making this decision is what our readers expect from *Resource*. **So help us by completing our readers’ survey** (it takes just six minutes, see page 29). You have two more days – today and tomorrow – before the deadline!

This is the final issue of the academic year. Over the next few weeks, you will be able to check out our website and social media channels for news on whether the Executive Board agrees to the student protestors’ request for a debate, or listens to the 400 employees who signed a petition calling on an end to institutional links with Israeli universities, and other WUR news. Whatever happens, there will be plenty to report and opine on from September too. The report on personal safety raises questions and hot-desking is still a controversial issue. And will WUR be forced to make cutbacks due to the new Dutch government? Of course we will also continue to closely monitor student news and write about research. That won’t change. For now, I wish you all happy holidays on behalf of our editors!

Willem Andrée
Editor-in-chief

LOSING POSSESSION

When this issue of *Resource* went to press, we didn´t know the outcome of the Netherlands v Romania EURO football match on 2 July. Regardless of whether the Dutch got kicked out or are still in with a chance of progressing to the semis, at least we have this photo. Venue: Sports pub at De Bongerd. Match: The Netherlands v Austria, 25 June. Situation: Joey Veerman carelessly gives the ball away to the Austrians. As is clear from the reactions. WA

Photo Guy Ackermans

Societies change course with **new code of conduct**

Nearly 50 student societies have jointly drawn up and signed a code of conduct. The signatories include SSR-W, KSV Franciscus, WSV Ceres and Nji-Sri. The aim of the code is to put an end to transgressive sexual behaviour, excessive use of alcohol and drugs, and aggression.

At the same time, the code should preserve the unique character of Dutch student society culture, explains Christel Konings of the Wageningen Federation of Student Societies (WKvK). The code was drawn up by the National Federation of Student Societies (LKvV), together with workgroups that included four members from Wageningen.

Drug use

This process resulted in the code of conduct that can be found online on the LKvV website. It says for example that every society must have a hotline and confidential counsellor for sexually transgressive behaviour and aggression. In addition, the use of drugs must be actively discouraged. Societies that have signed the code of conduct include the Groningse Vindicat and Utrechtsch and Amsterdamsch Studenten Corps, all of which have been in the news in recent years for unacceptable and aggressive behaviour, 'slut lists' and violence. Which raises the question of how the code will be enforced. 'What happened there is unbefitting of student societies,' says Konings. 'There are punishments for this. The society itself decides what punishment to apply for a violation. This is a code of conduct, not a law.'

Secrecy

One striking agreement is that societies are no longer allowed to impose a vow of secrecy on members about the society's introduction period. Traditionally, it was strictly forbidden at many societies for members to talk about their experiences during the introduction or hazing rituals. Konings: 'We are moving towards a more open culture in student societies. First-years who are thinking about joining a society don't need to fear hazing. In Wageningen, no big changes are needed now this code of conduct has been signed because we were already ahead of the game in terms of our open culture.' LZ

Read more at resource-online.nl

Road trip

For their ACT project, these WUR students are carrying out a user needs assessment for a planned app. The idea is that the app will make precision agriculture and other technological innovations accessible to small-scale farmers. The students are visiting as many farmers and cooperatives as possible in Spain. They are travelling in this van, sponsored by the EU. It will be available to students over the next four years who want to spend a couple of weeks travelling round Europe and working on this project. LZ ◆ Photo Lianne Sänger

Read more on resource-online.nl.

Women get priority for Vidi

The Dutch Research Council (NWO) plans to give women priority when allocating Vidi grants. Their research proposals must be of an equal standard to the proposals submitted by men. NWO hopes the new policy will help more women progress to leadership positions in science. NWO has chosen the Vidi grant as an instrument for positive discrimination because it is a grant for mid-career scientists. This is often the stage at which women leave the academic world. In the Netherlands, only 28 per cent of professors are women. The new measure is a pilot and will come into effect with the next call for proposals in September. The idea is that having more women get a Vidi will make it easier for them to progress to a position as professor. NWO points to the success of a similar measure in Ireland. HOP/RK

1575

A total of 1575 different species were spotted on WUR grounds during the 2024 Bioblitz. That was 142 fewer than Leuven University managed. Like last year, this puts WUR second after the Belgians. Plants were the largest category (484 species), followed by flies (189 species) and moths (186 species). The blitz also yielded the first sighting in the Netherlands of one particular aphid. RK

What's the deal with nitrogen?

Ecologist Wieger Wamelink has written a book (in Dutch) called *Het Stikstofweb*, for people who want to know more about the nitrogen problem. In the book, Wamelink explains what the problem is and how we ended up there. 'This is the latest objective scientific knowledge, fact-checked by experts,' says Wamelink. The science is made accessible with illustrations and full-page quotes in fancy lettering summarizing the (short) chapters. Wamelink wants to reach a broad readership with his book. 'The nitrogen problem is an important topic that we are spending billions of euros on. If you want to form an opinion on the matter, I think it's important you know what it is all about.' RK

Het Stikstofweb ▪ Wieger Wamelink ▪ €14.95

'WUR can easily tackle undesirable behaviour'

The Labour Inspectorate drew 'hard' conclusions, to use its own term, in its recent investigation into work pressure and undesirable behaviour at Dutch universities. The report on WUR, which was recently published on the intranet, shows there is room for improvement in the situation at Wageningen too.

'But WUR is in a good position to make rapid progress,' says ombudsperson Jaqcueline Schoone. While the findings of the Labour Inspectorate caused a major stir at Delft, things have been quiet at Wageningen. Not that there is nothing to do. For example, nearly three quarters of the respondents at Wageningen had experienced work stress more than occasionally in the past two years. And over a third of the 487 Wageningen respondents had faced undesirable behaviour in the past two years. Half had seen that happen to someone else. The findings in the Labour Inspectorate

report give a more dramatic impression than WUR´s own employee monitor (4700 respondents), where 19 per cent of the respondents said they had recently experienced undesirable behaviour.
According to the Labour Inspectorate report, the main reason for these problems is the power imbalance and dependency in work relationships. The other three key causes are poor leadership skills in managers, excessive work pressure and a failure to impose sanctions following undesirable behaviour. 'It shows WUR needs to do much more to demolish certain structures that enable undesirable behaviour,' says Schoone. 'For example, hierarchical structures, power imbalances and the way in which WUR addresses the question of leadership.'

Big steps

The ombudsperson has already seen improvements, but also notes there are still parts of WUR where the working environment is not as it should be and yet no action has been taken. 'Whereas WUR has no reason to be hesitant. The organization is not suffering from a crisis of confidence along the lines of Delft. There is nothing to stop Wageningen taking big steps. We know what the problems are and where we should look for the causes, so let's tackle them.' ME

Read the full interview at resource-online.nl

Two grants of 2.5 million to study microorganisms

Liesje Mommer and Thijs Ettema have both secured ERC Advanced Grants for innovative research. In both cases, the research centres on microorganisms. Mommer studies mycorrhizal fungi, and Ettema archaea. Text Roelof Kleis

Protective fungi

Professor of Belowground Ecology Liesje Mommer studies the relationship between biodiversity and pathogens in the soil. Biodiversity offers protection against pathogens; this has been known for more than 50 years. But this rule of thumb doesn't always apply. 'Sometimes biodiversity has no effect on outbreaks of a disease, or more biodiversity is associated with *greater* pressure of disease,' says Mommer. She will use the ERC grant to look for an explanation for these outcomes.
One possible explanation is found underground in mycorrhizal fungi, which live in symbiosis with plant roots. 'We know the fungi exchange minerals with the plant in return for sugars. Now some evidence has been found that they protect plants from disease. How widespread is that? Are plant communities with better mycorrhiza networks also more resistant to pathogenic fungi? And what properties does such a plant community have?'
Another aspect Mommer will be studying is the interaction between different fungi. 'Certain plants in a community boost one pathogen at the expense of another. We can use knowledge about this mechanism in agriculture, for example to make strip cropping more robust in the face of outbreaks of disease. My mission is to use biodiversity to make agricultural systems more resilient and thereby reduce the need for pesticides.'
Mommer will be working on the new project for the next five years along with three PhD candidates, two postdocs and one analyst.

