

# Resource

JUNE 2021 VOLUME 15

**Nitrogen limits**  
questioned

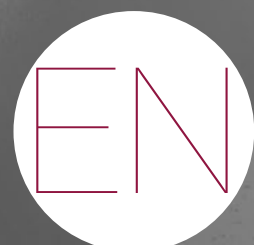
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still increasing

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## FOREWORD

Work-related stress just keeps on increasing, show the reports of the WUR corporate doctors and social workers. For some people, the stress gets so bad that they end up with a debilitating burnout. PhD candidate Roald Pijpker talks to us about his research into burnouts (page 12). He focuses on the factors that aid recovery. A colleague talks about their own burnout, and how a sense of duty, strong work ethic and private-life issues took their toll. The story is anonymous; a burnout is not something you boast about. Perhaps that is the worst aspect — that it's something you keep to yourself because of the stigma. Because your strength turned out to be a weakness. Despite that, this colleague spoke out as a warning to others. A must-read!

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## WHO YOU GONNA CALL?

**Wageningen municipality has started the 'How low can you go' campaign to help residents reduce their energy bills, for example with discount vouchers for energy-efficient fridges, a free energy monitor or... a visit from the Draught Busters! Forest & Nature Conservation Master's student Dorien Lampe (23) is one such Draught Buster. 'We arrive on a barrow bike full of materials for making your house more sustainable and then we see what we can do.' Homes that take part get energy-saving materials worth up to 50 euros free of charge. LZ**

If you are interested, go to [wageningenduurzaam.nl/hoe-laag](http://wageningenduurzaam.nl/hoe-laag)

Photo Guy Ackermans

# ► Tax on meat

**Fifty scientists, including from WUR, have called for a meat tax as a way of making livestock farming more sustainable.**

The scientists make this plea in a letter to Mariëtte Hamer, who is charged with investigating options for a new coalition government. They call on her to include the meat tax in a new coalition agreement. Sander Biesbroek (Human Nutrition & Health) is one of the signatories. The meat tax is partly based on his model studies of the topic.

The main aim of the proposed tax is to make meat production more sustainable. So part of the tax revenue will go to the farmers. Some of the money will

**‘We don’t just want to tax the bad things, we also want to encourage the good things’**

also be used to buy up livestock farming rights, which will reduce the livestock population. There should also be income support for low-income groups to keep

meat affordable.

In the group’s worked examples, the price of meat should rise by 30 per cent over the next ten years. That increase would persuade people to eat less meat. ‘Price incentives work,’ says Biesbroek. At least if they are big enough. ‘An extra five cents on two euros won’t make any difference.’ While meat should become more expensive, the researchers want other food to be cheaper. ‘We don’t just want to tax the bad things, we also want to encourage the good things.’ That could be done by reducing the VAT on fruit, vegetables and meat substitutes to four per cent or by removing it altogether. RK



Joël Kampen (CSF)



Stefanus Mega Prabawa (S&I)



Sterre Hoek van Dijke (VeSte)

## VeSte the biggest; extra seat for CSF

The Student Council elections were won by VeSte, which got seven of the twelve seats just like last year.

S&I lost one of its four seats to CSF, which therefore ended up with two.

Rector magnificus Arthur Mol announced the election results in an online gathering on Monday 14 June. Of the 12,556 students eligible to vote, 3376 actually cast a vote. That is 27 per cent, slightly down on previous years.

The leader of the VeSte party, Sterre Hoek van Dijke, is proud to have won. ‘We fought hard. We will start induction at the end of August and in September I want

to move onto the topic of teaching as soon as possible.’ The Christian party CSF is also pleased with the results, says their leader Joël Kampen. ‘That extra seat makes a world of difference. You have someone to discuss things with and share the workload, and it’s a lot more sociable.’ Stefanus Mega Prabawa of Sustainability & Internationalization (S&I) thinks it is a pity his party lost a seat. ‘But I am looking forward to representing the international students in Wageningen.’ LZ

## PhD students in WUR Council

The results of the PhD elections were also announced earlier this week. Lotte Yanore and Mariken de Wit will be representing Wageningen’s PhD candidates next year in the WUR Council. Yanore got 137 votes, De Wit 111 votes. There were four candidates for the two positions in the WUR Council.

Only 17 per cent of the over 2000 PhD candidates voted in the election. The WUR Council wants to increase the turnout, says Clementine Sluijsmans, the election committee secretary. ‘We want to make PhD candidates more aware of the fact that they have a say in the council, so that next year we get a majority voting in the election.’ AS



# Work stress still rising

Almost half the requests for help from corporate doctors and social workers at WUR are stress-related.

This figure comes from the latest reports from the two groups of professionals. In the past year, 43 per cent of appointments with the corporate social worker were stress-related. In 2019, that was only 40 per cent and five years ago it was 35 per cent. Not that these symptoms always led to sick leave, emphasizes social worker Hester van Bockel. 'Of the people who report

## Working at home, staff experience more autonomy in doing their job

do report sick, stress is increasingly often the cause of that too. For 46 per cent of the staff who go to the corporate doctor because they are off sick, the reason is 'psychological problems'. Three years ago, that was 41 per cent. Exactly what those problems are is not known. At least: the doctors know, but for privacy reasons, the employer is not allowed to know.

to us, 70 per cent are still working.'

But when employees

'In the past we had to register the reason for sick leave when an employee reported sick,' says Micheline Horstman, Vitality and Health advisor at Corporate HR. 'As a result, at the organization level we had a fair idea of the main reasons behind sick leave.' The HR department is still kept broadly informed of the kinds of problems people come to the company doctors and social workers with.

## Burnout

Stress can lead to long-term sick leave and even to burnout (see *Burned out. What next?* Page 12). There are no hard statistics on burnout as a diagnosis either. 'We record staff with burnout symptoms under the general term "stress",' says Van Bockel. Apart from burnout, other reasons for long-term sick leave can be chronic physical symptoms or acute illness.

It is not at all clear yet what effect the coronavirus has had on stress symptoms. It did have a remarkable effect on the total amount of sick leave at WUR, though. After the amount of sick leave taken reached a record high of 4.5 per

cent in 2019, there was a sharp drop in 2020 to 3.6 per cent. That means that nearly four out of 100 available working days are lost to ill health. Longer term sick leave was halved that year.

According to Horstman, the coronavirus period led to a 'nice side benefit' in certain areas. 'For example, if they work at home staff experience more autonomy in doing their job and there is more scope to organize their work themselves. We think those are two of the reasons why less sick leave was taken in 2020.' RK

**Staff who are unwell or in need of advice can find help on the intranet:**  
[intranet.wur.nl/umbraco/en/practical-information/objections-complaints/support-mediation/](https://intranet.wur.nl/umbraco/en/practical-information/objections-complaints/support-mediation/)

Stress can lead to long-term sick leave and even burnout (See *Burned out. What next?* Page 12). Photo Shutterstock





## Student houses sold by Idealis

**Student housing provider Idealis has sold six small student housing complexes to two private Dutch investors. A total of 54 students will be paying rent to a different landlord from now on.**

The houses being sold off are Oude Bennekomseweg, Vijzelstraat 10, Salverdaplein 17, Boterstraat 2, Kloostersteeg, Wilhelminaweg and Salvocomplex.

According to Boterstraat resident Jasper (24, surname known to the editors), Idealis involved the residents in the sale correctly. 'But the contract with the new owners is not going very smoothly yet. We received an email from an agent the new owner was apparently working with. It said, "Just transfer the rent to this account number." But the email was in Dutch, whereas half the residents don't speak Dutch.'

There is also a lack of clarity about their contract, which has not even been drawn up yet, according to Jasper. He hopes it will continue to be possible to sublet rooms. 'That happens regularly here. In the summer holiday, for instance, when international students go back to stay with their parents for a while. Idealis had a good system for that. But without a contract it is not entirely clear what the possibilities for that are.'

Marisca Wind of Idealis says there is no need to residents to worry about that. 'The contract has been adopted completely as it is. So everything that's in it still applies.'

Idealis decided in 2020 to sell the six complexes because of their relatively high management and maintenance costs. The proceeds will be used to invest in new buildings or to make other existing complexes more sustainable. LZ

## Geert Hoekstra is first maritime education 'practor'

**WUR seafood economics researcher Geert Hoekstra was appointed practor of Fisheries, Innovation and Entrepreneurship at the Friese Poort training college on 10 June.**

A practor is an expert with research tasks at a vocational college, explains Hoekstra. 'It means I work with the students to set up applied, practical research projects. I focus mainly on promoting innovation in actual practice.' Hoekstra will be working on site at Friese Poort in Emmeloord and Urk two days a week. 'Students at the college are trained for a specific profession, for example skipper or fisher. So it is important that they are aware of the latest insights from research. I bring the college that WUR knowledge and come

back to Wageningen with the practitioner perspective; ideally, the two jobs should enhance one another. The research we do in Wageningen is not supposed to end up on a book shelf. The practor position is a way to test things out in practice and have an impact.'

