

Low score

Marine Research staff are dissatisfied | **p.4** |

Bright and fresh

PhD researcher creates ideal chrysanthemum | **p.18** |

Student Trade Union

New Student Alliance brings back old times | **p.26** |

RESOURCE ^[EN]

For everyone at Wageningen University & Research

no 8 – 24 November 2016 – 11th Volume



How Sierra Leone beat ebola

p.12

>> COK + SINTERKLAAS

Cok Mentink, facilities staff member, Leeuwenborch

'I enjoy the house visits most'

He's an actor at heart. Cok Mentink drops in on complete strangers as Sinterklaas, his alter ego. A seasonal labourer with a soft spot for kids. He can be hired through devriend-vaniederkind.nl. 'We are turning into something of an organization.' On 4 and 5 December Cok, alias Klaas, is out and about all day.  RK / photo: Harmen de Jong

>> CONTENTS

no 8 – 11th volume



>> **6**

LEGACY

Nutrition researcher leaves
2 million to WUR



>> **14**

STAR PLAYERS

What gets key genes into
'scoring position'?



>> **25**

POWERFUL

MSc student Iris off to
powerlifting World Cup

AND MORE...

- 4 Research on zika virus
- 6 'Wageningen bottle deposit study ethical'
- 7 MP makes use of fine particle study
- 9 Indicators for successful stunning
- 10 Flat oyster is back
- 20 When it hurts to type
- 22 Has the campus got livelier?
- 24 Student requests vegan recipes
- 27 Meanwhile in India

ONE CASE, TWO VERDICTS

Is it possible in scientific research for the truth to lie somewhere in the middle? I have been following the dispute between WUR and the daily paper *Trouw* with amazement over the past few days. *Trouw* wrote that the WUR study on bottle deposits had been steered towards previously agreed results. WUR denies this. The case has been going on for years and now two verdicts were pronounced on the same day. The first came from the National Board on Research Integrity (LOWI), which declared that the study on bottle deposits had been conducted correctly. Unfortunately, and I can't see why, the basis of this verdict will only be published in a few months' time. But according to this verdict, *Trouw* got it wrong. Two days later the Amsterdam court handed down a verdict on the same study. WUR had demanded damages for the allegations of results-fixing made by a *Trouw* journalist. The court thinks these allegations were unfortunate but believes the journalist is within his rights to stick to his opinion. So is this about appearances, suggestiveness, emphases, nuances, or loss of face? One case, two verdicts. The truth cannot of course lie somewhere in the middle, and this will not be the last word on the matter.

Edwin van Laar



>> [Morphing tick evades control | p.8](#)

MARINE RESEARCHERS VERY DISSATISFIED

- Staff monitor reflects positive image of WUR
- Only Marine Research scores below par

The staff at Wageningen Marine Research (formerly Imares) are dissatisfied, the latest 'Staff monitor' survey reveals. The results of the survey are generally positive across the board (see box). But Marine Research scores below average. Almost half the marine researchers say they do not feel committed or passionate and lack enthusiasm for the work and the organization.

Peter van der Kamp, chair of Marine Research's staff council, blames the low score on the reorganization. In response to poor financial results, the working approach and structure of the organization were radically overhauled over the past year. He stops short of calling the score in the Monitor revenge. 'That is going too far. But I can't deny that there is great dissatisfaction. The staff do not agree with the decisions that have been taken and they want to make themselves heard.'



Marine Research staff at the official opening of their new building in Den Helder on 23 September.

Director Tamma Bult points likewise to the reorganization and the new working method, which gives employees much more responsibility. 'The staff haven't got used to that yet. And that is reflected in the monitor too.' According to Bult, the results of the monitor are in line with what has been said in meetings with some of the staff, held over recent months.

Reports on those sessions on the intranet show that there have been reorganization troubles. It is not always clear who is responsible

for what, and staff feel there is too strong a focus on the main location in Den Helder. They also feel a need for more care and attention from management, which is too distant. That criticism is expressed in the monitor in the form of low scores for the management (5.5), the efficiency of the organization (5.3) and satisfaction (a bare 6).

The management takes the criticism to heart. Bult says a plan of action has already been drawn up. A key element in the plan, which will be presented at the New Year

gathering, is more personal attention for staff. Staff council chair Van der Kamp also thinks the management should engage in further dialogue with the staff. 'I am going to push for a committee that will study the results of the monitor and come up with recommendations.' **RK**

WUR SCORES 7 OUT OF 10

With the exception of the marine researchers, staff at Wageningen University & Research are very satisfied with their own organization. This is apparent from the Staff Monitor which was filled in this year by more than 3000 staff (59 percent, a record). They are satisfied with their work (7.6), they enjoy it (7.6), they are proud of what they do (7.8) and they believe it is useful (7.9). Overall WUR scores 7 as an employer, 10 percent more than two years ago. Only the One Wageningen idea is not yet experienced on the work floor: the collaboration between different parts of the organization scores 4.9. And 43 percent of the employees think the work pressure is too high.

PREPARING MOSQUITOES

Giel Göertz of the Laboratory for Virology and Chantal Vogels of the Laboratory for Entomology prepare mosquitoes for research on zika. Göertz knocks the mosquitoes out with CO₂ and removes their wings and legs so they cannot fly or walk away. Vogels places their piercing mouthparts into the end of a pipette. Once these preparations have been made, 100 of the mosquitoes will be fed blood infected with zika, another 100 will get blood with chikungunya and a further 100, blood with both viruses. Then the mosquitoes' saliva will be tested. The researchers want to know whether the viruses reinforce or weaken each other. They hope to find an explanation for the zika epidemic in Latin America. The study takes place in a highly secure lab in Radix. **AS**



FOTO: ATHOS SILVA DE OLIVEIRA

MBA FOR MANAGERS IN AGROFOOD

• Part-time management programme starts in September 2017

Wageningen University & Research and the TIAS Business School in Tilburg plan to launch a Master of Business Administration (MBA) degree programme in the field of food and the agro-industry. This two-year part-time management programme will start in September 2017. The new pro-

gramme is for agrofood managers with at least five years' experience, says Miel Hooijdonk of Wageningen Academy. 'People for example who graduated in plant breeding and went on to a management job in a company, but never had any training for that role.'

The programme costs 45,000 euros and will be run mainly in Tilburg. The participants will get together once a month for three days to discuss business cases and their own projects. The course will

take on 50 students and will be taught by Tilburg and Wageningen academics, with input too from business managers.

