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For everyone at Wageningen University & Research

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Make room for the Mekong

Dutch Delta Plan for Vietnam | **p.12**

INTERNATIONAL EDITION

Jonna + artificial intestine

Jonna Koper, researcher at Food Quality and Design



ON THE SCENT

There is nothing human about Shime, the digestive system simulator in Axis. It consists of a row of jars connected to one another by tubes. And yet each jar represents one part of the gastrointestinal tract. Jonna Koper is using it to investigate the effects of oregano on the immunoreceptor AhR. Every eight hours, the intestine is 'fed' from a container under the table. Right next to the 'dish' is the 'toilet' in which the processed intestinal contents are collected. We are in luck. 'It doesn't stink that much today.'

📷 RK, photo Sven Menschel

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Loads of seals in Wadden Sea but fewer fish



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'I'm more of a fixer, actually'



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STUDYING WITH RSI

Where can you go for help?

TURNAROUND

Which country managed to achieve spectacular increases in agricultural production in the past few decades, becoming the second biggest exporter, but is now having to switch to sustainable farming due to the environment and climate change? A clue: there is more than one right answer. Of course this description fits the Netherlands, but a less obvious correct answer is Vietnam. Whereas the Netherlands achieved a leading export position in flowers, dairy and meat, Vietnam did the same in rice, shrimp and tilapia, as I discovered last year during a visit to the country (see the article on p. 12). In both cases, increased production led to problems in the river delta. And both governments are now working on a transition as a result. In the Netherlands, we talk of 'circular agriculture' while in Vietnam's Mekong region it is called the 'Delta Plan'. WUR was involved in the spectacular growth in production in Vietnam — as it was in the Netherlands — and is now helping with the transition to sustainability. Does that mean we are rectifying our own errors? I don't think so. Back then, Wageningen was assisting a war-torn, hungry country. Now, Vietnam is a stable middle-income country with little poverty, a lot of confidence and modern-day problems. It does not have WUR to thank or to blame for that.

Albert Sikkema, science and organization editor

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SPINOZA WINNERS IN WALK OF FAME

The Walk of Fame on campus has added to its allure. On 22 January – in a snowstorm – Wageningen's four Spinoza winners revealed their own tiles.

On a signal by rector magnificus Arthur Mol, Marten Scheffer, Willem de Vos, John van der Oost and Marcel Dicke each lifted the wooden lid covering their own tile. Each tile gives the person's name, field of expertise and year in which they won their Spinoza prize.

The Spinoza Prize is the Netherlands' highest award for scientific achievements. The prize was established in 1995 by the research funding body NWO.

Wageningen had to wait until 2007 for its first prize, for entomologist Marcel Dicke. Microbiologist Willem de Vos (2008) and aquatic ecologist Marten Scheffer (2009) followed. Then it was quiet for a while. Until microbiologist John van der Oost joined the ranks of prize winners last year.



PHOTO: SVEN MENSCHER

▲ Marten Scheffer, John van der Oost, Willem de Vos and Marcel Dicke (from left to right) listen in the snow to a speech by rector Arthur Mol.

Four top scientists who the organization can be proud of, noted the rector Mol in his brief speech. 'Although it is a shame all four are men,' he admitted. Mol would like to have a tile for a female Spinoza winner in the Walk of Fame as well. He wisely did not comment on whether that was likely: nominations for the prize are confidential.

The idea of honouring the four Spinoza winners with a tile came from Arianne van Ballegooij of University Fund Wageningen. The Walk of Fame was started in 2013. In principle, anyone who has been of significance for WUR qualifies for a tile in the path between Atlas and Orion. **RK**

Agreement on use of loan-system millions BOOST FOR SMALL-GROUP TEACHING

Over the next five years, Wageningen University will invest over 43 million euros in education quality. This is the so-called 'loan-system money' that became available when the basic grant was abolished. It will now mainly be spent on small-group teaching, students' personal and academic development and helping teachers develop professionally.

The university expects to get 40.3 million euros in loan-system money from the government for the period 2018–2024. The Executive Board is adding over 2.8 million euros to that, bringing the total to 43.1 million euros.

According to a proposal by the Executive Board that the Student Staff Council has agreed to, over half the money will be reserved for investments in small-scale teaching and

extra supervision for theses. Around one sixth of the loan-system money will be used to further increase the professionalism of teachers. For example, a fund will be set up to compensate for the lost time and costs of attending training courses. It will also be made easier to hire support staff who can take over some tasks from teachers.

Another sixth of the loan-system money will be used for differentiation in education. That covers such aspects as preparing students better for the labour market, doing more to teach them skills and organizing more student challenges, explains Sybren Zondervan, a student member of the Student Staff Council. 'The idea is mainly to offer more help to students so that they can achieve their personal goals. Supervision will be more intensive and there will be more options.'

Over 10 per cent of the budget will be

spent on more and better study assistance, with the appointment of more study advisers and student psychologists. Money will also be spent on teaching facilities, such as MyWorkspace for students and other software licences. The final four per cent will be reserved as funding for new ideas.

The Dutch government is making expenditure of the loan-system money subject to the condition that students, staff and the university board must decide jointly what they will invest in. That is why the university organized workshops last summer with students and staff to identify the key problems and wishes.

The Student Staff Council agreed this week to the proposal for investing the loan-system money. The Accreditation Organization of the Netherlands and Flanders still has to give its approval. **LZ**

PHD STUDENTS GET SAY IN GRADUATE SCHOOLS

PhD candidates will have regular meetings with the chairs and secretaries of the Wageningen graduate schools in the Wageningen Graduate Schools (WGS) consultative body, WGS has decided.

Wageningen's PhD students want more input on the issues discussed by the graduate schools, say Sabine Vreeburg and Job Claushuis, who are both PhD representatives in WUR Council. The WGS consultative body, which is chaired by the Dean of Science, often discusses topics that directly affect PhD candidates, such as accommodation for PhD candidates, the variability in their supervision, and their teaching tasks and workload.

The PhD students already had a seat at the table in the meetings of the individual graduate schools but not the joint consultative body. 'We really did our best to get this,' says Claushuis. Two PhD candidates from the PhD Council will now attend the next meeting.

Ingrid Vleghels, the secretary of the Experimental Plant Sciences graduate school, is pleased the PhD candidates will now be joining the meetings. 'We regularly discuss matters that affect the position of PhD students and it would be nice to hear their views directly. This will also let them raise issues sooner. The more interaction there is, the better.' **AS**

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Buy a deer

I can understand people might never want to hear the word 'Oostvaardersplassen' again after all the furore about this nature area but I rather liked the latest news item.

The Netherlands has a star system for meat sales. Animal protection society Dierenbescherming created this Better Life label to (in the words of its website) 'make agreements with companies on more room for animals, fewer or no interventions that adversely affect animal wellbeing, and other improvements with the aim of getting more animal-friendly meat in the shops'. The system uses between one and three stars.

Let's imagine for a moment that Oostvaardersplassen is a meat production company rather than a nature area. Under the right circumstances, the animals there are able to manifest their natural behaviour and the place would certainly deserve three stars — or perhaps even four as a new 'outstanding' category. It is understandable that neither Dierenbescherming nor any of the other organizations in the debate have drawn attention to the fact that having to cull 1800 deer will result in an awful lot of sustainably produced venison.

However, one group did notice this opportunity — consumers. The Oostvaardersplassen venison deals sold like the proverbial hot cakes on the web shop. Koopeenhert.nl was soon having to announce 'Temporarily sold out'. Some of the meat is donated to food banks and the rest goes for between 25 and 30 euros per kilo. But as said, it is currently not available.

This situation might have been a problem politically but it has resulted in consumers who are prepared to pay for sustainable, locally produced meat. Perhaps Dierenbescherming deserves a couple of stars. **AS**

Guido Camps (34) is a vet and a postdoc at the Human Nutrition department. He enjoys baking, beekeeping and unusual animals.



in brief

>> CHINESE AGRICULTURE MINISTER Visiting Wageningen

Qu Dongyu, vice-minister of Agriculture in China, visited WUR on 21 January. He took part in a round-table debate on circular agriculture. Martin Scholten, director of the Animal Sciences Group, opened the event with an overview of the Netherlands' vision for circular agriculture. It is not yet clear whether China will be incorporating aspects of that vision in its own policy. China has increased its agricultural output substantially in recent decades but it struggles with food safety issues, manure problems and environmental damage. Qu Dongyu, a Wageningen alumnus, used to be the vice-president of the Chinese Academy of Agricultural Sciences (CAAS), with which Wageningen has close links. Wageningen has a joint long-term PhD programme with CAAS, as it does with the Chinese Agricultural University (CAU). Furthermore, various Wageningen professors spend

part of the year in China in order to set up talent programmes there. WUR also collaborates with a number of Chinese research institutes on applied research and it provides training courses in China. **AS**

>> KLV MEMBERSHIP Change after complaints

Students who enjoy free membership of the professional association KLV will no longer automatically become paying members on graduating. KLV has changed the rules. At the end of last year, new WUR graduates complained that they had had a debt collection agency demanding they paid 95 euros in membership fees and collection costs. In a reaction, KLV says that the students were 'informed repeatedly' of the switch to a paying membership. However the association acknowledges that students do not always read their letters. That is why student members will now receive an invoice on graduating. If they no longer want to be a member, they merely have to tell the membership administration. Students who don't respond but don't pay either will automatically lose their membership. KLV membership costs 46 euros a year. For that, WUR alumni get support in finding a job, via KLV Professional Match, and discounts on training courses. **AS**

◀ Qu Dongyu



PHOTO: SVEN MENSCHER

'PLAN FOR OPEN ACCESS GOING TOO FAST'



The science funding organization NWO is moving too fast in its desire to enforce open access publication. That is at the expense of the quality of the science, say Wageningen researchers.

The Wageningen scientists make this argument in a letter to NWO and the other European initiators of what is known as Plan S. This plan, which was launched last autumn, makes a rigorous choice to only publish research funded by public money in journals that are completely open access (the gold standard) and to implement this by the end of 2019.

Plan S is causing a lot of disquiet amongst scientists. A group of prominent Wageningen researchers, including the professors Marcel Dicke, Jan-Willem van Groenigen and Ken Gillier, have submitted their objections to NWO on behalf of the Wageningen scientists. The crux

of their criticism is that the plan is too rigorous and inflexible. The researchers feel Plan S will have a disruptive effect. They agree with the aim of open access but advocate a more gradual transition that allows room for hybrid journals in the intervening period. These journals have a subscription system but also facilitate open access for a fee or as part of an agreement with universities.

Plan S uncompromisingly rejects such hybrid journals. The researchers feel this is throwing out the baby with the bathwater. A quarter of all Wageningen articles are published as open access papers in hybrid journals, and this share is expected to increase. But if Plan S becomes the yardstick, that will no longer be allowed. It is not clear what effect this will have. Only one in five peer-reviewed articles appears in journals that are fully open access, as required by Plan S.