Complex life

How did complex life on Earth start? That is the question professor of Microbiology Thijs Ettema has been pondering his entire career. The quest already led to his discovery of the Asgard archaea, a group of microorganisms that is closest in evolutionary terms to complex life forms such as humans. In this case, complexity means eukaryotic, having cells that consist of a nucleus and cell organs.
Archaea don't have a nucleus, but they do have certain eukaryotic features. Ettema has already demonstrated that. 'They have certain genes that eukaryotes also have and that are involved in the formation of compartments. These are vesicles enclosed by a membrane that exchange substances with one another. What do the eukaryotic genes do in archaea? My hypothesis is they have a function here too that points to complexity.'
But he first needs to be able to cultivate archaea and study them. The pointers to complexity are currently based purely on genetic studies. 'We want to find out what the archaea look like and what the proteins do that we see in the genetic code. We will use advanced techniques to try and cultivate archaea so we can study them under the microscope. I hope this grant will let us do that within the next five years.'
The ERC grant covers a period of five years. Ettema will be able to take on two PhD candidates and two postdocs, as well as buy new equipment for cultivating archaea.

Potato curator Lana de Bruijn in her potato field. ◆ Photo Roelof Kleis

An ode to the potato

Something unusual is going on in a field on Bornsesteeg. It is a sight probably never seen before, in fact. On a plot of land measuring barely 10 x 20 metres, 130 different species of wild potatoes are growing. This is the vegetable garden belonging to Lana de Bruijn, the new potato curator at the Dutch Centre for Genetic Resources (CGN).

Text Roelof Kleis

In May, De Bruijn took over from the previous curator Roel Hoekstra, who retired after 40 years in the job. She has been focusing on the potato for more than a year at CGN. CGN manages a gene bank with potato seeds. And of course she sees potato plants when she visits growers. ‘But that doesn’t give you a real feeling for the plant,’ she explains. ‘I wanted to see, feel and smell them all.’ So the curator created her own experimental plot with the help of her predecessor. The plot contains 226 accessions of potatoes. ‘Accession is the term we use to indicate a distinct population,’ explains De Bruijn. ‘These are 226 populations of 130 species of wild potatoes.’ The plants come from Central and South America and make up two thirds of all wild potato species.

Ode

The varied collection is an ode to biodiversity. The cultivated potato that we eat comes from a plant with modest white flowers. The plants in De Bruijn’s garden have purple, pink and even yellow flowers. Bright yellow hearts stand out against deep purple petals. ‘Isn’t that fantastic? It’s just overwhelming to see all those species and subspecies.’

‘I wanted to see, feel and smell them all’

Some, such as the *Solanum polyadenium*, even have a scent. Not that it’s particularly pleasant. The scent of the leaves on this species from Central Mexico reminds you mainly of wet socks that have spent too long in the washing basket. De Bruijn laughs: ‘My predecessor Roel Hoekstra really likes the smell, but the taxonomist who first described the plant called it an appalling odour.’

Tubers

De Bruijn sowed the seeds in a greenhouse on 4 March. On 24 May, the seedlings were planted out in the field. ‘Some were already flowering and have now finished. Others are just starting to flower. They all have different timings. That is another sign of the variation. One even had tiny tubers by the time they were planted out.’ De Bruijn visits the plot as often as her work allows, partly to weed it but mainly to see the plants and learn from them.

Nearly all the species in the field produce tubers. Does that mean a harvest feast at the end of the summer? ‘Possibly,’ she says cautiously, ‘But I don’t think that would be so nice for the guests. These tubers contain a lot of glycoalkaloids. They taste bitter and give you stomach pains.’

[Live&Learn]

A botched experiment, a rejected paper: such things are soon labelled as failures in academia. As for talking about it – not done! But that is just what WUR scientists do in this column. Because failure has its uses. This time we hear from Guido Bosch, assistant professor in Animal Nutrition.

Text & Illustration Stijn Schreven

‘When I was doing my PhD and started supervising students doing a Master’s thesis, I invested a lot of time in this task. I scheduled an hour a week with each student for a meeting, sent them extensive feedback and arranged the logistics of their experiments. My well-intentioned feedback was so detailed that sometimes students burst into tears. This approach to supervision was not sustainable; I was far too busy.

‘My well-intentioned feedback was so detailed that sometimes students burst into tears’

‘I had to get a grip on myself. I wanted to know what my maximum workload could be, as a way of forcing myself to be more efficient. At one point I was supervising 16 thesis students at the same time. That was costing me 20 hours a week. It was hectic, but I had prepared for it. I wanted to give the students more responsibility, so rather than spreading the meetings over five days, I scheduled half-hour sessions back to back on Mondays and Tuesdays.

Each student would see the next one waiting, which taught them to use the meeting more efficiently. Over time, I learned to ask questions rather than giving the answers myself. I reduced the written feedback and used examples the students could apply themselves.

‘My students became more self-reliant. They felt more responsible for their own research and became prouder of the results. They came to the meetings prepared with points for discussion. Their theses felt more like research they had done themselves, rather than simply carrying out what their supervisor had told them to do.

‘My experience as a supervisor has also sharpened my own research skills. I pay more attention to the broad outline and get to the essence faster. That helps when I am writing articles. And it has taught me to set boundaries and to prioritize. I am less likely to continue working in the evenings than I used to be. And my supervising style is more of a coach these days. You could say I’ve become lazier, ha-ha!’

Reduce pill use by spotting micronutrient deficiencies

PhD candidate Wout van Orten-Luiten (Human Nutrition & Health) studied the association between the use of medication and vitamin and mineral deficiencies in the blood. ‘If doctors can spot such deficiencies, that can help reduce the unnecessary use of medication and unwanted side effects.’

Medicines have side effects that are not always desirable. Van Orten-Luiten: ‘Medicines can cause micronutrient deficiencies in our blood. These vitamin and mineral deficiencies can in turn lead to new complaints. Doctors often don’t realize these complaints are side effects of the medication, and so they prescribe yet more medicines rather than tackling the deficiencies. For example, patients with diabetes are often given metformin to reduce the blood sugar level, but a side effect of this medicine is that it reduces the amount of vitamin B12 in the blood. This can eventually lead to a deficiency in vitamin B12, possibly resulting in nerve pain. If doctors don’t realize what has caused the nerve pain, they are likely to prescribe another medicine to treat the problem. The metformin can also cause stomach problems in patients, and they may be given another pill for that. But a possible side effect of such gastric acid suppressants is a further reduction in the amount of vitamin B12 in the blood and in magnesium levels. A magnesium deficiency increases the risk of heart rhythm disorders, and yet more medicines may be prescribed to treat that problem.’

‘Doctors often don’t realize complaints are side effects, so they prescribe more medicines’

Nutrition

In her thesis, Van Orten-Luiten looks at the associations between various medicines and vitamin D, magnesium and sodium. ‘Doctors don’t know much about the interactions between nutrients and medicines. But the medical world is trying to reduce the unnecessary use of medicines and the associated side effects. My thesis adds useful knowledge from the nutritional perspective.’ DV

ALARMING DROP IN NUMBER OF **RHINOS**

Poachers are well on their way to wiping out the rhinoceros completely. Measures have been taken but they have not reduced the impact of poachers, show ecologist Jasper Eikelboom and emeritus professor Herbert Prins in a study of rhinos in Kruger Park, South Africa.

Text Roelof Kleis

The rhino population in Kruger National Park, South Africa, currently numbers just over 2000 individuals. ◆ Photo Shutterstock

From the turn of the century, the number of rhinos in Kruger Park initially fluctuated between 10,000 and 12,000, but numbers started to drop sharply a decade ago. Two years ago, there were fewer than 2500 rhinos. 'Shocking numbers,' agrees Eikelboom. He got his PhD three years ago for a method he developed to detect poachers by attaching transmitters to savannah prey animals. According to Eikelboom, the figures give the lie to the government's talk of a decline in poaching. 'It is not the number of poachers that have declined; it's the number of animals available to poach. The percentage of rhinos falling victim to poaching has stayed fairly constant but the absolute numbers have dropped a lot simply because there are fewer rhinoceroses left to be poached.' The Wageningen scientists demonstrate this with a mathematical model in an article in *Science Advances*.

Sawn off

The park management started dehorning the rhinos as a way of deterring poachers. 'That was a major operation,' says Eikelboom. 'The park covers an area about two-thirds the size of the Netherlands, and they had patrols and helicopters scouring it for rhinos. The beasts were sedated and their horns sawn off. There were about 3000 rhinos at that point. But the horn is like nails – it grows back.'