Wageningen Academy stated in a press release that this is the first agrofood-related MBA in the Netherlands, but that is not quite true. Wageningen Business School, Wageningen Academy's predecessor, set up a similar MBA together with Aarhus University in Denmark. It was not a success and no longer exists. **AS**

© COLUMN | STIJN

The Dutch

So there I was, up a mountain and unprepared. Because I had to spend the past few months counting aphids, my summer holiday was somewhat delayed. But now, after working for a week with a Spanish research group, I am on holiday at last. My Spanish colleagues praised the Dutch export of expertise. 'The Dutch are everywhere and everyone knows them.' I heard it with pride. But now I'm on holiday. Ahead of me walks a stocky, athletically built man with a dog. I have trouble keeping up with him and sometimes have to run a bit. 'I could show you the mountains,' the man had said when I rented a room from him. I was surprised by his offer. My holiday house landlord is blind as a bat.

I look down, feeling slightly nauseous. 'This is a nice place for bouldering,' says my landlord, as his dog guides him along the ravine at speed. I watch open-mouthed as he steps nimbly over loose rocks. It turns out that my guide has been walking these mountains blind his whole life long: he partly earns his living from climbing competitions.

Hours later we begin the descent. 'This is always a boring bit,' comments my landlord as we reach the valley. Suddenly a tall man appears in front of us. A Dutchman. 'You can't see very well?' he asks, pointing at the white stick. 'I don't see anything. But this is my guide dog, and I guide him,' pointing at me. I nod. The Dutchman shakes his head. 'Be careful,' he said in a tone that implies that my guide is not just blind but mentally handicapped too. He informs me that he knows the area well and that 'this is really irresponsible'. 'Fuck off, fuck off!' I think as I smile and thank him for his expertise.

The Dutch get everywhere, and everyone knows them. **R**

Stijn van Gils (29) is doing doctoral research on ecosystem services in agriculture. Every month he describes his struggles with the scientific system.



PHOTO: AARTJAN VAN DE GLIND

in brief

>> KEUZEGIDS

Seventeen top BSc programmes

For the twelfth time in a row, Wageningen University & Research was pronounced the best university in the Netherlands by the student guide *Keuzegids Universiteiten*. The guide also declares 17 of Wageningen's 19 BSc degrees 'top programmes' – which is two more than last year. WUR's high scores can be put down to the personal, small-scale teaching it offers and its international character. Drawbacks of Wageningen mentioned by the guide are the low proportion of female professors and the lack of a railway station. **MF**

>> COURT OF AUDIT

Sent away

WUR, like the other Dutch universities, does not want to collaborate on a study by the Court of Audit of the role of the consultative bodies. The fear is that the study will be biased. The auditors want to know whether the consultative councils actually influence the universities' budgets, now that the government has given the councils more power. The universities see the point of the research but are indignant about the adopted approach. The Court of Audit intends to work with 'citizen auditors': members of the councils concerned are to carry out part of the study themselves. The universities do not think teachers and students on the councils can assess their own performance independently. **HOP**

>> STILL LEAVING HOME

Especially in Wageningen

Dutch students are still leaving home, with or without a basic grant. Especially Wageningen students. This is apparent from the latest guide to universities, the *Keuzegids*. In Wageningen 90 percent of university students move into student accommodation. After Wageningen come Groningen, Maastricht and Enschede. It is a different picture at VU Amsterdam and the Erasmus University Rotterdam: fewer than 60 percent of their students live independently. There was a lot of concern in September when student housing associations announced that many young people are staying at home in response to the new student loan system. There was disbelief from university towns: they had not noticed this at all. The figures in the *Keuzegids* back them up. **HOP**



A student room in Campus Plaza.

DEPOSIT MONEY RESEARCHERS ACTED CORRECTLY

- **LOWI corroborates verdict by CWI Wageningen**
- ***Trouw* does not have to correct claims of influencing**

There is no doubt about the integrity of the deposit money research conducted by Wageningen Food & Biobased Research in 2012, found the Netherlands Board on Research Integrity LOWI on 21 October. On the same day, however, an Amsterdam court ruled that daily newspaper *Trouw* did not have to issue a correction of claims it made that the researchers were influenced.

The findings of the LOWI and the Amsterdam court are about a study by Ulphard Thoden van Velden and Hilke Bos-Brouwers, who developed a method of calculating the costs of the deposit money system for plastic bottles, and comparing it with other forms of recycling. The LOWI assessed docu-

ments and correspondence which the researchers had previously submitted to the Wageningen committee on academic integrity (CWI).

On the basis of this dossier, the LOWI has now corroborated the CWI's finding that the researchers acted carelessly but not dishonestly. It is not known what the LOWI bases its view on. The national integrity committee's verdict will only be published in a few months' time, after the report has been anonymized.

WUR's case against *Trouw* was about a statement by journalist Hans Marijnissen on the TV programme *De Haagse Lobby*. He said the conclusions of the deposit money research had been fixed beforehand in a 'tender document' from the Wageningen researchers. The Amsterdam judge declared the claim untrue and unfortunate, but that it did not require rectification. This was because Marijnissen could justify his accusation of in-

fluenced research sufficiently with reference to leaked documents from the CBI dossier, said the judge.

For example, even before commissioning the research, WUR held a presentation expressing an ambition 'to expand the scientific footing on which to introduce post-collection waste-sorting,' said *Trouw*. The research clients, the Central Food Trade Office (CBL) and the Federation of the Dutch Food and Beverage Industry (FNLI), were against a deposit money system and favoured post-collection waste-sorting. Moreover, the deposit money system was described in correspondence as 'a threat' and the researchers noted right at the start of their study that it was the most expensive of all the systems.

The Amsterdam court has therefore ruled that *Trouw* provided enough evidence for the opinion that the research was steered by the clients. 'The court does not thereby



consider this to have actually been a case of influenced research, but it does not find any basis for restricting Marijnissen's freedom of expression under the given circumstances.'