Hoekstra sees a lot of sustainability challenges for the fishing industry. 'How can fishers minimize emissions when they go out to sea in future? How can they fish without impacting nature after the ban on pulse fishing? I hope to find answers to these and other questions by drawing on the creativity of the students and local businesses.' LZ

*See Hoekstra's inaugural practor speech on [www.resource-online.nl](http://www.resource-online.nl)*



## Water for water

A new pond has been dug in the ecological garden called The Field. This water compensates for a lost section of the pond at Zodiac. The end of that pond had to be sacrificed to the new cycle path between the education building Aurora and the rest of the campus. Not everyone was pleased with that exchange. The timing of it in particular – during the nesting season – led ecologists to tweet in protest. The new pond serves to store surplus water on campus. RK Photo Roelof Kleis

# Nitrogen limits under discussion

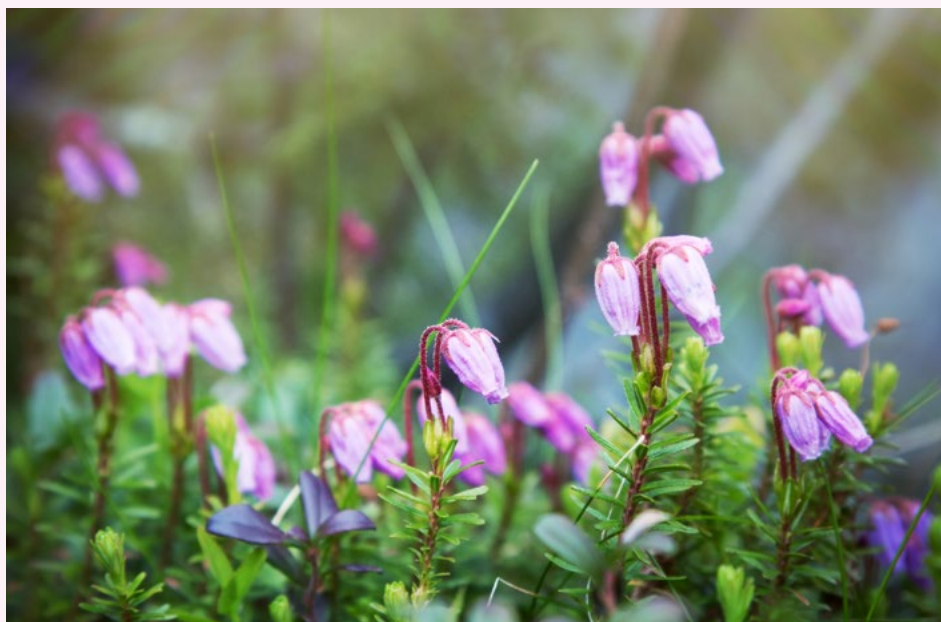
Some nature suffers even before the critical limit for nitrogen deposition has been reached, shows a thorough study by WUR and the B-Ware research centre at Radboud University in Nijmegen.

In the course of the study, a new method was developed for identifying the effect of nitrogen on plants when the critical deposition load is approaching. It has always been assumed that nature is unharmed as long as nitrogen deposition stays below that level.

But it turns out that is not the case, show calculations by lead researcher Wieger Wamelink (Wageningen Environmental Research) and his team. 'In quite a number of cases among the 60 types of habitats we researched, we see that the quality of the nature deteriorates before the critical deposition value is reached,' says Wamelink.

The limits for nitrogen deposition were set about 10 years ago on the basis of field experiments and model calculations that came up with a fixed point, the critical deposition load. 'But what happens beyond that point, or before it, come to that? We didn't know,' says Wamelink. 'Our task was to map that whole nitrogen deposition response curve.'

To that end, Wamelink's team developed a method that uses a large number of vegetation recordings from all over Europe to calculate the chances of finding a particular plant somewhere. Those chances were then correlated with the local nitrogen deposition level, which is calculated with a deposition model based on European emissions. This produced a



Crowberry. 'Dune heather mixed with crowberry shows a gradual drop as nitrogen deposition increases,' says researcher Wieger Wamelink. Photo Shutterstock

dose-effect relation per plant.

The response curve for a habitat is then obtained by adding up the dose-effect relations of the plants typically found in that habitat. The researchers think that in 37 out of the 60 habitats they studied, this produced a reliable picture of the response of that habitat to nitrogen deposition.

## European consultations

In 26 of those 37 habitats, quality in the sense of species richness begins to decline before the limit is reached. This happens to varying degrees. 'Grey dunes show a sharp drop, but dune heather mixed with crowberry shows a gradual drop as nitrogen deposition increases,' says Wamelink. A second method that compares similar habitats in different countries with different levels of nitrogen deposition led to the same conclusion. According to Wamelink, these results are

in line with comparable studies in Ireland, the UK and the US.

So is it time to review the existing limits? Wamelink leaves that question unanswered. 'It is not for us to send that message. We are going to do further

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## 'Our task was to map that whole nitrogen deposition response curve'

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research to find out more about this.

There will be European consultations this autumn at which experts will scrutinize the critical deposition loads.' RK





## A Little Wiser

# Why are you told to cut flowers at an angle?

‘When you get home, cut the stems at an angle,’ is the standard advice at the florist’s. But why, actually? ‘It is certainly important to trim flower stems before putting them in a vase,’ says Nieves García, an ornamental crops researcher at Greenhouse Horticulture. ‘They can absorb water better then.’ If the stems have not been in water, they may have sucked in air and the air bubbles in the vessels then prevent water absorption when you put the flowers in water again. The bottom of the stem has often dried out as well, and it can harbour bacteria.

So that’s three reasons to trim the stalks of your flowers. But according to García, it makes no difference whether you cut them straight or at an angle. ‘A study was done on that at FloraHolland’s ornamental plant testing centre. It doesn’t affect how long the flowers last.’ The idea behind the advice is that an angled cut exposes a bigger surface. ‘That’s true,’ says García, ‘but the water absorption rate depends on the number of xylem vessels and the connections between them, and that is no different.’

She does have another argument for cutting at an angle, however. ‘It’s harder than cutting straight, so you need a good sharp knife. That will give a nice clean cut and you won’t damage the stem as much. And that is important because when the stem is damaged, sugars can leak into the water and stimulate the growth of bacteria.’

So it doesn’t matter whether you cut your flower stems straight or at an angle as long as you use a sharp knife. García

has another couple of tips for making your flowers last longer. ‘Make sure the vase and the water are really clean: bacteria are your bouquet’s biggest enemy. Dissolve the little packets of flower food thoroughly and at the right dosage. It’s best to put cold water in the vase. Tepid or warm water is sometimes advised, but research has shown that after being left out of water, flowers absorb cold water the fastest: the air that got into the stalks when they were dry has to dissolve in the water so it no longer blocks the way. More air dissolves in cold water than in hot water, although after that the water temperature turns out to have very little effect on the lifespan of a bunch of flowers.’ TL

## ‘Cutting stems at an angle makes no difference to how long the flowers last’

Nieves García, ornamental crops researcher at Greenhouse Horticulture

Every day we are bombarded with masses of sometimes contradictory information on pressing issues. In this feature, a WUR scientist gives you something to hold on to. What are the facts of the matter?

Every question makes you a little wiser. Do you dare to ask yours? Email us at [redactie@resource.nl](mailto:redactie@resource.nl)

Illustration Marly Hendricks







## THIS IS HOW FAR PLASTIC FLOATS IN THE SEA

**Where does plastic dumped in the North Sea end up? A capsule equipped with GPS will provide answers in the near future.**

The capsule, itself made of plastic, was thrown overboard some 25 kilometres west of the coast of the Dutch island of Texel. It is currently floating like a buoy in the North Sea, and its exact location can be tracked online. The capsule plays a key role in the Plastic in a Bottle project, a collaboration between the Arctic Council and the Arctic Marine Litter

### The project shows how far plastic can travel

Project run by WUR researcher Wouter Jan Strietman. The idea behind the floating capsule is to draw attention to

the global problem of plastic waste in the seas. This is really the modern equivalent of a message in a bottle. The capsule contains equipment that emits a GPS signal once a day. A small solar panel provides the required energy. It also contains instructions for the finders, should the capsule get stranded somewhere. The main aim of the project is to show how far plastic can travel in the sea before it ends up on the coast. And that can take a very long time. A capsule launched off the Icelandic coast in September 2019 travelled 7000 kilometres before it made landfall 207 days later on the coast of northern Scotland. RM

*The capsule's route can be tracked on the website of PAME.*  
[gps.verkis.is/pame](https://gps.verkis.is/pame)

## 'Solar parks must blend in with the landscape'

We should design more Dutch solar parks from a landscape perspective, says the Wageningen landscape architect Dirk Oudes. This would help reduce resistance among communities to solar parks.

We should also combine solar energy with nature, recreation and water storage. Up to now, the Netherlands has taken an overwhelmingly quantitative approach to solar parks, says Oudes. According to Dutch grid operators, the Climate Agreement means we need to generate 34,000 billion kilowatt-hours of sustainable energy by 2030, and so 34,000 to 65,000 hectares of solar parks need to be built. The 30 Dutch energy regions are drawing up plans on how to achieve this, but there is a shortage of space.