That is why dehorning is not the perfect solution, says Eikelboom. 'You have to keep doing it because the horn has largely grown back within five years.' He is not enthusiastic either about the idea of legalizing the trade in horns. 'South Africa allows domestic trade these days but international trade is still illegal. I think legalization is a bad idea. The demand for horn in China and Vietnam in particular is much bigger than the supply. So you won't remove the incentive for poaching that way.'

Corruption

In China and Vietnam, rhino horns are a status symbol and used as medicine. Eikelboom: 'Millions of people want to buy rhino horns. There are only about 10,000 rhinoceroses left worldwide. Scarcity is driving up the price, but there is still a lot of demand.' The high prices also encourage corruption and the bribery of park employees.

'Legalization is a bad idea. It won't remove the incentive for poaching'

Eikelboom and Prins see only one solution for saving the rhinoceros: smaller, closely monitored parks. 'You can't do much about the demand in the short term,' says Eikelboom. 'So try to protect the rhinos properly in well-guarded parks. In the long term, you can focus on reducing the demand.'

PhD theses in a nutshell

Cackling

Magpies cackle loudly. What do those alarming noises mean? Miriam Kuspiel from Germany tried to decipher the language of magpies. She studied the various reactions provoked by fake foxes, sparrowhawks and pigeons. There are big differences. The magpies react most to intruders on the ground, followed by other magpies. The cackling is louder, more rapid and continues for longer. They react least to sparrowhawks in the air. The same pattern is seen when magpies are in pairs or groups. According to Kuspiel, the cackling is aimed at scaring off intruders or alerting other magpies. But it is hard to decipher their calls. RK

The function of alarm calls and their variation in Eurasian magpies.
Miriam Kuspiel ◀ Supervisor Marc Naguib.

Pepper puzzle

The composition of the light can have a big effect on the growth of plants. Sijia Chen from China studied what having more far-infrared light (wavelengths up to 1mm) in the spectrum does to the fruit formation in bell peppers. The effect is clear: more far-infrared light reduces fruit formation. At least, it does in a climate-controlled greenhouse. Similar experiments in an ordinary greenhouse produced the exact opposite result. It is a good (and frustrating) example of how much the experimental setup can determine the result. A warning to all scientists. RK

Unravelling light spectrum effects on fruit set in sweet pepper.
Sijia Chen ◀ Supervisors Leo Marcelis and Remko Offringa.

Medicines in chicken feathers

Chicken feathers consist largely of the protein keratin. So it's a shame to throw them away. Xiaojie Qin, from China, developed a method for making nano-capsules for insulin from feathers. Keratin peptides, which are breakdown products of keratin, can easily get inside human cells. You can also turn them into spherical nanoparticles that open and close depending on the acidity of the surrounding aqueous environment. Qin demonstrated various results by packaging insulin in the nano-capsules. From chicken feathers to nano-capsules – a nice example of biobased engineering. RK

Valorization of chicken feathers: biobased nanocarriers for biomolecule delivery. **Xiaojie Qin ◀ Supervisor Harry Bitter.**

THE PROPOSITION

PhD students explain their most provocative statement. This time, it's Parth N. Shah, who received his PhD on 17 June for research into environmental factors influencing the immune response of black soldier fly larvae, which are used as feed inputs for livestock and aquaculture.

'Peaceful times make unthankful citizens'

'My grandfather always used to tell me, "Count yourself fortunate that you were born in the 1990s". He had lived through wars, and he told me what horrible times they were. As peaceful times are upon us, people are unaware of the true value of freedom. New generations do not realize how much loss and misery were endured to reach this moment of peace. I feel that as the current generation, we should keep reflecting, and realize and appreciate all the toil that was put in by our forefathers who saw the horror of war.

In the Netherlands we live in a bubble of safety. We often do not realize what hardships go on in other parts of the world. I feel very grateful for the country I'm in now, and also for the country I originate from, India — a very big country, with 77 times the population of the Netherlands and likely 77 times more issues. That is okay as Indians are not idling, they are working on it. But with 1.4 billion people, it is a different ballgame altogether to the Netherlands.' ME

If you disagree, great!

Guido Camps

Before my return to the academic world to start my PhD research, I worked for a firm called Debate & Dialogue (not a very original name); I had taken part in a lot of debating competitions during my degree studies. Debating taught me a lot, for example to ruthlessly focus on the substance of the matter, but then chat cheerfully with my opponent afterwards.
What is the difference between a debate and a dialogue? Basically, in a dialogue you try to nurture understanding for one another's standpoint and find some middle ground. In a debate, you are tougher on one another and you contrast your viewpoint with your opponent's with the aim of persuading a third party — the audience or a jury.

'In a dialogue you look for middle ground, but the truth isn't always in the middle'

At Wageningen, we prefer dialogues. We have the Let's Explore sessions and the Wageningen Dialogues. For each strategic decision, we organize open dialogue sessions. If things get tense, our first response is 'to start talking to one another'.
I think we could use some more debate in Wageningen. The 'fallacy of the middle ground', the incorrect assumption that the truth must always be somewhere in the middle, leads people to think dialogue will get them closer to the truth than debate. But sometimes you need to look for the extreme positions. Either you vote for the Nature Restoration Law or against it. Either you stop collaborating with Israeli universities or you don't. There is no middle ground.
On several occasions in this column, I've invited someone to a debate with me (the invitation's still open, @Roos Vonk and @Rutger Bregman), not so much to win a match as to test ideas. And have a friendly chat afterwards.
In a dialogue, you need to listen, in a debate you need to ruthlessly defend your position. You can only tell whether your position is solid with a debate. So my resolution for the coming academic year is to organize and participate in more debates. To kick off: I think the Netherlands *should* produce food for the rest of the world, we should not boycott Israeli universities, and all tenure track criteria should apply equally (looking at you, Social Sciences Group!). If you disagree, great! We'll have a debate.

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

The irony of the science cruise

A cruise to the Arctic or Antarctic in which you help with scientific research sounds like the ideal combination. Or is it basically greenwashing? Social scientists Machiel Lamers (Environmental Policy) and Nathalie Steins (Wageningen Marine Research) study sustainable tourism.

Text Dominique Vrouwenvelder

Lamers and Steins recently published an article on their work on the Scientific Expedition Edgeoya Svalbard (SEES). These expeditions to the Svalbard archipelago (previously known as Spitsbergen) consist of about 50 tourists and an equal number of scientists. Lamers went on the trip in 2015, Steins in 2022. Steins: 'It's an out-of-the-ordinary experience for the tourists and means 50 extra helpers for the scientists. In the article, we describe the pros and cons of collaboration in science cruises like these.'

Associate professor Lamers: 'From a scientific perspective, combined trips like these offer a lot of opportunities. It's ideal if you can collect data using ships that are sailing there anyway. But only if they're going to places that are relevant for science. And that's not usually the case with such ships.'

Tourist magnet

'Over the past five to ten years, tourism and science have become increasingly intertwined in polar regions,' explains Lamers. 'That's mainly because they happen to be the two most important activities in the polar regions. In these SEES trips to Svalbard, there were equal numbers of tourists and scientists. That's unique, as tourists are usually in the majority.'

In addition to the practical aspect relating to the geography, valorization plays a role. Scientists are looking for ways of informing the general public about their research. Lamers: 'Tourists on cruises to polar regions are more than ready to meet that need. Unconventional tourist trips are popular throughout the world. That makes Svalbard, with its icebergs, exceptional nature, remote areas and unusual fauna, a tourist magnet. A lot of cruise ships visit the Arctic and Antarctic. Not the floating giants, but these are still ships with a few hundred passengers on board. The fragile continent of Antarctica gets about 120,000 tourists a year and the numbers are growing exponentially.'

Lamers sees a shift in the type of cruise that travel companies are selling. 'Organizations want to offer an unusual experience that also includes educational aspects such as lectures. And they want smaller ships that can get closer to the nature. The guides on science cruises often have scientific backgrounds. They might help tourists spot birds, for example, from an observation post on the ship's deck. That gives the tourists the feeling they're helping to solve the world's problems.'