WUR is disappointed in the court ruling. *Trouw* cherry-picked from the dossier, says spokesperson Simon Vink, thereby taking things out of context. **AS**

NUTRITION RESEARCHER LEAVES 2 MILLION TO WUR

- **The sum is intended for research on eating behaviour**
- **The Edema-Steernberg Foundation will manage the legacy**

Former assistant professor Johanna Edema of the department of Human nutrition, who passed away at the age of 92 at the end of 2015, left two million euros for research on eating behaviour. Some of the money, managed by the Edema-Steernberg Foundation, will be used to fund five PhD researchers. In her own research, Johanna Edema was interested in the question why people eat what they eat, explains Frans Kok, emeritus professor of Nutrition and health, and chair of the Edema-Steernberg Foundation. At that time, how-

ever, this interest clashed with the prevailing paradigm in the natural sciences. Over a year ago, Edema invited Kok to visit her. She wanted to establish a foundation to manage her legacy. 'It turned out to be a considerable sum of money. Fantastic that she can now get research done on the subjects she would have liked to study. And at the same time, a real pity she won't be able to see the results herself.'

The subject the five PhD researchers will study include the eating habits of adolescents, diabetes type 2 patients and pregnant women; taste development in children from lower socio-economic classes; and coping with temptations in the form of food. There is also budget for supporting four international Master's students, and for a postdoc whose role includes maintaining continuity in the research. **TvdB**



Johanna Edema

PHOTO: EDEMA-STEERNBERG FOUNDATION

DELAYS TO CONSTRUCTION OF NORTH ACCESS ROAD

- WUR to wait for appeal against plan
- Judgement expected in December

Work will not start this year after all on the north access to the campus. It has been delayed to wait for the appeal proceedings against the road's construction. Eise Ebbeling, the head of property at Wageningen University & Research, gave this undertaking before the Council of State in The Hague on 15 November.

That immediately took the sting out of the session, which had been requested with the aim of preventing or stopping building work. The Mooi Wageningen society and the Dutch Cyclists' Union had asked for a preliminary injunction while waiting for the substantive handling of their objections to the planned access to the campus from the north.

As Ebbeling explained during the session, WUR would have liked to have started building the road already in view of traffic safety. 'Each day's delay brings an unnecessary risk of accidents.' At present, the narrow country roads of the Bornsesteeg and the Kielekampsteeg are being shared by cars and cyclists. If the plan for



The crossroads where the Kielekampsteeg (left) meets the Bornsesteeg.

the north access road goes through, there will be a separate broad path on the east side of the Bornsesteeg and the south side of the Kielekampsteeg.

Mooi Wageningen and the Cyclists' Union are vehemently opposed to this. They would prefer to have no cars at all in the Binnenveld. They also argue that the north access road will not be needed anyway once the improvements have been

made to Wageningen's accessibility via the Man-sholtlaan and Nijenoord Allee. Until then, Mooi Wageningen's chair Patrick Jansen advocates improving the safety of the Bornsesteeg by turning it into a broad cycle path where cars are 'guests'.

Whether the court agrees will become clear later this year. The court wants to hold the proceedings on the substance of the case in December because of the traffic safety issues. **Ⓜ RK**



IN THE NEWS

Who? Fine particles researcher Nico Ogink of Wageningen Livestock Research | **What?** Was portrayed by PvdA MP Henk Leenders as an advocate of a reduction in livestock | **Where?** On Facebook and the news platform Foodlog

'What MP Leenders did was feeble'

What happened?

'I spoke at a Lower House hearing on fine particles emissions from the livestock sector and what you can do in barns to reduce it. The MP Henk Leenders asked me; "I don't see anywhere in your report that emissions go down if there is less livestock. Why not?" To which I answered: "That is obvious, I don't have to

write a report about that.' In an opinion piece he turned that into: 'Reducing livestock numbers is the best measure'.'

What is wrong with that?

'What he's doing is very feeble. He asks a question along the lines of: would it solve the climate problem if there were far fewer people? The answer to

that too is: that's obvious. But does that mean I think it's the best thing to do to curb global warming? No, that is his proposition, for which he makes use of my answer.'

What point did you in fact want to make at the hearing?

'That the development of Dutch livestock farming in its current

form has had its day – given the world market, resource prices and the demands of society. A new business model is needed, with a different production system with more added value. In order to make that switch we need new farming concepts. But you can't get that analysis across at that kind of hearing.'

Ⓜ AS



TEMPTATION AS A VACCINE

Why do people often exhibit such unhealthy behaviour and how can you change that? These are the questions driving Emely de Vet, appointed professor holding a personal chair in Health Communication and Behaviour Change in March. She is researching for example whether exposure to a little temptation could help people develop self-control.

De Vet wants to understand more about the impact of our 'fattening' environment and she hopes to develop practical methods that will encourage people to eat more healthily. She argues that information is certainly not the be-all and end-all. 'We aren't really in control of much of our behaviour. For example, we often don't know what we eat exactly or what specific stimuli cause us to eat what we do.'

That is why De Vet is investigating small modifications in the environment that could help people

spontaneously make healthy choices and why she is looking at the relationship between the food on offer and social norms. Previous research showed that a tray of chocolates on the counter at the baker's did not necessarily tempt people to eat them. Customers only took a chocolate if there were empty wrappers next to the tray. In this way, people unconsciously influence one another's eating behaviour.

But even if we live in a fattening environment, not everyone is fat. 'Some people have no problem coping with temptation,' says De Vet. 'They use tricks to stick to their good intentions. For instance, if they feel like potato chips they will do something to take their mind off it, or put a few in a bowl and then put the bag back.' Other people are much more susceptible to a food-rich environment. One possible cause is a strong spatial memory for places with high-energy food.

From an evolutionary perspective, this was an advantage for women – traditionally the 'gatherers'. They still seem to be better at this than men, which could make women more vulnerable to places with a lot of food.

The professor says it is not realistic to try and eradicate all sources of temptation in the environment. She also suspects that children actually need a bit of temptation in order to learn self-control. De Vet compares this with a vaccination. Just as a vaccine causes the body to develop resistance to a virus, so having tasty food around will teach children to cope better with temptation.



De Vet will be giving her inaugural lecture on 24 November, followed by a WURtalk on resisting temptation on 28 November. **GAJ**

FLAT OYSTERS RETURN TO NORTH SEA

- Oyster bed found off Zeeland
- Native species making a comeback

Wild flat oysters are successfully reproducing in the North Sea and have built a reef off the coast of Zeeland. The surprising discovery of the indigenous species, which had disappeared from Dutch waters more than a century ago, fits nicely with the plans to develop new oyster beds off the coast, says Aad Smaal from Wageningen Marine Research.

