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## Insects for peace

Ex-FARC fighters are now breeding flies | **p.8** |

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## Outstanding all-rounder

Interview with marine biologist Lisa Becking | **p.12** |

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## XR meets Executive Board

Why WUR should (or shouldn't) declare a climate crisis | **p.24** |

# RESOURCE [EN]

For everyone at Wageningen University & Research

no 9 – 16 January 2020 – 14th Volume



## N2Africa finishes

Higher yields for half a million African farmers | **p.18**


**INTERNATIONAL  
EDITION**

# Jermaine + Silverson mixer

WUR staff work with all kinds of equipment. Meet Jermaine Roos, a lab assistant at Wageningen Food Safety Research.



## IT STARTS WITH SLURRY

Jermaine's workspace is called the slurry room. Not because he's a messy worker but because he does indeed make slurries. He uses three hand-held blenders to turn lots of different food ingredients into homogenous gloop that can then be analysed in the lab. The tub in the photo contains hazelnuts, which will be tested for the presence of fungal toxins (mycotoxins).  RK, photo Sven Menschel

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## TALK TO ONE ANOTHER

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Last Monday, I was sent by *Resource* to attend the long-awaited dialogue between Extinction Rebellion (XR) and the Executive Board, represented by rector magnificus Arthur Mol. I was not the only one: The Spot was packed. The question of whether or not the university should declare a climate emergency was not resolved, but the most important lesson from that evening lay in the enthusiasm for that debate rather than the debate itself. It shows there is a need for more dialogue within WUR. Students want to discuss things with board members. One person there suggested organizing a dialogue like this every week. That would be difficult but it *would* be good if students, staff and directors were able to get together for such discussions once every teaching period or quarter. No one questions the value of a dialogue with society, but an internal dialogue is just as important.

*Luuk Zegers*

>> **Idealis caretaker Eugene van Meteren encounters his fair share of funny smells. But there was something very fishy about this one | p.28**



## TACKLING JAMS ROUND CAMPUS

**A series of measures are being considered to improve traffic flows round the campus in the short term. An access road on the west side is a strong contender.**

This western access road option is currently being studied, says the provincial authority. The decision will be taken next month. It would be a temporary road taking traffic to campus from Nijenoord Allee, near Mondriaanlaan. WUR has long wanted such a western access road. At present, traffic for the campus coming from the west has to drive all the way round to Mansholtlaan.

The residents of Northwest district had always opposed the western access road option. They fear more congestion and unsafe conditions on the route to the district. However, they gave up their opposition when the campus ring road was proposed. Since then, the Northwest residents have been attacking the ring road plans and have accepted the western access road as a possible bargaining chip.

It looks like the days are numbered for the roundabout to the east of the campus, near Atlas. The provincial authority is investigating the possibility of replacing the roundabout by traffic lights. In that case, there will be a separate lane for traffic from Ede wanting to turn right onto campus so those vehicles won't have to wait.

The province is also looking at the flows of bicycles travelling to campus. Improvements are planned anyway for the Nijenoord Allee bicycle crossing near Hoevestein. The connecting cycle paths will be altered to improve cyclist traffic flows. That crossing connects Leeuwenborch to the campus. A separate cycle path along Kierkamperweg is also envisaged for cyclists coming from Bennekom.

The measures are needed because of delays to the construction of the campus ring road. The province doesn't expect to reach a decision on the ring road before the summer, and building work will start in 2022 at the earliest. That is why the province, municipality and WUR now want to take stop-gap measures to tackle the increasing congestion. **Ⓜ RK**

## GROOT'S SECRET

**Last week, World Food Prize winner Simon Groot visited WUR. He told the audience of over 200 in Impulse how he gave millions of smallholder farmers in Asia access to better vegetable seed adapted to suit local growing conditions and how his firm grew to become the leading plant breeding company in Southeast Asia.**

In October 2019, the 84-year-old vegetable seed breeder Groot was awarded the World Food Prize, also known as the 'Nobel Prize for food'. His company East-West Seed now has a workforce of 5000. In building the business up, Groot collaborated with dozens of Wageningen scientists on research and training, and hired hundreds of Wageningen graduates. He told the audience he would never have managed it without the Wageningen advisers and trainers.

### UNDERSTANDING THE MINDSET

Groot's vision for his company determined its success. East-West Seed wanted to develop vegetable seed for Indonesia, Thailand and the Philippines, countries which did not have any international plant breeding companies at that time. Groot's first priority there was to do research: what vegetables did the local people eat, what aspects of the vegetables needed

to be improved and what did farmers want? 'You have to understand the farmers' mindset and motivation,' explained Groot. 'They don't tell you that; you have to find it out. Then you have to improve the vegetables, show the farmers what you've done and see if they like the look of it.'

### AFRICA

East-West Seed now wants to get a foothold in Africa too. 'Africa is on the point of developing a vegetable seed market,' said Groot. The big-

**'You have to understand the farmers' mindset and motivation'**

gest challenges: 'The farmers don't know much about how to grow vegetables and they also face the problem of impoverished soil.' But Groot sees opportunities, for example in developing tomato and okra varieties that are suited to Africa. Groot is happy to work with NGOs to achieve this, but only if they know the local situation well. He also has a tip for WUR. 'Invest in knowledge in market development. That is essential if scientists are to have an impact.' **Ⓜ AS**



▲ Simon Groot advised the audience of around 200 to invest in knowledge about market development as that is essential if they are to have an impact as scientists.

## INNOVATION GRANT FOR MEDICINE MAKERS

**Christian Südfeld, a PhD candidate in the Bioprocess Engineering group, and his supervisors have received the first Road to Innovation grant from WUR. They are developing a new process for the production of pharmaceutical proteins.**

Südfeld studies microalgae. In his PhD research, he looks for tools to genetically engineer the algae to produce more fats. As part of that quest, Südfeld explored ways to efficiently express genes from other organisms for fat production in the microalgae. 'During this investigation we found a new biotechnological route for this,' says the PhD student. The new process let him achieve much higher levels of productivity for the desired proteins. What is more, the researchers found the new expression system worked in yeast too. The team will now use the grant to see whether this process can function in mammalian cell

cultures. These cell cultures could be used to produce medicines in a biotechnological process. If this is successful, Südfeld and his supervisors Rene Wijffels, Sarah D'Adamo, Maria Barbosa and Dirk Martens want to launch a spin-off.

They are the first WUR researchers to receive a Road to Innovation grant. The jury judged their system to be 'technically of a very high standard' and said it 'has huge potential commercially'. WUR introduced the scheme last September. Two other applications are currently being evaluated. WUR's intention is that the grants — 25,000 or 50,000 euros — should encourage value creation. Researchers can use the money to explore possible applications for their scientific knowledge and find out who the potential customers and users are. **AS**

*Read more about value creation on page 16*

## IN BRIEF

### >> ALL OPTIONS BACK ON TABLE

#### **Pig innovation centre buyer pulls out**

Biogas company Re-N Technology, which had the right of first offer on WUR's pig innovation centre in Sterksel, will not be buying it after all. Now that the biogas firm has pulled out, WUR is looking for alternatives. Two possibilities are being considered: either WUR finds another buyer that wants to continue with the research centre or WUR restructures the pig farm and sells the land. Director Menno van Manen of the Animal Sciences Group: 'The current zoning plan says the farm must have a research function. Buyers have to show that they can continue this research function or they have to

request a change to the zoning plan.' Local residents and nature conservation society Brabant's Landschap want the pig farm to go and are advocating restructuring. WUR will examine that option too. **CF**

### >> CURBING NWO APPLICATIONS

#### **Penalty for weak research proposals**

Soon, anyone submitting a weak research proposal to the Dutch Research Council (NWO) will be barred from taking part again for one or two years. The universities and NWO hope this will reduce the number of applications. The Association of Universities and NWO put forward this plan in a letter to Education minister Van Engelshoven. Another measure to curb the flood of submissions is to get rid of deadlines at NWO so researchers only submit a proposal once it is really good. The universities are also considering having their own pre-selections to reduce the number of research proposals sent on to NWO. The idea is that a coordinator will be appointed at each university to streamline the applications. The universities and NWO are also studying the option of quotas, in which certain NWO programmes get a maximum number of applicants to be divided among the universities. **RK**

## COLUMN|VINCENT

### Munching

People are eating again in the Forum Library. The first evidence was the breadcrumbs I found in a keyboard. And now I have seen a few people at it.

A few years ago it was perfectly normal to eat in the library. It probably wasn't really allowed even then, but no one took any notice if you peeled an egg or opened a tin of sardines.

That changed in 2017, after the renovations. The new carpet had to be kept clean, so the ladies and gentlemen who run the library introduced a strict ban. No eating allowed. If you so much as thought about food you would be asked to leave the library. That strictness took a bit of getting used to, but it had its advantages. No more loud chewing or distracting food smells. It did make the world a slightly better place.

### 'If you so much as thought about food you would be asked to leave the library'

But things are loosening up again now. You still can't walk into the library eating, but once you are sitting at a desk you can get away with quite a lot. And it's tempting to get out your lunchbox; I understand that. But just don't. It's a slippery slope. What starts with breadcrumbs in a keyboard soon escalates until there's ketchup on the ceiling. And nobody wants that. So, guys, if we make one resolution for 2020, let's make it that we stop munching in the library. For quality of life. **B**

**Vincent Oostvogels (24)** is exploring the delicate interface between nature management and food production through his two Master's programmes, Forest and Nature Conservation and Animal Sciences



# WATCHING FILMS IN THE AULA

**The Aula will become a cinema cum cultural centre. WUR has gone for this plan from the BOEi/Van Swaay group, which involves the Heerenstraat Theater moving to the Aula.**

Last summer, the WUR Executive Board actually chose the rival plan of the Noordereng Group, which wanted to turn the Aula into a debating centre. That choice led to a deadlock because Wageningen municipality preferred relocating the cinema. Both groups were then given time to revise their plans. BOEi/Van Swaay seized that opportunity with both hands and came up with a completely new plan. It included keeping the Aula intact as much as possible. That meant there was no longer any difference between the two plans regarding the conversion of the Aula for new uses. Before BOEi/Van Swaay can get started, the plan must first go to



ILLUSTRATIONS: © BOEi/VAN SWAAY

the municipal council, as the zoning plan has to be altered as well.