'Tourism undoubtedly has an impact on vulnerable polar regions'

Armed against polar bears

Lamers believes the combination of scientists and tourists offers advantages for both. 'Sometimes it's a question of quick wins; for example, when scientists suspend measuring instruments from a ship to measure the water quality. They can also use tourists as extra assistants to help move research equipment, or to collect waste found on beaches as part of a monitoring project.'

But the situation is often more complex. Expeditions differ and not all tourists are capable of carrying out complicated scientific tasks. People get in the way, or slow down procedures because they aren't used to the effort involved. What is more, different rules and conditions apply to tourists compared with scientists. 'Take insurance. Scientists are allowed to arm themselves against polar bears, and so are tourist guides, but not the tourists

themselves. That means a guide always has to accompany a tourist who sets off with a scientist. Which in turn means that the guide can't be somewhere else.'

Greenwashing

The desire to build up a 'green' reputation can be one reason why tour operators take scientists on board. Some say this is pure greenwashing: it legitimizes the growth in tourist trips to areas where the increasing human activity is problematic. 'We are more nuanced,' says Steins. 'Such collaborations offer opportunities for research, provided certain conditions are satisfied. As a scientist, you want to carry out your measurements at a site that is relevant for science. That can conflict with the commercial interests of the operator if a ship has to be diverted as a result. If you follow tourist routes, you mainly end up in places that scientists already know a lot about. So you need to consider this aspect critically.'

As Lamers notes, there is a paradox here. 'Tour organizations prefer to offer neutral scientific research with a certain appeal to tourists, such as spotting wild animals, but they don't want to take detours or change their programme to accommodate that. Which means you are not studying the environment so much as the impact of tourism on the environment. It is also debatable whether tour operators are open to reflective science during the trips and any resulting criticisms.'

Known and protected

Should there be any tourism at all in such fragile areas? Steins: 'That's the irony: tourism undoubtedly has an impact on vulnerable polar regions. Cruise operators argue that tourism increases awareness of the need to protect these areas.' Lamers: 'It's true you can only protect what you know. And it's hard to prevent tourism, especially in Antarctica. That region is governed jointly by a group of countries, but the individual countries issue permits to national tour operators. That's also something we're studying because we want to know how best to design regulations that take this into account.' ■

'Tourists have the feeling they're helping to solve the world's problems'

Machiel Lamers: 'A lot of cruise ships visit the Arctic and Antarctic. Not the floating giants, but these are still ships with a few hundred passengers on board. The fragile continent of Antarctica gets about 120,000 tourists a year and the numbers are growing exponentially.' ◆ Photo Machiel Lamers (2024)

The final hurdle for PhD candidates

Propositions cause ‘unnecessary stress’

Each year, about 350 PhD candidates defend their theses at WUR. To get their PhD, the candidates have to submit six to eight propositions along with their thesis. The propositions have to satisfy strict rules, which can be frustrating.

Text Ning Fan ◆ Photo Guy Ackermans

Last year, Daniel Moñino López obtained his doctorate. While his thesis was approved straight away, his propositions (see inset) were rejected four times. ‘It was frustrating having to revise my propositions again and again. I was so relieved when they were eventually accepted. I had to replace one proposition about sustainability because it was too close to my research topic. Then I had to drop a proposition I personally found quite important as it was deemed “unoriginal” because someone else had once submitted the same proposition. I see the propositions as ideas that develop during your four years of hard work and are therefore an integral part of your PhD report. Shouldn’t you then have the freedom to express your opinion? I find the criteria too restrictive. After all these revisions, the propositions no longer feel like they’re “mine”.’

Ben Auxier, who got his doctorate in April, finds it confusing that you have to come up with propositions that have nothing to do with your field of research. ‘I’m fine with PhD candidates being asked to share their thoughts on broader issues, but it shouldn’t be compulsory. I know other PhD candidates who submitted propositions they don’t really believe in or on topics they know nothing about purely to satisfy the requirements. My original proposition was “This requirement is embarrassing”. But that was rejected.’

Basic philosophy

Julie Miltenburg, who obtained her PhD on 25 June, is particularly critical of the role of the propositions in the defence. ‘The defence only lasts 45 minutes and I think it should therefore focus on the research the candidate has been working on for four years. But quite a chunk of the defence is spent discussing the propositions, most of which have nothing to do with the PhD research. I agree that the researcher should look beyond their own research topic and field, but I don’t think the defence is the right place for that.’ According to Miltenburg, having to come up with propositions causes unnecessary stress. ‘My propositions were also rejected several times, mainly for minor reasons, but it still leads to unnecessary stress.’

Quite a few PhD candidates are expressing their dissatisfaction with the proposition requirements in their own propositions. Claudius van de Vijver, head of the PhD programme at PE&RC Graduate School and the person who compiled the criteria for the Academic Board, knows all about this. ‘The concept of the proposition has its roots in Ancient Greece, when science was taught and discussed verbally. Propositions have been a fixture ever since. Until 150 years ago, the PhD thesis consisted purely of a list of propositions that the candidate had to defend in order to get their doctorate. The system has changed since then, but the propositions are still an essential part of the PhD process at lots of Dutch universities.’ At

Propositions

At Wageningen, PhD candidates have to formulate six to eight propositions. Two should be related to their PhD topic, two to four should be about science in general, and two should concern issues relevant to society. All propositions must satisfy various criteria. For example, they must be original, they should not be presented as ‘must’ or ‘can’ statements, it must be possible to see them as true or false, and they ‘must be formulated in an absolute manner’.

PhD candidate en route to defend her thesis in Omnia. In front of the candidate is the beadle, behind, her two assistants (paranymphs). All PhD candidates are required to include propositions on issues relevant to society in their theses. Not everyone is happy about that. ◆ Photo Guy Ackermans

WUR, propositions are divided into three categories: propositions about the PhD topic, propositions about science in general, and propositions about issues relevant to society. 'This ties in with WUR's basic philosophy, which is the need to know about and understand fundamental scientific questions, science in general and society at large. Scientists need to look beyond their own fields of study.'

Embrace it

'We don't have a database of previously published propositions,' says Van de Vijver when asked how the assessors determine whether a proposition is 'original'. 'You can google to check whether a similar proposition has been used before. It's like with research reports: you may have worked on something for years but if someone else publishes an article on something similar before you do, you won't be able to publish your paper anymore.' A parallel with publishing scientific articles can also be drawn for the approval of a proposition. Assessors may vary in their opinions, but the proposition will only be accepted if it satisfies the requirements. They are mainly based on the history and tradition surrounding propositions rather than being an invention of Wageningen University. A PhD candidate is expected to possess communication skills founded on logical and empirical reasoning.

'Scientists need to look beyond their own fields of study'

'Coming up with propositions shouldn't be compulsory'

'In my opinion, PhD candidates struggle in getting their propositions approved because they start on them too late. You can't formulate a good proposition in a weekend. You start with an idea, ask friends and colleagues for feedback, and then refine your proposition repeatedly until everyone sees it as logical,' says Van de Vijver. 'Formulating propositions is a valuable part of your scientific training. Rather than seeing it as a formality, you should embrace it proactively.' ■

FULL CIRCLE

Now the growing season has started, we are better able to see the unusual things going on at the corner of Kielekampsteeg and Bornsesteeg. In the middle of this photo – which is actually the corner of the plot – you can see the Circle Farm. With this concept, designer Floris Schoonderbeek wants to literally reshape land use by blurring the boundaries between functions. In the circle, he grows the same crops as in the WUR fields: cabbages, oats, pumpkins, broad beans and potatoes. The straight lines on the right of the photo are part of a project by WUR agricultural scientist Dirk van Apeldoorn, aimed at revealing changes in biodiversity. It consists of a 'timeline' in the form of multiple strips 1.5 metres wide, each sown with a mix of flower and grass seeds that reflects the biodiversity in a specific year, starting with 1970, as determined by the WWF Living Planet Index for biodiversity. For a hopeful outlook, 'future strips' have also been sown representing a scenario in which nature is given the opportunity to recover. The strips end at Schoonderbeek's Farm, coming full circle as it were. With a bit more sun, this should turn into a real spectacle of flowers. ME

For more info, see circlefarming.org

Photo Guy Ackermans

Bird flu and bluetongue

Vaccines in the pipeline

Chicken farmers have been struggling with bird flu for years, and sheep farmers with bluetongue. But both may soon see an end to their problems. Wageningen Bioveterinary Research is testing vaccines for bird flu and bluetongue. Two researchers explain the process. Text Rianne Lindhout

We have all read the distressing headlines or seen the pictures: 'Bird flu: 130,000 chickens gassed'. You might be buying free range eggs but in the past couple of years these chickens too have often been kept indoors for months. Bird flu has regularly affected poultry and wild birds in the past, but since 2021 it has been circulating all year round.
This feared disease – that kills so many birds and is traumatic for farmers – may not be in the news much at present, but a lot is going on behind the scenes. A solution is in sight in the form of vaccines. They are currently being tested 'in the field' on two farms. Virus researcher Kim Bouwman of Wageningen Bioveterinary Research (WBVR) in Lelystad is closely involved.