Divers from Bureau Waardenburg found the 13-hectare reef when they were looking for suitable locations to construct shellfish banks. Smaal: 'It was a real surprise. The reef is in quite shallow,



turbulent water, which we wouldn't have thought was a great place for oysters. This is a huge boost for the

recovery of the oyster population in the North Sea. Now we can focus our research on the conditions for

a natural recovery and on monitoring the development of the oyster beds.' Smaal thinks the larvae for this oyster bed come from Grevelingenmeer, the lake where oysters are farmed.

Flat oysters were a cause for concern for years as they had been decimated by a parasite and then overrun by the imported Japanese oyster. But the native oyster is now making a comeback. If this recovery continues and its reintroduction into the North Sea is successful, Smaal sees a new source of income for Dutch oyster farmers. 'If the oyster beds grow to a serious size, they will need maintenance, for example to get rid of starfish. You could combine that with extensive oyster harvesting. So you would have a kind of agrarian nature management, only at sea.' **GAAS**

HOW DO YOU KNOW AN ANIMAL IS UNCONSCIOUS?

- PhD researcher measures brain activity in animals in slaughterhouse
- Three behaviour tests are indicators

Animals which lack rhythmic breathing, eyelid reflexes and corneal reflexes are unconscious. Slaughterhouse workers can use these three indicators to check whether the animals have been successfully stunned, says PhD candidate Merel Verhoeven in her thesis.

Large numbers of cattle, pigs, sheep and chickens destined for human consumption end their lives in the slaughterhouse. After some time in a holding pen they go into an stunning machine or space, where they are knocked unconscious with CO₂, an electric shock or a bolt stunner. Their throats are then cut so they bleed to death.

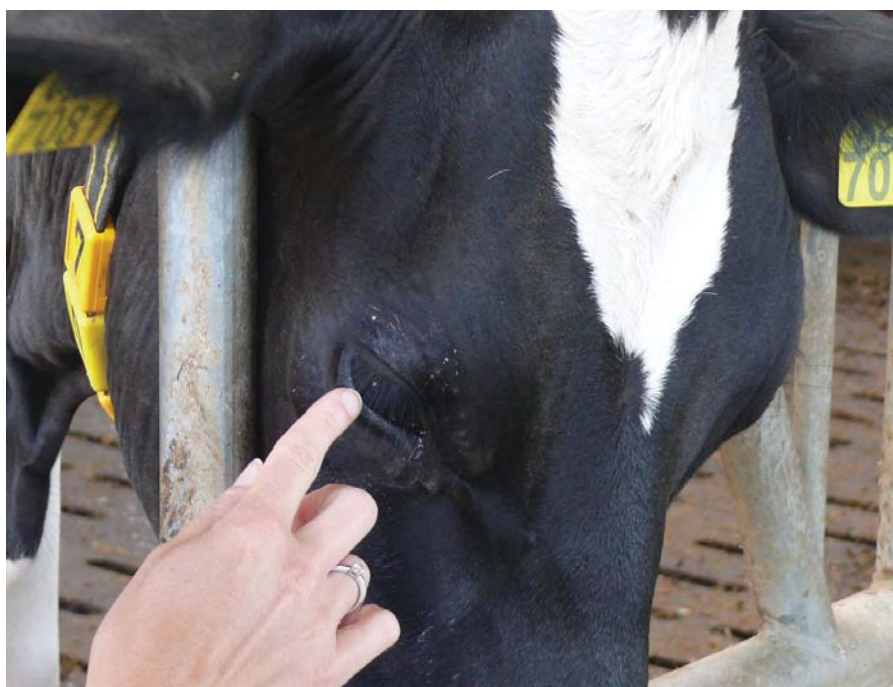
Verhoeven investigated how you can assess whether the animals really are unconscious after being stunned, and for how long. This is important because it is the subject of much discussion. The researcher measured the brain activity of animals on the slaughter belt which had been knocked out with CO₂ or a bolt stunner. What emerged was that stunning with the bolt stunner rendered the animals uncon-

scious instantly, whereas pigs that were knocked out with CO₂ lost consciousness in 30 to 60 seconds, depending on the concentration. If the stunning is carried out correctly and effectively, the animal suffers no pain during the rest of the slaughter process, says Verhoeven.

She looked into which animal behaviour is the best indicator of whether they are really unconscious, as the slaughterhouse workers do not have time to measure the brain activity of all the animals. She came up with three indicators: rhythmic breathing, eyelid reflex and corneal reflex. Verhoeven: 'A conscious animal blinks when you come close to its eye. If you don't get a reaction the animal is unconscious.' She advises slaughterhouses to use these three indicators to check whether the animals really are unconscious.

Her research is not really news for slaughterhouses, she thinks. 'My impression is that a lot of slaughterhouses already use these indicators to check whether animals on the slaughter line are conscious. The slaughterhouses I've seen have strict rules on slaughter and they really do keep to them.'

Merel Verhoeven received her PhD on 11 November from Bas Kemp, professor of Adaptation Physiology. **AS**



The presence of the eyelid reflect is one of three indicators for successful stunning of animals in the slaughterhouse.

VISION <<

Turbo plants can boost food production

The Wageningen alumnus Wanne Kromduik and American colleagues of his have created a tobacco plant with a 15 percent higher yield. The research holds out the promise of raising food production, says Jeremy Harbinson of the Horticulture and product physiology chair group.



What exactly did the researchers in America do?

'They increased the plant's productivity by improving the photosynthesis. All plants have a safety valve which puts a break on photosynthesis in bright sunlight to prevent damage to the plant. That switch goes on when there is excess light and off when there is less light. But it is slow, so photosynthesis is not very efficient. The researchers speed up this process using a few genes from Arabidopsis, and then photosynthesis can get up to speed again faster after a period of bright sunlight.'

Why do they use genes from Arabidopsis when all plants have these genes?

'Because Arabidopsis was a model plant, and all its characteristics were pretty much known. The tobacco plant and food crops probably have this gene too, but you have to find it first. This is a proof of principle for being able to boost production of food crops. A yield increase of 15 percent from just a few adjustments is great.'

Is it a new approach?

'The results are part of a broader programme for increasing agricultural yields through better photosynthesis. There was a story about a new super-wheat in the *New Scientist* this week. The yield of this wheat is about 15 percent bigger due to improvements to the photosynthesis, claim British researchers. Better photosynthesis is seen as the main way of boosting food production in the decades to come.'