## SUPPORT AND OPERATION

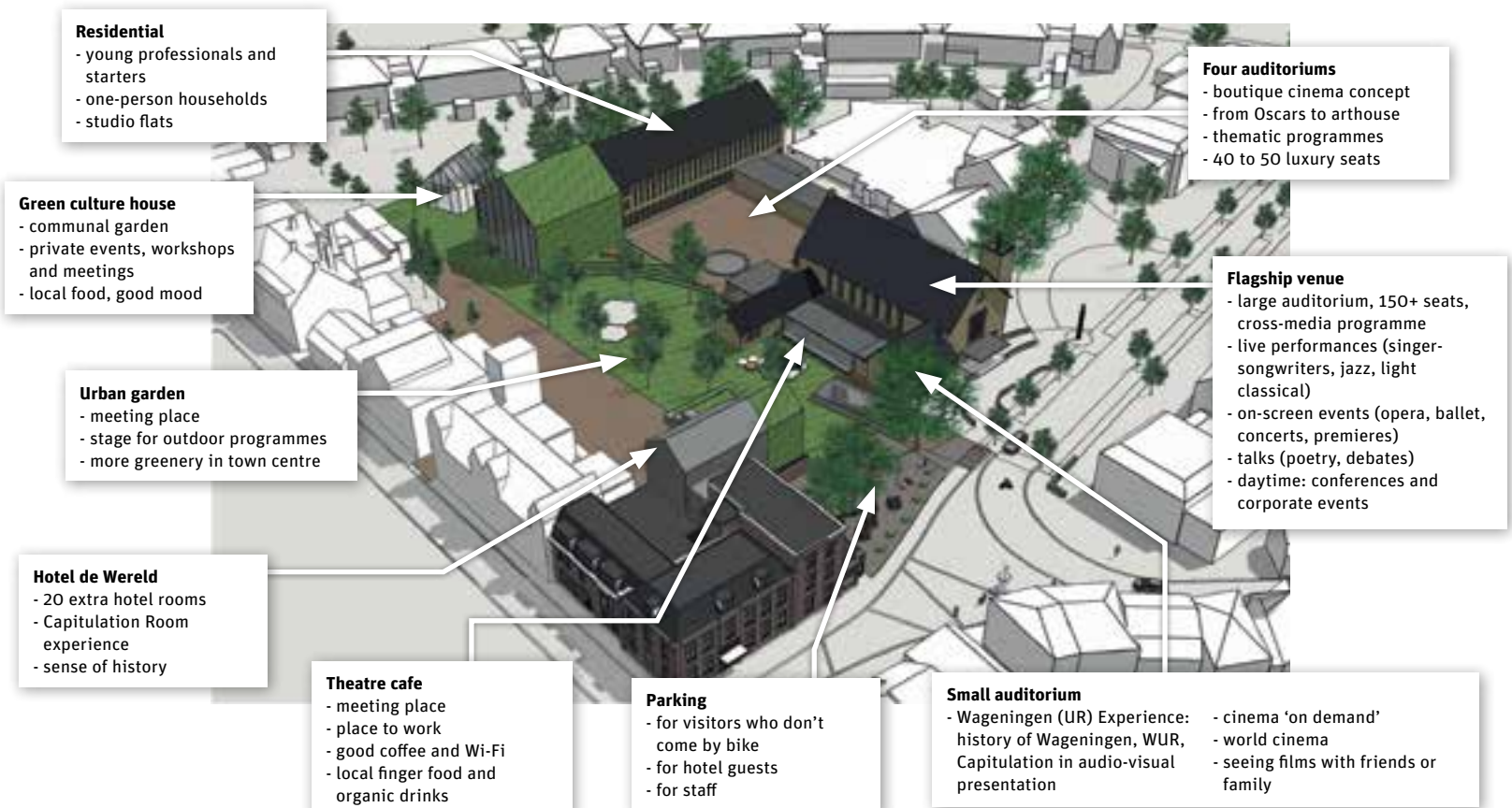
According to WUR spokesperson Simon Vink, the cinema plan seems to have more support than the debating centre. It also has better long-term prospects as a financially sound operation. The latter aspect in particular is important for WUR. The principle has always been to

retain the Aula, a property of cultural and historical importance to both the university and the city. In addition to screening films, BOEi/Van Swaay is also going to use the Aula for other cultural events, such as concerts, debates and stand-up comedy. The current reception area will be a theatre cafe that is open all day to visitors and as somewhere for freelancers to work, for example. One option for the small chamber is a Wageningen

(UR)Experience, an audio-visual presentation of 'everything Wageningen has to offer'. The rest of the cinema will be built underground next to the Aula, with four smaller auditoriums with seating for 40 to 50 people.

## PARKING AND FLATS

There will also be an underground car park. The former library behind the Aula will be converted into 50 studio flats for young professionals such as PhD candidates visiting WUR. New premises adjacent to this building will be built with 28 studio flats for that same target group (so not for students). Hotel de Wereld will be expanded with 20 rooms in an annexe to the current hotel. WUR is selling the Aula and the surrounding buildings because it wants to build its own Dialogue Centre on campus. The construction of that centre has not started yet. It is scheduled for completion in 2021. **© RK**



# LUNA K.C. WINS COVER PRIZE

**Luna K.C. from Nepal has won the Resource Cover Prize 2019. The cover of her thesis received a quarter of the votes cast online.**

The winner reacted with delight by email from Canada. 'This is a great way to start 2020.' Luna K.C. is working as a researcher at the Canadian Research Institute for the Advancement of Women in British Columbia. She got her PhD a year ago; her supervisors were Thea Hillhorst (Humanitarian Aid and Reconstruction, now at Erasmus University) and Gemma van der Haar.

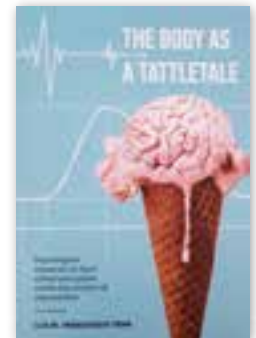
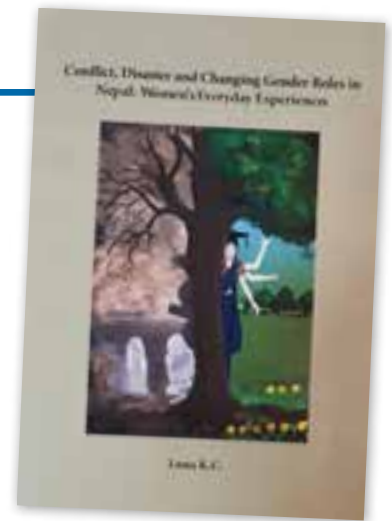
K.C. studied the position of women during the Maoist war in Nepal and the aftermath of the earthquake in 2015. The changing role

of women in those periods is illustrated on the cover with a strong contrast: on the left, death and destruction, on the right a hopeful future. But it was not all gloom and doom during the war years, says K.C. 'Little glimmers of light are trying to break through the dark skies,' she explains. 'They stand for women's increasing outspokenness after they took on new roles and gained new freedoms during the war and after the disaster.' K.C.'s sister Rara designed the cover with some help from a professional artist.

A total of 1702 people voted online, which is a lot fewer than last year. Technical hitches made it difficult to vote in the WUR system. 26 per cent of the votes went to the win-

ning cover. Jorrit Hegge came second with 17 per cent of the votes for his cover about Argonaute proteins, and 13 per cent of the votes went to Luz Verastegui for the cover with an ice cream on it.

Luna K.C. made full use of social media to mobilize her support base. 'And I sent a lot of personal messages to people who are not active on social media. My father, sister and brother-in-law used their social media to help me get votes too.' **RK**



## '91 PER CENT OF CYBER ATTACKS START WITH AN EMAIL'

**The cyber attack at Maastricht University has put the data security team at WUR on red alert too. WUR is well protected against cyber attacks, says security officer Remon Klein Tank, but it is not impregnable. 'Watch out for phishing emails in particular.'**

Remon Klein Tank has not yet received all the details from Maastricht, which suffered a cyber attack just before Christmas. He is part of a nationwide working group through which universities exchange information on cyber security. Klein Tank knows the software that the attackers used to encrypt the data. It was also used to attack the University of Antwerp in October and a French hospital in November.

### HAS WUR DATA BEEN SEIZED IN THE PAST AND A RANSOM PAID?

'I can't comment on that. WUR is attacked on a daily basis. 91 per cent of the attacks start with a phishing email, aimed at getting you to reveal your password for instance. Then the hackers start doing things under your name, such as encrypting data. That means you can no longer see your family photos at home or no longer access your research data at the chair group. Most attacks are unspecific but some are smarter. The at-

tacker gets inside the system, and then the software looks around and decides where most damage can be done. That's what happened in Maastricht.'

### CAN YOU STOP THAT?

'Here in Wageningen, we are on the alert and we keep our systems in good order. But you can't protect yourself against every eventuality. You want your IT department to intercept as many suspicious emails as possible but you never get them all. You'd need to change the password every five minutes to be totally sure, but we still have other work to do. Students and staff are on their guard but despite all the warnings, about 10 per cent still get caught and open suspicious emails. The emails are often quite sophisticated too. We are constantly working on methods for filtering them out at an early stage.'