'The urgency does make me even more enthusiastic about my work'

She lists some of her tasks: 'I keep in contact with the animal keepers, the lab and the Animal Welfare Body. In consultation with our partners, I decide when to bring chickens from the farms to Lelystad to study the effectiveness of the vaccines.'

Bouwman started working for WBVR in October. Before she joined, two vaccines for bird flu – developed by pharmaceutical companies – had been successfully tested on 20 chickens in the lab. But that doesn't give enough information on how effective the vaccines are. 'The tests were done with chickens born and housed here. They weren't exposed to the usual pathogens and other stress factors in the same way. That can influence the effectiveness of the vaccine.'
The researcher took charge of the field trials. They started last September with 1800 laying hens on two farms. 'The hens were born in September. They were given all the standard vaccines plus one of the two bird flu vaccines we are testing. Laying hens usually live about 18 months. At four points during that period, we take a group of about 20 hens and infect them with bird flu in the lab. We will be doing the same with a control group of hens from the same farm that weren't given the bird flu vaccine.' It is already clear that the vaccine works well after eight weeks: none of the vaccinated chickens died, so the vaccines are a success in that sense. The second test has also been carried out. 'We're currently analysing the data.'

Acute problem

Even if the pilot project goes as hoped, the vaccine will still not be ready for authorization for commercial use. At least, not officially. Bouwman: 'The

Very different vaccines for very different viruses
There are a lot of serotypes of the bluetongue virus, but they are relatively stable. The genetic material consists of ten double RNA strands, comparable to our own double-stranded DNA. Current bluetongue vaccines consist of complete but deactivated viruses. That means they don't make the sheep or cow sick, but the animal does build up resistance to the active virus that is circulating.
Bird flu is a much less stable virus with single-stranded RNA. The RNA is divided into segments that the virus swaps with other virus particles during an infection. It's a bit like sexual reproduction, really. The bird flu that WBVR is currently working on is called H5N1. H5 and N1 refer to two proteins. The vaccine for bird flu is essentially a piece of H protein attached to a harmless virus. Like all proteins in the bird flu virus, the H protein is liable to change, so the vaccines will probably need to be updated for each new outbreak. The H protein of the virus strain that is circulating, for example H7N2, will need to be incorporated in the vaccine.

In this trial, one-day-old chicks are vaccinated against bird flu ⬩ Photo Royal GD

pharmaceutical companies can submit an application to the Medicines Evaluation Board (CBG) based on the research results they already have; the CBG is the authority that decides on licensing for the European market.' But if an acute problem arises in the form of a major outbreak, the CBG can issue emergency licences for vaccines. That is a similar situation to the COVID vaccines we humans had, where authorization went much faster than usual.

If there isn't an emergency situation in the form of a major outbreak, the two vaccines will have to be tested further after the current trial, on more farms. That study is already scheduled to start in August; WBVR is not involved. Bouwman estimates that this second pilot study will also take 18 months, the lifespan of the laying hens. The CBG would then be able to assess from February 2026 whether the vaccines should become available to everyone.

Bluetongue

Sheep farmers will be able to breathe a sigh of relief long before then. As early as this autumn they will probably no longer need to worry about bluetongue, a virus that killed tens of thousands of sheep last autumn after a plague of midges. Cattle don't usually die from bluetongue, but they do get ill when bitten by a midge transmitting the disease, so there is a considerable economic impact on cattle farmers too.

At WBVR, Melle Holwerda is in charge of the diagnostics for this disease and he advises policymakers. Over the past while, he has also been helping with the research on an effective vaccine. The results are now being considered by the same Medicines Evaluation Board (CBG) that will eventually decide on the authorization of the bird flu vaccines. But in other respects there are surprising differences compared with the development of the bird flu vaccines. The bluetongue virus is more stable than the bird flu virus, which is constantly evolving slightly. That means the bird flu vaccine will probably have to be updated for each new outbreak, as is the case for human flu vaccines. There was previously no vaccine at all for bird flu, as it had not been permitted for the European market until spring 2023. The

'I continue to take a scientific, impartial approach to my work'

situation is different for bluetongue. There are 37 serotypes of this virus that barely change at all. Holwerda: 'Last autumn, we had serotype 3. In 2006, it was the somewhat less virulent serotype 8 that was circulating. In winter 2007, a vaccine became available for that and we haven't seen that virus since 2009.' The midges will increase in number again in the autumn after a dip in the spring and summer. Serotype 3 is expected to reappear then, but Holwerda hopes all the sheep and cows will be vaccinated by that point.

'Last October, we set up an infection model in sheep, with funding from the Ministry of Agriculture.' That means the researchers study exactly what happens in a group of sheep after an infection. They measure the fever, the numbers of virus particles in the blood and the immune response. The infection model shows the difference between sheep that the bluetongue virus makes ill and sheep that don't have such symptoms. That is necessary for testing the effectiveness of the vaccines.

Then it was a question of waiting for pharmaceutical companies to commission WBVR to test vaccines. Holwerda: 'At present, three pharma companies have vaccines that are authorized for use thanks to the cooperation of the Ministry of Agriculture. That doesn't mean these vaccines have been licensed for the market in the European Union.' That procedure takes longer and involves the above-mentioned CBG. In addition to WBVR, pharmaceutical companies can engage other players in Europe for the trials required to demonstrate the effectiveness of their vaccines. Which institute the pharma companies used is confidential information. At any rate, WBVR's infection model was used for obtaining the authorization for use. Holwerda: 'A vaccine only has a chance of being authorized if it has been tested on the target animal, which is sheep in the case of bluetongue.'

H5N1 replicates in cattle respiratory tract cells

The highly pathogenic European bird flu H5N1 strains can replicate in lab-grown respiratory tract cells of cattle. That has been shown by research by WBVR, commissioned by the Ministry of Agriculture in response to recent H5N1 outbreaks among goats and cattle in the US. WBVR did infection tests with three different virus isolates from poultry and a fox. All three were able to replicate in the respiratory tract cells, although the virus titres dropped rapidly after three days. 'That suggests the virus replication wasn't very efficient,' says researcher Luca Bordes, 'but it doesn't exclude the possibility of European H5N1 getting into dairy cattle.' The bird flu virus has not yet been detected in European dairy cattle.

Level-headed

In contrast to the bird flu vaccine, farm sheep are used to test the bluetongue vaccines rather than lab-born animals. 'A group of sheep are given the vaccine,' explains Holwerda. 'Then a few weeks later, after they've built up an immune response, they are infected with bluetongue serotype 3. We look at whether they react differently to the unvaccinated sheep in our model.' Holwerda is not allowed to reveal any details about the results. 'We send the raw data to the pharmaceutical companies and they then submit the application for authorization to the CBG.'