But it is genetic modification.

'Indeed. It is possible that you might be able to improve the photosynthesis mechanism using traditional breeding, because there is probably a natural variation in how effectively plants convert sunlight into biomass. But it is a lot easier with GM technology.' **AS**

STAMPING OUT TICKS IS A NON-STARTER

- **The ecology of ticks is highly complex**
- **No point trying to manage host animal populations**

It is impossible to reduce risks of contracting Lyme's disease by interfering in the life cycle of the tick. A better approach is to distribute information, concludes PhD candidate in Resource ecology Tim Hofmeester.

Every year in the Netherlands about 25,000 people are infected with *Borrelia burgdorferi*, a complex of bacteria which cause Lyme's disease and is transmitted by ticks. Hofmeester looked for the weakest link in the life cycle of the tick, in the hope that this would reveal starting points for combatting the disease.

But it proves impossible to locate that weakest link, thanks to the insect's complicated life cycle. The tick starts out life as a larva, turns into a nymph and ends up as an egg-laying adult. The tick needs one feed of blood at every stage.

It is during that feed that infection takes place. And that is where the difficulty starts: the larva, the nymph and the adult tick all feed off different hosts. Larvae mainly feed on mice and other small mammals, nymphs forage on birds such as the songthrush and the blackbird, while deer are the adult's ticks main hosts.

Hofmeester set up camera traps in several different tracts of forest to find out which animals – hosts – passed by. He used a cloth tick drag to count tick populations and he caught mice to find out how many ticks they were carrying around. His results show that tick numbers depend on deer numbers. 'In areas with no deer there are hardly any ticks. But more deer does not automatically mean more ticks.' The infection rate also depends heavily on the number of ticks per mouse. 'The more ticks a mouse has, the bigger the chances that the mouse contracts Lyme's disease, and therefore also that the larvae which feed on the mice are infected.'

These results have not produced a 'smoking gun', says Hofmeester. 'If you study just one



PHOTO: TIM HOFMEESTER

A tick-infested wood mouse.

animal species, you don't know what happens to the population density of another, or whether that makes the incidence of Lyme go up or down. Hofmeester's advice is therefore to focus not on controlling animal populations but on providing people with accurate information. **© RK**

FISHING PHOSPHATE OUT OF WASTEWATER

- **ERC laureate Louis de Smet starts research programme**
- **Aim: salvaging pure phosphate for agriculture**

Developing materials that can extract phosphate from wastewater is Louis de Smet's mission for the next five years. The associate professor from the Laboratory for Organic Chemistry starts a research programme this month for which he has received an important European grant, the ERC Consolidator Grant.

Phosphate is an important nutrient for agriculture. 'There are only a few phosphate mines in the world and those reserves are finite,' says De Smet. Salvaging phosphate from wastewater is a good way of boosting the supplies. That is now mainly done with chemicals which cause phosphate precipitation. But because of the chemicals and the impure composition, the precipi-



Louis de Smet at work in the lab.

tate is not always suited for use in agriculture. De Smet wants to extract phosphate from wastewater with specially developed polymers which let some nutrients through and not others. The researcher is going to equip polymers with re-

ceptors which recognize specific nutrients. 'See it as like tongs. If you adapt the shape of the tongs to a specific ion you can get the ions out of the wastewater through bonding.' To this end de Smet adds the polymers to a porous electrode

as an ultrathin layer. If a positively and a negatively charged electrode are placed in wastewater, positively charged ions bond with the negative electrode and the negative ions with the positive electrode. 'The tongs will ensure that only the ion you want bonds with the electrode. Then you take the electrodes with bonded ions out of the wastewater and put them in clean water. If you reverse the electric field, the electrodes reject the ions and you get a solution containing only the nutrients you want.'

But this stage has not been reached yet. De Smet will be studying the polymers in the laboratory in the coming years. 'Phosphate is the most complex ion we want to extract from wastewater. We are starting with relatively straightforward ions such as sodium and potassium. We'll build up from there.'

De Smet will be supported by four PhD researchers. The first one started this week. **© DdV**

PHOTO: HERMAN KEMPERS

Wageningen students and researchers air their views about (Black) Peter and bird flu expert Armin Elbers answers four questions on the latest (near-) outbreak of the disease. Watch and read it all on resource-online.nl.

MEANWHILE ON...



RESOURCE-ONLINE.NL

CONFIDENCE IN FOOD

More information does not necessarily increase confidence in food. Confidence begins quite simply with listening to each other. This was one of the conclusions of the Food & Trust debate on the evening of Monday 15 November. The event was organized by Wageningen University & Research and the news platform Foodlog. Many expected heated discussion in the university aula but that did not happen since all the debaters were of Wageningen plumage, with a lot of professors, researchers and students present.

AUTHORITY ISSUES

Blogger Leonardo Medina Santa Cruz has a problem of confidence too, in his case in the police. His latest blog is about a case of a stolen bicycle: 'After having a remarkable day boating through Giethoorn's canals, I arrived at Ede-Wageningen station only to find the 3/8-inch blue steel cable sliced and hanging from the rail. The bike it was supposed to guard was nowhere to be seen. "You're a true Dutchman now", a friend would later say. Ha. Ha. Not funny. I loved that bike.'

VIRTUAL CAMPUS TOUR

A look around the campus is now on offer online, since the launch of a 360 degree video during Wageningen University & Research's online open day last week. When you watch this video you can decide for yourself which direction you want to look in. The creators of the video say this makes it just like being on the campus for real.

Watch the 360 degree video on resource-online.nl.

360°



Watch the Soundbites video on resource-online.nl.

(BLACK) PETER

The man who helps Sinterklaas distribute the presents has been in the news a lot recently. The children's celebration has become the focus of a national debate. In a new edition of Soundbites, international students air their views.

BIRD FLU IS BACK

The virulent strain of bird flu H5N8 is back in the country. Resource asked researcher Armin Elbers four questions about bird flu. The scientist from Bioveterinary Research told us the virus came from Asia with migrating birds, just as it did in 2014. But unlike then, no Dutch poultry have been infected (yet).

KNAW SEEKS WOMEN

The proportion of women in top positions in science has proven hard to change. And the Royal Dutch Academy of Sciences is no excep-

tion. The Academy has 556 members, 71 of which are women. In two rounds of elections the KNAW intends to attract 16 more women.