### Umbrellas

It is time to consider the qualitative aspects of solar parks too, says Oudes. How do they fit in with the landscape? How do we experience such a park? What functions could be combined with energy generation, for example agriculture, water storage, recreation and nature? He and his colleague Sven Stremke investigated 11 solar parks in

the Netherlands, the UK, Germany and Italy that use creative solutions to blend in with the landscape, take account of local preferences or combine functions. 'These examples can help to get the debate going in the Netherlands.'

In Britain, a solar park was built in a protected landscape whereby 40 per cent of the land was used for solar panels and 60 per cent for nature. The designers placed the solar panels so as to blend in with the rolling countryside (see photo). They were aided by a hundred volunteers from the local village who put up their umbrellas in various locations in the park to see where the solar panels would be least visible. 'That shows how you can involve local residents in setting up a solar park from a landscape perspective,' says Oudes.

The best option in practice depends on the site, explains the landscape architect. 'You always need to think about what fits best in this landscape.' AS



In England, designers placed the solar panels to blend in with the rolling countryside. Photo Dirk Oudes

## FAST TILAPIA ARE SMALLER AND HEALTHIER

**Tilapia that score high in a swimming test are more resistant to diseases. And that fitness is hereditary, write Wageningen researchers in *Scientific Reports*.**

The researchers put the fish through a swimming test in which the tilapia had to swim against a current while the researchers gradually increased the strength of the current to measure the fish's fitness level. Researchers Samuel Mengistu found that the fish that swam faster grew more slowly. His co-supervisor, Arjen Palstra from Breeding and

**The researchers advise tilapia farmers to use the swimming test in their breeding programmes**

Genomics, thinks an old evolutionary principle is behind this: to escape its enemies, the fish either needs to grow faster or to swim faster.

### Swimming test

The researchers have evidence that the faster fish are also more resistant to diseases. So they advise tilapia farmers to use the swimming test in their breeding programmes. Up to now, breeders tend to select primarily for fast growth.

Now that the water the fish live in is warming up and the pressure of disease is increasing, a healthy immune system is increasingly important. The Wageningen research team, led by personal professor Hans Komen, is going to do the fitness test with other fish too, such as trout and salmon. <sup>AS</sup>



A lot of nitrogen leaches into the groundwater and surface water, which has a negative impact on the water quality, says PhD candidate Lena Schulte-Uebbing. Photo Shutterstock

## Nitrogen also pollutes water

In the nitrogen crisis, the Netherlands should not focus exclusively on the deposition of nitrogen oxides and ammonia in nature areas, says PhD candidate Lena Schulte-Uebbing. Nitrogen causes other problems too.

For example, a lot of nitrogen leaches into the groundwater and surface water, which has a negative impact on the water quality. 'Nitrogen needs to be tackled in an integrated approach. Nitrogen also plays a role in the high concentrations of fine particulates in the Netherlands and the production of nitrous oxide', says Schulte-Uebbing.

Nitrogen compounds are very mobile and affect the environment in various forms, says Schulte. Nitrogen affects groundwater in the form of nitrate and nature areas in the form of ammonia, while nitrous oxide contributes to global warming. Yet

**A closed nitrogen cycle without losses is not attainable in practice**

we still need nitrogen for food production. The aim is therefore not to waste nitrogen, but research shows that a closed nitrogen cycle without any losses is not attainable in practice. Good arable farming systems achieve

a nitrogen efficiency rate of up to 80 per cent; the rest leaks into the environment. The best solution is to add as little nitrogen as possible to our food production systems, says Schulte-Uebbing.

### Models

She used two nitrogen models for Europe and the world to investigate where nitrogen losses from farming cause environmental issues. There are problems not just in the Netherlands but also in Brittany in France, the Po plain in Italy and northern Germany. The general rule is the more livestock, the higher the nitrogen emissions. Livestock populations need to decrease in those areas to combat the nitrogen problems, concludes Schulte-Uebbing.

But it is also important to examine how nitrogen emissions originate, she continues. 'Various processes in nature influence the emissions, such as the temperature and humidity, and they vary from day to day.' <sup>AS</sup>

## Real is best

The big moment came last Tuesday: after working from home and teaching online for over a year, I'd been allocated the in-person lecture I had asked the timetables for. I even had butterflies in my stomach when I got up, and the whole car drive to the campus felt strange. I got there 45 minutes too early, a margin I would never have bothered with before Covid. About 10 minutes before the start of the lecture, the students began to file in and five minutes later, they were all there. The big question of how to make students come to lectures on time now has an

**'I tried to fish a pre-Covid USB stick out of the depths of my bag'**

The strangeness reached its peak when we saw each other in the flesh. For weeks we only met as talking heads with names shown below them. Without these names, people proved to be a lot harder to recognize. And funnily enough, we had been

answer: all it takes is a global pandemic and a year of being shut up at home.



**Guido Camps**

speaking English for weeks, and now it turned out the whole class spoke Dutch. But quite how thoroughly we'd been conditioned by online education really became clear when students had to present something. We had got used to slide-sharing, when all the faces disappear from the screen because the presenter has taken it over. Now everyone was watching me expectantly as I tried to fish a pre-Covid USB stick out of the depths of my bag because we (meaning I) hadn't given any thought to how the slides were to reach the projector.

So it was weird, that first lecture after a long, long time. It didn't go smoothly and yet it was one of the very best university experiences I've had in ages. In the past year I've sometimes wondered if online was going to take over the world, including after Covid. But after this one lecture, my doubts are quelled. The future is sure to be partly online, but most teaching will be back in the classroom.

Guido Camps (37) is a vet and a postdoc at the Human Nutrition department. He enjoys baking, beekeeping and unusual animals.



# BURNED OUT WHAT THEN?

High work pressure is causing more and more burnouts. PhD student Roald Pijpker is doing research on how people recover from a burnout, with a particular focus on the therapeutic effect of nature on the recuperation process.

**W**ork pressure and the stress it causes are the biggest threat to the health of employees and students. You only have to look at WUR's two-yearly staff survey to see that. A lot of people can cope with the pressure but a growing number reach breaking point eventually, and for them the pressure leads to what is known as a burnout. 'Burnout is a work-related illness,' explains Roald Pijpker. 'It happens to a lot of healthy people who work hard and ignore their own limits. Somewhere along the line, things go wrong. The development of a burnout is a process in which people slowly but surely exhaust themselves and lose control. Then you can no longer work due to physical and mental exhaustion. You function less well, perform less well and are more sickness-prone.' Nationally, one in seven employees experience burnout symptoms, says Pijpker (in the Health and Society chair group). According to the Netherlands Organi-

zation for Applied Scientific Research (TNO), this costs 3.1 billion euros a year in sick leave. In recent years, burnout has been affecting a lot of people in the 18-35 age group. 'Even at WUR, it's a deep-rooted problem. I see that in my own working environment and among students. Four out of 10 PhD students suffer from severe burnout symptoms, according to research by PhD Network Netherlands (PNN).'

## Healthy

And yet a burnout is a healthy reaction in itself, states Pijpker. 'A burnout is a healthy response to a very unhealthy situation. A burnout is often framed as an individual problem, that people are weak, for instance. But that's not the whole story. The causes often lie in the system and the work culture: too much work pressure, a lack of social support and autonomy, etcetera. You see it a lot in the academic world, in education and