How do the two vaccine researchers feel about having the fate of so many animals and farmers in their hands? They remain level-headed. Holwerda: 'Of course I very much hope we'll be able to prevent another outbreak in the autumn. But I continue to take a scientific, impartial approach to my work. I need to make sure the protocols are sound, but in the end it's up to the CBG whether to accept the vaccines.' Bouwman takes the same view. 'The urgency does make me even more enthusiastic about my work. If we manage to get new vaccines, that will prevent so much suffering – for example, no more transport bans that stop farmers from selling their products, or in the worst case culls of barns.' ■

Two vaccines for bird flu were shown in tests in WBVR's lab to both protect the chickens against the disease and prevent it from spreading • Photo WBVR

Students using fume cupboards in a practical. The ratio of students to staff has fallen in large practicals like this thanks to Team 1, a team of teaching staff operating across chair groups in AFSG that is paid for using the quality agreements funding ◆ Photo Ruud Spruijt

Five years of quality agreements

This is what education cash was spent on

When the student loan system was introduced five years ago, it freed up funds that were allocated to universities for improving teaching – in what were known as the 'quality agreements'. What did those agreements result in for Wageningen? And what should future investments go on? Irene Faas, secretary of the Quality Agreements steering group, reflects on the achievements and looks to the future. Text Luuk Zegers

When student grants were abolished in 2018, that was on condition that the money saved by this measure would be invested in education quality. Universities would be able to make their own plans for spending that money over a period of five years. The 'quality funds' first became available in 2019 and the funding will stop at the end of 2024. WUR has invested 43.7 million euros in total in the quality of its education. Wageningen's investment plans were drawn up in 2018 and 2019 with input from students, staff and the consultative bodies. The aim was to invest the money broadly: from improvements in the provision of small-scale education to the further professionalization of teaching staff, and from extracurricular educational activities such as the student challenges to more and better study

We've analysed the impact of the investments and considered what went well and what could be improved,' says Faas. 'We discussed our findings with professors, the Student Staff Council and chair groups.' According to Faas, staff sounded the alarm on a couple of points in these discussions. 'For example, in the period 2019-2024 5.2 million euros were invested in support and relief for teaching staff. That money went to the science groups, which could then decide what to spend it on. The Social Sciences Group, Animal Sciences Group and Environmental Sciences Group mainly used the extra budget to appoint additional staff per chair group or cluster of chair groups.' When the steering group was drawing up the plans for 2025 and beyond, they considered stopping this project, says Faas. 'Each science group spent the money differently and the results were hard to quantify.

‘The money will be distributed more fairly’

‘Students say they are more satisfied with the thesis supervision’

We thought it might be better to change how the money is invested while maintaining the same goal, but the consultation sessions made it clear this project should continue.’

Teaching staff

‘We’ve analysed the impact of the investments and considered what went well and what could be improved,’ says Faas. ‘We discussed our findings with professors, the Student Staff Council and chair groups.’ According to Faas, staff sounded the alarm on a couple of points in these discussions. ‘For example, in the period 2019-2024 5.2 million euros were invested in support and relief for teaching staff. That money went to the science groups, which could then decide what to spend it on. The Social Sciences Group, Animal Sciences Group and Environmental Sciences Group mainly used the extra budget to appoint additional staff per chair group or cluster of chair groups.’ When the steering group was drawing up the plans for 2025 and beyond, they considered stopping this investment approach because it was difficult to measure the results, says Faas. ‘But we heard a lot of protests about this decision during the consultation round, which made it clear these investments do indeed deliver results.’

EduHub and Team 1

Plant Sciences (PSG), for instance, set up the Education Support Hub, known as the EduHub for short. Faas: ‘That’s a team of five education support staff. Each period, they are assigned to course coordinators and lecturers teaching large, complex courses. The support staff take over some tasks, such as answering students’ emails, making arrangements for excursions, typing in grades and other administrative and organizational matters. That frees up valuable time for the teachers, which they can spend on answering students’ questions about the course content or on getting their teaching qualification.’ The Agrotechnology and Food Sciences Group (AFSG) spent some of the money on Team 1. Faas: ‘That is a team of teaching staff operating across the chair groups that can be deployed for large-scale practicals. Some chair groups hardly do any teaching in one period, whereas the next period they might be giving practicals for hundreds of students. Individual chair groups don’t have enough staff to cope with these peaks in teaching, but there isn’t enough work outside the peak period to justify appointing extra staff.’ The solution was to jointly appoint extra staff, partly paid from the quality agreement funds allocated to AFSG. ‘Now chair groups can use various Team 1 staff in addition to their own staff to cope with the teaching peaks, thereby keeping the number of students per teacher relatively low.’ Another advantage is that students will repeatedly encounter these teachers, so the teachers will be able to refer students to material from previous courses.

Tackling the work pressure

Back to the quality agreements. More than half the budget for the period 2019-2024 (almost 25.4 million euros) was allocated to the theme of ‘small-scale education’. ‘When the quality agreements were made, the ratio of students to staff was quite high,’ says Faas. ‘There were too many students for the number of teachers and the workload was excessive. The ratio is a lot lower now. That is partly thanks to the extra staff funded by the quality agreements.’

For example, as part of the focus on small-scale education, 12.7 million euros was invested in improving thesis supervision, explains Faas. ‘Many chair groups took on extra staff for this. In addition, what we call “thesis rings” were set up in which students give one another feedback. That gives the teachers more time for feedback geared to the content. That seems to be producing results: in course evaluations, students are more satisfied with the feedback they get and with thesis supervision in general. So we want to continue this investment in the plans for 2025-2030.’

Dealing with bottlenecks

Some 11.2 million euros went on additional teaching staff for chair groups. To get that money, the chair groups had to submit an application with an analysis of the bottlenecks impeding the provision of ‘good-quality small-scale education’. For example, it might be that the group of students had become too big for one excursion leader to give each student appropriate attention. The

Some of the money for ‘good-quality small-scale education’ goes on extra excursion leaders so all students get enough attention during fieldwork. The photo shows the annual Biology trip to the Pyrenees. ⬩ Photo Nina Fatouros (2023)

application also had to include a proposal on how to tackle the bottlenecks. ‘If the proposal was approved, the chair group got about 30,000 euros a year to work on the bottleneck,’ says Faas. There were two opportunities to submit applications: one in 2019 and one in 2021. ‘While the money ended up where it was needed and was put to good use, this approach isn’t necessarily the fairest way to allocate the funds,’ says Faas. ‘For example, four chair groups had plans approved in both rounds, so they were eventually getting 60,000 euros extra per year. Whereas other chair groups had plans that were rejected both times, so they got nothing.’

Fairer distribution

The plans were rejected for various reasons, says Faas. ‘For example, because 30,000 euros isn’t enough to appoint a full-time extra member of staff. So the chair group would have to invest some of its own money. That isn’t a problem in itself, but not every group can afford it, so some groups were simply not able to submit a good plan.’ People also have different ideas on what constitutes good-quality small-scale education. ‘In some education programmes they wanted to invest in the personal development of students, but that didn’t fit with this investment structure.’

The investment goal — facilitating good-quality small-scale education — will be retained in the plans for 2025-2030, says Faas. ‘But the approach needs to change. That’s one of the most important lessons we’ve learned in the past few years.’

The study programme teams themselves will be responsible for coordinating the new investments, explains Faas. ‘A small sum of money will be allocated to fund the additional coordination tasks. Most of the investment funds will be allocated to the chair groups through the standard funding structure, known as the Brascamp model. In short, the study programme teams will be in charge. This approach will make sure the money is distributed more fairly.’ ■

Interested in finding out more about the quality agreements? The online version of this article has a summary of the investments, past and future, in student challenges, skills training, study assistance, student psychologists and more.

What to do this summer

7 tips

Finally, the summer holiday we have all been looking forward to is here. A welcome break, whether lazing around at home or setting off on a distant adventure. If you are still at a loss what to do, we have asked students and members of staff for some tips. This is what they came up with. Happy holidays! Text Roelof Kleis • Illustration Shutterstock

Xiaoyong Zhang
WUR China coordinator

'I don't have to think long about my tip. I recommend *Zhuangzi*, a foundational text about Taoism published 2,400 years ago. It offers profound insights relevant to the modern world. **The book is a plea for embracing simplicity, spontaneity and harmony with nature.** Zhuangzi's teachings on the relativity of perspectives encourage open-mindedness and tolerance, fostering a better understanding of one another. The emphasis on naturalness and non-action promotes mental well-being and resilience, a valuable antidote to the constant pressure to be productive and successful.'

Sven Stremke
Professor of Landscape Architecture

'My tip is a regional destination: *De Kwekerij Solar Park* in Hengelo, Gelderland. This renewable energy project is a game changer and definitely worth a visit. **It is both a solar farm and a nature park.** In contrast to a monoculture, in one single location green energy is generated, nature is developed, with more biodiversity as a result, and it is a place for recreation. The combination of these functions makes De Kwekerij an example of the energy landscape of the future.'

Sanne Kruikemeier
Professor of Digital Media and Society

'My recommendation for the summer is a book by Peter Hein van Mulligen [in Dutch] *that busts eight negative myths about the Netherlands.* The Dutch are often pessimistic about the state of their country. This book offers an alternative perspective. Van Mulligen uses statistics to show how this pessimism is often belied by the facts and he disproves various sombre myths. **If you want an optimistic, realistic and down-to-earth book this summer** that will help you understand why we are still doing well, I can certainly recommend this one.'