### WHAT CAN WUR END USERS DO?

'Over 90 per cent of the attacks are via phishing emails that ask for your password or persuade you to open an attachment or link. So you must not open these. If you do, you are often shown a yellow bar saying "enable editing". Never click on that, especially if you weren't expecting the document!' **AS**

## Assessing animal disease research

Agriculture minister Carola Schouten has announced an audit of Wageningen Bioveterinary Research. This was prompted by the 'foot and mouth' court case brought by livestock farmers in Kootwijkerbroek, which ended last week. The Trade and Industry Appeals Tribunal decided that the laboratory in Lelystad had not kept to the prescribed protocol when testing foot and mouth disease samples in 2001, although the test results were correct. 'Wageningen Bioveterinary Research is accredited and works continuously on improving its processes and methods,' says the minister in a letter to Parliament, 'but I find it important to have their working methods assessed in an independent audit.' 'Of course such an investigation can't do any harm,' says WUR spokesperson Simon Vink. 'We hope the audit will increase confidence in the institute's working methods. The criticism of the laboratory mainly concerned the administrative handling. That could and should have been better.' **AS**

## FLIES FOR PEACE

**Former FARC fighters are being trained as insect breeders so they can build new lives for themselves. The soldier flies they breed can serve as animal feed and give the former guerrillas a sustainable source of income.**

After the peace agreement between the FARC and the Colombian government, about 60,000 FARC combatants went back to small-scale farming, but they have found it hard to make ends meet. The Colombian Karol Barragán studied black soldier flies during her PhD research in Wageningen and now intends to use her knowledge to help the new farmers. Insects for Peace is an initiative by the Universidad Nacional de Colombia, to which the Wageningen Laboratory of Entomology is contributing. Soldier flies are a useful source of protein in animal feed and are easy to breed on local waste flows such as manure or harvest residues, without any need for major investments. Barragán: 'The reason these people joined FARC in the first place was poverty. Now they



▲ After 20 years in FARC, Ricardo Arciniegas Cárdenas is now building a new life as an insect farmer.

have to start all over again. Breeding soldier flies is a cheap, innovative way of building an independent livelihood. If farmers breed insects themselves, they don't have to buy expensive import products for their animals, and

they can earn money by selling their surplus.' The project's primary target group is ex-combatants, but 'ordinary' farmers are welcome too, emphasizes Marcel Dicke, who is involved in the project on the Wageningen side. 'We want to stimulate a local, sustainable economy.' The first proud insect farmer is Ricardo Arciniegas Cárdenas. He joined FARC at the age of 13 and was a soldier for 20 years. Now he is breeding soldier flies and working with five students who are doing their research on the process. The results will be used to start insect breeding in other regions. Last November, Ricardo gave a presentation on Insects for Peace at the Universidad Nacional. Barragán: 'A beautiful moment. It is tremendously important for a respected institute such as the university to help these people. They were always seen as the enemy, and we hope we can change that. Collaboration between the ex-guerrillas and the rest of the population helps them to reintegrate.' 📷 CJ

## FLOWERING OF NEW INTEREST IN GERANIUMS

**Geraniums, or species of *Pelargonium* have been popular since the Victorian era, partly because of the nice colours and shapes of their flowers. Scientists too have long been fascinated by their enormous variety of flower shapes. Analysing these still poses a challenge.**

One of the problems in analysing the shape of flowers is that the different parts (petals, stamens and nectar spur) bloom at different times, making it difficult to determine the overall shape of the flower. Freek Bakker, assistant professor of Biosystematics, and his group have come up with a solution. They developed a method for making a virtual 3D model of *Pelargonium* flowers. To do this, a computer combined 2D photos to create a 3D image. 'Formerly, separate characteristics such as length and width were used as

markers of flower shape,' explains Bakker. 'But petals with the same measurements can have completely different shapes. Since the 3D models makes use of coordinates, we can now assess flower shapes more accurately.'

### 'Adding the third dimension was essential'

#### EVOLVING INDEPENDENTLY

PhD researcher Sara van de Kerke developed the computer model during her research on the evolution of *Pelargonium* flowers. 'Adding the third dimension was essential in the research,' says Van de Kerke. In order to create those models, she and a number of students photographed hundreds of flowering *Pelargonium* parts. Since the various parts of a flower do not

come into flower at the same time, the parts were linked up by computer. The models reveals that *Pelargonium* flowers do not evolve as a single whole, but that the forms of the petals, nectar spur and stamens evolve separately. 'This could be explained by the fact that each part has its own function, especially in pollination,' says Van de Kerke.

#### APPLICATIONS

Studying the shape of *Pelargonium* flowers may just be the start of this 3D model's potential. Besides shape, the model can also precisely measure the thickness, width and surface of parts of a plant. This makes the model useful for other studies too. Bakker has in mind a study on photosynthesis, for example, in which leaf surface is an important factor. Although the 3D computer

model was initially developed for fundamental research, Bakker has a hunch that it could be useful in applied research too, in the field of plant-breeding for example. 'The model can be used for shape analyses after cross-breeding,' says Bakker. 'Perhaps this kind of analysis could even be automated in the future, making it a time-saving innovation for plant breeders.'

📷 NvtWH





## WHY YOUNG MUSCLES RECOVER FASTER THAN OLD ONES

**The older we get, the more the quality of our muscles deteriorates. This is because the mitochondria – our cells' power stations – don't function as well as they did, Bart Lagerwaard has established.**

Lagerwaard, a PhD student in the Human and Animal Physiology chair group, studies ageing in humans. It was already known that our muscle mass diminishes as we get older, but we don't know what makes the quality of the muscles deteriorate. Is it because elderly people don't use their muscles as much, or does the quality of our muscle cells worsen? Lagerwaard

**'Not all muscles age in the same way'**

focused on the functioning of the mitochondria. They convert sugars and fats into energy with the aid of oxygen, enabling them to produce muscle strength.

### SAMPLES

Until now, researchers measured muscle strength by extracting samples



PHOTO: SHUTTERSTOCK

▲ The more intensively elderly people exercise, the better their mitochondria function.

of muscle tissue from the thighs of test subjects and testing in the lab how much oxygen the muscle tissue used. It was not easy for researchers to find volunteers for this invasive method. What is more, they could not easily measure muscle development and recovery over time this way. Lagerwaard tested a method using Near Infrared Spectroscopy, using a small piece of apparatus to measure the amount of oxygen the haemoglobin in the blood delivers to the muscles. In fact he is then measuring the oxygen consumption of the mitochondria in the muscle cells.

### CALVES

Lagerwaard tested the muscles of 20 young men and 20 old men using this gadget. He selected elderly test subjects who were just as physically active as the young ones. The test revealed that the older mitochondria in the thighs and calves recover more slowly than the mitochondria of the young people. There was not much difference in the recovery time of muscle in the shin, however. 'Not all muscles age in the same way, which is interesting,' says Lagerwaard, who wants now to do laboratory analyses to find out why. The study also made clear that the more exercise elderly people get, the better their mitochondria function. Seniors who get a lot of exercise not only have more muscles than their peers, but their muscles absorb oxygen better.

### WOMEN

Lagerwaard did not test any women because women have a thicker layer of subcutaneous fat, and the Near Infra-Red Spectrometer can only measure up to two centimetres under the skin. He is now working on a new spectrometer that can measure deeper under the skin. If tests on young women with the new meter are successful, he will also measure the ageing process in women's muscles. Lagerwaard: 'We need to know what happens in muscles as they age so that we can give better advice on what kind of exercise and diet most helps people stay healthy and fit in old age.'

AS

## VISION

### Growing pains for meat substitutes



**The popularity of meat substitutes is growing so fast that there is a danger of a shortage of ingredients, and producers fear a price rise. Researcher Atze Jan van der Goot acknowledges the problem but thinks the increasing demand could lead to upscaling and thus to lower prices.**

#### How come there are shortages?

'Meat substitutes consist of proteins from things like soya, peas or grains. There are plenty of soybeans but the issue is the proteins that are extracted from them: there's the bottleneck. At the moment not enough companies have the right installations for extracting the proteins from soya, peas and grains, and those companies are reaching their maximum capacity. The refining process is labour-intensive, complex and costly, and by-products such as fibres, carbohydrates and chemical compounds have to be properly disposed of too. So it is not easy for factories to expand fast. It requires serious investments.'

**'The refining process is labour-intensive, complex and costly'**

#### Are there ways of facilitating this process?

'We are studying the possibility for less refined products. That way you might have an ingredient that does not consist entirely of protein, but that also involves fewer processing stages, results in fewer by-products and is cheaper as a production process. Products such as lentil burgers are less processed, for instance, but the problem is that their structure and taste are not like those of meat. So we are trying to find out how you can make products that do have the taste and structure of meat without needing so much processing.'

#### What do the shortages mean for prices?

'Companies such as Cargill and Dupont, which make the ingredients for meat substitutes, are already investing more in production. But expanding that production capacity is a slower process that expanding a production line for meat substitutes. Producing meat substitutes takes less resources in the end than meat, because such large quantities of beans and grains are required for livestock feed. So in the short term you get a price hike, but in the long term growing demand for meat substitutes will lead to higher production capacity for the ingredients – and therefore perhaps to a fall in prices.' TL

# WHERE DOES THE SAND GO?

**Sand is being added to Ameland in an effort to satisfy the Wadden Sea's hunger for the stuff. But where does that sand go? Professor Jakob Wallinga is using sand's memory in order to find out.**

The Wadden Sea is constantly eating away coastal sand. That natural erosion process is being intensified by rising sea levels. Unless action is taken, the mud flats will be submerged and the islands will shift towards the mainland. Sand replenishment — adding sand from elsewhere — is now being used to steer developments in the right direction. The replenishment is taking place in the navigation channel between Ameland and Terschelling. Five million cubic metres of sand was dumped in the sea off the coast of Terschelling in 2018.

## NO IDEA

Since then, the waves and currents have done their job and the sand has spread across the Wadden area. That is the theory, at least. But does this approach work in practice? 'The effect of sand replenishment can be predicted for the confined North Sea coast of the western Netherlands but a coastal inlet like this is much more complex and dynamic,' says Jakob Wallinga (Soil Geography and Landscape). 'We actually have no idea what fraction of the sand enters the Wadden Sea.'

## SURVEYING

Wallinga will be using luminescence in a new application to survey the routes taken by the additional sand. He will be exploiting the new sand grains' natural luminescence signals. That signal, which Wallinga vividly refers to as the sand's 'memory', developed in the sand's place of origin deep in the North Sea as a result of natural radioactivity in the sea bed. The memory is released when the sand is exposed to light. Wallinga inves-



PHOTO: SHUTTERSTOCK

tigates this memory in his luminescence lab. He normally uses such signals to assess the age of layers of soil. The longer the sand has been in the ground, the strong-

**'We actually have no idea what fraction of the new sand enters the Wadden Sea'**

er the memory signal. But that signal can also be used to distinguish between newly added sand and local sand. Local Wadden sand grains no longer have this memory as they have already been exposed to light.

The memory of the additional sand that has been extracted from the depths is essentially being used as a label. This method is new and will be developed further as part of TRAILS (the name of the Wadden Sea project). According to

Wallinga, the main advantage is that the replenishment sand itself acts as a tracer, so there is no need to add an extra marker. Every new grain of sand that is added can be tested later.

## MEASUREMENT CAMPAIGN

An extensive measurement campaign is needed to find out where the replenishment sand goes. This will tie in with ongoing research by the Netherlands Institute for Sea Research (NIOZ) on the ecological impact of subsidence due to gas extraction. Wallinga is taking on a PhD researcher for the luminescence study. A NIOZ PhD candidate is investigating the conse-

quences of sand replenishment for the Wadden fauna. A postdoc at Delft University of Technology will be modelling the transport of individual grains of sand.

A total of 1.3 million euros is available for the research. The funding is part of the Dutch Research Council's 'Living Labs in the Dutch Delta' programme for research on large-scale nature-based interventions in coastal and river areas. **③**

**RK**

## ON LUMINESCENCE

Sand's memory is based on luminescence, the emission of light. Essentially, sand grains build up a signal under the influence of natural radiation sources in the ground. That signal can be measured — in the dark, because the signal is lost when exposed to light. The magnitude of the signal tells you how long the sand has been in that place.