The researchers fear that the urge to move fast to open access publishing will have some major disadvantages. The main problem concerns the check on the quality of articles. In open access, researchers pay in advance for publication so that readers no longer have to pay a subscription. This business model encourages so-called predatory journals that hardly carry out any quality checks and simply focus on publishing as many articles as possible. What is more, open access is expensive: it can cost up to 4000 euros to publish an article in a leading journal.

The Forum library has now set up an intranet group, Open Access Publishing, for the debate about open access within WUR. RK

WUR TO SHARE ECOLOGICAL EXPERTISE WITH TEACHERS

Agricultural and nature education ('green' education) in the Netherlands will focus more on nature-inclusive farming in its teaching programmes. WUR will be joining forces with the universities of Utrecht and Groningen to provide ecological knowledge so students can learn about circular farming.

Minister of Agriculture Carola Schouten made these announcements on 16 January. Three ministries, WUR, the four agricultural universities of applied science, the agricultural colleges, the young farmers' organization NAJK and the provincial authorities signed the 'Green Deal for Nature-inclusive Agriculture in Green Education'. The aim is to make nature-inclusive attitudes and practices, in which use is made of the nature around the farm, a fixed element in the teaching programme.

'To make the switch to different forms of agriculture, you don't just need a transition in the farming sector itself but also a transition in green education and the way in which we educate the businesspeople and farmers of the future,' said Schouten at the signing of the Green Deal. She sees the deal as the first tangible step in implementing her ministry's vision for circular agriculture. The intention is that the ecological knowledge will be passed on not just to students and schoolchildren but also to farmers and their advisers.



▲ Students on Dutch agricultural courses need to learn to adopt a 'nature-inclusive' approach.

WUR will not be developing any new modules or minors on nature-inclusive agriculture, says WUR education manager Frank Bakema. 'We have the knowledge already; the emphasis will be on transferring that knowledge to the green education sector.' A Nature-inclusive Agriculture Education Circle will be set up, for ex-

ample, with teachers in green education who will meet to discuss knowledge development, teacher training and new course material. The Farming Systems Ecology and Forest & Nature Policy groups will provide expertise and projects, as will WUR's Agroecology and Technology Test Location in Lelystad. AS

USING MATHS TO WEIGH TURKEYS

How do you weigh a turkey while it walks? And how can you teach traffic lights to cooperate? This week, mathematicians from the Netherlands and abroad are working on such conundrums in Wageningen's WICC conference hotel.

The turkey and traffic-lights problems are two of the six practical challenges being tackled by 60 mathematicians, including 10 from Wageningen. They are doing this in the 21st edition of the week-long workshop Mathematics with Industry. WUR's Biometris mathematicians are the hosts. Professor of Mathematics Jaap Molenaar is one of the godfathers of the Dutch maths event.

USEFUL MATHS

The event's roots can be traced to Oxford in 1968, explains Molenaar. In an effort to rid maths of its musty image, an event was set up to demonstrate how useful mathematics can be. 'I was part of a group who brought that idea to the Netherlands in 1998. Wageningen hosted the event for the first time in 2009. And now we're doing it again 10 years later. But this will be my last time as I'm retiring this year.'

Representatives of the companies taking part presented their problems in the WICC hotel on Monday 28 January. Some of these challenges have a regional flavour. Cement company Bruil from Ede, for example, wants to know whether you can predict which geometric structures can be made with a 3D cement printer and which not. Maritime research institute Marin from Wageningen also has a problem for the mathematicians to tackle.

TURKEY QUESTION

Hendrix Genetics' turkey question is a typical Wageningen topic. The company is the world's leading turkey breeder. It carried out a study on turkeys in which they walked across plates that accurately record the pressure exerted by the



▲ Turkey breeder Hendrix Genetics wants to know whether turkeys can be weighed indirectly and fully automatically.

bird's feet. Hendrix now wants to use all that data to estimate the weight of the turkey.

It is not actually difficult to weigh a turkey: you just put it on scales. But that is time-consuming and hard work, explains Bram Visser. 'A turkey can easily weigh 20 to 25 kilos.' It would be worth a lot to Hendrix if the birds could be weighed indirectly and fully automatically. Visser has brought the data on 200 turkeys with him. The mathematicians have been given the task of coming up with an algorithm that turns that data into an accurate weight.

The problem presented by engineering consultancy Sweco might not be in Wageningen's domain but it is intriguing. The company is working on smart traffic lights that are aware of

what is going on around them. Sweco's Smart-Traffic system controls traffic lights based on the expected traffic rather than the vehicles already there. To do this, it uses data from satellites, traffic loops and mobile signals.

TIME SAVINGS

It already works for one traffic light. That gives average time savings of 40 per cent compared with not so smart traffic lights. But what happens when you have a network of such smart traffic lights? How should you make them cooperate in order to get a 40 per cent increase in the speed of overall traffic flows? Perhaps a week of maths in Wageningen could be the start of an answer. **✉ RK**

Bionieuws, Resource and the brewery Stadsbrouwerij Wageningen present

Darwin Café 2019

DARWIN'S ANGELS

'Darwin's Angels', a talk by botanical philosopher Norbert Peeters about the exceptional female scholars who corresponded with Charles Darwin.



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from 20:30

Café Rad
van Wageningen

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MORE SEALS, FEWER FISH IN WADDEN SEA

The population of harbour seals in the Wadden Sea has increased substantially in recent years, according to counts by Wageningen Marine Research. The researchers estimate that the predators could be consuming more than 40 per cent of the fish stocks. However, they are unable to show a direct link with the fall in fish stocks.

Fish stocks have been in sharp decline in the Wadden Sea since the 1980s. However, ecologist Geert Aarts of Wageningen Marine Research is unable to find a direct link with the rise of the harbour seal (*Phoca vitulina*). 'The decline in fish stocks started at a time when the seal population was still really small. Predation by seals could be the reason keeping fish numbers low, though.'

The researchers looked at fish remains in seal excrement and data on diving by seals fitted with transmitters. They combined these data with information on the numbers of fish in the Wadden Sea and coastal zone. Based on these figures, they estimate that seals are able to consume around 43 per cent of the fish in the Wadden Sea in the autumn. That increases to 60 per cent for the adjoining shallow coastal zone. The study focused on species commonly eaten by seals, such as flatfish, cod and whiting.



▲ Increasing numbers of harbour seals are living in the Wadden Sea.

It seems as if seals do not have a direct impact on the larger fish further out in the North Sea. For example, stocks of plaice further away from the coast have remained stable or even increased. This is probably because seals mainly forage in waters close to the coast, which are primarily home to young fish. Aarts: 'One theory is that the seals thin out the young fish, leaving more food for the other fish, which are then

better able to grow and survive.'

Aarts does add some provisos. For example, the researchers hardly collected any data in winter. 'Perhaps seals hunt different species then, such as herring.' The researchers also assumed the seals spend all their diving time on foraging. This could lead to an overestimate of the number of fish they consume. **TL**

HISTORIAN FRANKEMA WINS AMMODO SCIENCE AWARD

Professor of Rural and Environmental History Ewout Frankema has received the Ammodo Science Award, which is intended for outstanding mid-career scholars. He is the first Wageningen academic to be awarded this relatively new prize worth 300,000 euros.

The Ammodo prize was introduced in 2015 and is awarded every two years. The prize is an initiative of the Ammodo Foundation, which encourages the arts and sciences, but it is awarded by the Royal Netherlands Academy of Arts and Sciences. Frankema was given the prize for his research on the historical roots of the global gap between the rich and the poor. He is delighted. 'I see this mainly as recognition for the type of research I do: broad historical research that is difficult to pigeonhole.'

Frankema says you need a helicopter view if

you are to determine why there are such big global differences between the rich and the poor. 'You can't do it by examining the issue from a single theoretical perspective. You have to look at how states and farming communities developed, how trading patterns took shape, and so on. You need to make connections and be prepared to think big.'

According to Frankema, the prize shows that the humanities have a place in a technical university. 'They are not a luxury; they add value. I'm currently working with colleagues in the plant sciences on a research proposal for Wageningen University's Interdisciplinary Research and Education Fund. The key question here concerns the spread of new crops from the New World after 1492 and what that meant for Africa.'

Frankema says the introduction of crops such as maize, cocoa and potatoes had a much bigger



▲ Ewout Frankema studies the reasons for the huge global gap between the rich and the poor.

impact on agriculture and society in Africa than anywhere else. 'You can study that as a historian but biologists know all about it too. The combination of these areas of expertise makes this project innovative.'

Ewout Frankema came to Wageningen from Utrecht in 2012. That same year, he was awarded a Vidi grant by the Dutch Organization for Scientific Research (NWO) of 800,000 euros and an ERC Starting Grant of 1.5 million euros. His group now consists of four PhD candidates and 11 staff. **RK**

MAKE PRICE REFLECT SUSTAINABILITY



How sustainable is one food product compared with another? Wageningen researchers are collaborating on a new method for expressing those differences in a 'true and fair' price.

You pay around 3.50 euros for an own-brand half-kilo pack of coffee in Dutch supermarkets. But how expensive would that coffee be if you also had to pay for the pollution caused by the coffee bean cultivation, the water that is used and a fair income for everyone in the supply chain? In the 'True and Fair Price' research programme, Wageningen Economic Research, True Price and Bionext will be working with businesses to determine the price of a product if you were to take all those factors into account. 'We want to express these aspects in euros to enable proper comparisons,' says Willy Baltussen, Consumer and Supply Chain researcher at Wageningen Economic Research.

To do this, the researchers distinguish between two kinds of prices: the fair price and the true price. The fair price reflects the investments that are made to ensure sustainable and socially responsible production and to spread

the costs, benefits and risks across the entire production and supply chain. The true price of a product also incorporates the negative societal impacts such as contributions to climate change or poor working conditions.

It is difficult to express all aspects of sustainability in money as you are really comparing apples and oranges. Baltussen: 'For example, how do we decide how much weight to give a saving in CO₂ emissions compared with animal welfare? Combining and comparing all these aspects is a real challenge. But that is our goal.'

The idea is that the project will result in new 'true and fair' prices for products that you could then show next to the market price. Those alternative prices would give companies a better understanding of their plus points and minus points, and the opportunities for improving their sustainability. Governments could also base their sustainability policy decisions on the transparent prices. Baltussen: 'Some measures may be good for the climate but not so good for biodiversity, for instance.' What is more, transparent prices will help consumers to make sustainable choices.   TL



VISION



Phantom pigs: more measurement error than fraud

The Netherlands has millions more pigs than appear in the statistics, claimed pig rights group Varkens in Nood on 22 January. The campaign group calls this fraud. Researcher Robert Hoste of Wageningen Economic Research says that is tendentious.