Alita Tithphit
Food Technology Bachelor's student

'One of my favourite books is *Atomic Habits* by James Clear. It is a self-improvement book that helps you develop sustainable habits by **linking goals to your identity rather than focusing solely on results.** This approach lets me align my goals with my passions, giving a feeling of fulfilment and gratitude. If you look into the background of certain ideas, that helps you absorb the key points and know how to utilise the cues. The summer is the perfect time for reflection and setting new goals. Once discipline becomes a habit, everything else flows naturally.'

Chris van Kreij
Omnia manager

'My tip is the *Hemelse Berg* NS trail in Arnhem. I highly recommend this station-to-station sustainable route. **You have an amazing trail through the woods, plus panoramic views of the floodplains.** I find it very restful after a busy day in Omnia. The route has a lovely stream, English-style houses in Heveadorp, and the Duno and Westerbouwing country estates. When you pass Villa Hartenstein, once the headquarters of Operation Market Garden and now the main centre of the Airborne Museum, do look out for the UniversiTree. This tree was planted there to commemorate Wageningen University's centenary!'

Noor
Student and pro-Palestinian activist

'For me, like for many people, the summer holidays are an opportunity to read up on matters that might otherwise pass me by. Many readers may have seen the tents on campus but may not know why students have been sleeping there for months. That's why I recommend *Towers of Ivory and Steel* by Maya Wind. In this book, the Jewish-Israeli author explains how truly every facet of Israeli universities is used to support the oppression of Palestinians. **The book exposes the central role of the university in this oppression** and sets out the rationale for a boycott.'

Part of the *Rebel Garden (see Joke Webbing's tip)*: Emilio Lopez-Menchero, *Trying to be Waluliso*, 2024 ◆ Photo Femke den Hollander

Joke Webbing
WUR Art and Culture Committee

'My tip is the *Rebel Garden* exhibition in Bruges. Three museums located close to one another have an exhibition on the climate crisis. Groeninge Museum, Gruuthuse Museum and Museum Sint-Janshospitaal are showing works by 50 contemporary artists. The Dutch artist Maartje Korstanje is one of them. **A group of students from Van Hall Larenstein University of Applied Sciences also created guerrilla gardens.** The exhibition is really well put together but you need to be very alert or else you might miss something. I was most impressed by the parrot Alex's views on the development of life on Earth. The exhibition is on until 1 September. You should definitely go and see it.'

Richard Visser, professor of Plant Breeding, is retiring

Hora Est

He saw over 170 PhD candidates through to the finish line. Now, after a quarter of a century as professor of Plant Breeding, Richard Visser hears his own '*hora est*' (the traditional 'it is time' called at the end of the PhD defence). He will be retiring. Well, kind of...

Text Roelof Kleis

At the end of the summer, on his birthday on 29 August, Richard Visser will be stepping down as chairholder and head of the combined Plant Breeding group (WU and WR). That is when he turns 67. But don't assume he will be 'putting his feet up'. He will start immediately as a project manager on projects in Singapore and China, for two days a week. And of course he still has his PhD candidates. No one in the history of WUR has supervised as many candidates as Visser. The count currently stands at 170 and a further 40 are in the pipeline. 'That seems a lot,' he says, 'but I don't do the day-to-day supervision in 95 per cent of the cases. That wouldn't be feasible.'

Richard Visser's upbringing encouraged an interest in plants from the start. He was born in Arnhem as the son of a market stallholder specializing in flowers and plants. 'When I was five, we moved to Heerlen. My father mainly worked in Limburg. From the age of ten, I was helping him on the stall.' But it wasn't his father's profession that set him on the path to plant breeding. 'The real catalyst was a short film I saw in the cinema about propagating orchids. Wow! I thought that was amazing – being able to create thousands of new plants virtually from nothing. I wanted to do that too. I must have been about 13.'

'When we started studying polyploid crops, lots of people said we were crazy'

'In the past, half the research was focused on resistance to disease and pests'

Idiosyncratic

Visser got his degree in Biology at Groningen. That is also where he got his PhD, for a study of the genetic modification of the potato. The molecular genetic study was initially intended for a postdoc and he was supposed to be researching tissue culture, but he refused. 'I was much more interested in the molecular work. It was also quite a new field at the time.' He eventually got his way. That idiosyncrasy is typical of Visser. He himself calls it 'being headstrong in a good way'. 'I can be quite obstinate. That's fair enough, but I'm still open to good counterarguments. I'll be the first to switch if I'm persuaded. But if you disagree with something simply because it's not what you want, we'll keep to what I decided.'

After Groningen, Visser moved to Wageningen at the invitation of his former Groningen mentor Evert

Richard Visser: 'Two years ago, my wife and I started training dogs for the guide dog organization Hulphond Nederland. This dog recently joined us.' ◆ Photo Guy Ackermans

Jacobsen. 'He had been appointed professor of Plant Breeding at Wageningen. At that time, plant breeding in Wageningen was still very much along classical lines. He wanted to modernize it with the help of molecular genetics and biochemistry. But he didn't have much experience with that, whereas I did because I'd set it up in Groningen.'

Visser moved to Wageningen in 1989, became a professor holding a personal chair in 1998 and succeeded Jacobsen as professor in the chair of Plant Breeding in 2004.

At the turn of the millennium, Wageningen was doing badly. 'There was even talk of splitting Wageningen up with part going to Nijmegen and part to Utrecht,' says Visser. In a pre-emptive move, the Plant Breeding group was created as a partnership between Wageningen University and Wageningen Research. Visser was involved in the new group's creation and headed it from the start.

The merger was not without its problems. 'In the early days there was still a lot of *us* and *them*. Some people left because they thought the merger was a big mistake. But I think we got through it well. There is real collaboration in both research and education. Plant Breeding is one of the best performing groups in Plant Sciences.'

'Countries elsewhere in the world are relaxing their rules on genetic modification'

Cassava and apples

In the past 35 years, Visser has built up an impressive track record. According to the scientific search engine *Scopus*, he has published 629 articles. In the peak year 2012, he wrote or co-authored 42 papers. That impressive production is partly thanks to the large number of PhD candidates he has supervised. On top of that, he also spent three years as WUR's Dean of

Research. He was involved in deciphering the potato and tomato genomes. Two gems he himself points to were relatively small projects: increasing the shelf life of cassava in Thailand and developing an apple that fewer people are allergic to. 'This isn't research that gets into *Nature* or *Science*, but I'm still proud of work like this at the interface between plant breeding and social issues.'
He thinks applications are important. 'Plant breeding is seen as an applied science, but you can still do really basic research in that field. Which we do. Take our research on polyploid crops, ones with more than two copies of each chromosome. When we started on this ten years ago, a lot of people said we were crazy. What are you getting into? That's far too difficult. Now people from all over the world come to us for help with research on crops of this type.'
Looking back on 35 years of research, Visser concludes that the goals of plant breeding have stayed the same. 'We still want plants that are better quality, climate-proof and more resistant to disease. But the priorities have shifted. In the past, half the research was focused on resistance to disease and pests. Now we have identified the resistance genes in quite a lot of crops and we know how to introduce those genes in the crop. These days, society wants things like fewer chemicals, more biodiversity, perennial crops, food forests, vertical cultivation and strip cropping. Tailored plant breeding is needed for all these aspects.'