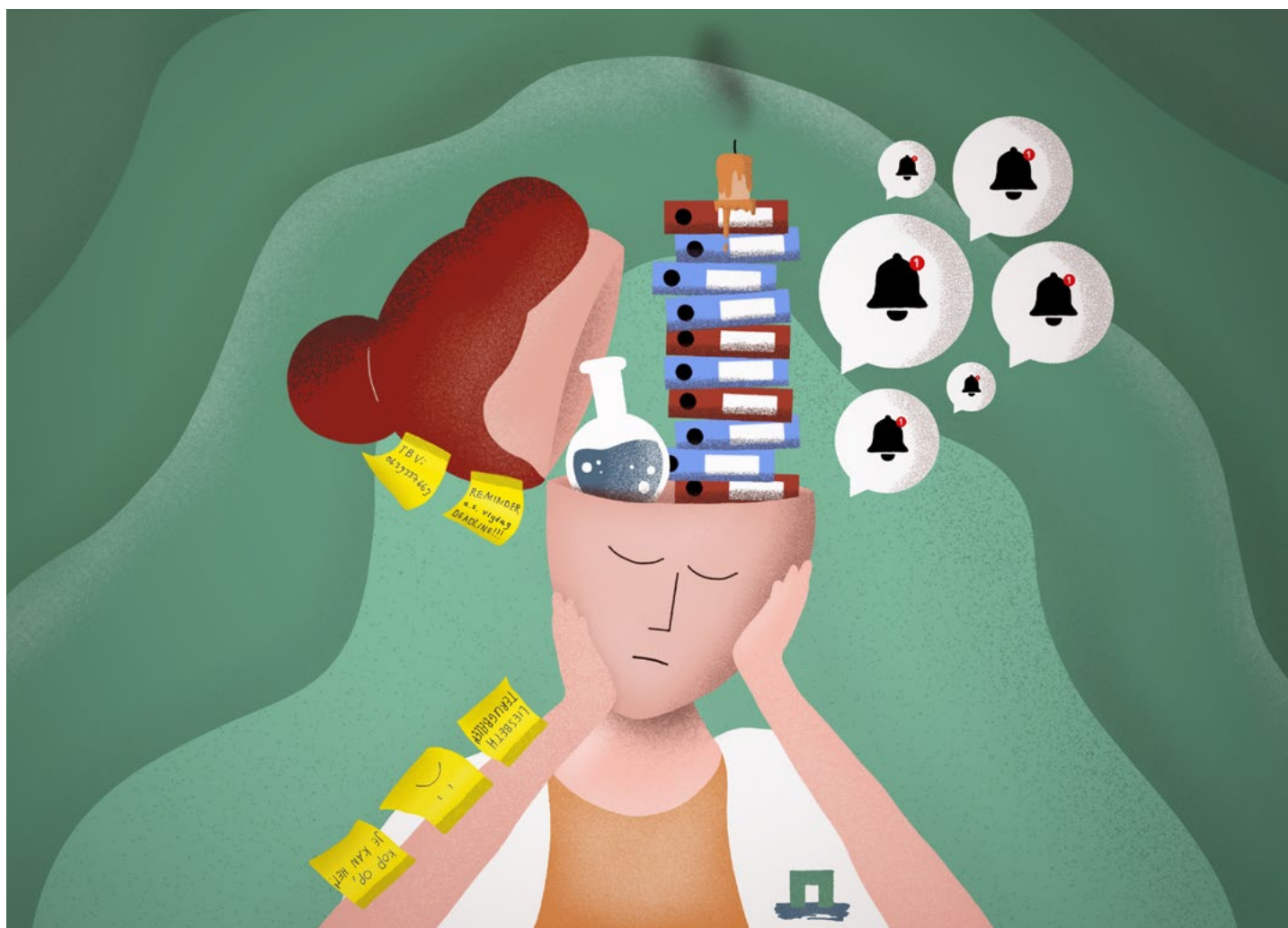
in the healthcare sector.'

Pijpker is doing research on the question of how people recover from a burnout. The short answer is: we don't know. 'That's the burnout paradox in science,' says Pijpker. 'Thousands of articles have been written about the causes and effects of a burnout, but treatment interventions of proven effectiveness are rare.'

Pijpker studied recovery from burnout using the salutogenic approach, which focuses on health and the factors that contribute to it. 'The classic pathogenic approach focuses on the factors that cause the disease and looks at how it affects people individually,' he explains. 'The salutogenic approach, by contrast,



Text Roelof Kleis



Thousands of articles have been written about the causes and effects of a burnout, but proven interventions are rare. Illustration Studio Geniek

looks at what people can do well, their capacities and the resources around them that make it possible for them to participate in a meaningful and sustainable fashion.'

A broken leg heals again, but that is not true of all illnesses. Pijpker: 'But you can learn to live with them by focusing on the individual's strengths rather than on their symptoms. That is what salutogenesis does. It concentrates on people's resilience in the face of everyday challenges and important life events. In this case, a burnout.

Salutogenesis does not replace the medical system but complements it.'

### **Nature as a therapy space**

On the basis of extensive in-depth interviews, Pijpker has distinguished four phases in recovery from burnout. Recovery starts with taking a rest and accepting the situation as it is. Then comes understanding how it could have come to this. Pijpker: 'This is where

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**'A BURNOUT IS A HEALTHY  
RESPONSE TO A VERY  
UNHEALTHY SITUATION'**

therapists often come into it. A psychotherapist, or perhaps a haptotherapist. People with a burnout are often incapable of identifying and understanding their feelings. What do you feel when you are doing the things you do, and what does that mean to you? That is an essential factor in the process of recovery.'

Next comes the acknowledgement of your new physical and mental capacities. 'Realizing that you are not the same person you were. Being content with your new self. In practice, that often leads to adjustments to your work, a different role or even a new job. Your style of working needs to change and you need to be aware of possible pitfalls and how you can deal with them. You need to think about what you still want to do

or can do, and what not. You need to regain and keep control over your life.' At the heart of Pijpker's study is the influence of nature on the process of recovery, and he is researching the effectiveness of the work of 'outdoor psychotherapists'. Pijpker: 'These are psychotherapists working in the health service who make use of nature as a therapy space. So they literally go

outdoors with their client. You can do this passively, by doing the same thing as you do indoors, just in a different setting. Or actively, by using nature as a fellow therapist. For example: some people have been through very stressful things and by burying an object associated with such events, you can metaphorically put it behind you. Or you can use nature as a mirror. The spring, for example, as a metaphor for the idea that change can be beautiful too.'

Outdoor psychology is still a new concept in mental healthcare. There are about 50 outdoor therapists working in the Netherlands. Pijpker is going to follow 15 of them, with a total of 30 clients with burnout. 'With my research I want to show that this can be a supplementary and enriching addition to the traditional approach. Not that outdoors is better than indoors, but it can add something to the process of recovering from a burnout. The evaluation I'm carrying out will hopefully help us learn when outdoor therapy works, who for, and why. But treatment for a burnout always has to be tailored to the individual. Outdoor therapy doesn't work for everyone, otherwise foresters would never have a burnout.' ■

### 'I AVOID TALKING ABOUT IT'

*(The story of a WUR colleague with first-hand experience, who prefers to remain anonymous)*

'How did it come to this? The short version is: too many things happened at once at work and in my private life. I was working part-time and studying on the side. Then I started working fulltime to stand in for a colleague. That came on top of the increasingly intensive care of my mother, who had dementia. The sum total got too much for me. I was tired, but I just soldiered on. I'm not good at saying no.

Six months after my mother died, when my work and private life had gone back to 'normal', I collapsed. And properly too. I was restless, stressed, and I slept badly. I berated myself because I didn't achieve anything. I thought I was lazy. I had no idea what was actually going on. That went on for a year. Only then did it start to dawn on me that I had a burnout. You read around a bit, you google a bit. In the end, the GP confirmed it.

Only a few people know I'm in a burnout. I don't publicize the fact. I avoid talking about it. That's just the way I am. Maybe part of me still feels it's a sign of weakness

on my part to have a burnout. Acceptance has been a slow and difficult process, and it has taken me two years. Most people come out of a burnout again, but not me. I've never had to report sick as I went back to working half-days. But after four hours, I have run out of steam. I get the full support of my managers; I do want to make that clear. They are very understanding about my situation and my work has been adapted so that I only do jobs I enjoy and that I don't have to do under time pressure. As long as I do things that give me energy, life rolls on.

I've been in this situation for three years. You gradually get used to it and learn to live with it. I've had to search for a way of life that works for me under the current circumstances. It's as though I was used to a four-metre vaulting pole with which I could jump four metres. Now it's two metres. So be it.'



## Sport

‘Sport has always been an important part of my life and I’ve been training the WUR lacrosse team for two years now. Playing sport clears my head, makes me sleep better and gives me a way of letting off steam. At the beginning of this year, sport was also behind a turning point in my feelings about work.

Until 2020 I was working with mathematical models, using them to try to get to grips with how climate change affects tipping points in ecosystems. That is one particular subject I know a lot about. So I ended up kind of an expert in my own research field, and it was time for the next step. I had to look for a new job. I thought it would be exciting to go in a totally new direction and start a new study about something I wasn’t an expert on. During one of the job interviews that followed, someone asked what I learn from sport that I use in my work. At that moment I realized that I –

Turning points: sometimes you recognize them straightaway, and sometimes only in retrospect. In the series ‘The Key Moment’, WUR folk talk about a moment they’ll never forget. This time, postdoc and sports teacher Bregje van der Bolt, who applied a wise lesson learned from sport in her job.

quite wrongly – tend to see sport and work as two separate parts of my life, and that I could apply lessons from sport in my work. I used to play tennis, and since then I’ve done slalom skiing, rowed, and taken up hockey and lacrosse. Whenever I start a new sport I feel like an idiot who can’t do anything. I’ve never minded that. After all, you are new and you improve with practice, by trying for a goal 100 times and listening to more experienced people.

I realized that starting a new job or

**At the beginning of this year, sport was also behind a turning point in my feelings about work**

research project is the same as taking up a new sport: you are still learning. That insight gave me the courage to delve into a

whole new subject: the drought problem on high sandy soils. I have confidence in my own abilities, but I also accept that I don’t know everything. Now I’m quicker to ask someone for help, and I’ll say more readily if I don’t know how to do something yet.’