Do you know about the group's calculations?

'Yes. Varkens in Nood was doing a study on the number of pigs in the Netherlands and asked me for information. I mentioned some possible sources, which they then used.'



Are their figures correct?

'The calculations are correct but it's debatable whether we have the right sources and whether we can combine them. My calculations give production levels of around 27 million pigs a year in the Netherlands. Some are exported but there are also imports. Then I get an estimated 17.5 million pigs slaughtered in the Netherlands. The main inputs for these calculations are the agricultural counts of Statistics Netherlands (CBS) and the trade data from the Netherlands Enterprise Agency (RVO). However CBS says 15.2 million pigs are slaughtered. That gives a gap of 2.3 million pigs.'

Varkens in Nood calls this large-scale fraud.

'That statement is tendentious and I can't agree. Varkens in Nood suggests that pigs are being slaughtered and exported illegally. But it's not easy to cheat with pigs in an abattoir for export as there are vets present. Varkens in Nood has also made a connection to the manure fraud but that is far-fetched. The point is that these calculations link data from different databases, which you should be very careful about doing.'

Does that explain the 2.3 million phantom pigs?

'I don't have a good explanation for that. I've now heard that CBS also has export data, which gives 0.6 million more exported pigs than RVO, reducing the gap to 1.7 million pigs. Now questions have been asked of the minister of Agriculture in parliament. I'm curious to see what new insights the ministry will get from the study.'   AS



An end to special diets for coeliac patients?

WHEAT WITH SAFE GLUTEN

Coeliac patients have to eat gluten-free food but these products often taste worse and are less healthy. PhD candidate Aurélie Jouanin realized that CRISPR-Cas could let you modify the gluten genes in wheat to make the plant produce gluten that is safe for people with this disease.

Around one to two per cent of all Dutch people have coeliac disease. Products with gluten, which is found in wheat, barley and rye, give them intestinal inflammation. The only remedy for patients is a gluten-free diet but that is tricky as gluten is used in products such as chocolate, meat and liquorice too. Gluten adds structure to food products. The gluten-free products are also less healthy, says René Smulders, Jouanin's co-supervisor. They lack fibre and the products contain additives such as starch, emulsifying agents, gum and lots of salt to compensate for the lack of gluten.

That is why Jouanin investigated whether she could breed safe wheat. Scientists have not yet managed to produce a wheat variety with safe gluten using traditional plant breeding methods. 'We know which molecules in gluten proteins trigger the immune response but the problem is that loads of wheat genes produce gluten proteins,' says Smulders. 'We know from previous research that more than one hundred genes are involved at six different loci in the genome.'

MUTAGENESIS

Researchers have tried using traditional mutagenesis, in which the DNA is altered by gamma radiation, to switch off the genes in question to create a gluten-free variant. Smulders 'They have not succeeded yet. It's an imprecise method. The plants without the piece of chromosome containing a series of gluten genes also lack other genes. That may affect their ability to grow. And you also need to successfully eliminate *all* the gluten genes in the plant. The traditional approach won't ever be able to produce a gluten-free variety.'

The new technique CRISPR-Cas offered a solution. Jouanin was able to use this technique to obtain wheat plants in which several of the hundred wheat genes concerned were modified. Smulders: 'CRISPR-Cas does not switch off the entire gene, only the part that is immunogenic. You get wheat with safe gluten rather than gluten-free wheat. As a result, this wheat still has the benefits of gluten in terms of health and food structure.'

CUTS

Jouanin used CRISPR-Cas to make precise cuts in gluten genes. When the wheat plant repairs the cuts, it sometimes makes errors that modify the gene slightly. Jouanin then identified the plants with such errors and determined whether the offspring's seeds still produced gluten. This let her find wheat plants that produced both less gluten and less of the gluten that is not safe for coeliac patients. 'We are still a long way off completely safe wheat. You don't get there in one go,' says Smulders.

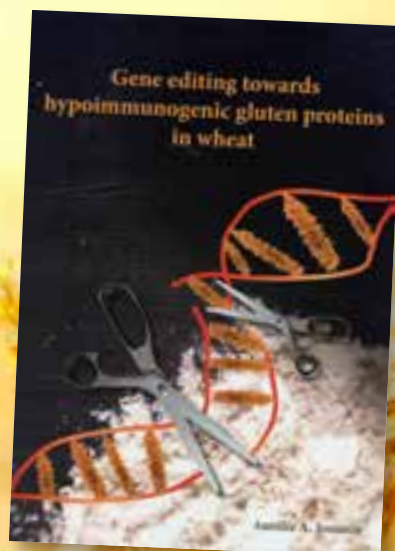
In her thesis, the French PhD candidate makes the case for a more flexible approach to the application of CRISPR-Cas in plant breeding. 'She has an illustration in her PhD thesis,' says Smulders. 'One scan shows a modification

of the gluten proteins in the genome using CRISPR-Cas, while the image next to it shows exactly the same modification using classical mutagenesis with gamma radiation. We know that the genome is also modified in other places by the classical method but not by CRISPR-Cas. And yet it is CRISPR-Cas that is subject to strict safety regulations. The EU really needs to change its rules.'

The CRISPR-Cas wheat has a lot of advantages for coeliac patients compared with the current gluten-free products, according to Smulders. 'But at present those benefits are ignored in the risk assessment. That hurts patients and discourages innovation.'

Aurélie Jouanin received her doctorate on 28 January. Her supervisor was Richard Visser, professor of Plant Breeding. **AS**

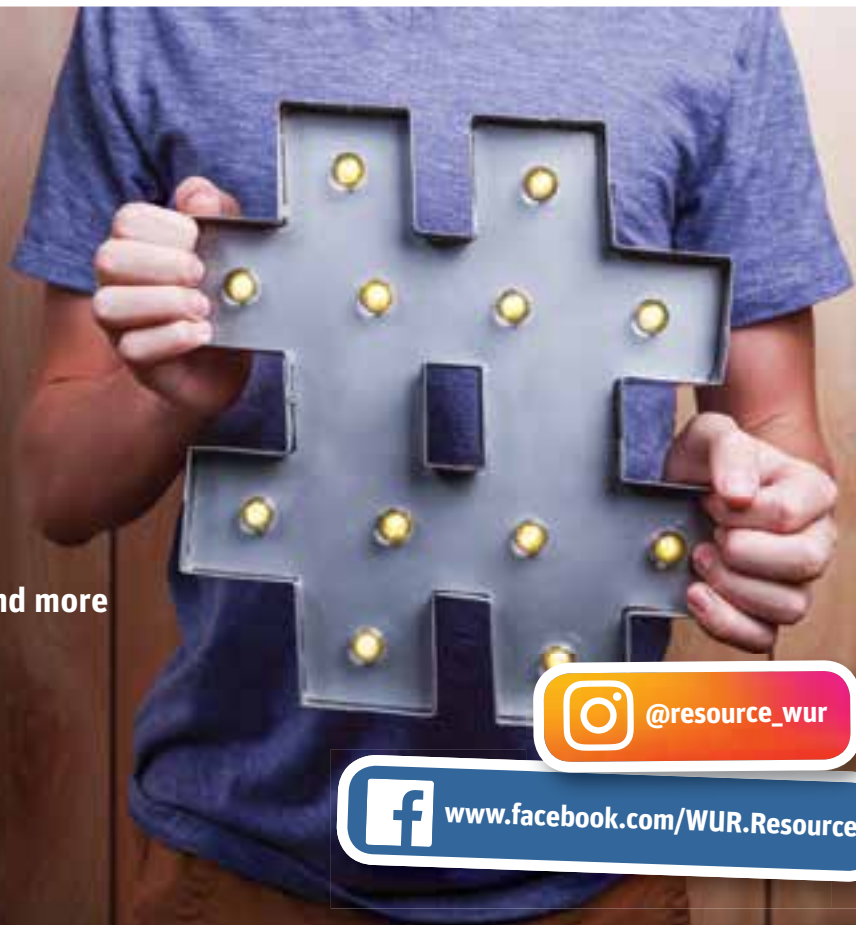
'The EU really needs to change its rules on CRISPR-Cas'



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PROPOSITION

Getting credits for going to the gym

Doing a PhD can be quite stressful and sports could help alleviate the stress, thinks Luana Souza Macedo. 'Doing sports helps me to clear my mind and feel reenergized.'

'I've always liked sports, but the idea for this proposition came last month when I was mainly at home writing my thesis. Sometimes I was very productive, but the next day I would feel tired and didn't get that much done. I realized that when I did sports after work, I felt happier and more focused the next day. At first I went to the gym, but that was really boring. Then I started CrossFit, a combination of weightlifting, athletics and gymnastics. It is challenging and the training is different every day. When I was writing my thesis I would go four or five times a week. Sometimes, when I was biking to the CrossFit box after a working day, I was still thinking about my thesis,

but once I was there I forgot about everything and came back home relaxed.

Being a PhD student can be quite stressful at

times and I've also read reports saying that this is only increasing. I think this is quite a serious issue. WUR acknowledges this, but at the same time I don't see much in the PhD programme that is designed to help alleviate stress. Sports have a positive effect on your psychological and physiological wellbeing. I'm from Brazil where it's warm and sunny, and sports have really helped me especially during these cold, dark Dutch winters. It is also a good way to meet new people. As a PhD candidate, sometimes you are too isolated within your own research and especially for international PhD students it can be hard to build a social life. Therefore, I think it would be a good idea to make sports an obligatory part of the PhD programme. Just like other courses in the programme that you can follow for ECTS. I think you do have to make it a requirement. The sports facilities are already available, but many PhD students don't use them even when they are told about all the advantages of doing sports.' **TL**



Luana Souza Macedo got her PhD on 29 January for her research on alternative catalysts that can be used to convert bio-based oils into chemicals.



Intensive export agriculture comes up against environmental limits

Making choices in the Mekong Delta

Partly thanks to Wageningen, the Mekong Delta in Vietnam is a significant exporter of rice, shrimp and tilapia. But salinization and climate change are now forcing a change of course. A Dutch Delta Plan – once again, with input from WUR – is to play an important role in this, as *Resource* editor Albert Sikkema learned on a trip through Vietnam.

text Albert Sikkema photo Hollandse Hoogte

On the top floor of the education building at Can Tho University, 10 small groups of provincial civil servants and students are bent over a map with stickers. During a tour of the Mekong Delta in Vietnam, I am a guest at the first trial of a new game called Good Shrimp Farming. Players throw a dice and confer about the best way to develop shrimp farming.