PROPOSITION

'Working at a slaughter plant is an underestimated and undervalued profession.'

Proposition in the thesis submitted by Merel Verhoeven for the PhD she was awarded on 11 November

The people against Ebola

In his latest book, anthropologist Paul Richards (71) looks back on the ebola epidemic in West Africa. International aid organizations battled the disease, but so did the local population, he shows. 'It was people's science. Affected communities started thinking about the pattern of infection.'

text Yvonne de Hilster photo Panos Pictures/Hollandse Hoogte

Paul Richards, emeritus professor of Technological and agricultural development, has known Sierra Leone for 40 years. His wife comes from there and since retiring he has been adjunct professor at Njala University in the middle of the country. Born near Manchester in the UK, Richards visited the West African country for the first time in 1977. He researched agricultural practices there until civil war broke out in 1991. Then he turned his attention to describing the situation and went on to study the country's recovery from the war.

This pattern more or less repeated itself in 2014. When the ebola epidemic broke out, Richards and Wageningen development economist Maarten Voors were in the midst of research on living conditions and nature conservation in Sierra Leone. Voors and the students went home but Richards stayed. 'I knew what prophylactic measures I should take,' he emails from Sierra Leone. He and Voors decided to study the social factors underlying the epidemic. 'After all, this virus is spread from person to person.'

The results of this and other social-science research are published on the Ebola Response Anthropology Platform (ERAP), which Richards set up with British colleagues. This gives policymakers and medical personnel access to a supply of information which contributes to controlling the virus.

SOCIAL INTIMACY

Ebola is a disease of 'social intimacy' and a 'crisis for family-based care', the researchers make clear. The virus is spread through direct contact with blood, faeces, urine, sperm, vomit and sweat. The main infection routes are the care of the sick and the laying out of the dead. These tasks are carried out by close family because

the patients trust them. When you are in crisis you go home to your family.

People sometimes pay a high price for answering the call of duty in the context of ebola: they fall sick themselves. Yet demands for a protocol for homebased care initially fell on deaf ears, says Richards. 'That was considered unthinkable by the authorities. The necessity of it only dawned on them later.'

Access to land or other property and obligations related to the deceased also played a role in the spread of the disease. 'There are social and spiritual aspects to burying the dead,' writes Richards in his book. 'Hatchets are buried and debts written off.' At a wedding, presents and services are pledged to the parents and family of the bride. If when she dies they have still not been delivered – which is often the case – the woman is buried with her own family. The virus is also spread through travel for education, migration, trade or medical treatment.

PEOPLE'S SCIENCE

Richards and his colleagues also conducted a survey from December 2015 to find out what exactly happened during the Ebola outbreak. The epidemic was at its peak at that point but the researchers visited villages in a region where the disease had already run its course. The results make clear how infections progress and how all kinds of rumours gather momentum and then blow over just as fast. 'In response to the reality of the disease people learned to think like epidemiologists,' concluded Richards. 'In one of the villages the researchers visited, appropriate action by the villagers had practically wiped out the disease before international aid workers reached the village.'

This is what Richards means by 'people's science' in the subtitle of his recently published book on the ebola



PAUL RICHARDS

'In response to the reality people started thinking like epidemiologists'



crisis. 'It refers to every tendency a community shows to look at a problem situation in a new light on the basis of empirical evidence.' The opposite tendency was seen in the Brexit debate and during the American presidential election campaigns, where gut feelings took precedence over hard evidence. In the battle against ebola too, gut feelings were influential at first and experts were regarded with suspicion. But my book shows that this changed when affected communities started thinking about the pattern of infection that was observable. This was 'people's science' because the result depended on local knowledge about social relations which is not transparent to outsiders.'

RESISTANCE

With an infectious disease such as ebola it is important that patients and healthcare workers agree on the important steps for preventing new cases, says Richards. 'But all the action that needs to be taken to stem ebola, from identification and isolation to safe burial, sometimes encounters resistance. That is why it is so important to find out *how* care is delivered and *how* people are buried. From that you can deduce where there is scope to change customary practices,' states Richards in his book. 'If local people are the main carers, they don't feel the need for anthropologists,' he explains. 'But that changed when the international community got involved. The

focus shifted towards logistics, organization and control, which made it counterproductive. International aid workers wanted to ban burials, for instance, because they could be a source of infection. We explained why that would never work, and that it was better to work towards what would come to be known as a safe and dignified burial.'

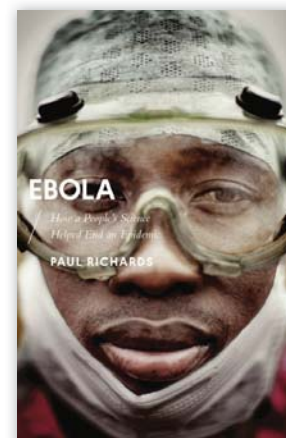
The ebola anthropology platform ERAP received the Outstanding International Impact Prize from the British Economic and Social Research Council (ESRC) in June 2016. Richards was delighted. 'This is a recognition of the importance of anthropological knowledge.' 

Paul Richards, Ebola.

How a people's science helped end an epidemic, Zed Books, ISBN 978-1-78360-858-4

EBOLA CRISIS

The ebola epidemic in West Africa (2013-2016) cost the lives of more than 11,000 people, almost 40 percent of those infected with the virus. The ebola virus occurs in wild animals in Africa and can be transmitted to humans through the consumption of infected meat, for example. It then spreads from person to person through bodily fluids. The symptoms include fever, vomiting, diarrhoea, kidney and liver failure, and bleeding. There is no cure: the only treatment is the relief of symptoms. behandelings bestaat uit verlichting van de symptomen.



Genetics is teamwork

Dominant genes do not cause diseases or characteristics all by themselves. They might be the 'star players' but they can only score goals if other genes pave the way for them. Jan Kammenga, professor of Nematology, is going to study this hidden genetic teamwork.

text Albert Sikkema *photo* Guy Ackermans *illustration* ProStockStudio



Hidden genetic variety is a well-known phenomenon. Take a disease that runs in the family but does not affect all the members of a family. They all have the pathogenic gene, but they do not all fall ill. 'We react differently to genetic pathogens,' explains Jan Kammenga. He shows two pictures of cancer developing in the intestines of mice. The first shows intestines full of polyps – a stage that precedes cancer –, the second shows clean intestines. 'Which mouse has the mutation that leads to bowel cancer? Both of them. In the first mouse the cancer gene gets expressed, in the second it doesn't.'