NVTWH



PICTURE



## MEASURING WATER QUALITY

**Last week, BSc students studied the water on campus as part of their first-year module on Soil, Water & Atmosphere. The students in their hi-vis jackets collected aquatic creatures and determined the water quality of the ditches and pools. According to the teacher Edwin Peeters, the highlight of the exercise was finding a predaceous diving beetle — the live version of the insect sculpture in the pond between the Forum and Orion. AS**

Photo Sven Menschel







Home is where the heart is

# 'IT'S HARD NOT TO BE WITH YOUR FAMILY'

For many internationals, studying and working in Wageningen is an exciting chapter of their lives. But when your home country is in turmoil, being thousands of kilometers away can be difficult. Two stories.

Text Luuk Zegers

## 'ONE DAY WE WANT TO GO BACK TO A COUNTRY THAT IS SAFE'

**Natalia Moreno Ramírez (27) from Colombia recently finished her Master's degree in Organic Agriculture and is currently working on her PhD research proposal.**



'I came to Wageningen almost three years ago for my Master's in Organic Agriculture. My family comes from the Tolima region of Colombia, which is known for its coffee. For my PhD, I want to gain insights into how we can produce coffee in a more sustainable way with biological pest control. My family and I are very close, so it is really hard to be so far away from them. But I soon made friends here who became my Wageningen family. And every summer, I flew back to Colombia to spend the holidays there.'

'When I left home, my biggest fear was that something would happen to my family. Last November, my father got Covid. He passed away while I was here in Wageningen. On the day he died, my friends and I went to the river. A nice place, close to nature. Even though I could not be with my father, you have to find a way to say goodbye when these things happen.'

'The next day, I flew to Colombia. Even though I really wanted to be there with my family, it was a hard decision to make. Because of Covid, but also because I was still applying for my search year visa. At that point, it was not certain whether I could come back to Wageningen. Such things increase the stress at a time that's already difficult. When I got home, the funeral

had already taken place. People are not allowed to wait too long because of the virus. But it was still really good to be with my family.'

'When I returned to Wageningen in January, I started working on my PhD proposal. In the last few months, there has been a lot of social unrest in Colombia. It all started because the current government wanted to implement tax reforms. I understand that tax reform is necessary, but these reforms would increase the taxes for lower- and middle-income classes while these groups have been hit the hardest by the pandemic. Many people feel desperate: they have no jobs, hospitals are overfull, they cannot go outside because of Covid, and so on. At the same time, there are stories in the news about government corruption and disappearing money, while around 40 per cent of Colombians live in poverty. So the people were angry and started to protest.'

'The police and the army responded

## 'WHEN I GOT HOME, THE FUNERAL HAD ALREADY TAKEN PLACE'



Medellín, Colombia - May 2021: a demonstration against reforms that President Ivan Duque's government wants to push through.  
Photo Andres Matheo | Shutterstock.com

with so much violence, attacking the protesters. Many people died — they were just students. Can you imagine going to a protest and you or your friends are killed by the police? It is crazy that you cannot feel safe in your own country.'

'For Colombians in Wageningen, there is always the anxiety: will our friends and family be safe? These protests take place when it is night here in the Netherlands, so it's hard to sleep. We feel a responsibility to support the social movement, because one day we want to go back home to a country that is safe, where our families are safe.'

'Having a Colombian community here is very important for me. They understand where I come from. Before Covid and the social protests, many of my Colombian friends wanted to go back home to start a career. Now it can feel like there are no opportunities there anymore. I hope things get better soon, because Colombia has a lot of potential, with its coffee, its nature and its beautiful people.'

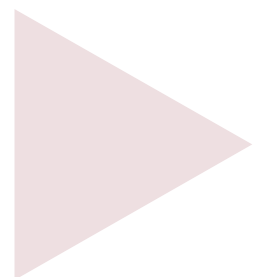
## 'ONLINE PRAYERS ARE JUST NOT THE SAME'

**Ojasvi Uppal (24) from India is a Master's student of Food Safety.**



'I grew up in New Delhi, the capital of India. It's a very big and busy city. In 2019, I came to Wageningen to study Food Safety. The first thing I noticed here was the space: there is a lot of it. Wageningen has so much nature and many students. It's a lively place with many events and activities, which makes it easy to get to know many people. I joined the Indian Student Association, of which I am currently president. Before you know it, you feel like you are part of this place. Those first six months were really welcoming.'

'Before Covid-19, besides studying, my friends and I were exploring the city and the country. We were in a nice flow. Then it all stopped. Suddenly, it became dif-





difficult to make new friends. Because the first wave of Covid hit harder here than in India, many Indians were looking forward to going back home for a break in the summer of 2020. But at that time, you needed to self-quarantine for 14 days. If you only have a month, 14 days is a lot, so many people including me cancelled their trip. I haven't seen my family for almost two years now.'

'In February this year, cases started increasing exponentially in India. At that time, many students were working on finalizing their thesis. Imagine the stress: a severe lockdown here and a second-wave crisis back home, combined with the stress of writing a thesis. It is just too much.'

'At the end of March, the situation was getting really bad. First extended family

and friends of my parents started getting the virus. Then my maternal grandparents got sick. My grandfather was 85 years old and had Parkinson's. He passed away before it was even clear whether he had Covid or not. For me, this was a super-stressful period. You want to be with your family at times like these, but you are here in Wageningen and you cannot do anything. I kept silent about my stress and my grief, because I knew others had it worse than me and I didn't want to give them more stress.

'When I left India in 2019, I didn't expect it would be the last time we would see

each other. It is so weird when you cannot join a funeral of a loved one or be there for your family. My family organized online prayers, but it's not the same as actually being there. I also experience guilt. I am here, safe in the Netherlands, while my loved ones are back in India where there is not enough oxygen and there are not enough vaccines. I think all Indians here struggle with that, one way or the other.'

'Thanks to Covid-19, I am always worrying about what is happening or what could happen. Because of that, I cannot be present in the moment. I am also reluctant to plan ahead because I don't want to get disappointed again.'

'I try to stay sane by going on long walks in the nature and meditating. It helps that the situation in the Netherlands has improved, which meant that people can meet with more friends again and have dinners together. The Indian community in Wageningen and the Netherlands in general has also started raising funds, by cooking and selling Indian food for example (check out the Instagram account meal donations\_wur, ed.). That gives a sense of relief: you can always find a way to contribute.' ■

## **'I FEEL GUILTY: I AM HERE, SAFE IN THE NETHERLANDS, WHILE MY LOVED ONES ARE BACK IN INDIA'**



New Delhi, India, May 2021: a health worker brings the body of a Covid victim to a crematorium. Photo Exposure Visuals | Shutterstock.com



# PIONEERING UNDERGROUND



Photo Guy Ackermans

In a former Cold War bunker in Arnhem, students are growing crops on Martian soil.

**T**he underground bunker is the temporary setting for the Research Methodologies for Plant Sciences course. BSc student of Plant Sciences Mats Bours and his course mates have been working here for about three weeks. 'It's sexy research,' he says as he inspects the rye plants in his nursery 'greenhouse'. But he's a bit disappointed with the result. 'We expected more from the Martian soil with poo,' he explains, 'what with the extra nitrogen that is therefore present in the soil.' The greenhouse, an adapted Ikea cupboard, houses a few dozen pots containing rye growing in normal soil or a replica of Martian soil. The soil may or may not be fertilized with poo. Human

poo, that is, from WUR staff in the AFSG department.

The trials are the latest development in ecologist Wieger Wamelink's Mars research: growing crops in Martian soil enriched with faeces. The Wageningen researcher is renowned for his testing of Martian soil. He doesn't actually mix turds into the soil. The liquid fraction of fermented poo is used, explains Bours.

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## **'Because of the radiation, you can't live on the surface of Mars'**

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'Fermented to kill any *E coli* bacteria.' At heart, then, this is all about circularity. According to Wamelink, recycling would be essential on Mars, because the soil there is poor in nutrients. In the bunker, the students experiment with soils enriched with pee and poo; they designed the experiment themselves. The bunker, an underground monster on

the former Saxony-Weimar military site, poses an added challenge.

## **Urban farming**

The bunker is a remnant of the Cold War and served as a communication centre for military air traffic from 1974. It has been disused since 2000. Wamelink was offered the use of the bunker thanks to the Science Shop Wageningen, which is doing research for Stichting De Groene Bunker to find a long-term use for the bunker.

One promising option is urban farming and Wamelink's Mars experiments are the first demonstration of this kind of possible new use for the bunker.

For 'Mars gardener' Wamelink, the bunker is heaven-sent. 'It's been clear to me from the start that if anyone lived on Mars it would have to be underground. Because of the radiation, you can't live on the surface. A bunker is the nearest approximation we have to that situation.'

'This is really great. In a bunker like this, you find out what you're up against when you go underground. There is no natural light, and it is cold and damp. So you have to cope with all that.' The Ikea cupboards are wrapped in white polystyrene. LED panels simulate a diurnal rhythm and emit heat as well. Despite the bunker's 12 degrees Celsius, the temperature in the greenhouse is 20 degrees and good for plant growth. A fan keeps the atmosphere right and a sensor measures and records CO<sub>2</sub> levels.