## PROPOSITION

### ‘Avoid public debate’

**In a debate, it is not necessarily the person with the strongest facts and arguments who wins, concludes PhD candidate Bregje van der Bolt. It’s all about persuasiveness, but what if that is not your strongest point as a scientist? That question led her to her proposition: *scientists should not participate in public debate.***

‘Scientists like to participate in debates in order to discuss topics such as climatic change or evolution where a consensus has been reached in the scientific community but where the general public doesn’t always seem that well informed. But it’s often precisely these politically or religiously charged

topics where you wonder whether a debate is the best way to convince people. Research shows it’s not. By entering into a debate you actually create a platform for sceptics. Scien-

**‘By entering into a debate you actually create a platform for sceptics’**

tists are often specialized and prefer not to take a stand on topics outside their area of expertise. But that is precisely what opponents in a debate often have no trouble with.



PhD candidates have to include some propositions with their thesis. In this section, they explain their most provocative proposition. This time it’s Bregje van der Bolt, who received her doctorate on 9 January for her research on the effect of climate change on the predictability of tipping points — see [Resource-online.nl](https://resource-online.nl) for an article about this.

I myself do research into climate change and we were warned about this during media training. Young scientists with relatively little experience in particular must think carefully before getting involved in a debate, because they will face a huge army of trolls. Even so, scientists are still important for debates, not necessarily by getting involved directly, but rather because they explain how to assess information or distinguish good arguments from fallacies. Many people have trouble with that. I think you can start working on that in secondary school by paying attention in every subject to where you get your information from.’ **TL**

## SUBSTITUTE CHICKEN FOR BEEF MORE OFTEN

**Suggesting replacing some of the beef we eat with other animal products such as chicken, eggs and milk does more for the environment and for health than advising people to go vegan.**

This conclusion was reached by Elly Mertens, who got her PhD in Public Health and Sustainability on 8 January. ‘Making smaller changes to current eating habits achieves more than advising an “optimal” diet without taking much notice of people’s preferences,’ says Mertens. Her conclusion is based on a broad study of various different diets among 6500 people in Denmark, the Czech Republic, Italy and France. These countries were chosen to represent a range of European diets. Mertens found in all cases that people ate too few vegetables and too much red and processed meat. ‘We know that meat, especially beef, has the biggest carbon footprint and that overconsumption is bad for your health.’

### NEIGHBOUR’S EXAMPLE

Based on her findings, Mertens created a model for what she called ‘benchmarking eating habits’, seeking the optimal balance between

health, sustainability and people’s food preferences. Mertens: ‘We looked at how people in each country eat and chose the healthiest and most sustainable diet there as a benchmark for the rest of the population. If your neighbour can do it, why can’t you?’ Mertens thinks it is difficult to find a diet that is both optimally sustainable and optimally healthy. ‘A plant-based diet might be the most environmentally friendly, but it lacks certain nutrients, which means you need supplements. There is always a trade-off.’

**‘If your neighbour can do it, why can’t you?’**

When proposing changes for the better, Mertens believes it is important to take existing eating habits into account. Recommending that people eat more pulses and nuts, for example, is less realistic and feasible than suggesting they eat more chicken, eggs or milk. ‘With these kinds of small steps you achieve more in the end than by setting the bar high from the start. Many recommendations are now geared to a transition

towards a more plant-based diet. That takes no notice of people’s preferences and is therefore not realistic for most people. The result is that not many people get on board, and the net effect is much smaller than when a large number of people make a modest change.’ **TL**

*Restaurant customers appear to be fine with a bit less meat and more vegetables on their plates, as long as the food is well-presented. This finding comes from a study by Wageningen Economic Research in collaboration with Greendish, Unilever Nutrition Research and the Louis Bolk Institute. Read more on [resource-online.nl](https://resource-online.nl)*



Human activity has a huge impact on coral reefs. Such reefs are actually socioecological systems, says marine biologist Lisa Becking. Her expedition on board the *Temukira* therefore combines nature and sociological research.

text Roelof Kleis photo Barbara Kieboom

# 'Humans and nature go hand in hand'

**A**s you read this, Lisa Becking (Marine Animal Ecology) is out on the high seas somewhere off the coast of the Bird's Head Peninsula, West Papua. She is leading a 10-day expedition to study the state of the coral there. For once, this is not because the coral is in a bad way. In fact, it is thriving there, in spite of the warming of the ocean.

## Why is that?

'That is precisely the key question for this expedition. In the past few years there have been a number of cases of "global bleaching", with bleaching and death of reefs due to the seawater warming up. A lot of reefs have been badly affected by that, but not in this area, where the ecosystem seems to be resilient. How come? Is it the biology, the enormous diversity that is here, or is it down to the management of the nature reserves? And what can we learn from that for nature reserves in other regions? This area gets promoted for tourism purposes precisely because the reefs are still so beautiful. But how does that affect the reefs, and the people who make a living from them through fishing or income from tourism? The context of tourism is significant. Tourism has increased by a factor of over 30 since I first went there 10 years ago: from 900 visitors per year back then to 30,000 now.'

The area around the peninsula, the Bird's Head Seascape, is the most biodiverse tract of tropical ocean on the planet, housing more than 600 species of coral and 1500 species of fish. The area includes 12 'marine protected areas', making for 35,000 square kilometres of

protected marine nature. The expedition is studying two of those marine parks, which are exploited for tourism to differing extents. The programme includes the usual ecological measurements to gauge the quality of the reef. Almost virgin reefs will be compared with places visited by a lot of tourists. But that is not all; this expedition will go further. In Becking's words, 'We shan't just look underwater but also outside it.' Becking and her team will do sociological and economic research onshore, in the firm conviction that humans and nature are inextricably connected.

## Is that a new insight?

'Not really. The human factor has always been an aspect of my work. You can't just pop to Indonesia, do a bit of diving, do your thing, and go off again. That kind of "parachute science" is very outdated. My research always starts with a cup of tea with the *kepala desa*, the village chief. I try to make clear what my research is about and we discuss where, how and with whom my team can work. Local people always join us on the boat, and I always learn loads from them about the area, their interaction with nature, their work and village life. That's a very sociable process, but it has never been part of my research. At some point I realized that half of what I observed never got into my papers. Nature conservation of coral reef systems depends on both ecological processes and socioeconomic processes at work on dry land. I want to integrate those processes into my work more.'



## Leontine Elisabeth Becking

Born	Amsterdam (1978)
Studied	Biology, University of Amsterdam (2004)
PhD	Naturalis Biodiversity Centre and Leiden University (2012)
Work	Berkeley University (2013-2015), Wageningen Marine Research (2012-present), Marine Animal Ecology (2015-present)
Prizes	Rubicon (2012), Veni (2015), L'Oréal-UNESCO (2019)
Member of	The Young Academy (2018) and WUR group The Young Academy (2017)
Hobbies	going to art exhibitions and concerts, photography, reading, freediving.

Lisa Becking writes a column in the Dutch daily newspaper *De Volkskrant* and is a founder member of The Young Academy book club 'On the same page'.



PHOTO: AWALUDINNOER AHMAD/SHUTTERSTOCK

▲ A lot of reefs have been badly affected by global bleaching, but not all of them. How come?

*So you need humans in order to understand and protect nature better?*

'Humans and nature go hand in hand. Nature reserves visited by lots of tourists are socioecological systems. Humans influence nature and vice versa. You have to accept that: tourism is a given. Keeping tourists away is no longer realistic. I think there is a better way of protecting nature by assuming that humans are an integral part of the system and thinking about how you can adapt behaviour and policy. I am very convinced about that. No, I haven't suddenly turned into a sociologist. My aim is still to understand the natural system, but that system has got bigger for me, and now I work together with social scientists.'

Swimming and diving are second nature to Lisa Becking. 'I cannot remember a time when I didn't swim. When I was a child we always went to Menorca in the summer. I learned to snorkel very young, and I discovered the life going on underwater. I wanted to know everything about it, and when I got to know a marine biologist as a teenager, I knew for sure that that was what I wanted to be. I want to understand that system. I still have that curiosity. My research focuses on the question of how marine ani-

## 'When I got to know a marine biologist as a teenager, I knew for sure that that was what I wanted to be'

mals and plants adapt to change in their environment. And I try to use that knowledge to help protect that nature.'

She's been quite successful in that so far. Becking has been awarded research grants (including Rubicon and Veni grants) and received the L'Oréal-UNESCO Award for talented women scientists last December. One Wagenin-gen scientist went before her – biotechnologist Maria Barbarosa, who is now a professor. That is Becking's express ambition too. 'You embark on tenure track with the idea of working towards a chair.'

### *Does a scientist have to be ambitious?*

'I think all scientists are ambitious, only their ambitions take many different forms. At the moment the definition of a successful scientist is extremely narrow: someone who is competitive, writes a lot of papers and brings in a lot of funding.'

### *What's wrong with that?*


'In itself, it produces perfectly good scientists who do nice research. The disadvantage is that such a narrow definition creates a very specific image of what makes an excellent scientist. It is important to broaden that image to include more people and to make the university more diverse. Just as an ecosystem benefits from high diversity, I think a university is stronger and nicer if it has people with diverse talents and qualities. Inspiring leaders, for instance – people who get the best out of others. Or people who are outstanding teachers, or who enter into dialogue with the wider society. Also, the complex scientific and societal challenges facing us today call for a range of solutions and therefore for a range of approaches and talents.'

### *So we need more scope for diversity?*

'Yes. Diversity goes beyond gender and culture. It's about being able to be a successful scientist in different roles and with different talents. Nationally, Wageningen scores very poorly on its percentage of women professors. By changing the evaluation system you create a different academic culture and space for a wider range of people. The way the evaluation criteria at WUR currently work, to become a personal professor you have to be an outstanding all-rounder. But luckily change is in sight, with working groups reassessing tenure track. I think we should aim at teams of people with different talents, who represent excellence collectively. Team science, rather than a bunch of individual walking wonders.'

Becking's ideas about diversity and her views on nature as a socioecological system are reflected in the 18-strong crew of the expedition she is currently leading. 'It is One Wageningen in action, with three science groups, two research institutes and a 4TU associate on board.'