'Colleagues also complain about the succession process'

Genetic technology

Genetic techniques such as CRISPR-Cas are useful in this regard, but the EU rules are strict. 'In theory GMO is allowed, but the rules and guidelines are so complex and laborious that firms don't dare do it. Fortunately the EU does offer funding for research on genetic modification. So we are still in the game. But many countries elsewhere in the world are relaxing their rules on genetic modification. Those GMO products end up on the market here too, but it's very difficult to detect that genetic modification. That is becoming an increasing problem for the checks. That alone is a good reason why some applications of CRISPR-Cas should be allowed.'
Visser will no longer see that happen as a Wageningen scientist. He will be handing over what he believes to be a strong group to his successor. But that is a sore point: a successor has yet to be appointed. A big mistake, thinks Visser. 'I asked the rector two years ago to make sure to start the process in good time. Since February, I've been emailing the directors pretty much weekly but I still haven't seen a job advert text. Colleagues also complain about their own succession process. Couldn't WUR organize this a bit better, to get a seamless transition?'
Regardless, Visser will be leaving for good on 29 August. And while he will remain active as a scientist, he will undoubtedly have more free time. For his dog, for example. 'Two years ago, my wife and I started training dogs for the guide dog organization Hulphond Nederland. The dogs are trained to help with general daily activities or, for example, to support people with PTSD. We recently got a new one.' And then there are his two grandchildren, and his advisory positions at various companies and institutes. 'I won't have trouble filling my days.' ■

You encounter all the flavours of the world in our WUR community. Bhanvi Sharma (23), a Master's student of Nutrition & Health, shares a recipe for Rajma, a kidney bean curry from northern India.

Bhanvi Sharma
Master's student of Nutrition & Health

Flavours of WUR

Rajma kidney bean curry

'Rajma, or kidney bean curry, is a dish from northern India. My mother would prepare this dish for us during cold months. A bowl of *rajma ke sabji* with *chapatti* – Indian flatbread – used to feel like a warm hug from her. Now I'm here in Wageningen, thousands of kilometres from my home, this bowl of curry reminds me of my family back in India.'

Preparation

1. Heat the oil in a pan and add the cumin seeds. Wait for them to splatter and add the garlic and onions.
2. Sauté until they get brown. Add all the spices and mix well.
3. Add the tin of tomatoes and squish the tomatoes using the back of the ladle.
4. Cook for 10 minutes. Then add the 2 tins of kidney beans, one with the liquid and one without the liquid.
5. Add water if necessary to get the right consistency for the curry.
6. Let it simmer on low heat for 20 minutes. Turn off the heat and serve the curry hot in a bowl with yogurt and chapattis.

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

Ingredients (For 4 portions):

- 2 tins of kidney beans
- 1 large onion, chopped
- 1 green chilli
- 4 thin slices of ginger
- 5 cloves of garlic, finely chopped
- 1 tin of tomatoes
- 3 tbsp oil
- 1 tsp cumin seeds
- 2 tsp red chilli powder
- 1 tsp turmeric
- 1 tsp garam masala
- 1 tsp black pepper
- 2 tsp coriander powder
- Dash of cinnamon
- Salt to taste
- Water

Limelight

On Sunday 7 July, Wageningen town centre will turn into one big street festival with music, acrobatics, painting and more. René van Geneijgen, in daily life an employee working in the Unifarm tomato greenhouses, spends his free time helping to organize the festival. Text Ilja Bouwknegt

SUN
7-7-2024
Wageningen town centre
(mainly the Markt and Hoogstraat)
13:00-17:00
Free admission

LEEFfestival

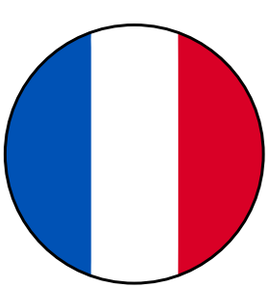
Van Geneijgen first went to the LEEFfestival in 2008. 'I came across it by chance. My son was three at the time and he was allowed to help make the sand sculptures. It turned out the organization did not have enough people and they asked me if I was interested. Well, I was happy to help out with such a great festival. And I've stayed on.'
The festival features dozens of acts – see leeffestival.nl for their names – but Van Geneijgen mainly organizes the street games. 'Such as the giant version of the traditional Dutch board game 'goose', Colonists of Catan and Mastermind. We also have a liquorice string race where you tie a long string of liquorice to a little boat that you then get to sail across the water towards you by eating the liquorice up very quickly.'

Van Geneijgen still enjoys helping out with the festival but the team is looking for fresh blood. 'Everyone is always really enthusiastic. The relaxed atmosphere is what makes the festival.' The LEEFfestival is free and is aimed at everyone. 'The idea is to expect the unexpected and to have fun together. We want people to have a good time and come into contact with one another. I think we manage that pretty well.'

Meanwhile in... France - dissolution of the French parliament

WUR is incredibly diverse, with hundreds of internationals working and studying here. In the *Meanwhile In* column, we ask one of them to comment on events in their home country. This time we hear from Cédric Baron (30), a Master's student in Geo-Information Science from France, on the dissolution of the French parliament. Text Youssef el Khattabi

Baron: 'The dissolution of the French parliament by President Macron was quite a shock for us. I am deeply concerned about the implications of this decision and the potential rise of the far-right National Rally party. In the last parliamentary elections, President Emmanuel Macron's party failed to achieve a majority, despite securing the most seats. This outcome has forced Macron to consider collaborating with right-wing parties, which goes against his preferred governing style. I feel that he is quite controlling and he often makes decisions that contradict the government's recommendations. While this situation was not ideal, it is not unprecedented in French politics and with more effort and communication it could have worked out.
'Because of this dissolution, we have elections at the end of June. This is generating significant media attention, and voter turnout is expected to increase from the typical 50 per cent in parliamentary elections to around 70 per cent. What's particularly noteworthy is the shifting political landscape. The traditional right is losing ground, and some factions are considering alliances with Le Pen's National Rally party. It's remarkable how many people no longer see them as a far-right party, but rather as a mainstream conservative group. A key aspect of their strategy has been to project a more moderate image, even if they are still very radical internally.
'I'm particularly concerned about their position on climate change. They stand firmly against the European Green Deal and any regulations designed to reduce emissions if such measures impact citizens' daily lives. For instance, they want France to opt out of the EU ban on new petrol cars by 2035. This stance is alarming, especially considering we're already witnessing the effects of a 1.5°C increase in global temperature and the associated severe risks.
'I think that Macron's move will backfire, and could potentially lead to a far-right absolute majority in parliament. This would be unprecedented for a founding EU country. It could bring significant changes to France's domestic policies, including a redefinition of citizenship based on blood and tougher restrictions on visas and citizenship acceptance criteria. As someone in a relationship with a non-European, this impacts my future plans.'



Colophon

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Contact Questions and comments for the editors: resource@wur.nl | www.resource-online.nl

Editorial staff Willem Andrée (editor-in-chief), Helene Seevinck (managing editor), Roelof Kleis (editor), Luuk Zegers (editor), Marieke Enter (editor), Coretta Jongeling (online coordinator), Dominique Vrouwenvelder (editor).
Translations Clare McGregor, Meira van der Spa, Clare Wilkinson
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Learning the Code of Conduct off by heart will be part of the hazing ritual • Photo Getimg.ai

STUDENT SOCIETIES: **‘HAZING TO INCLUDE CODE OF CONDUCT’**

Last week, 49 student societies signed the 2024 Code of Conduct, a document in which they promise to respect the mental and physical well-being of their members and to create a safe environment. From now on, learning the code off by heart will be part of the hazing ritual.

Learning it off by heart is not an easy task, explains Marie-Claire Plas te Redt, Introduction Period (IP) Committee Official. ‘The Code of Conduct is quite a weighty tome at 40 pages, while the average candidate has the brains of a turnip.’ Everything possible will be done to help the first-years hone their memory skills. ‘During the IP, aspiring members will have to recite the Code of Conduct out loud while crawling around the society premises on their bare knees. Our working hypothesis is that the combination of physical and mental exertion will increase the chance of them retaining these important facts.’

The candidates will be woken up regularly in the middle of the night to answer questions on the code. For example, what does it say about hearing damage or discrimination? (Both to be avoided, ed.) ‘That might seem to violate the Code of Conduct rule that new members should get enough sleep during hazing – er, I mean the IP. But we will make sure they can catch up on sleep at other times, such as during dinner.’

There were discussions at various societies about the code rule stating ‘aspirant members must not be required to maintain secrecy regarding IP activities’. Plas te Redt: ‘Of course, they’re traditionally not allowed to say anything about the abuse and humiliation they suffer from seniors. If first-years were suddenly allowed to tell all, you’d create a hugely unsafe situation for the people doing the bullying, and we need to avoid that. So while we stress that *in theory* aspiring members are free to talk about their experiences during the IP, we strongly advise them not to admit to any *active memories* of what happened. We got this tip from someone who was a member of the Dutch government until recently, but I can’t reveal who for privacy reasons.’

‘Aspiring members will have to recite the Code of Conduct out loud while crawling around the society premises’