You see something similar in plants, says Kammenga. 'Plant breeders might for example find a gene in a particular variety which makes the flower's colour brighter. But if we build that gene into another variety through cross-breeding, the flowers suddenly turn out much less colourful. That is because the genetic background of the first plant is lacking.' Doctors and plant breeders are familiar with this pattern from their practice, but they don't understand the underlying mechanism.



'I want to find out which players help get the striker into a position to score.'

Jan Kammenga

STRIKER

The brand-new personal professor of Functional Genetics – he gives his inaugural lecture on 8 December – wants to clarify the mechanism behind hidden genetic variation. He is doing so with the help of the nematode *Caenorhabditis elegans*. This model organism teaches us a lot about the genetics and biology of humans and animals. 'With *C. elegans* I can do research fast and in a controlled way. I can put a gene into several individual worms and then monitor what the characteristics do. Subsequently I can see which genetic background is necessary for a particular characteristic to be expressed. I look for the 'modifier', the determining factor.'

Kammenga illustrates this with reference to formations on a football pitch. 'We know that this team has a strong striker: a gene that makes a big contribution to a disease. But whether the striker scores depends on the rest of the team, or on the genetic network. I want to find out which players get the striker into a position to score. To do that I need to see a lot of different formations. If the striker often scores with the same midfielder, I've found the modifier.'

BIG DATA

Kammenga thinks this hidden genetic variation has an effect on all characteristics, even down to eye colour. 'The question is whether mono-gene characteristics exist. Maybe eye colour is 90 percent determined by the dominant mutation but 10 percent then depends on the genetic network.'

Kammenga does not know what processes underlie this

genetic teamwork. 'Maybe the way genes collaborate is the crucial factor. It is a major computational challenge to find that out because the interaction between tens of genes generates very many possibilities. This is big data research.'


Nevertheless, Kammenga already has results. 'We introduced a cancer gene into *C. elegans* and crossed the specimens with various parent genes so as to get descendants which all had the same mutation in a range of different genetic backgrounds. We identified the DNA order and the degree of cell development for those descendants. We found an enormous variation in protuberances and disturbed cell development, which we could quantify. Because we had the genetic make-up of all the gene's descendants, we were able to find the modifier, or modifiers. There were several of them, with one gene playing a strong supporting role in the development of cancer.'

Genetic teamwork is particularly difficult to figure out in the case of sexual reproduction, says Kammenga. It is as though at a single moment you substitute thousands of players in your team, too many to be able to figure out what the winning formation was. Plant breeders face a different challenge. If they breed in a desirable characteristic using traditional breeding techniques, they come up against the fact that certain varieties are easy to cross-breed and others are not, for no clear reason. This is where the genetic network comes in, thinks Kammenga. What is more, with breeding you don't just introduce the desirable gene but you also cause the genetic network to change – with unknown consequences for the expression of the desirable gene.

DECISIVE PASS

The team of genes that has the ball probably varies per characteristic, says the professor. There may be genes which play in several different teams, and besides the star players you can easily be talking about 20,000 or so genes with the potential to make the decisive pass to the striker. And no one knows how big the team is. Nor do Kammenga and his colleagues know whether the modifier has to be in the first team, or whether it can be off form at some moments, and if so, who caused that loss of form. A lot of questions remain unanswered but one thing is certain: this concept of genetic networking calls for modesty, thinks Kammenga. The claim that we will soon be able to make personalized medicines, depending on a person's genetic passport, is not realistic, he says. 'That kind of genetic passport doesn't enable you to say why medicines don't work on some cancer patients. Nor why some people with the pathogenic gene do not succumb to the disease. It's more complex than that.'

CRISPR-CAS

Moreover, Kammenga doubts whether the proponents of genetic modification can live up to their claim that they can build desirable characteristics into an organism with great precision. 'I am now doing research on the new Crispr-Cas technique, which is seen as the most precise breeding method. Using this technique we introduce a mutation into various lines of *C. elegans*. I would be willing to bet that the characteristic changes or disappears in some of the worms. Because no matter how precise the technique is, the mutation will always be influenced by the hidden genetic variation.' 

WATCHING JAWS FROM AN INFLATABLE

The screaming is calming down in the Bongerd swimming pool. Bobbing about in their inflatable rings, the audience has just watched a human Jaws pull his first victim into the water. The Dive-in Cinema organized by events bureau Tipeaux on Friday 18 November attracted 150 people. Scenery that included a lighthouse, boat, No swimming signs – and of course, a shark – enabled them to imagine they were on Amity Island, the fictional seaside resort where Steven Spielberg's famous 1975 film is set. [TvdS](#), photo: [Sven Menschel](#)







The ideal chrysanthemum

How can you develop a chrysanthemum that not only looks good but also remains fresh for a long time in the vase? Until recently this was a question of cross-breeding and waiting to see what you got. But PhD candidate Geert van Geest is taking a more targeted approach with genetic markers. 'A revolution in flower breeding.'

Text and photo Roelof Kleis

The Korte Kruisweg in Maasdijk is the site of a huge greenhouse complex belonging to Deliflor, the world's largest supplier of chrysanthemum cuttings and chrysanthemum breeding company. Around 700 million cuttings roll off its conveyor belts every year, to be sent to cultivators all over the world. In addition to these production operations, the company also breeds new varieties. The scent of flowers fills the greenhouses used for research. The temperature is pleasant. And chrysanthemums are

everywhere you look, in an inconceivable range of shapes, sizes and colours.

According to PhD candidate Geert van Geest, the son of a market gardener who was born and brought up in the area, Deliflor introduces a new variety once every two weeks on average. The company has over 300 varieties in its assortment. '80 percent of the new varieties will be dropped within a year,' he explains. The market is unpredictable. The aim of all this innovation is to create a better flower. Better in the sense of more beautiful, more resistant

to diseases and with better keeping quality. But what is 'beautiful'? Van Geest: 'That depends on who you ask. A big size is important for the Russian market. They value chrysanthemums more highly than roses. But in Japan, which is also an important market, the flowers have to be small and neat.'