Besides biologists and ecologists, there are also social scientists working on the research boat the *Temukira* and onshore. The aim is for them all to do research together. 'We talk a lot about multidisciplinary work, but it is quite difficult to put into practice,' says Becking. 'You don't speak the same language. By being in the field together and seeing how other people go about their work, you gain a better understanding of the kind of data people collect and how that relates to what you do.' So the ecologist goes along on visits to a village, and the sociologist helps take measurements at sea. As far as is practical, of

course. The aim is for this pooling of perspectives to lead to a more complete knowledge of the system. Becking might want to establish a new line of research. 'I came up with that idea together with modeller Ingrid van de Leemput (Aquatic Ecology and Water Quality Management) and sociologist Machiel Lamers (Environmental Policy), and we want to expand it into a larger line within WUR.' The L'Oréal-UNESCO grant (25,000 euros) gives her five months to flesh out the idea, which she is doing at NIAS (Netherlands Institute for Advanced Study in the Humanities and Social Sciences) in Amsterdam. 'I get the space there to think, write and work on proposals. It's crazy really, that you need a grant in order to be able to think. The peace you need to be able to think associatively and come up with new ideas is really something we should build into our daily lives as scientists.' 

## EXPEDITION

The expedition to the Bird's Head Seascape (West Papua, Indonesia) runs from 13 to 23 January 2020, and is financed by the KNAW from the SPIN programme, and the Young Academy. The team consists of scientists from the Netherlands and Indonesia as well as local teachers, nature conservation organizations and policymakers. Besides Becking, WUR is represented by coral ecologist Erik Meesters, economist Eva van den Broek, modeller Ingrid van de Leemput and sociologist Machiel Lamers. The expedition is studying the resilience of coral reefs in relation to diving tourism in the area. You can follow the expedition via <https://weblog.wur.nl/kustzee/category/resilience-of-the-richest-reefs> and Becking's own social media.



@beckinglisa



@lebecking



PHOTO: LISA BECKING

# Plus Ultra II

The new Plus Ultra II building on the campus brings all aspects of entrepreneurship and knowledge-based companies at WUR together. Sebastiaan Berendse, director of Value Creation at WUR, provides a virtual guided tour.

text Albert Sikkema illustration Proof of the sum

The second and third floors will house more **mature knowledge companies** that are beyond the start-up stage and have been selling products or services for a few years.

On the first floor the **technostarters** will be housed who are already generating turnover with a product on the market. One example is NutriLeads BV, which makes healthy food ingredients and now has 10 people on its staff. It is currently housed in Plus Ultra II and is about to make a leap in scale, having gained financing from Shift Invest, an investment company with which WUR works closely. Another example is Surfex, which makes nanocoatings. This WUR spinoff also has about 10 employees and is looking for space to expand. These companies are a good fit with WUR's ambition to create more robust spinoffs.

The first floor will also be the home of **OnePlanet**, the collaboration between the Flemish institute Imec, Radboud University, University Medical Centre Nijmegen, and WUR. Imec will work with other companies here, both in open innovation and behind closed doors. OnePlanet's Experience Centre will display specific innovations, thus giving other tenants ideas. 'Imec also has a programme à la StartLife for start-up companies in Belgium,' says Berendse. 'Imec focuses on sensors and nanotechnology, and wants to link that technology with the agrifood domain, together with OnePlanet. Our network creates possibilities for new spinoffs, in environmental sciences for instance. That cross-pollination should also take place in the Experience Centre.'

**StartHub** Wageningen, the nursery for start-ups initiated by Wageningen students and PhD researchers, will be on the ground floor, with offices and workspace for starters and a large hall for events and courses. 'We already offer Wageningen students a broad extracurricular programme on entrepreneurship,' says Berendse. 'In Plus Ultra II, we want to reach more than 1000 students a year with these courses. Experienced businesspeople will challenge them to be enterprising and explain what running a business entails. The courses are made up of three parts: inspiration, creation and getting going.'

**Starting entrepreneurs** rent space in Plus Ultra II. 'It is not expensive but nor is it free,' says Berendse. 'As a businessperson you constantly have to weigh up what is useful for your company and whether you are prepared to pay for it.' The starters can rent an office or just a desk. They can get support from service providers who also rent space in the building. These include a company that provides advice about subsidies, a patent law adviser and a financial adviser. The starters can also rent facilities in the Fablab, which has a lot of equipment available, including a 3D printer with which the start-ups can quickly produce prototypes of their products, for a presentation for example.

**StartLife** has its office close to the starting entrepreneurs. From here it guides the launch and growth of knowledge-based companies in the agrifood and biobased sectors through the Accelerate programme. StartLife has already overseen more than 300 start-ups, more than half of them from outside Wageningen. 'WUR attracts entrepreneurs who want to collaborate with Wageningen researchers,' says Berendse. He expects that student companies will start signing up to the Accelerate programme too.

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The student teams for the various **student challenges** will also get workspace in Plus Ultra II. These could be the teams participating in the Rethink Protein Challenge or the Urban Greenhouse Challenge, for example. Berendse: 'Those kinds of competition do not lead directly to the formation of a company, but the students do need a good business case to win them. That requires the same way of thinking as starting entrepreneurs need. So StartHub trains them too.'





10,500  
SQUARE METRES



287  
PARKING SPACES




2,500  
m<sup>2</sup> OF START-UP SPACE



#### Leitmotif: value creation

'We want to support researchers in making the transition from their research to applications,' says Sebastiaan Berendse. 'These could also be social products and services. I think Arnold van Vliet's Nature Calendar is a fantastic way of making knowledge visible and usable. Taste Lessons, a programme in which schoolchildren are introduced to healthy eating, is another nice Wageningen social innovation. The main objective is not to earn money but to add value.' According to Berendse, the Science Shop and the Wageningen Dialogue Centre will also play important roles in the transformation from knowledge to practice. Another aspect

of this is the sharing of equipment and facilities by researchers. For example, WUR rents its 'shared research facilities' to third parties, thus working together with companies such as Surfix, Keygene, FrieslandCampina and Unilever. 'Unilever now places apparatus in WUR buildings, and is going to use WUR apparatus too. When we were cataloguing who had what apparatus, we had some nice discussions and Unilever people discovered that they could measure new things with our apparatus. That's how sharing research facilities can lead to innovation.' 

# The N2Africa formula works (almost) everywhere

Ten years ago, WUR professor Ken Giller got a lot of money from the Gates Foundation to develop legumes such as beans, chickpeas and soya for small African farmers. The project has now been completed. He reached about 600,000 farmers and improved their harvests in almost all cases.

*text* Albert Sikkema *photos* Georgina Smith CIAT, Ken Giller





Over the past 10 years, project teams in 11 African countries tested ways of cultivating legumes for African food production. This project, N2Africa, not only supplied legume seed but also the bacteria that bring about nitrogen fixing in symbiosis with these plants. In addition, it supplied the fertilizer phosphate. A cocktail of seed, inoculants and artificial fertilizers has brought bigger yields and incomes to half a million African farmers. And yet Ken Giller, the founding father of N2Africa, is reluctant to call it a success.

#### ROLLING OUT THE FORMULA

After 10 years, the Wageningen professor of Plant Production Systems still isn't sure why some African farmers didn't get better harvests with the N2Africa treatment. Giller: 'We had a formula: leguminous vegetables plus *Rhizobium* bacteria fix nitrogen from the air, giving you a natural fertilizer. Together with fertilizers such as phosphate and potassium, this ensures a good yield. We had successfully tested this for the project in small-scale experiments, and then we rolled it out in Africa in N2Africa. But it didn't work everywhere.'

#### COCKTAIL

Giller's group planted trial plots everywhere with four sections: one for vegetables alone, one with vegetables and inoculants, one with vegetables and artificial fertilizer, and one with all the relevant inputs. The outcomes were extremely varied. In broad lines, the trial plots with all the inputs produced the highest yields. But something odd happened too. 'In theory, you get the biggest increase in yield on the plots with low soil fertility, where the yield gap – the difference between the actual and the potential yield – is biggest. But that is not what came out of our tests.'

After extensive analysis, the researchers found two more causes of the variation. Firstly, the variation in yield

## N2AFRICA IN A NUTSHELL

- N2Africa was a research and development project by the Plant Production Systems chair group that aimed to increase the yields and incomes of African farmers. It ran from 2009 to 2019 and reached 600,000 farmers in 11 countries.
- With the sum of 52 million dollars, the highest amount of research funding to date for WUR, the Bill and Melinda Gates Foundation was the main donor.
- The project introduced farmers to nitrogen-fixing crops such as beans, chickpeas and soya. These crops fix nitrogen from the air in symbiosis with soil bacteria. N2Africa produced the inoculants for these bacteria.
- N2Africa first researched the need for vegetables, the climate and the soils in the 11 African countries, and sought collaboration with dozens of local partners to improve the vegetable supply.
- The main bottleneck was the poor agricultural infrastructure. The vegetable seeds, inoculants and artificial fertilizer that the project supplied and tested were not widely available in rural Africa. And sales outlets for the vegetables were poorly developed.
- N2Africa was a collaboration between Wageningen University and numerous African partners, with the Wageningen alumni network playing an important role. Five of the 11 project coordinators in Africa were WUR alumni.

▼ Ken Giller



### More information

<https://magazines.wur.nl/n2africa/welcome/>



▲ Roots of leguminous vegetables form nodules that are full of rhizobia.

turned out to be related to the way the plot had been treated in the past. This meant some fields had more micronutrients, potassium and magnesium available than others, and that influences the yield too. Secondly, the cocktail of good seeds, inoculants and phosphorus didn't work at all on about 10 per cent of the plots. 'Some soils were so exhausted that nothing would grow on them,' says Giller.

### MAGIC BLACK POWDER

But most of the farmers did benefit from the N2Africa formula. Many African farmers had never worked with the inoculants for nitrogen fixing before, and talked about a 'magic black powder'. They combined the inoculants with new fertilizers for vegetables that N2Africa developed with artificial fertilizer producers. Together with good management – good seed, early sowing, weeding – this produced distinctly higher yields and incomes.


### IMPACT

The funding from the Gates Foundation has stopped now, so N2Africa is over. But in a way, it is not, says Giller. 'If it is good, a crop or a practice spreads among the farmers.' He points to research by the Knowledge, Technology and Innovation chair group on the distribution of new seed in Africa. If a farmer gets hold of better seed, he passes it on to an average of 4.5 other

**'If it is good, a crop or a practice spreads among the farmers'**

farmers. 'Based on the 600,000 farmers we reached directly, the N2Africa method could reach up to 2.5 million African farmers.' And to add to that, says Giller, N2Africa worked with 30 to 40 local partners in every country, including national research centres, radio stations, and seed and artificial fertilizer producers. Those partners might continue to spread N2Africa's methods. 'If we want to measure the impact, we should take another look in five years' time.'