The aim of the game is to raise players' awareness of the options and the dilemmas involved in developing the delta. Shrimp farming here in the south of Vietnam has grown rapidly in recent decades, but is now coming up against environmental limits. The purpose of the game, developed by Can Tho University and Wageningen University & Research, is to help provincial governments and farmers develop new policy.

JUST AS FLAT

The Mekong Delta is just as big and just as flat as the Netherlands, and its population is about the same. But the 4900 kilometre-long Mekong, which rises on the Tibetan plateau, brings a lot more water down with it than the Rhine does to the Netherlands. In the rainy season, the upper reaches of the delta, near the border with Cambodia, are always under water. Just like the Netherlands, the Mekong Delta has seen a spectacular development of its agriculture. From 1975, after the Vietnam war, the region was developed with help from Wageningen (see inset). Soil improvement and irrigation meant farmers could go from one harvest a year to three. Vietnam also started importing improved rice varieties, enabling farmers to earn more, putting an end to famine and making Vietnam the biggest rice exporter after Thailand, explains Dang Kieu Nhan, director of the Mekong Delta Development Research Institute in Can Tho. He is joining in the shrimp-farming game today.

By 2000, Vietnam enjoyed food security but two problems were looming, explains Nhan. Export prices for rice were low, so farmers were not earning much in spite of farming more and more intensively. And salt water was infiltrating the coastal region of the Mekong. This salinization was affecting the rice crop, so the Vietnam government opted for diversification. Shrimp farming was established along the coast, while farmers

further inland started combining rice farming with freshwater aquaculture, mostly breeding tilapia.

Thanks to this development, which WUR researcher Roel Bosma assisted with, Vietnam has grown into a significant exporter of shrimps and tilapia. Bosma helped develop the game Good Shrimp Farming, and he too is present at its trial run in Can Tho.

ANOTHER TRANSITION

There is every reason to play this game, says Nhan, as the agricultural sector in Vietnam is on the eve of another transition. Intensive export agriculture is coming up against environmental limits such as pollution with pesticides, and falling biodiversity and soil fertility. It has got to give way to a more environmentally friendly way of farming that keeps an eye on food quality and consumer demand while addressing climate change.

The foundations for this transition are laid down in the Mekong Delta Plan, drawn up at the end of 2013 by a Dutch consortium of WUR, Deltares and consultancy



PHOTO: ALBERT SIKKEMA

▲ Dang Kieu Nhan: 'Vietnam has got to switch to a more environmentally friendly way of farming that keeps an eye on food quality.'

firm RoyalHaskoning DHV. Within this consortium, which was led by ex-minister Cees Veerman, WUR researcher Gerardo van Halsema was one of the main authors. Remarkably, this commission from the land of polders and dykes is not recommending raising the dykes. Instead, the idea is that Vietnam should adapt its use of land and water so that delta residents can cope flexibly with the impact of climate change.

This means that Vietnam should flood polders in the upper reaches of the Mekong to create more space for the overflowing river. The country should also adapt to the salinization in the coastal region by substituting shrimp farming and mangrove forests for agriculture and freshwater fish farming. The mangroves will help absorb the expected rise in seawater levels.

RAIN CAPE

During my travels through the humid Mekong Delta, temperatures reached 32 degrees Celsius every day. Actually it is supposed to be dry in December, as the rainy season is from June to November, but the innumerable scooter riders on the streets kept having to put on their rain capes. Climate change is already happening. The rainy season is shifting and it is raining more heavily, says Chau Nguyen Xuan Quang, director of the climate centre in Saigon. On the other hand, it rains less these days during the dry season in the spring. This means the delta is facing both flooding and water shortages, explains Quang.

Life is become more dangerous for delta dwellers too. The Mekong Delta suffered

extensive flooding in 2000 and 2011, but the damage in 2011 was much greater and more residents had to be evacuated, says Andrew Wyatt. He is delta manager of the International Union for Conservation of Nature, an international NGO which invests in nature management. That damage, Wyatt says, was a direct consequence of the construction of large dykes upstream over the past 15 years.

He shows me two satellite images. On the older image, the upper Mekong plain is totally inundated at the end of the rainy season because the floodwaters have washed over all the one-metre dykes around the rice fields. On the newer satellite image, half of the Mekong valley is dry, protected by three-metre-high dykes. Because of those polders, there is no more room for the floodwaters and the mass of water moves faster towards the coastal delta, resulting in floods and a lot of damage.

Wyatt, an American who has been living in Vietnam for 18 years and monitors water policy there closely, is very positive about the Dutch Delta Plan. 'This is a turning point. Before this plan, the Vietnamese government was not working on sustainability at all.' The serious flooding of 2011 helped bring about a change of heart. Adaptation is the key word in the new policy.

BREAKING DOWN DYKES

The first steps are now being taken in the upper reaches of the Mekong Delta, says Wyatt. Proposals are being drafted to break down the high dykes. 'Those high dykes enable farmers to get three rice harvests instead of two, but that third rice harvest brings down prices,

doesn't make the farmers much money, and has several downsides. The dykes block the deposition of sediment on the rice fields, causing soil fertility to drop. If you go back to lower dykes, you can manage the water better, without much loss of income.'

Vietnamese researchers I talk to do not share Wyatt's optimism, however. 'My biggest concern is how to involve farmers in the plans,' says director Quang of the Saigon climate centre. 'You might think we don't need those high dykes anymore, but a lot of farmers won't agree with you. Their houses and land will be under water. And as long as food prices fluctuate wildly, it is hard for them to invest in alternatives. We must draw on their knowledge and experience in the policy, but I don't know how yet.'

'My concern is how to involve farmers in the plans'

GAMING WITH FARMERS

The Good Shrimp Farming game might offer a solution. The meeting with the provincial civil servants on the campus of Can Tho University was a success, says game designer Tran Thi Phang Ha afterwards. The civil servants were enthusiastic and they are thinking of playing the game with farmers as a step towards formulating their policy.

She explains how the game works. 'There is a map on the table, with farm plots on it. A player throws the dice, lands on a particular



PHOTO: SHUTTERSTOCK

plot and then has to deal with the situation described on that plot. The shrimp farmer learns about farming options, ecological constraints and market developments. This opens up new perspectives on ways of improving your local environment. You might want to produce more fish, for example, but you could also combine aquaculture with vegetable growing and with tourism.' Ha thinks this game has something to offer rice and tilapia farmers, too, by shedding light on their business strategy.

RAKING

Around Can Tho, at the heart of the delta, thousands of canals connect the three main estuaries of the Mekong. Travelling through the area, you still see countless rice fields, in which the farmers are raking the wet soil after the last harvest, or ploughing it using a tractor or a buffalo. It is difficult to imagine that this region faces water shortages and even salinization in the spring. But it is already coming close to Can Tho, which is 60 kilometres away from the sea.

At first, Vietnam tried to keep out the salt water. But in spite of all the efforts, the delta water became brackish. Rice harvests declined. In the new policy, prompted by the Dutch Delta Plan, Vietnam accepts the salinization. Freshwater farming has to disappear from the coastal zone, partly in order to stop the fall in groundwater levels and secure the supply of drinking water. Vietnam also needs to keep hold of more of the fresh river water and arm itself by natural means against rising sea levels by reintroducing mangroves along the coast. Mangrove forests, which have been cut down for decades to make way for shrimp farming, provide natural coastal defences. A Wageningen-Vietnam project has researched how you can combine mangroves with shrimps.

The margins for change are not very big. Game designer Ha points out that many of the small farmers in the Mekong Delta are still poor. They have less than one hectare of land for rice and fish farming, and they earn no more than 15 million Vietnamese dong (600 euros) a year. That is barely enough to support a family, especially with the rising price of fertilizer and pesticides in recent years, and low prices on the export market.

MORE QUALITY FOOD

For this reason, the Delta Plan includes a chapter on agriculture. Farmers should focus less on bulk crops and more on quality food for the growing Vietnamese middle class. Various interesting options are emerging in this area. Vietnam National University in Saigon is doing research on floating rice: rice plants that float on water and can therefore move with the changing height of the river. The problem is



PHOTO: XXX

FROM POOR REGION TO RICE BOWL

Thirty years ago, Wageningen made a massive contribution to the development of the Mekong Delta by tackling the problem of acid sulphate soils in which very little grows. In the mid-1970s, the Wageningen soil scientist Nico van Breemen brought to light the complex soil-chemistry process that causes the formation of acid sulphate soils. That knowledge led to new approaches to combatting soil acidification in polders and delta regions. The Wageningen soil scientist Tini van Mensvoort went to Vietnam, where he ran acid sulphate soil projects between 1980 and 1992. In the Mekong Delta, the ground was also becoming acidic because bacteria convert sulphate in seawater into sulphide, which in dry soil oxidizes into sulphuric acid. Working with Vietnamese researchers, he tested different treatment plans. His remedy: rinse the sulphides out of the soil with fresh water. This intervention changed the Mekong Delta from an impoverished region to the rice bowl of Vietnam.

that this variety of rice is not yet very profitable. The university in Can Tho is doing research on farming traditional local fish species for the Vietnamese market. There is also a new demand among well-off Vietnamese for more expensive, organic food. The big question will be: how will the Vietnamese government organize the transition to sustainability? The formerly communist government implemented economic reforms in 1986 in a shift towards a market economy, but is used to a top-down approach to policy. Now the ministries of infrastructure (the dam-builders), agriculture and environment need to work together. But the capital, Hanoi, is far away, say the people I talked to in the Mekong Delta. It is at the regional level that the various different interests need to be balanced in an integral plan. And that is not an area in which Vietnam has much experience.

SPACE TO INNOVATE


The World Bank wants to implement the Dutch Delta Plan for the Mekong and has allocated 300 million dollars to investments. Forty million of this is earmarked for getting rid of the polders. WUR researcher Gerardo van Hal-

sema, one of the authors of the Delta Plan, is advising the World Bank on this. 'The first step has been taken at the political level,' he says. 'Now regional and local government must be brought into the decision-making process to work out the plan. That is time-consuming and for the Vietnamese it takes some getting used to.'