For the students, the trial is over after more than three weeks. Wamelink will carry on until the 'final harvest' of rye and peas. Sometime in the coming months, Covid measures permitting, there will be an open day for the neighbourhood. <sup>RK</sup>

## The precision farmer

# From common sense to smart tech

Precision agriculture enables farmers to work better and more precisely, whether they are spreading fertilizer, controlling diseases, irrigating their crops, or pursuing nature-related goals. This has been demonstrated by the national precision agriculture living lab (NPPL). *Resource* checked in with three precision farmers: an arable farmer, a fruit grower and a dairy farmer.



Text and photos Albert Sikkema

**O**n the Slichtenhorst country estate just south of Nijkerk in the province of Gelderland, four woolly Hungarian Mangalica pigs are rooting and basking in the sun. They keep the blackberry bushes short so the saplings can grow better. Not far away is the Aan de Breede Beek vineyard, where the vines are in bud. Someone from a nature organization is counting the herbs in the nearby arable fields to see whether the farmer on the estate qualifies for a grant for nature management. This farmer is Pieter van Leeuwen Boomkamp, who lives in a historic 16<sup>th</sup>-century farmhouse on the estate.

Van Leeuwen Boomkamp grows potatoes, onions, beets, maize, grain, carrots and chicory on 140 hectares of land. Because he has 96 small fields, most of them surrounded by hedgerows or ditches, he practises precision agriculture. Each plot has a different soil type and humidity level, so growing conditions are varied. 'Every plot gets its own approach. In the old days, when my father was farming, that was called common sense. Now it's done digitally and the computer helps work it out,' says Van Leeuwen Boomkamp.

He has been participating in the NPPL programme that helps farmers and horticulturalists practise precision farming since 2018. Experts from WUR advise 26 par-

ticipants on how to apply precision techniques, with the aims of increasing yields, reducing costs and the environmental impact, and improving food quality. 'We focus on farm management that targets variation by making use of technology,' says Corné Kempenaar, who coordinates the programme from the WUR side. 'At the heart of it is dealing with varied conditions. The technology – sensors, drones and satellites, for instance – is just the means.'

## Soil scan

Arable farmer Van Leeuwen Boomkamp drives a huge tractor into the farmyard. He has been spraying weed-killer using an electronic soil scan that measures the amount of organic matter and the acidity of the soil. He uses that measurement to dose the weedkiller. Whereas the sprayer on the tractor used to treat all the plants in a 36-metre band identically, the new sprayer can vary the dosage. This leads to a saving of 10 to 15 per cent on herbicides, he reckons.

For his potato crop, Van Leeuwen Boomkamp has a harvester with a location-specific yield meter, so he knows which parts of the plot produce high and low yields. He links that information with his soil scan so he can

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‘In the old days it was called common sense; now the computer helps work it out’

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‘Without my network I would have gone bust’

correlate his soil management with the yield. His aim is to have soils with plenty of organic matter that sequesters CO<sub>2</sub>. For that reason, he fertilizes the soil mainly with compost and green fertilizers and practises non-inversion tillage rather than ploughing. ‘I hope I will be recompensed for this CO<sub>2</sub> storage once there is a climate policy for agriculture.’

Van Leeuwen Boomkamp also makes use of drip irrigation, known as precision irrigation. Weather stations and sensors that measure soil humidity deliver the data for customized watering, thanks to which crops suffer less drought stress in the summer and the farmer can use less water. But he does see two significant disadvantages too: it is expensive and after the harvest, the plastic hoses have to be dug up, creating a mountain of plastic waste. He is testing drip irrigation on five hectares of carrots this year. Van Leeuwen Boomkamp continuously weighs up the costs and environmental benefits of his crop-farming methods. ‘If chemical and technological methods cost the same, I opt for the technological ones.’ Often the techniques do not yet come ready to use, he notes. ‘The nice thing about the living lab is that you can exchange knowledge in the network. I’m in a WhatsApp group, for instance, with 15 pioneering farmers.’ But Van Leeuwen Boomkamp learns the most from his own network. ‘I went to

technical college and then worked for a farm machinery company for 10 years. I have a network of guys who know a lot about technology and electronics, and who will come over to spend an evening fixing a machine or a program that isn’t working. Without that network I would have gone bust.’

### Sprayer

Martijn Slabbekoorn is another pioneer of precision agriculture. He runs a family farm (he is the sixth generation) that grows apples and pears in Kapelle in Zeeland. The fruit farm now covers 70 hectares divided over three locations. Slabbekoorn runs the farm with his wife and one permanent farm worker, and the additional help of a regular team of Polish migrant workers and some casual labour. At harvest time, 40 to 50 people work at Slabbekoorn Fruit.

Six years ago, Slabbekoorn asked the supplier to provide him with a sprayer with GPS that could dose each plant separately and would also record where it has sprayed. That was a new development in fruit farming. The machine manufacturer had the machine but no software; the software producer had no machine. One year later, when Slabbekoorn met a fellow fruit farmer with an IT background, the connection was made and there was a breakthrough. The result is a sprayer with



Pieter van Leeuwen Boomkamp, an arable farmer in Gelderland, with the spraying machine that can vary the quantity of weedkiller.



nozzles that can open and shut independently of each other. The data are sent to a registration program. 'Say we see apple scab in certain rows on the farm. We can then see in our registration program what treatments those rows had and whether they were any different. That enables us to assess the effect of treatments. That internal check is the most important thing for me.' Using these precision instruments, Slabbekoorn has now discovered that he shouldn't spray his crops with insecticides after 10 o'clock in the morning. In the summer, the humidity is generally too low after 10 o'clock and the insecticides don't work well. But the precision machinery also ensures that only the leaves are sprayed, reducing the amount of liquid that gets blown away. As a result, Slabbekoorn uses less pesticide than other fruit farmers. How much the environmental is spared varies per fruit type and variety. 'GPS delivers savings of roughly five per cent. The sensor sprayers that only spray the plant produce an average saving of 50 per cent of the product when used on young trees and 10 to 20 per cent for mature trees.'

Slabbekoorn had three diseases and pests to contend with. Firstly, scab, a fungal disease that spreads through the air, so the entire plot has to be sprayed for it. In this case it is the sensor sprayer that makes savings. Secondly, aphids, which he combats with insecticides. He used to spray with broad spectrum insecticides, but these killed off useful insects as well. So he now uses selective agents as part of an Integrated Pest Management approach in which he also uses biological agents. Using biological agents alone wouldn't work, says Slabbekoorn.

### Drone

And that is demonstrated by the third pest he has to deal with: the pear blossom weevil. There are still no biological or selective agents for combatting these weevils, so a strong old-fashioned insecticide is required. He now uses a drone to locate the weevils. It works like this: the weevil lays eggs in the flower

buds and the larvae eat the buds, so there is no blossom. The drones sees the places in the orchard with less blossom, and that is where it needs to spray. Which can only be done after harvest.

Like Van Leeuwen Boomkamp, Slabbekoorn doesn't see precision agriculture as something new. 'In the old days, a fruit farmer would walk through his orchard, and he knew exactly what was going on in it. Nowadays, thanks to upscaling, you don't have that overview anymore. And the workers don't have that knowledge or interest. Precision agriculture gives you back that watchful eye and the overview.'

### Grassland

Precision agriculture can be used when growing grass as well as potatoes and apples. Proof of that is provided by Gerard Uijterlinde and his wife Els Uijterlinde-Mentink, who run a farm called Erve Mentink near Oldenzaal. They have 200 cows and 80 hectares of land in the rolling Twente countryside, 300 metres from the nearest road. Most of their cows are in the barn. In summer they only go outside at night, says Gerard Uijterlinde, when it's not too hot.

When the cows step outside, they find themselves in a large meadow with 13 clearly separated strips of grassland. Gerard and Els Uijterlinde are experimenting with precision agriculture here. On some of the strips is herb-rich grassland, while uniform English rye grass grows on others. The farmers are testing to see which plot of herb-rich grassland performs the best. They are



Martijn Slabbekoorn, a fruit farmer in Zeeland, with the sprayer that has nozzles that can open and shut independently, and that collects data about the crops.

Gerard Uijterlinde and Els Uijterlinde-Mentink, dairy farmers in Twente, test which plot with herb-rich grassland is doing the best.

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‘We didn’t start growing herb-rich grassland for the sake of nature and biodiversity’

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‘We try things out but we keep our feet on the ground’

guessing it will be the strips on the drier land because herbs take deeper root than grass and perform better than grass in dry periods.

‘We want to get more out of the soil, which is the starting point for production,’ says Gerard Uijterlinde. They have also started an irrigation trial, using soil humidity sensors to see how quickly the herb-rich turf dries out and how much they then have to irrigate. They also measure the effect of irrigation on yields and on soil life. Although it’s not too bad at the moment, there have been water shortages in Twente in recent years – the stream behind the farm has been continuously dry. Their irrigation trial might clear up a persistent misconception among livestock farmers: that uniform grass without herbs provides more protein. ‘We didn’t start growing herb-rich grassland for the sake of nature and biodiversity,’ says Gerard Uijterlinde, ‘but to improve the soil. We are now seeing a higher yield on the herb-rich strips than on the strips with only English rye grass, but the plots with grass and clover mixes are doing better too. The 20 hectares of herb-rich grassland pays off for our farm.’