#### TAKING STOCK

So what has N2Africa done for the farmers? It's hard to say, says Giller. 'You can look at the farmers' incomes, but we can't influence food prices. Soya prices went down on the world market in recent years, so companies dumped soya in Africa and African farmers got less for their crops. We are talking to policymakers in Tanzania and Ethiopia about how they could promote local soya production. Currently, a lot of soya is imported from Argentina as chickenfeed. We are looking to set up a regional supply chain for soya and talking to the feed providers about the quality and price they want. In that regard, we are still working on N2Africa.' 

#### 'N2AFRICA'S CLAIMS ARE TRUE'

The Institute of Development Studies (IDS) in the UK has evaluated the claims made by the N2Africa project. On the basis of interviews with small-scale African farmers, the IDS assessed whether they had benefitted from the project. The evaluation report, published on 9 December, concentrated on the activities in Ethiopia and Ghana. The IDS reported that N2Africa made a relevant contribution to expanding soya cultivation in northern Ghana by providing technical improvements for soya cultivation. The project only played a small role in the expansion of soya cultivation in Ghana, however, said IDS. In Ethiopia, N2Africa made a key contribution to the production and supply of inoculants and to making farmers more aware of these nitrogen-fixing bacteria. The one minus point here was that the project only managed to reach a small segment of the potential market in Ethiopia.



▲ Women winnowing soybeans in North Kivu, DR Congo.

# WHAT SHOULD WUR DO ABOUT THE CLIMATE CRISIS?

Although we are not all going on hunger strike or blocking roundabouts, climate change is a big concern for most Wageningers, and many have an uneasy feeling that WUR should be doing more. But what?

text Milou van der Horst, Nicole van 't Woud Hofland, Coretta Jongeling illustration Henk van Ruitenbeek

## Bob Mulder



**Associate professor of Strategic Communication**

'WUR is first and foremost a knowledge institution, so clear and transparent communication about our climate knowledge should come first.

**The problem is that the climate debate is polarized, with those for and against accusing each other of lies and manipulating the public.** So for WUR to be able to communicate honestly and openly, it is essential for it to develop a central vision and a communication strategy around the climate issue, clarifying WUR's position and the terms we use. Take "climate crisis" for a start. Activists use this word to emphasize the urgency of the problem and the need to take action now, but the term also leads to accusations of hysteria and sowing fear. A shared vision would also support individual climate scientists in their communication. They sometimes get attacked verbally or even threatened by climate change deniers. Understandably, that makes some scientists hesitate to speak out.'

## Karolina Wachala



**Second-year BSc student of Animal Sciences**

**'I notice that we focus a lot on productivity: how can we earn more money or produce more food?'** We learn that ecological problems come about during the production of food and feed, but we don't learn how we can address them. I think it would be good to learn more about that as part of our studies, and

to include this aspect in every course. I also think WUR could participate more actively in awareness-raising campaigns on climate change. WUR could organize things like a climate awareness day, outdoor activities or poster campaigns.'

## Annemieke Sweere



**Front-office worker in the WUR library**

'I think WUR should play a leading role in the public debate on climate. But a more active role, by proclaiming a climate emergency for instance, probably won't contribute very much to a solution, as the term emergency is no more than a political symbol. **Besides taking the lead in debates, we at WUR should also seek solutions close to home.** Wageningen may have been declared the world's most sustainable university, but there is room for improvement. The temperature in the Forum could be a few degrees lower, and the use of plastic on the campus could be reduced a lot. I would like to see no more plastic cups coming out of the coffee machines, and everyone bringing their own mugs.'

## Lex van het Hof



**Fourth-year BSc student of Forest and Nature Management**

'WUR is one of the greenest universities in the Netherlands and I think that comes with a responsibility to work to combat climate change through research, policy and influ-

encing. I would like to see the government making more policy decisions based on the research that is done here. **As far as I'm concerned, WUR's political influence could be bigger, so that more decisions are taken on the basis of independent science.** I'm sure Wageningen does have some influence, but it is not transparent about it. So doubts remain about how it uses its influence and whether it does so for the benefit of the climate. Here we are all convinced that the climate must be improved, but of course there are a lot more people living in the Netherlands.'

## Marlies van den Nieuwenhof



### Student doing Minor in Animal Sciences

'WUR has done quite a lot of research on climate change, I think, but it's good to know what you can actually do about it yourself. And not just for WUR people but for everyone – both in the Netherlands and in the rest of the world. **I think WUR could spread that kind of awareness through students, because they are young and can communicate practical solutions to friends and the next generation.** I also think WUR itself could do more in practical terms. By serving less meat in the canteens, for example – at the moment only one day a week is meat-free – and by stimulating staff and students to use public transport more by working towards better connections between Ede-Wageningen station and the campus. Because I've heard that a lot of students who live elsewhere come to campus by car because the public transport connections are so terrible.'

## Matthijs Dekker



### Associate professor of Food Quality and Design

'WUR does a lot of research on climate and climate-smart solutions. As a university, we should do more with that knowledge. **I think WUR has a public duty to issue warnings about the climate.** Not just as a political statement, but on the basis of solid research. As well as that, we should of course set a good example. The university could do better in that regard. I see very few solar panels on the campus, for instance.'

## Maarten Voors



### Researcher in the Development Economics chair group

'We could quite easily be more sustainable on one point, and that is travelling to conferences. Sometimes you have to go somewhere at short notice, but **if there is no great**



**hurry, you can often go by train instead of by plane.** I am already trying to do that myself. My personal limit is 12 hours travelling time. If it takes longer than that, I do fly. It would help a lot if WUR stimulated this; now it's just up to the researcher. We could make it a policy to travel relatively short distances by train. That could be an inspiring example for other universities and research institutes too.'

③

# XR meets EB

On 13 January, the moment that Extinction Rebellion (XR) had spent so long pushing for finally arrived: a dialogue with a representative of WUR's Executive Board.

text Luuk Zegers photos Aldo Allesie

In a packed Spot, students Malik Dasoo and Kamiel Verhelst (both XR) discussed WUR's role in the climate crisis with rector magnificus Arthur Mol. The discussion was moderated by Simone Ritzer (Wageningen Dialogues). It centred on some propositions.

## 1. WUR must declare a climate emergency

**Dasoo:** 'If you have a problem, the first step is acknowledging you have a problem. By declaring a climate emergency, WUR would be acknowledging the crisis situation we find ourselves in. And it would be a strong call for action.'

**Mol:** 'WUR is a research and education

organization. Our legitimacy and authority come from the fact that we do research, find evidence and communicate that to the outside world. We do not take positions in debates, for that is not our role; we are not an action group like Extinction Rebellion.'

**Dasoo:** 'WUR professors were involved in the last special IPCC report on climate change. These professors have publicly stated that we are in a climate emergency. If you stand behind the evidence that your professors published, why is it so controversial to make a statement about the climate emergency?'

**Mol:** 'I know that some professors are in favour of declaring a climate emergency. I also know some professors are against it. There is space for both opinions. The Executive Board making a statement on behalf of the entire organization would be one step too far. It would damage our

authority as an independent research institution.

So individuals in our organization can do this, but as an institution, we can't.'

**Verhelst:** 'I think it is a bit naive to say that as WUR you can't make statements. Hanging up a rainbow flag is also a statement.'

**Mol:** 'We make our statements through the research we do and the education we give. We feed the debate with fact-based research. That is our role. Therefore I would never declare — as WUR — that we're in a climate emergency. I am not against calling it an emergency, but it is not the role of this institution. Doing that would put us a difficult position as an evidence-based authority. We might lose our credibility and authority. It is important to consider that trade-off. Also, by using the word "emergency" you suggest that rules should be set aside to





resolve it. What kind of trade-offs do we want to make? Do we want to give up democracy? Do we want to give up certain legitimacies that we're very proud of? And are we able to maintain sufficient support if we did this?'

## 2. WUR should actively involve students and staff in shaping its climate policy (and other policies)

**Verhelst:** 'The traditional approach to democracy is old-fashioned and not up to dealing with the climate crisis we're in. That also goes up for this university. We think that WUR should make an effort to increase participation. Not just by having a Student Council that students can go to, but also by actively seeking out any opinions and issues that might be out there. By creating an atmosphere in which the people of the WUR community feel like they are making policy *with the community*, instead of just passing things decided at the higher levels.'

**Dasoo:** 'Most students I've talked to have no clue what the Student Council does. The communication about it is so opaque. We just get an email that tells us to vote. We need active participation and a more democratic atmosphere. We want WUR to actually get the students involved.'

**Mol:** 'I agree that it is very important to have wide participation and that there is room

for improvement — there always is. If you can help us find new mechanisms to increase the participation, I would applaud that. So I'm willing to discuss that further. But I do think that our councils are very valuable. I certainly don't want to get rid of them, even though it would make my job a lot easier.'

## 3. WUR should communicate better about the urgency, extent and severity of the climate crisis

**Verhelst:** 'As a student, it does not feel like WUR is treating climate change as a priority issue. We looked at the last 100 events hosted by WUR. Only five of them had an explicit link with climate change.'

**Ritzer:** 'Is that maybe also an invitation for the organizations, students, professors and employees in this room to do something about it?'


**Dasoo:** 'Not really, because I don't feel it's fair to say WUR's off the hook because XR, Studium Generale, Impulse, RUW and Otherwise are already organizing events about this topic.'

**Ritzer:** 'Actually, these organizations are funded by the university because WUR thinks that these critical students should highlight things that we, as a university, are blind to.'

**Dasoo:** 'It is good that WUR funds these organizations, but my question really is:

what does WUR do at an executive level to make climate change communication a strategic priority? So not just externalize it by funding other organizations, but how does the university itself make it a priority?'

**Mol:** 'I think that we are already doing a lot on climate change at an executive level. But the question whether we communicate enough about it is very interesting. Maybe we take it for granted that our community knows about the climate crisis. But are we communicating enough to the outside world? Who here knows that WUR has a wind farm, or that we are almost 100 per cent self-sufficient with renewable energy for electricity? I do think that we can communicate these things better.'

**Verhelst:** 'We found a trend in WUR's climate change communication: it portrays the climate crisis as something that can be fixed with technology. We strongly disagree with that. So it's nice that you want to communicate about how many wind turbines you have. But what we really need WUR to do is to facilitate two-way communication: a dialogue. Discussions about going carbon neutral or stimulating a certain type of behaviour among staff and students.' 