'Vietnamese agriculture is enormously dynamic'

Van Halsema is not afraid that the delta farmers will get a poor deal. 'Vietnamese agriculture is enormously dynamic. We have done research on land use in the delta, and that showed that there are changes in how 14 per cent of the land is used every year. That shows that the farmers are constantly adapting to the circumstances. The World Bank finances projects in the field of sustainable shrimp cultivation, but I am also seeing new environmentally friendly farming systems that we hadn't thought of. The great thing is: there is now space for the farmers to innovate. **B**

OUT TO PLAY

Nothing awakens our inner child more than a good snowfall. We saw that again last week on campus. A snowman metres tall materialized in front of the Forum, while mini-snowmen adorned picnic tables and snow angels appeared in the grass. Meanwhile, the snowballs flew through the air, freezing lumps of the stuff slid down necks and icy hands got under shirts. Always fun. And it looks pretty good for integration too.  LdK, photo Sven Menschel





Mister Climate Research

**'Climate change is
a silent killer'**



Wageningen expertise is to be harnessed to make sure the Netherlands contributes less to climate change and is better prepared for its impact. Bram Bregman was appointed to bring climate research together and put it in the limelight. 'I make sure that people in the ministry know about what goes on here.'

text Roelof Kleis photo Sven Menschel

'WUR's Climate figurehead?' Bram Bregman laughs a little uneasily. 'That's not how I see myself. What I'm going to do with the ministry of Infrastructure and Water Management is to see how we can get larger strategic climate adaptation projects off the ground. I know a lot of people in the ministry so I have an easy entrance there. With my contacts here, and my experience and knowledge of the climate system, I can play a bridging role between science here and policy in The Hague. Figurehead? I'm more of a fixer, actually.'

What needs to change?

'There is not much cohesion in research on climate mitigation – the reduction of emissions – and climate adaptation – adjusting to climate change. Everyone is working their socks off, that's not the problem. But it's mainly small projects for the short term. There used to be big programmes such as Knowledge for Climate, about adaptation to climate change, and Climate for Space, about changes in spatial planning. They were financed from the gas revenues in Groningen. But that funding source has dried up. We need a new knowledge programme for the long term.'

So do you have to arrange for the money to flow this way?

'Yes, ultimately I do. But that is not what I'll start with because if I do, the door will quickly shut in The Hague. I am not a consultant who comes to get money. The government is not an ATM. The trick is to get the trust of the policy-makers that I am of help to them. I help to programme complex material well. I help by making sure the ministry knows about everything that goes on here, and that we can make use of it together. WUR is an outstandingly multidisciplinary and integral institution. Let's make full use of that. If we can achieve that kind of programme in the coming two years, WUR can reap many benefits from it.'

How are you going to go about it?

'The big problem with climate change is that it

is a silent killer. It goes slowly, which takes away the sense of urgency about taking action. What is 1.5 degrees of warming? Let's be honest, who is really bothered by that? It's nice to be able to sit outside in October, isn't it? OK, we miss the *Elfstedentocht* skating race, but we'll get over that. It's not worth spending billions on.'

So?


'So I'll need to take a different approach. We are a vulnerable delta country. We earn a lot of our money below sea level. We have allocated 1 to 1.5 billion euros a year until 2035 to flood protection. That legislation was passed without any difficulty. Why? Because it is urgent. So rising sea levels are a significant threat. But so are salinization and soil subsidence. In Gouda you have to raise your garden every two years. We need more and more fresh water to push back the salt water from the sea and deal with the salinization. These are slow processes too but it helps if I use this kind of framing to create urgency.'

Don't the urgent effects of climate change mainly affect the big cities in the west of the country?

'Not exclusively, but it all comes together there. Salinization, flooding, land subsidence. Sooner or later, it's going to go wrong there, you don't have to be a land use expert to see that. The big cities are feeling the pinch from all sides. And then there is the congestion. Days with 1000 kilometres of traffic jam have already become normal. And yet the cities are still expanding. That's not going to work. Our town planning model is no longer sustainable. Something's got to change. How? Wageningen can contribute a lot here. Create a couple of future scenarios, working together with other research institutes. Should we build more in the areas where the population is shrinking? What is needed in order to go in the right direction? You are talking about infrastructure, mobility, agriculture and land use planning. That knowledge is there. There are people here who know everything there is to know about land use planning, ecol-

ogy, etcetera. We shouldn't wait any longer with these kinds of big issues. That's what I'm going to the ministry about: how are we going to do it?'

But there's a national adaptation strategy, isn't there?

'Yes there is, and knowledge development is part of it. But that knowledge development is fragmented. It lacks cohesion and there is no leadership. What is more, important topics are missing. One of them is the creation of alternative future scenarios for the Netherlands that make our country truly climate-proof. Up to now, we haven't looked beyond 2050, but the threats force us to look further into the future and take a broader view than just water safety and the fresh water supply.' 

ALUMNUS WITH A NETWORK IN THE HAGUE

Bram Bregman graduated in Environmental Studies in Wageningen at the end of the 1980s. He went straight on to PhD research in Utrecht on ozone formation and breakdown. Then he worked for the Netherlands Organization for Applied Scientific Research, the Royal Netherlands Meteorological Institute, and Radboud University. At the Meteorological Institute the focus of his work shifted from research to policy and as well as coordinating climate policy, Bregman also became the focal point for the Intergovernmental Panel on Climate Change (IPCC). 'That means you organize the Dutch input for the main report. The trick in that policy world is to filter what is important. Eighty per cent of what you hear is jargon. What's important is the other 20 per cent. That's right up my street.' This work left Bregman with a good network in The Hague. He has also always kept 'one foot in science'. Since 2010 he has been part-time professor of Climate Change Science and Policy in Nijmegen. His appointment as climate ambassador at Wageningen Environmental Research is for two days a week to start with.

MORE FREEDOM FOR THE STAFF?

The Executive Board wants to change the corporate culture in WUR. Leaders should loosen the reins more often, give staff more scope and trust them more, says the new strategic plan. What would you like more freedom for, *Resource* asked a random sample of staff. And got some surprising responses.

text Tessa Louwerens and Albert Sikkema *illustration* Henk Ruitenbeek



Caroline Labrie



Researcher in the Greenhouse Horticulture business unit at Wageningen Plant Research in Bleiswijk

'Nice that this is in the strategic plan.

I already get a lot of freedom from my boss and I appreciate that enormously. I feel like a kind of entrepreneur within WUR.

I am free to choose the subjects I do acquisition for, and if there are fewer research assignments one year I am not penalized for that. Because of that freedom, I am more motivated and that makes you do the acquisition better. I am also allowed to experiment with new business models, after I have consulted people who know a lot about them: brilliant. I occasionally come across people in WUR who are not so motivated to collaborate because they are operating in a tight research market and they want to keep their research assignments to themselves. Those people might have a need for more space so they can collaborate more in the spirit of One Wageningen. That pays off in the long term. I am glad this is getting more attention within WUR.'

Jasper Lamers



PhD candidate in the Laboratory for Plant Physiology

'I have asked around a bit among other PhD candidates in my group and the conclusion is that we have both too little and too much freedom. With growing student numbers, the chair group has a bigger

teaching load, and PhD candidates are being drummed up to do more teaching. Of course, that's all part of my job, but it does reduce my freedom to decide how I use my time. But **I don't think we should be given any more freedom in our PhD research. We already have to find our own way.** Which articles should we read? Which way should we go with our experiments? What have other people discovered previously? We have plenty of scope and I would sooner have more guidance than more freedom.'

Thomas Lans



Lecturer in Education

'I think WUR can create more space for enterprising and creative behaviour by staff. It starts right from your induction period and the professionalization programmes, in which it is not yet systematically integrated. Heads should appreciate their

staff's "hobby projects" more; at present these are usually carried out in their spare time. This provides an outlet for people to use their creativity in other areas than their work, and it can lead to new insights that are useful in your work as well. **I compare it with cooking: you can stick to a recipe, or you can make something with whatever you have in the fridge. WUR tends to stick to the recipe.** If you want to stimulate enterprising behaviour, it's good to highlight some inspiring, enterprising role models. They are quite hard to find now. But the organization can only become more creative if there's a bit of slack along the line, so you need to make space for that first.'

'PhD candidates would rather have more guidance'

Kees Laban



Information officer in the Forum Library

'I work in the front office in the Forum Library. People come to me with questions about books or problems with the database. I also manage the library, and I walk around it a lot. I am actually very free in my job, which is fairly independ-

ent as well. **If I really want to do something, my colleagues and my boss help me think it through, so I don't experience many hindrances.** To be honest, I think the ideas about changing the corporate culture and giving staff more space won't affect the way I work, and I don't feel I need more space or freedom.'

Bertus van der Laan



Greenhouse Manager at Unifarm

'As a Greenhouse Manager, I lead nine people. **I get enough freedom from my boss and I try and pass it on to my staff too.** The first time there is contact with researchers wanting to do experiments in the greenhouse, I go along, but after

that I let my staff communicate directly with the implementing party. I like to be kept informed, but if I always stick my nose into everything I'll become a nuisance. Also, I know my staff and their strong and weak points. I estimate in each individual case whether a member of staff can handle the responsibility. And if someone has a problem, they can always come to me. Of course, deadlines have to be met, so if there's a danger of that going wrong, I step in. I don't know how that goes in other departments, but within Unifarm this is fairly standard procedure. And I don't think there's any need to change that.'

Inge Lamers



HR staff member at Facilities and Services

'I get enough space to do my job. When I get a task from my boss, I get leeway to find my own way of doing it. If I get stuck when I'm working on a task, I communicate that, and often I then give advice on how to move on from there. The manager decides

how much room to manoeuvre there is. There are managers in some WUR departments who say: I decide. That makes it difficult. I once had a boss I didn't see eye to eye with. I didn't dare say anything about it until a colleague said, wait a bit, that's not right, you have the right to defend yourself. Since then I have been more assertive. **I think in general, if you are flexible towards your boss, you get the same treatment from them.** If you work late one evening, you can pop home at three in the afternoon. Give each other some space.' ®

RSI... So then what?

CLARITY AND RECOVERY IN FIVE STEPS

RSI is an often hidden and persistent problem among students. It can have far-reaching consequences, slowing progress or causing students to drop out temporarily. Students affected by it don't always know where to go for help. *Resource* looked into it.

text Echica van Kelle *illustration* Steffie Padmos

Your wrist hurts when you type or use your mouse. Or your neck aches whenever you've spent the day studying. In fact, the pain is getting worse and is in danger of affecting your results. It is quite a shock when this happens to you, WUR students Noa, Guus and Sascha told *Resource*. 'I had been in pain for a while and I knew I had RSI, but you ignore it because you don't want to have it,' says Sascha. 'You adapt to it all the time. If you can't hold your yoghurt pot in the morning anymore, you put it on the table while you have breakfast.'

CONFUSION

What complicated the situation for the three students was the difficulty they had finding out where they could go within WUR to get the support they were looking for. They encountered several procedures, and people who gave advice they didn't always agree with. This caused confusion and sometimes frustration, says Noa. 'I was referred to a student doctor. He said I should stop everything, including working on a computer. I felt very dependent on his opinion because he signs the medical certificates with which you can get extra time during exams, for example. If he says you shouldn't do an exam at all, it can be difficult to get extra time in the exam. I spent a quarter of an hour on the phone to him to convince him.'

DROPPING OUT

Guus was shocked when he was advised to drop out for a while. 'That is tough because you don't get a student loan and

you lose your student transport pass. You'd have to go back and live at home, really. I'd already talked to my physiotherapist about wanting to carry on doing some courses so I could keep up a routine, mentally. And in the end that's what I did.'