The fact that more herb-rich grassland is also good for nature is a nice extra, says Els Uijterlinde. ‘We see more deer in the herb-rich strips and the pigeons, herons and storks visit them more often because there is more life in herb-rich grassland. That’s just so nice.’

### Supervision

Gerard and Els Uijterlinde are unusual farmers who know a bit about research. Gerard Uijterlinde studied



Agrotechnology at Wageningen, and Els did Animal Sciences. Their main motive for practising precision agriculture is to capture more nitrogen in the soil and increase the capacity of the soil to supply nitrogen. They joined NPPL last year. Every participant has a supervisor from WUR. Occasionally, they find that the knowledge of the advisors in the sector is not relevant to the methods used on their farm. ‘When we first started, we were advised to sow the herb-rich grassland in the spring. Not a good idea, because that’s when the weed pressure is highest. And we were advised against fertilizing. But we do fertilize because otherwise even herbs run low on nutrients. We try things out, but we do keep our feet on the ground.’

‘We have a total of twenty precision agriculture methods,’ says WUR coordinator Corné Kempenaar. ‘The farmers are in charge; a WUR supervisor explains which technology and knowledge the farmer can use, what the pros and cons of the options are, how much they cost and what social benefits they bring with them. A WUR researcher evaluates the results as well. What we often see is that things get stuck at the step going from the data to a digital dosing or decision. We help there with finding guidance modules and involving suppliers in the process. If you are critical, you’ll find that suppliers integrate their technology better with the bigger picture.’ ■

# Six ways to enjoy the summer



It seems as though the worst of the Covid storm is over, and all sorts of things are suddenly allowed again. Is your brain not used to this wealth of options anymore, and is all that choice stressing you out? Don't worry, we'll help you decide!



Text Coretta Jongeling

# 1

## Live music


Getting to attend some classes on campus is silver but enjoying live music together with a drink in your hand is gold. Popupop has already got a full summer schedule, offering a wide variety of options from Roosmarijn's melodious pop in the church on the market square, accompanied by a dancer, to Yin Yin's psychedelic rock in the Junus Park. But after all this time, does it really matter exactly who is playing?

 [popupop.nl](https://popupop.nl)

# 2

## Farming


Would you like to know more about growing vegetables or keeping goats, and are you also interested in seeing what a Dutch farm looks like close-up? Sign up for the Farm Experience internship. You'll learn all about sustainable farming, but not just from lectures and workshops. You are going to experience it for yourself. You stay on the farm of your choice for two weeks to experience how it works in practice. And you even get three ECTS points for it. Only in Wageningen.

 [boerengroep.nl/research-education/fei](https://boerengroep.nl/research-education/fei)

# 3

## Tropical heat

You never know with a Dutch summer. If the weather's disappointing, or if it can never be too hot for you, go to the sauna! SpaVeluwe is next to the station in Lunteren, you can get there in no time (40 minutes by public transport or an hour's bike ride for the sportier sauna-lovers). As well as working up a healthy sweat, you can spend endless hours in the outdoor jacuzzi, and have a massage or a nice lunch. Not so keen on naked bodies? Every Saturday you can come dressed.

 [spaveluwe.nl](https://spaveluwe.nl)



# 4

## Enjoy the football (or not)

Gathering around a big screen to watch the European Cup is not likely to be on offer yet. At least, not at a café or pub. But that doesn't affect what you and your housemates do! So live it up, paint your living room orange, put up a projector and go for it. Do keep the party small, because no one wants a Covid explosion just before everyone is inoculated. And if you hate football, this is your chance to chill in the floodplains undisturbed, do your shopping stress-free, or plan your own sports hour at the Bongerd. Enjoy!




Shutterstock.com

# 5

## Canoe for kilometres


Fed up with all those people around you already? Rent a canoe! You start in Veenendaal and from there you can canoe right through the Binnenveld along the ancient Grift canal. It's guaranteed to be very green and tranquil: all you will see is a few people fishing and some sheep. It's quite a long way, nine kilometres to Rhenen, so turn around in good time if you haven't had much practice. Or you can opt to hand in your canoe at the end of the Grift in Rhenen, but that costs a bit extra.

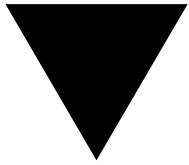
 [kanoverhuurveenendaal.nl](http://kanoverhuurveenendaal.nl)

# 6

## ISOW weekend

After one and a half lonely years shut up in your room, do you feel the need for new (international) contacts? ISOW is organizing an Epic v Pandemic weekend from 2 to 4 July, with all sorts of activities to help you make new friends at top speed. Dance workshops, a pub quiz, the ISOW-lympics... You don't have to be a member of ISOW to join in, but it does make it cheaper. All the activities have been planned to be Covid-proof, so get ready for a live, 3D experience with real people. How we have missed that...

 [isow-wageningen.com](http://isow-wageningen.com)



## Key people: Theo Hoksbergen

They are indispensable on campus: cleaners, caretakers, caterers, gardeners, receptionists – the list is long. *Resource* seeks out these key people. This time, meet Theo Hoksbergen (62), an archivist for the Atlas staff department. Text Milou van der Horst Photo Guy Ackermans

‘A lot has changed in the 40 years I’ve been an archivist. When I first started we didn’t have any computers. I photocopied incoming post, reduced it manually to four pages per A4 and printed it on coloured paper. Now I scan all the incoming post at Actio and archive it in a program. We still keep the post in archive boxes for three months, but since 2016 the scan has counted as the original. ‘Now that everyone stores documents on their computers themselves, the role of the archive department has changed from implementation to a supervisory and advisory role. And since the pandemic started, we have been working on tools for supporting users remotely.

I enjoy being in contact with the users, most of whom are secretaries. Information from chair groups and departments is archived properly. I advise people about the retention period for material. I am only at ease when everything is well organized. At the moment there are still a couple of pallets full of archive material in the Agrotechnion building. I’ll have more peace of mind once that is all in the stacks and has been catalogued, and I’ve determined how long it has to be kept. Creating order like that is in my blood. I’m a collector of original Beatles LPs – which are stored in the right order at home. My job may sound dull, but it is very nice to see what is going on in an organization.

A nice anecdote is how we were threatened with a burst dyke in 1995 and we lugged most of the archive that had to be kept long-term up out of the basement and to the internal walkways in the administrative headquarters on the Costerweg. That was hard work, but if everything had got wet it would have cost a fortune to have it all freeze-dried. I was supposed to take over my father’s bicycle shop, but I wasn’t very technical-minded and I wasn’t a salesman. A career test suggested that working in a library would suit me, so I trained to be an archivist. I worked for the Directorate-General for Public Works for eight years, until the same sort of job was advertised at the agricultural college, and that appealed to me. I’ve been working here for 32 years now. Before I retire, I hope to destroy much of the 5.5 kilometres of physical archive where the retention period has expired.’

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### ‘Creating order is in my blood’





## Campus ♦ residents

### Laminara

Three months ago, a group of five WUR students completed their Venture Creation course. Now they have a new business: Laminara. They want to make sportswear out of seaweed.

The students are now working on a business plan at the StartHub office in Plus Ultra II, explains Felix Holdorf. He is doing a Master's in Urban Environmental Management and is one of the founders of Laminara.

The students have to organize a supply chain to make the sportswear. They first want to import farmed seaweed from around Europe, then extract the bioplastic PLA from the seaweed, and produce the clothing with this bioplastic. They aim to produce athletics shirts and base layers for various sports, says Holdorf. Laminara plans to outsource production to start with. The students are

### The students want to make sportswear out of farmed seaweed

looking for manufacturers in the Netherlands that can produce PLA textiles and clothing. They want to launch their first products in the next 12 months.

'It is a very young market,'

says Holdorf. Seaweed prices are still high at the moment. Laminara wants to buy the raw material from the aquaculture sector. It remains to be seen whether textiles made of seaweed can compete with those made from other bioplastics. PLA clothing made from maize is already on the market.

Laminara is still in the early stages, so the students could use some extra brains. They are especially interested in new team members with expertise in biotechnology and chemistry. AS

There are about 100 companies on campus. We introduce them to you in *Resource*. This time: Laminara in Plus Ultra II.

All the flavours of the world can be found in the WUR community. Loreen Loman (25), a Master's student of Communication, Health and Life Sciences, makes a summery version of a true Dutch classic.



Flavours of WUR

## Summery stampot

'If you want to eat traditional Dutch food, stampot is an obvious choice. This mashed potato dish is usually seen as a real winter dish, but it's perfectly good in the summer too. This variation is nice and tangy thanks to the rocket and tomatoes, and the goat's cheese makes it deliciously creamy. And best of all, it's very quick to make. So in no time you can be sitting outside with your plate on your lap, hopefully in the Dutch sunshine!'