**After the dialogue, students and staff continued the discussion. On Resource-online.nl we look back on this discussion with dialogue moderator Simone Ritzer and Kamiel Verhelst from Extinction Rebellion.**



## IN OTHER NEWS

### LIARS

Men think they are better liars than women. And the best liars are found among smooth talkers. This came out of British/Dutch research at the University of Maastricht. The commonest strategy is to omit information. Good liars stay close to the truth, thus making the lie as plausible as possible. And watch out at home, particularly – we tell the most lies within the family.

### MUSICAL

Thirteen core feelings are enough to describe all imaginable music, say researchers at the University of California after a study in America and China. The 13 feelings are pleasure, happiness, eroticism, beauty, relaxation, sadness, dreaminess, triumph, concern, anxiety, irritation, rebelliousness and excitability. Music evokes a mixture of these feelings. It boils down to two responses though: 'nice' or 'noise'.

### FAT (1)

A constant supply of high-calorie food automatically leads to obesity, shows research on mice at the University of Virginia. High-calorie food not only stimulates the pleasure centre in the brain (through dopamine) but it also disturbs the normal rhythm of eating and resting the stomach. Without that stimulus, mice keep to their usual eating habits, even if a balanced diet is plentifully available. Seems eating more makes you eat even more.

### FAT (2)

But that is not all. High-calorie food that mice eat outside normal meal-times piles on the fat even more than the same food eaten during regular meals. The researchers think these additional calories are converted into body fat faster. So the obesity spiral goes into overdrive. Calorific food makes you eat more, and even more so if you snack between meals. A weighty problem for the mice.



# No new appointments with student psychologist

**It is temporarily not possible for students to make an appointment with the student psychologist. With the team of student psychologists understaffed, the waiting list has become too long. The freeze is expected to last until the end of January.**

The student psychologists have agreed with study advisers and deans that they will always be available for urgent cases, while all other cases will be referred to their GPs. In life-threatening situations, the best thing is of course to call 112.

For urgent or quick questions on psychological or social problems, students can always go along to the walk-in sessions in the Forum (room 030).

These sessions take place during the lunch hour between 13:00 and 14:00. The aim of the walk-in is to provide an accessible way for students to tell their story and get advice. The walk-ins currently take place from Tuesday to Friday every week.

### LONG WAITING LIST

The waiting list grew long because towards the end of 2019, the team of student psychologists was not fully staffed, whereas the number of requests for appointments grew, partly as a result of the Surf you Stress week. 'When there were 100 students on the waiting list, we said: stop, this is not on. Do we give people the impression we can help them if it takes more than eight weeks before they can be seen? So

we closed for new appointments and took other steps,' says Door van der Sloot, student welfare manager at the Student Service Centre.

### EXTRA CAPACITY

Meanwhile, two new student psychologists have been appointed who will start work in mid-February and March. This will bring the team from 3.2 to 4.8 FTEs (fulltime equivalent), divided over six psychologists. Freelance therapists have also been hired temporarily, which has helped cut the waiting list to 60 students. There are also plans for a training centre for students which will offer

**'When there were 100 students on the waiting list, we said: stop, this is not on'**

courses on stress management, fear of failure, procrastination and how to organize your work. 'We expect it to be launched in May or June but we are going to offer the courses before that. I expect that will reduce the pressure on the student psychologists somewhat.' Van der Sloot expects it to be possible to make an appointment again from the beginning of February.' **LZ**



# WUR's first EU student ambassador

**As WUR's first student ambassador for the European Union, Barris Steenhorst (21), a third-year student of Economics and Policy, wants to show that there are plenty of career opportunities for WUR students at the EU. 'WUR students stand a good chance, especially on the topic of sustainability.'**

The EU has had student ambassadors at universities for years, says Steenhorst, and the aim is for every European university to have one. 'I heard about this job through Student Career Services. As a student of Economics and Policy I always thought policy was a bit dry. Until I saw this vacancy and realized how much impact EU policy can have, with its immediate effect on 500 million people. That appealed to me a lot. I applied, did an online assessment and got the job.'

## INTERNSHIPS, TRAINEESHIPS AND JOBS

At the start of his term as ambassador,

Steenhorst went to Brussels for a training weekend for student ambassadors from all over the EU. 'It was about what was expected of us, procedures and the history of the EU. But the main aim was really to fire us with enthusiasm for getting started. There isn't a fixed set of tasks, so there is a lot of freedom to do the job your own way, as long as you are working on promoting career opportunities with the EU in the areas of internships, traineeships and jobs,' says Steenhorst.

## PLANS

One of the ways in which Steenhorst wants to do this is by starting annual EU careers events. 'I want to do that together with Student Career Services. I am also working on developing a job description for this job for future years, because I will hand over to my successor in July.' The application process for the post of EU student ambassador for the academic year 2020-2021 starts in February. **LZ, GvZ**



Questions about career opportunities at the EU? Send an email to Barris Steenhorst at [eucareers.wur@gmail.com](mailto:eucareers.wur@gmail.com)

## MEANWHILE IN... AUSTRALIA

### 'People feel like not enough is being done'

**Bushfires are ravaging large parts of Australia and have killed at least 28 people and half a billion animals. Sirui Ye (20), a Bachelor's student of Environmental Sciences on exchange in Wageningen, reflects on the current situation.**

'We have bushfires in Australia every year, but not on this scale. This is unprecedented. The spring and summer are extremely dry and in combination with the strong winds, the fires spread rapidly. The vegetation is also very inflammable. There are many eucalyptus trees for example, which contain a lot of oil.

By now, thousands of homes have been destroyed by the flames. Half a billion animals have been killed. The government has started killing thousands of camels because they are damaging buildings while looking for water in residential areas. The air quality in big cities like Melbourne, Sydney and especially Brisbane is terrible. One of my friends in Melbourne told me that if you want to go outside, you have to wear a mask. My home university sent out an emergency email last

week, warning their students to be careful. The situation is just crazy. The firefighters are having a really



PHOTO: SHUTTERSTOCK

tough time. Most of them are volunteers. Recently one of the firefighters died trying to extinguish the flames. They gave a medal of honour to his son at his funeral. People wonder why the army is not in the frontline, but for them it is more dangerous, as they are not trained firefighters. But they do help with evacuating people. There is a lot of criticism of the government. People feel like not enough is being done. My friends and I have been going around collecting donations, because raising money is better than criticizing the government and waiting for them to do something. It is good to see how people all over the world are trying to help out. Many organizations are in need of funds, from Koalas in Care to the Red Cross to the fire departments. To see how you can help these organizations, go to [bit.ly/2R9Pjvm](http://bit.ly/2R9Pjvm). **LZ**



University of Melbourne student Sirui Ye (20), who is on exchange in Wageningen, shares her view on the situation in Australia.

# YOU ON CAMPUS

**Timon Lindeboom enjoyed his Christmas holiday but hasn't exactly returned to Wageningen rested.**

'Christmas consists mainly of seeing family,' says the MSc student of Biotechnology. That means spending a lot of long evenings catching up and trying to explain what he is actually doing at university. Nevertheless, seeing his family is what Timon most looks forward to every year. 'I am very close to my four nephews in particular.'

For Christmas dinner, every member of the family cooks a different part of the meal, although Timon has another important role to play. 'I have to help my mother not to get too stressed. While she tears around the house like a tornado, making sure everything runs smoothly, I try to relieve her of as many tasks as possible. She'll be working on five things at

once and then she'll notice that the bin is full or one of the snacks needs heating up. So I try and get there before her, so that she can enjoy Christmas herself a little bit.'

For a few years, Timon and his sister have had a new December tradition: the Christmas

**'Rumour has it that the AIVD offers you a job straightaway if you get all the answers right'**

puzzle published by the AIVD (the General Intelligence and Security Service). 'My sister introduced it at some point, and I'm not sure I thank her for that. It's practically impossible to answer all the questions correctly. Rumour

has it that the AIVD offers you a job straightaway if you do manage it.' He needs a bit of help from his family to answer even the introduction questions, which Timon thinks are intended to give puzzlers false hopes.

'So you think you are at university and must be quite smart, but staring at the puzzle you soon realize how very little you really know.

I think I could answer about three of the 30 questions this year.' But Timon hasn't made a resolution to improve that score next year. What he does want to do in 2020 is play his guitar more. 'I know where my talent lies.' **IC**



## 'Turned out it had all been flushed down the toilet'

### DIARY OF A CARETAKER

Eugene van Meteren works for Idealis as a caretaker. He writes about his experiences for *Resource*. You can read all his columns on [resource-online.nl](http://resource-online.nl).

**As an Idealis caretaker, Eugene van Meteren encounters his fair share of funny smells. But there was something very fishy about this one.**

Early one morning I got a call from a mechanic. 'Eugene, can you pop over here? I'm doing a spot check in a room and I'm seeing things that don't belong here.' I decided to go round straightaway and asked my colleague to go with me. On arrival we were met by a penetrating smell. I opened the door and we went in together. It was immediately clear what was causing the smell. The room was full of dozens of cannabis plants, there were several

heat lamps hanging from the ceiling and on the desk I could see at least 10 glass jars of dried weed ready for sale. I felt like I was on the set of *Pulp Fiction*.

Given the seriousness of the situation, we decided to phone the police.

We waited for them outside the building. After half an hour I glanced up at the room on the first floor where we had just been, and saw the curtains move.

We ran back to the room, the door of which was now ajar. I knocked and a young man appeared at the door. 'What are you doing here?' he asked. I explained the situation and asked if we could come in. The irritated resident blocked the door but after some discussion decided to let us in. The whole room had been turned upside down, there was mess everywhere but to my

**'I felt like I was on the set of *Pulp Fiction*'**

astonishment, not a trace of cannabis. I told him what we had seen half an hour ago. At first he denied it – until my colleague showed him the photos on his mobile phone.

Meanwhile, two policemen had arrived and took over from us professionally. It turned out that while we were waiting for the police, the resident of the room had moved all the plants to another room and flushed the whole lot down the toilet. I have to hand it to him – it was a very creative attempt to get out of a tight corner. **IC**



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.

# 'A different village every day'

'Last November I went to the Dodoma region in Tanzania to do research on an agroforestry project, Farmer-Managed Natural Regeneration (FMNR). To put it briefly, farmers allow felled trees on their land to sprout and grow back again. The Swahili term for this is *kasaki hai*, meaning living stump. It is a fairly dry area, and agroforestry can ensure that the soil retains more moisture and can prevent erosion. Natural regeneration works better in this area than planting new trees, because those often die. My research was part of the monitoring and evaluation programme for this project.