After hearing the three students' stories, *Resource* decided to investigate. The result is this 'roadmap for RSI'.

1 GO TO YOUR GP

If you have a medical problem the first port of call – for students the same as anyone else – is your GP, who can refer you to a physiotherapist. Suzanne van Dinther, GP at the busy Student Medical Centre on campus, says she always refers people with RSI symptoms to a physiotherapist. The therapist will help you identify the cause of the problems and give you exercises to relax and strengthen muscles, as well as give you information and advice about your workstation and posture.

2 GO TO THE DEAN

Sometimes the symptoms are so bad they affect your studies. In that case it is important to get in touch with one of the four student deans as soon as possible. Because if you get held up in your studies for health reasons, you might be able to apply for financial compensation through the 'FOS' system. But to do that you must report your problems in good time, says student dean Marc Uijland. 'You

ROADMAP FOR RSI



1.

GO TO YOUR GP

If you have medical problems, you should first go to your GP.

2. GO TO YOUR STUDENT DEAN

If the complaints are affecting your studies, you need to report this as soon as possible to the student dean.



ASK FOR A MEDICAL CERTIFICATE

You need a medical examination by an independent doctor in order to qualify for support or financial compensation for study delays.



4. DECIDE WHETHER TO CONTINUE AND FOR HOW MUCH

The WUR student doctor and/or dean can advise you on what would be a sensible study load.

5. APPLY FOR SUPPORT

You can get extra time in exams, rent an ergonomic mouse or install the WorkPace program to schedule breaks.



have to report it within two months of knowing you will be held up. For example, if you don't do certain exams and therefore know you won't get those credits. We are fairly strict about that time limit, because if you only come to us later, it is hard for us to establish what impact the symptoms had on the way your studies went.'

3 ASK FOR A MEDICAL CERTIFICATE

In order to apply for financial compensation for a delay, or for extra time in exams (see 5), you need a medical certificate. This says that the symptoms are serious enough to make it difficult to study. You can't get this certificate from your GP; in the Netherlands doctors can't issue a certificate about a patient they are treating. The student deans at WUR send students to André Godkewitsch for a medical certificate. He was the student doctor at the university until 2011, and is now retired but works about eight hours a week as a student doctor. Students are free to go to another independent doctor for their medical certificate, but they hardly ever do so, says student dean Uijland. 'The route via the student doctor is the most practical.'

4 DECIDE WHETHER YOU WILL CONTINUE STUDYING, AND HOW MUCH

As well as possibly signing a medical certificate, Godkewitsch advises students on the appropriate workload. 'This advice nearly always means taking a break from your activities,' he explains. 'The biggest risk with RSI problems is of their becoming chronic. You've got to prevent that.' If you lose a lot of time, the student doctor may advise you to drop out of university for a while. Up to last December, Godkewitsch had advised 16 students with RSI to do this. He had seen a total of 51 students with RSI.

People are resistant to the idea of dropping out, Godkewitsch confirms. 'It is still a controversial point. For a lot of students, it feels as though they will be held up even more if they drop out completely for a while. Sometimes I have to protect students against themselves. You should see dropping out as no more than an administrative change. And if you drop out for medical reasons, you can register again at any point during the year. Dropping out takes the pressure off because your debt doesn't get any bigger.'

WHAT IS RSI AND HOW DO YOU GET IT?

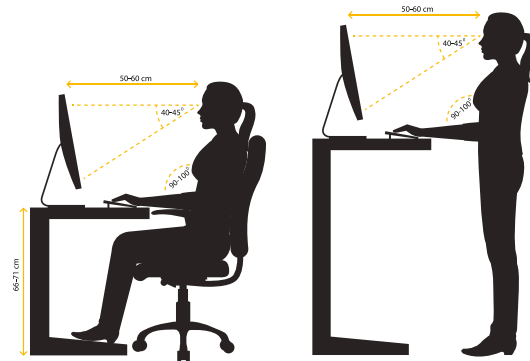
About 50 students per year report to the WUR Student Service Centre with pain in their hands, wrists, arms, shoulders, upper back and/or neck. This complaint is generally known as repetitive strain injury (RSI), but also goes by the name of CANS (Complaints of Arms, Neck and Shoulders) or work-related musculoskeletal disorder.

The symptoms result from long hours of work at a screen, tension and incorrect posture. Sufficient relaxation and varied activity are important for preventing these problems. And prevention is crucial because it often takes months or years before symptoms go away entirely. The risk of getting RSI is particularly high when students are writing a thesis or serving on a board for a year.

This academic year, all first-year students are getting an online module about healthy habits when working at a screen. It covers how to prevent symptoms and what to do once symptoms appear. The idea is to make the module available to all students and staff from this spring.

CORRECT WORK POSTURE

Any day of the week in the library in the Forum, you can see examples of how not to do it. Many students sit hunched over their laptops, staring at their screens all day. Do you want to protect yourself from RSI? Make sure you sit up straight as much as possible, with your hips, knees and elbows at 90 to 100 degrees and your feet firmly on the floor or a footstool. Even better: switch between sitting and standing.



Asked how you are then to pay your rent, dean Uijland says: 'Sometimes you might get support from your parents. You can also apply to the municipality for social security if you are no longer a student, don't have many savings, and can't work for medical reasons. Unlike your student loan, you don't have to pay social security payments back.' Anyway, students are always free to ignore the student doctor's advice to drop out, says Uijland. 'He only makes a recommendation.'

5 APPLY FOR SUPPORT

If you have a medical certificate and you do go on taking courses, the dean can apply to the examination committee for extra time in the exams for you. The dean can also lend you some aids such as an ergonomic mouse or keyboard.

One aid you can always make use of – to prevent RSI as well – is the computer program WorkPace. This is freely available for everyone with a WUR account (via the start button on your computer). It reminds you to take a break at set times, and to walk around or do some exercises. 📌

The names of the three students with RSI have been changed at their request.



Wageningen and WUR: drifting apart?

How do different groups within Wageningen see their city and what are the main issues and challenges for the future? Second-year Bachelor's students doing Landscape Architecture and Spatial Planning were tasked with finding out. 'We need to prevent the campus from becoming a competing town.'

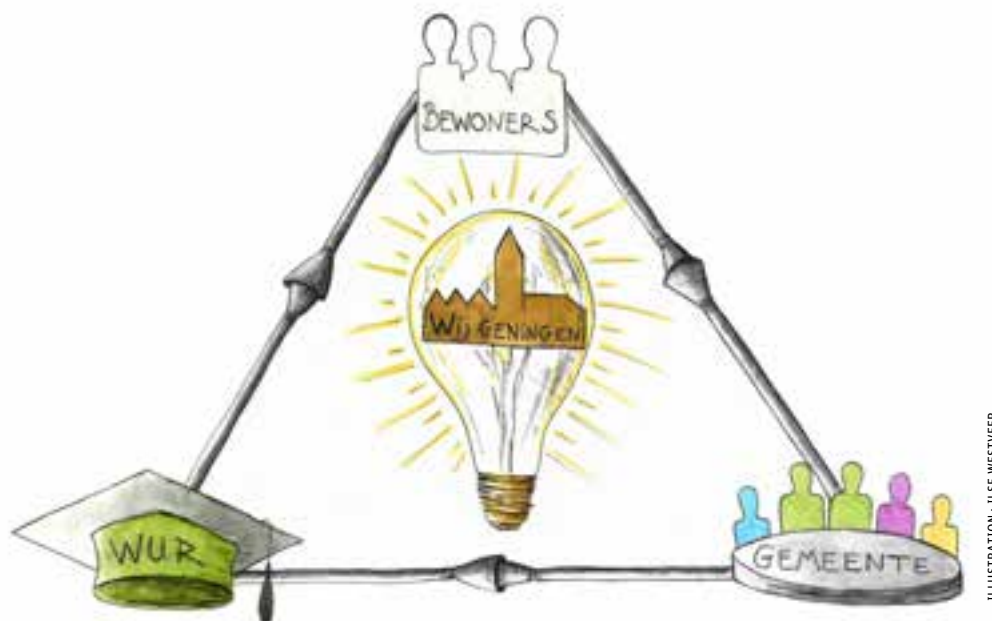
On Wednesday 23 January, the groups of students presented their findings in the town hall to representatives of the university and the municipality. The good news is that the people of Wageningen are generally happy with WUR and its students and they feel the city and university need one another, say the students. But the common theme running through their presentations was the problems associated with the expansion of WUR and the city. For example, seniors in Wageningen feel as if they are competing with the university and its students for the municipality's attention, and several groups are concerned about housing shortages.

BROKEN CONNECTION?

A recurring issue identified by the students is the widening gap between the university, the municipality and residents. Shopkeepers and municipal officials fear that the growing campus will get more and more amenities and become a 'competing town', with students eventually never needing to go into the town centre. Some groups of residents feel that the physical distance created by building the campus has also become a distance in communication.

The students' research was part of the Landscape Economics and Politics module. 'This way, students learn by doing instead of getting a lecture every day for a week on what political landscapes are,' explains lecturer Arjaan Pellis of the Cultural Geography chair group. 'They had one preparatory lecture and then they were sent into the field to find out what the issues are in Wageningen.' To do this, the students spoke to nine different groups in Wageningen, such as service providers, shop owners, university staff, students, senior citizens and municipal staff.

The students also presented ideas for tackling the challenges. One group, for example, suggested abandoning the campus and having the university spread throughout the town again. Another idea was to have mixed housing



▲ Student Ilse Westveer, who was involved in the study, produced this impression of the ideal situation: 'Wijgeningen' (*wij* means 'we'). *Bewoners* = residents and *Gemeente* = municipality.

ILLUSTRATION: ILSE WESTVEER

for seniors and young people as a way of dealing with both housing shortages for students and loneliness among the elderly. Other ideas were a student desk in the town centre where residents can go with questions and for odd jobs, and a joint strategic plan drawn up by the municipality and university for dealing with the growing pains together.

Having to present your findings in the town hall definitely added something, says student Mina Alsady (20), who calls this way of learning 'incredibly educational'. 'Experiences like this make you realize what you will be facing when you start real work later on.'

PERSPECTIVE

University spokesperson Simon Vink was in the audience for the presentations. 'I heard a nuanced account. The students and lecturer deserve a compliment for what they found out

in only one week.' He does want to put the findings into perspective. 'The municipal administration and the university talk to one another more than the participants in the study realize. They are in contact and consult one another about all major decisions. There is also a lot of contact between WUR staff and the municipality.' Vink says the fear of a 'competing town' is unfounded. 'Students really don't hang around campus in the evening if they can go to their societies in town or visit a cafe.'