- 1 Peel the potatoes and cut them into large chunks, then simmer them in a large pan of water for about 12 minutes. Drain the potatoes and mash them to a puree.
- 2 Season the puree with the crushed garlic, crème fraîche, salt, pepper and paprika.
- 3 Mash it all together until it's nice and creamy.
- 4 Meanwhile, toast the pine kernels in a pan until they are golden brown.
- 5 Stir the rocket and the halved cherry tomatoes into the puree (keeping back a bit of both for the topping).
- 6 Serve up the stampot and as a finishing touch, sprinkle it with goat's cheese, tomatoes, rocket and the pine kernels.

Enjoy!

### Ingredients (for 2 people) :

- 3 sweet potatoes
- 75 grams rocket
- 125 grams goat's cheese
- 250 grams cherry tomatoes
- 1 red bell pepper
- 1 tablespoon crème fraîche
- 2 cloves of garlic
- 1 tablespoon pine nuts
- Smoked paprika to taste



**Loreen Loman (25)**  
Master's student of  
Communication, Health  
and Life Sciences

Which dish reminds you of home?  
Share it with *Resource* so we can  
all enjoy it too! [resource@wur.nl](mailto:resource@wur.nl)



## In other news science with a wink

### ◆ DEPRESSION

Getting up early makes you less prone to depression, claim researchers from the University of Colorado. Getting up one hour earlier reduces the risk by 23 per cent. Something for people working at home during Covid times to bear in mind. That hour's lie-in will be your downfall in the end. One possible explanation is the lack of vitamin S — you're getting less sunshine.

### ◆ HUMAN

Research that is not replicable gets cited more often than research that can be repeated, shows a study by the University

of California. So poor work scores better. Even when replication fails, the original study still scores above average. According to the researchers, this is because striking results are just too nice to ignore. Scientists are very human.

### ◆ GYMPIE

If you hate stinging nettles, you'd better stay away from the gympie-gympie tree. This Australian plant (*Dendrocnide moroides*), a member of the stinging nettle family, is one of the most poisonous in the world. It's also known as the suicide plant: the intense burning pain it causes can go on for months. And there's no anti-

dote. The plant owes its name to the Australian gold-rush town of Gympie.

### ◆ FINGERPRINT

Every city has its own bouquet of microbes, shows an international study led by Weill Cornell Medicine, in the US. The researchers compared 4700 samples from 60 cities around the world. There is surprisingly little overlap: only 31 microbes are found everywhere, or almost. The rest vary per city and combine to form a kind of fingerprint. 'Give me your shoe and I'll know where you live,' claim the researchers. RK



## Diary of a caretaker

### No sweetener

I was going round the buildings I manage early one morning when a man accosted me. 'Eugene, I'm cross, very very cross! Would you come inside a moment to talk about it?' I thought: 'Oh no, not again.' This wasn't the first time this gentleman let me know all about what was bothering him. But I sat down on the sofa and he gave me a cup of tea and some cake. 'Hmm, cake, not a bad start to the day in itself,' I thought. But no sooner had I taken my first bite than my host started spewing a deluge of angry words. His face became very red. 'I've been living here for years and more and more people of different nationalities are coming to live in the building. They are noisy, they listen to weird music, they cook spicy food that you can smell all along the walkway, and they invite friends round a lot. Lots of noise in a language I don't understand, and don't want to understand! Idealis should do something about this!'

This is not the kind of conversation that goes with tea and cake. I get up and head for the door. In previous

conversations with this man, I had always tried to really listen and take his complaints seriously, but this time I'd had quite enough of his unreasonable grumbling. I turn around and say: 'You should be proud of where you live, proud of Wageningen. This city represents the whole world, we are living with all sorts of people from different cultures here. Apart from you, I have never had a single complaint about excessive noise or about strange smells in the walkway.'

### 'I'd had quite enough of this unreasonable grumbling'

living here more if you adapted. Or, if you can't manage that, if you looked for a place to live that matches your wishes better.' And I closed the door behind me.

I was angry. I kept calm but my annoyance still showed in my response. 'I can't change this residential situation, and I don't want to change it,' I said. 'But you might enjoy

Eugene van Meteren works for student housing provider Idealis as a caretaker. He writes about his experiences for *Resource*. Read all his columns on [resource-online.nl](https://resource-online.nl)



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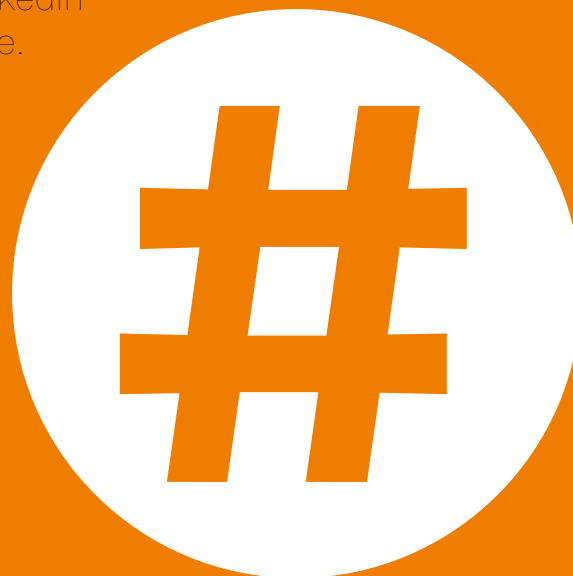
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## Resource

WUR from within: straight, sharp, transparent



## IN MEMORIAM

### PAU KALMEIJER MESTRE

Pau Kalmeijer Mestre started his degree programme in Business and Consumer Sciences at Wageningen in 2019. He stood out from the start for his enthusiasm and involvement. Pau was a very sociable lad who related to people easily. Many of us will remember that first proper conversation with him, when he took a real interest in your ideas and shared his own ambitions with you.

Pau proved an outstanding student who managed to combine his studies and his social life perfectly. In recent months he went through a difficult patch; as he himself put it, mentally he wasn't so

fit. We are devastated by the news of his death on 2 June and his decision to take his own life.

Pau made an impression on you: he was present in every sense of the word. That impression will always stay with us. We are mourning this sudden parting, and our thoughts are with Pau's family. We wish them the strength to bear their loss.

*On behalf of students, teachers and other staff in the Business and Consumer Sciences programme, Joram, Kevin, Gineke, Kim and Paul*

## 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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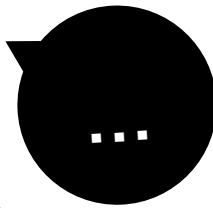
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**'I am one of the few non-Dutch-speaking researchers in my group. During coffee and lunch breaks my co-workers mostly **speak Dutch** together. They argue that it is their free time so they can do what they want, in whatever language they prefer. As I don't understand Dutch, I feel left out and alone during these times. Who has a solution?'**

PhD student O  
(name known to the editors)



## Take a course

'When I first started working at WUR I had similar struggles, so I decided to learn some Dutch. The university offers Dutch language courses and your chair group might even be willing to cover the costs. Then the next time your colleagues speak Dutch, use it as practice. Perhaps they will even understand your struggle better and switch to English during the breaks every once in a while.'

Louis König, PhD student of Forest Ecology and Forest Management

## Disrespectful

'Sadly, I often experience the same thing. Talk to your co-workers again about the language issue and be clear that their behaviour hurts you and is even disrespectful. If they still won't include you, they are not worth talking to in my opinion and hopefully you will meet kinder people soon.'

Klaudia, International BSc Student

## Learn some Dutch

'As you will spend some years in the Netherlands, consider making the effort to learn some Dutch. Regular and informal exchanges like those during breaks would surely help improve your language skills. Or attempt once more to find a compromise with your co-workers. Most Dutch people I meet are fairly open and just need to be approached.'

Philipp Oggiano, Master's student of Organic Agriculture

## Impress them

'Their behaviour is not fair, especially since living abroad is already difficult and isolated enough. One solution could be to learn basic Dutch. You can catch some words and ask questions. Or ask if they can speak slowly ("kun je langzaam praten?") This way, you'll impress them with just a few words, which may cause them to make more of an effort to speak English.'

Marta Battistel, Master's student of Biology

## One at the time

'People are not always aware of how their behaviour affects others. Tell your colleagues that when they speak Dutch, it makes you feel left out. If you are hesitant to talk to them as a group, approach one co-worker at a time. To your colleagues I say: it is impossible to like everyone who crosses your path but that does not mean you should ignore other people's feelings.'

Lisa Nguyen, Project leader for diversity & inclusion, Student Service Centre

## NEXT WURRY

**'I feel under quite a lot of pressure at work. Holidays help me relax, but the moment I'm back at the office I feel overwhelmed by the volume of work waiting for me. It makes me feel just as stressed as before my holiday. Who has tips to help me get better at starting up again?'**

Ruud Wilbers, assistant professor of Nematology

*Do you have advice for this Wurrier? Or could you use some good advice yourself? Email your tips or your question (100 words max) by 22 June to [resource@wur.nl](mailto:resource@wur.nl) subject noWURries.*