## MULTIFUNCTIONAL TREES



I was mainly involved in the ecological part of the research. I would go to the farmer's land and look to see what trees were on each plot. How were they doing? Were they growing well? Meanwhile, my colleagues interviewed the farmers about how they dealt with the trees, what they used them for and how they assessed the quality of a particular species. Some trees have fruit, others are used as animal feed, firewood or for traditional medicine. Eventually I would like to link the data from the farmers to my own measurements.

## LONG DAYS

I already knew Tanzania, as I'd been here before to travel and do voluntary work. Which was probably a good thing, because this time round I had no time for trips at all. The Dodoma region is as big as the Netherlands and we worked in a different village every day. The working hours were long, often 12 to 14 hours a day. We got up around six a.m., did research in the

morning and drove all the way back after lunch. Then we spent another two to three hours processing the samples we had taken from the trees. I got heatstroke once; I had worked too long and hadn't eaten or drunk anything until very late. But the work had to be finished so I still surveyed every tree, staying in the shade as much as possible.

## BEER IN THE HOSTEL

In the three weeks that we were there we had two days off, and we actually worked on those days as well. Of course sometimes we had a beer in the hostel, but we didn't really have time to relax. But it's still a happy memory for me. I saw a lot of the area and visited many different places. Each village has a different way of farming and their own customs. What I did have to get used to was that it took a long time sometimes before we could get started. In England, where I'm from, we work a bit more efficiently. Here we sometimes had to wait while all sorts of things were being discussed. I do speak some Swahili, but not enough to understand what the problem was.'  

## THE WORKS

**Who?** Eleanor Moore (25), Forest and Nature Conservation Master's student  
**What?** Research for Master's thesis  
**Where?** Dodoma, Tanzania

Do you too have a nice story about your internship or thesis research abroad?  
 Email [resource@wur.nl](mailto:resource@wur.nl)



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Prof. John van Opstal (RU, Donders Institute)

Partners:  
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## Announcements

### Brightspace Advanced Training - January & February 2020

Now the kick-off is well behind us, we've created the following Advanced Training courses to build on your basic Brightspace skills: Tips & Tricks, Grades, How to Copy a Course, Manage Groups, and Assessments. Please join us and we'll help you – hands-on – to optimize your course. Let's get the most out of the available educational possibilities! These training courses will be given throughout January and February. Please check the dates and register via: <https://esd.crs.wur.nl/>.

## Agenda

Thursday 16 to 30 January

### SHOWING AT MOVIE W

*Marianne & Leonard*: Words of Love: British documentary about the relationship between Leonard Cohen and his muse Marianne. *Marriage Story*: American tragicomedy about the bitter divorce of a theatre director and an actress. *For Sama*: Syrian documentary about a doctor and a young journalist who fall in love in the middle of the war and have a baby. 'Movies That Matter': *Ghost Fleet*, a documentary about modern slavery in Thailand. There will be a debate afterwards. Venue: Wilhelminaweg 3A, Wageningen. €6.50/€5.

MOVIE-W.NL

Monday 20 January, 20:00

### STUDIUM GENERALE LECTURE SERIES: CHANGING FOOD TRADITIONS IN THE PAMIR MOUNTAINS

The Pamiri people in Tajikistan and Afghanistan are among the world's most isolated communities. The documentary *Wisdom of the Mountains* will be screened; it follows ethnobiologist Frederik van Oudenhoven on a trip through the region. How do ethnobotanical insights challenge conventional development paradigms? Join the discussion about what this means for the relationship between development and biological and cultural diversity. What could be

done to better reconcile values of progress, autonomy and diversity? Venue: Impulse.

Tuesday 21 January, 12:30-13:20

### WAGENINGEN WRITING LAB LUNCH WORKSHOP 'OPTIMIZE YOUR PERSONAL WRITING STYLE'

In this workshop, you will discover your personal writing style (how you approach the writing process). You will find out about typical pitfalls and how to avoid them. We will get you practicing some techniques that will help you to make the most of your writing style in current and future writing assignments. Free admission. Be on time, as participant numbers are limited to 20. Venue: Forum C0656. Info: [info.wageningenwritingLab@wur.nl](mailto:info.wageningenwritingLab@wur.nl)

Thursday 23 January, 20:00

### STUDIUM GENERALE LECTURE SERIES: 'NATURE-INSPIRED MEDICINE'

How can the pharmaceutical world be revamped now drug development is stalling? It is becoming increasingly difficult for Big Pharma to develop new compounds, as medicines are available for most common diseases and the costs of developing a novel drug are very high. At the same time, about 80 per cent of the world population is dependent on traditional medicine for their primary healthcare. How can new technologies help to explore the biological mechanisms of traditional medicines? Venue: Impulse.

Tuesday 28 January, 12:30-13:20

### WAGENINGEN WRITING LAB LUNCH WORKSHOP 'OPTIMIZING YOUR TEXT'

It is a myth that a well-written text is written in one go — revising is crucial! At first you concentrate fully on the content of your text, and only in the second step on all the other aspects of academic writing. We'll offer you practical strategies for revising your text. Do bring the draft version of your text with you. Free admission. Be on time, as participant numbers are limited to 20. Venue: Forum Library, room 259. Info: [info.wageningenwritingLab@wur.nl](mailto:info.wageningenwritingLab@wur.nl)

## Colophon

*Resource* is the independent medium for students and staff at Wageningen University & Research. *Resource* reports and interprets the news and gives the background. New articles are posted daily on resource-online.nl. The magazine is published every fortnight on Thursday.

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## In memoriam

**Louis Dekker**

On 20 November 2019, the former ESG employee Dr Louis Dekker passed away at the age of 80 after a brief illness. Louis spent a total of 47 and a half years working for Wageningen, first at Stiboka, then at the DLO's Staring Centre and finally at Alterra.

Louis obtained his doctorate in 1998. After he retired in 2004, he worked as a guest staff member at Alterra and subsequently, from 2012, in the Soil Physics and Land Management chair group. His many years of experience made Louis a walking encyclopaedia on Dutch soil science and the go-to man for many colleagues with questions. This was the result of his soil mapping activities between 1956 and the mid-1970s. Many colleagues remember Louis bringing back cartloads of soil samples from long days in the field. These vast

numbers of samples, often from a single field or plot, brought many new insights in soil science. That included a better understanding of water flows in shrinking and swelling clay soils and of the behaviour of water-repellent soils, which brought Louis worldwide fame in the soil science community. He published articles in around 45 different scientific journals and his work is currently cited on an almost daily basis by researchers around the world.

Louis was a unique person, a highly motivated and successful scientist, an inspirational and amusing colleague and a leading figure in soil science. We will miss his knowledge, willingness to help and sense of humour, not just as a colleague but also as a friend.

*Coen Ritsema, on behalf of the Soil Physics and Land Management (SLM) group*

## In memoriam

**Jan Willem te Kloeze**

Jan Willem te Kloeze, a retired WUR lecturer in Family and Leisure Sociology, passed away on 16 December 2019 at the age of 74. Jan Willem studied Social Geography at Utrecht University, but broke off his studies there in 1967 to become a research assistant at the Sociology and Sociography department in Wageningen, working for professor of Sociography Willem Hofstee. Another professor, Gerrit Kooy, inspired Jan Willem's interest in family sociology.

In the 1970s, a Recreation track was created within the Sociology and Land Use Planning. In 1985, this led to establishment of the interdisciplinary Recreation Work Group, in which Jan Willem played a prominent role. In his teaching, interviewing methods and techniques, and in the field of Recreation, he stood out for his personal approach to students. In 2000, the Master's programme in Leisure, Tourism and Environment grew out of collaboration between Wageningen University and the

World Leisure Centre of Excellence (WLCE). Jan Willem was the lynchpin in the reception and supervision of international students. After taking early retirement, he continued to support WLCE on a daily basis. He was an active member of the Dutch-Flemish Association for the Leisure Sectors and for years was secretary of the International Tourism Research Committee (RC50) of the International Sociological Association.

Jan Willem was a socially active person, who combined idealistic views on humanity and nature with a liberal Christian vision. Our sympathies are with his wife, children and grandchildren, and we wish them strength in bearing this great loss.

*Jaap Lengkeek, emeritus professor of Social-spatial Analysis  
René van der Duim, personal professor of Tourism and Sustainable Development*

## In memoriam

**Dr. M.M. (Marinus) van Krimpen**

It was with great sorrow that we heard on 31 December of the sudden death of our dear colleague Marinus van Krimpen, from an acute bacterial infection. Marinus had worked as a Senior Researcher in poultry and pig nutrition at Wageningen Livestock Research

(and its predecessors) since 1999. He started out as a 'pig man' but from the start of his doctoral research (he got his PhD in 2008), he developed into a poultry specialist. He was skilled, full of initiative and highly committed. Marinus represented Wageningen University & Research in numerous working groups at home and abroad – both academic forums and collaborations with industry. But Marinus was also very attentive to his colleagues – friendly, helpful and always respectful.

Marinus was always ready to help you, solved problems for you promptly, never forgot an appointment, and made sure others didn't forget it either. A lot of colleagues have worked with Marinus. They are in shock and grief at the loss of so sympathetic a colleague. We have set up a quiet commemorative corner for Marinus in Zodiac where we can share our memories and our grief.

In Marinus we have lost a dear and fine colleague and friend, and our heartfelt sympathies are with his wife Gerda, his children and all his family. We wish them comfort and strength in their great loss.

*On behalf of all our colleagues at Wageningen Livestock Research and the Department of Animal Sciences at Wageningen University, Gert van Duinkerken and René Kwakkel*

# >>TYPICAL DUTCH



## The firm handshake

**I have been in the Netherlands for a while now. In my opinion it's one of the friendliest and most welcoming countries in the world. Having been in groups, lecture rooms and church and living with a few indigenous Dutch, I can conclude that a Dutch person will typically give you an infectious smile on a first meeting, even if they don't know you well. But there is one strange thing about their handshakes.**

Dutch smiles are mostly accompanied with a very firm and serious handshake. I recently started my thesis and when I was introduced to the first lady in my group, she stood up, cooked a nice smile but then took my hand with an iron grip. I was surprised as I thought it was only their male counterparts who usually introduce themselves with this kind of handshake.

Concentrating on the Dutch handshakes might make you feel unwelcome, but don't worry: just focus on their smiles and kindness. It makes up for everything and that brings relief.

**📍 Bright Amoah, an MSc Biotechnology student from Ghana**

**'The Dutch smiles are mostly accompanied with a very firm and serious handshake'**

*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](mailto:resource@wur.nl) and earn 25 euros and Dutch candy.*