According to Vink, the university and municipality are already looking to link up more. 'In February, WUR Executive Board member Rens Buchwaldt and the mayor Geert van Rumund signed an agreement to get the municipality more involved in research activities. That will raise WUR's profile in the town and lead to more collaboration with the municipality.' **LZ**

FUNNY FACES (1)

According to a study at Ohio State University, 35 facial expressions suffice for us to express our standard range of emotions. A surprisingly small number, given that it is theoretically possible to make 16,384 different faces by juggling with all our facial muscles.

FUNNY FACES (2)

So we actually only use 35 of all the possible facial expressions to show our emotions. And almost half of these are different forms of happiness. For disgust, a single expression is enough. For fear, we use three, for surprise, four and for sorrow and anger, five apiece. So happiness is by far the most complex of our emotions. Maybe because, all in all, we feel happy the most often.

FRIENDS

Do you have friends who are active on social media? That's your privacy down the drain, then. You don't even have to have an account yourself, shows a study at the University of Vermont. Tweets from about nine friends predict 95 per cent of what you will tweet yourself. In other words, there is no such thing as privacy any more. Your circle of friends automatically gives away what you are like.

LONG LIFE

Is a long life determined by your genes? Partly, suggests research at the University of Edinburgh, where researchers identified five regions in the DNA which are implicated in longevity. People who are in the top 10 when it comes to 'good genes' live an average of five years longer. The lowest 10 per cent die five years younger. That's a difference of 10 years.



Sustainable trips with Green Grasshopper

The world is getting smaller and the tourism industry continues to grow. Students too travel all over the globe. But is this such a good idea? Now Wageningen honours students have created *The Green Grasshopper*, an online magazine about sustainable tourism.

Femke Meulman (20), a third-year International Development Studies student, and Bart Vilier, an Economics and Policy third-year, are also doing the university's honours programme. For this, they have to work in a group on a two-year multidisciplinary project. Team *Green Grasshopper* have now spent 18 months on their project.

Meulman: 'We are sharing knowledge and stories about ecotourism to make people more aware of the impact their travels have and teach them how to travel more sustainably. We focus on four topics: what sustainable tourism is and why it's necessary, destinations, transport and activities.' Vilier: 'The website provides both background information and specific tips.' They thought long and hard about the site name. 'Grasshoppers roam all over the world, just like modern-day travellers,' explains Meulman. 'But if there are too many of them, they become a plague. In the case of travellers, you get mass tourism.' Vilier: 'And green means sustainable. Our team members are doing different degree subjects, and of course the group's biologist was responsible for the name.'

The honours students say more and more people are realizing that their trips have an impact. 'But nearly everyone likes going on holiday,' says Meulman. 'We show people that there are more sustainable options and what you can do to make your trip more sustainable.' She cites the example of the CO₂ tool, which lets people calculate the emissions caused by their holiday. 'We also give tips on how to reduce those emissions.' If you don't have much money, a plane trip within Europe can often seem a good idea. 'Plane tickets can be incredibly cheap but this is not very sustainable,' says Meulman. 'Fortunately there are lots of sustainable options for going on holiday sustainably that don't cost too much. You could go camping or stay with locals via CouchSurfing. Or stay closer to home and go on a cycling trip, or go hitchhiking or interailing instead of flying.' Vilier laughs: 'And check out *The Green Grasshopper*!' **LZ**



▲ The honours students behind *The Green Grasshopper*.

Duivendaal rent conflict resolved

After weeks of consultation, Duivendaal's residents and the new landlord Xior Student Housing have reached agreement on the new rental contracts. The basic rent and service charges will be reduced, and students will still be allowed to interview prospective tenants.

There were loads of issues with the contracts that Xior offered the Duivendaal residents last December, explains Nick Ligthart of the student union Student Alliance Wageningen (SAW), which supported the tenants in the conflict. 'Not only was the new rent too high, residents also had to pay 12.50 euros a month in service charges for washing machines, for example.'

That item has gone in the new

contracts and the residents can arrange their own washing machines. The basic rent will also be reduced, the charges for furnishings will be slightly less and residents will not have to pay the full service charges during the planned renovations. Subletting is allowed again and residents can choose their own flatmates.

In December, the residents received contracts that showed they would have to pay up to 50 per cent more. Environmental Sciences student Ivo de Graaf, for example, was suddenly faced with a monthly bill of 463 euros instead of 310 euros for a room measuring 13 square metres. Following the negotiations, that will now be 343 euros. 'Still a gain of 120 euros,' says De Graaf. 'I'll be quite satisfied as long as everything goes well.' The rent for



PHOTO: SVEN MENSCHHEL

The students in the former administration centre were told in December that they would have to pay much more rent.

Food Technology student Max Achterweust's room (16 square metres) was due to go up from 330 to 420 euros. 'It has ended up at 363 euros. More affordable and we get a renovated kitchen and bathroom for the extra 36 euros.'

Ligthart is pleased Xior was prepared to listen to the residents' concerns and he expects most tenants will sign the contract. 'We now have realistic Wageningen prices. The residents are pleased and the landlord is satisfied.' **LZ**

MEANWHILE IN... ZIMBABWE

'Overnight, people are out of pocket'

Recent hikes in fuel prices have sparked large-scale protests and strikes, as Zimbabweans seized the opportunity to express their discontent with the current regime. The government responded by shutting down the internet and with violent crackdowns. Master's student Sinclair Chinyoka is especially worried about the involvement of the military forces.

'In Zimbabwe we use several currencies, such as US dollars and South African rands, as well as "bond notes" that the government introduced in 2016. The government insists that 1 bond note is equivalent to 1 US dollar, but it's not true. It's more like 3 to 1.

President Mnangagwa says he's increasing fuel prices to protect the economy from resource exploitation. Other countries such as South Africa were able to take advantage of the low bond note value and buy up our fuel. But instead of increasing prices and hurting its own citizens, the regime could have just laid down laws forbidding foreign purchases of fuel. Despite the price increases, the government is still

paying the same salaries. So overnight, people are out of pocket, and they are protesting against this unfairness.



Sinclair Chinyoka, an MSc student of Climate Studies from Zimbabwe, comments on recent events in his home country.



Some are protesting on the streets, and some are protesting at home by not going to work. It's been reported on social media that security forces went to people's homes and threw tear gas in, and when they came out they beat them. The government turned off the internet claiming it was for security reasons, but many people think that was meant to stop people from sharing videos of the security force's gross misconduct. There's only one TV channel in Zimbabwe and it is influenced heavily by the government.

The main problem is the military being too involved. There are many key ex-army officials who are active members of the ruling party, so from a layman's point of view, it is hard to separate the army from the ruling party.

People are finding it hard to meet their basic needs. As for me, after I finish my studies I want to go and implement my ideas back home, but how could I if the situation is like this?' **GH**

YOU ON CAMPUS

It's a stormy day. Ignacio Auger (25) is sitting outside the Forum building, his back against the wall, listening to music and cigarette in hand.

'Two years ago, I finished my Bachelor's in Environmental Sciences in Madrid. I had no idea what to do, so I decided to go travelling. I worked in the UK for a while, doing dishes in a restaurant.' After he had saved up some money, Ignacio decided to travel to East Asia. He travelled around Thailand, Laos, Cambodia and Vietnam. 'During my travels I experienced all sorts of things from sleeping in the jungle to swimming with fluorescent plankton in Cambodia and staying with local families. But it wasn't all fun. I had a motorbike accident in Vietnam in the middle of nowhere and had to continue my travels on crutches.' After six months, Ignacio decided to go back to Madrid, where he felt completely lost. 'I realized I wanted to do something meaningful instead of just enjoying life. That is when I started thinking of doing a Master's.' Since

Ignacio had already done an Erasmus exchange in Wageningen, he decided to apply for the Master's in Forest and Nature Conservation. 'As you can see, I got in and everything is fine!'

'I had a motorbike accident in Vietnam in the middle of nowhere'

Sometimes he misses the vitality and energy of Madrid. 'I miss cultural activities and going to see live music.' But he also appreciates the quiet of Wageningen. 'I like to ride around on my bike and enjoy meeting different people. There are so many different types of mentalities and cultures. I think it is important to appreciate the special things about each place. I am happy to be here, but then again, I've always been very adaptable.' In his free time Ignacio likes to paint. 'Abstract stuff. I also like to write, whatever



PHOTO: EVA VAN DER GRAAF

comes to my mind but especially short stories.' He and a friend just started a group that focuses on philosophy and art. 'We don't have a name yet, but we just started this group with Spectrum. The idea is to discuss and reflect on different topics and then use different forms of art like painting, drawing and working with clay to express what we talk about.' **EvdG**

Cure for the winter blues

January is not blogger Angelo Braam's favourite month. But this year he has discovered a way of dealing with the problem: dreaming about an Erasmus exchange in a hot country.

'The days are gloomy, the temperatures bracing and the Christmas holidays already seem ages ago. It's that typical time of year in the final weeks of January. My energy is sapped, I just want to stay at home and my usually high level of motivation seems to have abandoned me in 2019. That's right — I've got the winter blues. This is what happens pretty much

every January. Memories of summer and travelling have been going through my head a lot. After all, it will be a few more months before we can once again enjoy the hot, long, light days. But I'm used to this after years of winter blues. And I haven't got it quite as bad now as in previous years. In fact if I compare myself to international students who are experiencing a "real winter" for the first time, my blues hardly count at all. And fortunately there are always little things in Wageningen life that can give you a boost again. Take the Erasmus exchange, for example, which is currently the

topic of the day among my fellow students because of the fast-approaching 1 February deadline. My bleak winter mood melts away at the thought of a new adventure with loads of fresh challenges in — a not unimportant fact — a hotter climate. I am considering exchange positions in Jerusalem and Istanbul, cities in a region I have warm memories of. Suddenly the dispiriting January grind gets forgotten as I develop an intense itch to go travelling — I want to get away now! Of course I will need to be patient. If my application even gets accepted. But it's good to have something to look forward to.

BLOG



Angelo Braam is a Bachelor's student doing International Development Studies. Read all his blogs at resource-online.nl/blog.

That motivates me to get on with my tasks for the winter. And also makes me realize how fond I am of my life in Wageningen and the people around me. I will be able to enjoy all this a bit more over the next few cold weeks thanks to my warm prospects.' **B**

Wageningen Master's students do internships and thesis research all around the world, getting to know their field and other cultures. Here they talk about their adventures.

'I was homesick sometimes'

'If I'm honest, I'm still not sure exactly what I learned from my internship. I was keen to do an internship abroad because I thought it would be a perfect opportunity to step out of my comfort zone. I also really wanted to do a lot of lab work, to learn a bit that way too. I did try out new techniques and ways of working. And I had to make new friends. Did I learn anything from that? We shall have to wait and see.


Before I started looking for internships I asked myself, "what do I want to get out of an internship?" I looked for a dot on the horizon, to make it easier to chart a route towards it. My dot on the horizon is going into research. So I opted for an internship at a university. The subject was great: I worked on phytopathology, which linked in well with my Master's thesis.

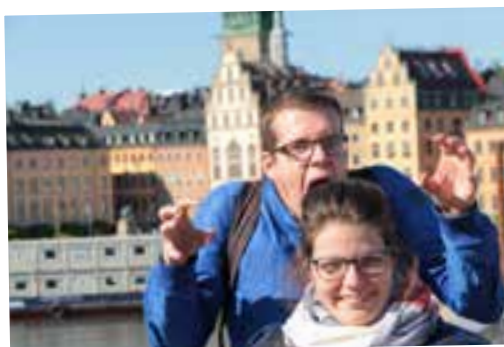
SOCKS AND SANDALS

Wageningen students who were already there had told me it was a small place, just like Wageningen, where the professors were down-to-earth and walked around casually dressed and wearing socks and sandals. Visiting another university helped me form my ideas. By seeing another way of doing things, I was more able to draw conclusions about what is nice and what works well. Which work approach, for instance. In the Swedish research group, the head of the lab was more the boss of the projects than I was used to in Wageningen. As soon as we got any results, we went straight to her to discuss them. I think it's all a bit more casual in Wageningen.

DUNGEONS AND DRAGONS

My sister went with me when I first moved there. When she went back and I stayed on alone, I thought, "So now I live in Sweden." It was hard at times. I was homesick sometimes. For home, for the Netherlands, for being able to understand people on the street. When I felt like that, I usually went for a walk or a bike ride, out exploring, and then I got over it. I didn't for one moment think, "I'm going to book a flight home."

Something that helped me, and that I would recommend to others, is to keep up your hobbies. If you play a sport, look for a chance to play it where you are. For me, it was games: I like board games and Dungeons and Dragons. I found some groups I could join through the internet. It was noticeable that not many Swedes joined in. They tend to keep to themselves and are not quick to seek contact. I had been warned about that, but I was still struck by how the stereotypes were confirmed.'  AvdV



THE WORKS

Wie? Peter Seghers (23), MSc student of Plant Biotechnology
Wat? Internship at the Swedish agricultural university SLU
Waar? Uppsala, Sweden



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Announcements

Lettinga Award 2019 – the call is open

Do you work with urban, industrial or agricultural wastewater and do you have an innovative project idea for closing resource cycles by deploying anaerobic technology? The Lettinga Award can help you take your idea to the next level. Moreover, you could win €10,000. Present your idea in a PowerPoint presentation (max. 10 slides) and include a short abstract of a maximum of 500 words. The judges will select the five best ideas and provide feedback. The winner will be announced at the IWA World Conference on Anaerobic Digestion (AD) on 23-27 June in Delft. Deadline for applications: 20 February. Info: leaf-wageningen.nl or via info@leaf-wageningen.nl.

MSc course: European Forest Resources and the Bio-economy (3 credits)

The course, which includes an excursion to the European Forestry House in Brussels, is scheduled for Period 4 (18 February to 15 March). If you are interested and in the third year of your Bachelor's or the first or second year of

your Master's, send an email to gertjan.nabuurs@wur.nl. For more information, see: ssc.wur.nl/Studiegids/Vak/FEM-31303.

FabLab open days on Saturdays from 14:00 to 18:00

FabLab Wageningen is a workshop for everybody, with hi-tech equipment such as a laser cutter, a cutting plotter and 3D printers. This lets you make things that were previously impossible or unaffordable. Want to have a go? Then come along! We have an open day every Saturday when you can drop in and use our machinery with supervision. Location: Starthub, Triton (Building 119), Vijfde Polder 1, Wageningen.
FABLABWAG.NL

Book: *Metamorfose. 1993-2018 Hoe Wageningen wereldtop werd*

The title translates as 'Metamorphosis 1993-2018. How Wageningen became a global leader'. This fourth volume in the history of the 'Agricultural University' explains how the merger of the university with the agricultural institutes became a worldwide success. Journalists Martijn de Groot and Joost

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van Kasteren reflect on that success with the key players. The book also covers developments in the research and education, the research policy and the relationship between Wageningen and society at large. The book is in Dutch only. It costs €32.50 and is available in the WURshop in Forum or via wur.unigear.eu/sellingpoints.

agenda

Friday 1 to 14 February SHOWING AT MOVIE W

Free Solo: nerve-racking American documentary about Alex who climbs the El Capitan rock wall without safety gear. *Shoplifters*: Japanese drama about family of petty thieves who take in a runaway girl. *The Extraordinary Journey*: Indian drama about a fakir who travels to Paris. *Roma*: Oscar-nominated film set in Mexico City in the 1970s portrays a middle-class family. *Genesis 2.0*: documentary about the mystery of nature and different ideas about life and the role of humans. *Nos Batailles*: a moving portrait of a father wrestling with the challenges of life as a single parent. Venue: Wilhelmaweg 3A, Wageningen. €6.50/€5.

MOVIE-W.NL

Saturday 2 February RECEPTION WITH DRINKS TO INTRODUCE NATIONAL WATER- BOARD PARTY

The Wageningen candidates for the party Water Natuurlijk ('water natural-

ly') want to talk to Wageningen residents about water management issues in the Wageningen area such as the Grebbe dyke reinforcement. The candidates will be at the market in Wageningen on Saturday. This will be followed by an introductory reception with drinks from 15:30 in the Binnenstadswinkel, Markt 15. The sustainable water board party Water Natuurlijk wants the water board committee to take proper account of nature, clean water and recreation, and thinks it is important to get residents involved. Water Natuurlijk members currently hold three seats in the Vallei & Veluwe water board committee. The residents in the Vallei & Veluwe water board area will elect a new committee in the water board elections, which are on 20 March, the same day as the provincial council elections.

Tuesday 5 and Thursday 7 February, 12:30–13:30

GREEN IMPACT LUNCHTIME SESSION: HOW CAN WE MAKE WUR MORE SUSTAINABLE?

Have you got ideas on how to make WUR even more sustainable? For example by doing something about food waste or the use of plastics? Or is sustainable, circular-economy or socially responsible procurement more your thing? Come to the lunchtime session to find out how you can contribute. Green Impact will help you and your colleagues take measures that can benefit people and the environment. Using an online toolkit

with actions developed specifically for WUR, your team can work on making your workplace more sustainable. Green Office is coordinating the WUR Green Impact programme in partnership with Facilities & Services. The campaign will run from February to October 2019. Venue on Tuesday: Leeuwenborch, Room C76. Venue on Thursday: Radix.

Friday 15 February, 15:00–18:00 2019 VELUWE ELECTION DEBATE

Will there be much to choose from in the provincial council and water board elections on 20 March? Absolutely, especially where ecology and the economy are concerned. Provincial authorities have a lot of say in the policy on landscape and nature. That is precisely why the Friends of the Veluwe society and quarterly magazine *Nieuwe Veluwe* are organizing the 2019 Veluwe Election Debate. Leaders of the Gelderland political parties and others standing for election as provincial council members will debate four topical themes with the audience. They will discuss such issues as the need for an agricultural transition, fragmentation of the Veluwe, the regulation of recreation and tourism, the impact of the new area policy and a vision for the Veluwe in 2030. The debate will be in Dutch. Venue: Schip van Blaauw, Generaal Foulkesweg 72, Wageningen. Register via redactie@nieuweweluwe.nl or 0317-425880.

Colophon

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Deadline for submissions: one week before publication date. The editors reserve the right to edit and/or shorten announcements.

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Marc Lamers, Corporate Communications & Marketing Wageningen University & Research



In memoriam

Sije Schukking



Sije Schukking, who used to work at the research institute for cattle farming Praktijkonderzoek Rundveehouderij (PR) in Lelystad, passed away on Sunday 6 January. After graduating in dairy science and microbiology, Sije was closely involved in setting up Waiboerhoeve experimental dairy farm in Millingen aan de Rijn in the early 1960s. He was also involved in research on preserving grass as hay or silage. He was convinced that turning grass into silage under anaerobic conditions with the aid of plastic was

the future for modern dairy farming. When the PR was established in the early 1970s, the research on the pre-wilting method for turning grass into silage was stepped up. Along with other researchers, Sije played a key role in refining the pre-wilting method for use in farming practice and later in making silage from maize. Pre-wilted silage is now standard practice. In the second half of his career, Sije gave advice in many projects in developing countries. He was a keen advocate of intensive grassland management with English ryegrass, successfully introducing and testing this in numerous projects. When he re-

tired, he was appointed Officer in the Order of Orange-Nassau for his work in the Netherlands and abroad. After his retirement, Sije remained closely involved with his discipline and stayed in contact with younger ex-colleagues, for whom he remained a mentor for many years. We will miss his knowledge and commitment, and we offer his family our heartfelt condolences for the loss of their father and grandfather.

On behalf of his former colleagues at Wageningen Research, Jantine van Middeloop, Koos Nijssen, Ronald Zom, Ger-tjan Holshof, Tia Hermans and Bram Wouters

>>TYPICAL DUTCH



ILLUSTRATION: HENK VAN RUITENBEEK

No time to meet up

One perfectly beautiful, bright Monday, the astonishingly large bubble I was living in was burst by the Dutch way of life. ‘How so?’ you may ask. Well, a few Dutch friends of mine and I were planning to meet for dinner at my place, and immediately most of them whipped out their little diaries. I wondered how busy they could be, and I found out soon enough.

‘Wednesday, 18:00?’ asked one guy, but someone in the group had badminton training. Thursday? No, someone had figure skating in a town two hours away. Friday was impossible for someone else. And the weekend? Don’t get me started on the number of parties and activities some had to attend over the weekend! Not to mention that they all went back to their parents’ house (Oh, I am so jealous! Wish I could see my family every weekend). Finally, we discovered that all of us were free on a day three weeks from then. Better late than never, I suppose. Back in my country, I have never seen anyone keep a diary so routinely, and at such a young age. This was something remarkable I learnt from the Dutch. It soon became a common sight: every Dutch person reaches for a diary whenever you ask when they have any free time. Not only did this Dutch habit inspire me to keep a diary too, but it also enabled me to look forward to upcoming social events, keep track of things I need to get done, or even enjoy a free day when I can Netflix and chill (by myself!). Now I can’t fathom how people function without diaries! Am I becoming Dutch? **Deeya Kashyap, an MSc student of Food Technology from India**

Every Dutch person reaches for a diary whenever you ask when they have any free time

Do you have a nice anecdote about your experience of going Dutch? Send it in! Describe an encounter with Dutch culture in detail and comment on it briefly. 300 words max. Send it to resource@wur.nl and earn twenty-five euros and Dutch candy.