KEEPING QUALITY

So tastes differ — but not when it comes to keeping quality. A long post-harvest shelf life is one of the key breeding criteria in the cut flower business. Van Geest has spent the last four years working on this. 'The keeping quality of flowers in a vase is a difficult subject because so many processes are involved. On top of that, these processes are regulated by many different genes,' he explains. 'For example, leaves turn yellow when chlorophyll breaks down. Flowers become limp when their water regulation is disrupted and the water in the vase turns cloudy due to bacterial growth.'

Then there is the discoloration of the heart of the flower, the issue that Van Geest has been tackling. There was a good reason for his choice of subject as the heart turning brown is often the first sign of decay. Van Geest: 'That's when the trouble starts. If you can delay that discoloration, you'll have made a big improvement in the post-harvest quality.'

First, Van Geest developed a test to give a simple, reproducible quantification of the discoloration of the heart. To

'Russians value chrysanthemums more highly than roses'

do this, he reduces the flower to a flower head on a short stalk, then places it in a bottle filled with water and stores it in cool, dark conditions. He then takes daily photos. 'That lets you track the discoloration nicely. I've written some code to determine the r/g value — the ratio between the red and green pixels.' The test is being validated at Deliflor as a way of assessing keeping quality in a vase.

SUGAR

But why do some flower heads turn brown faster than others? Van Geest guessed sugar might play a role. 'Sugar water stops flowers from wilting so quickly. Take the Chrysal sachet that florists include with a bouquet of flowers. That consists mainly of sugar. Our hypothesis was that differences between varieties in discoloration could be explained by the amount of sugar being sent to the flower. Many chrysanthemums are transported over long distances and it can take a couple of weeks before they end up in a vase. They are transported in cardboard boxes at 4 degrees Celsius. There is no photosynthesis due to the lack of light, but respiration still continues. There comes a point when the flower hearts start to turn brown because they are no longer getting any sugar.'

That assumption turned out to be correct. Sugar content measurements showed a close relationship between sugar deficit and brown discoloration. What is more, discolora-

tion was kept at bay when the flowers were put in sugar water. 'So there is genetic variation in post-harvest sugar content,' concludes Van Geest. 'That content can differ by a factor of four to five. You can breed to optimize that.'

MARKERS


In addition to this work, Van Geest developed a gene map for the chrysanthemum. Not by sequencing the whole genome but by looking for markers that flag up the location of genes. Markers are bits of DNA with a known location on the chromosome. Van Geest has staked out the chrysanthemum genome with no less than 35,000 such markers. The trick then is to link desirable traits to these markers, he says. That will let you select for traits without knowing the precise location on the genome or how the gene involved functions. Van Geest found three markers that had a significant relationship with the flower head's susceptibility to discoloration. Together, they explain 20 percent of that susceptibility.

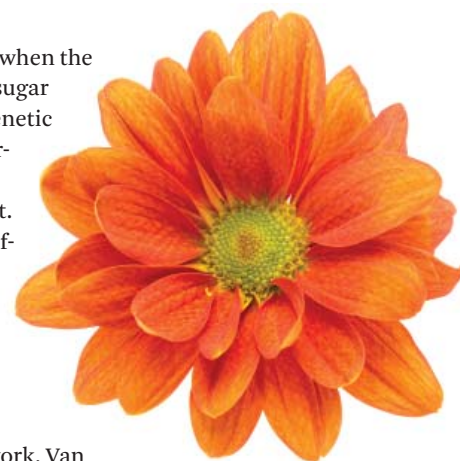
Van Geest shows what that means in the greenhouse. Seedlings are currently only screened for traits such as 'brown flower heart' once there are enough plants. 'That's only after several months of vegetative propagation. Screening with markers can take place about six months earlier. What is more, we can screen the seedling for multiple traits at the same time, for example a brown heart and resistance to disease. Based on that genetic analysis, I can discard 80 percent of the genotypes straight away. That preselection means we can plant the entire greenhouse with genotypes that we know to have a set of positive traits. That is a huge improvement in the efficiency of plant breeding.'

REVOLUTION

The method Van Geest uses is known as 'marker assisted breeding'. The trick itself is not new. 'They've been doing this for ages in vegetable breeding. But it's a revolution in chrysanthemum breeding. The method lets you work towards a particular result more quickly and directly through plant breeding.'

One reason why the flower industry is only just starting to work with markers is the fact that many flowers have very complex genomes. Chrysanthemums are haploid: they have six copies of each of the nine chromosomes. That makes calculations incredibly difficult in cross-breeding trials.

The application of genetic analysis in plant breeding will give Deliflor a huge advantage, says Van Geest. Other companies will probably follow suit. 'That's possible as the method will be made available. But Deliflor has the genetic map and the marker codes.' But first he has to get his doctorate. Only then will Van Geest be putting his findings to use in Maasdijk. The ideal chrysanthemum is on the way. 



When it hurts too much to type

Typing reports, googling, emailing, Facebooking and WhatsApping. These are things most students do all day long without giving it a second thought. But these activities leave some students with so much pain in their arms, neck or shoulders that their studies grind to a halt. Master's student Nynke knows all about it. 'I fell into a black hole.'

text Milou van der Horst illustration Eva van Schijndel

Master's student Nynke – she'd rather not have her surname in *Resource* – had to stop everything earlier this year, from her studies to her competitive rowing. Even WhatsApping and the washing up were off-limits. 'Before that I thought: I must just grin and bear that pain. But in the end I only made things worse that way.'

When she was writing her final thesis for Health and Society, the pain in Nynke's forearms – CANS to the professionals (see text box) – got worse and worse. Physiotherapist Karin Vaessen gave her relaxation exercises and helped her improve her posture. She had her desk and chair adjusted and was able to borrow an ergonomic keyboard and mouse, and

speech recognition software through the dean of Wageningen University & Research. 'But it was already so bad then that I even had pain when at rest. I couldn't sleep.'

PERSEVERANCE

Eventually the dean sent Nynke to the then student doctor André Godkewitsch, who advised her to stop all her activities. 'That was really terrible because I was just working towards my last competitions of the rowing season. I was desperate to win one.' And she did take part in the last race but her team did not win – partly because of her, thinks Nynke. 'My arms were so painful.'

Student doctor Godkewitsch quite often sees this kind of perseverance in students affected by CANS. 'Most of them are people

who want to do everything they do well, want to keep going, are ambitious and can't feel or set limits.' He usually advises them to stop the activities that cause them pain in good time. 'First you need to reduce the symptoms considerably, so that you are out of danger of it becoming chronic. After that you build up again step by step.'

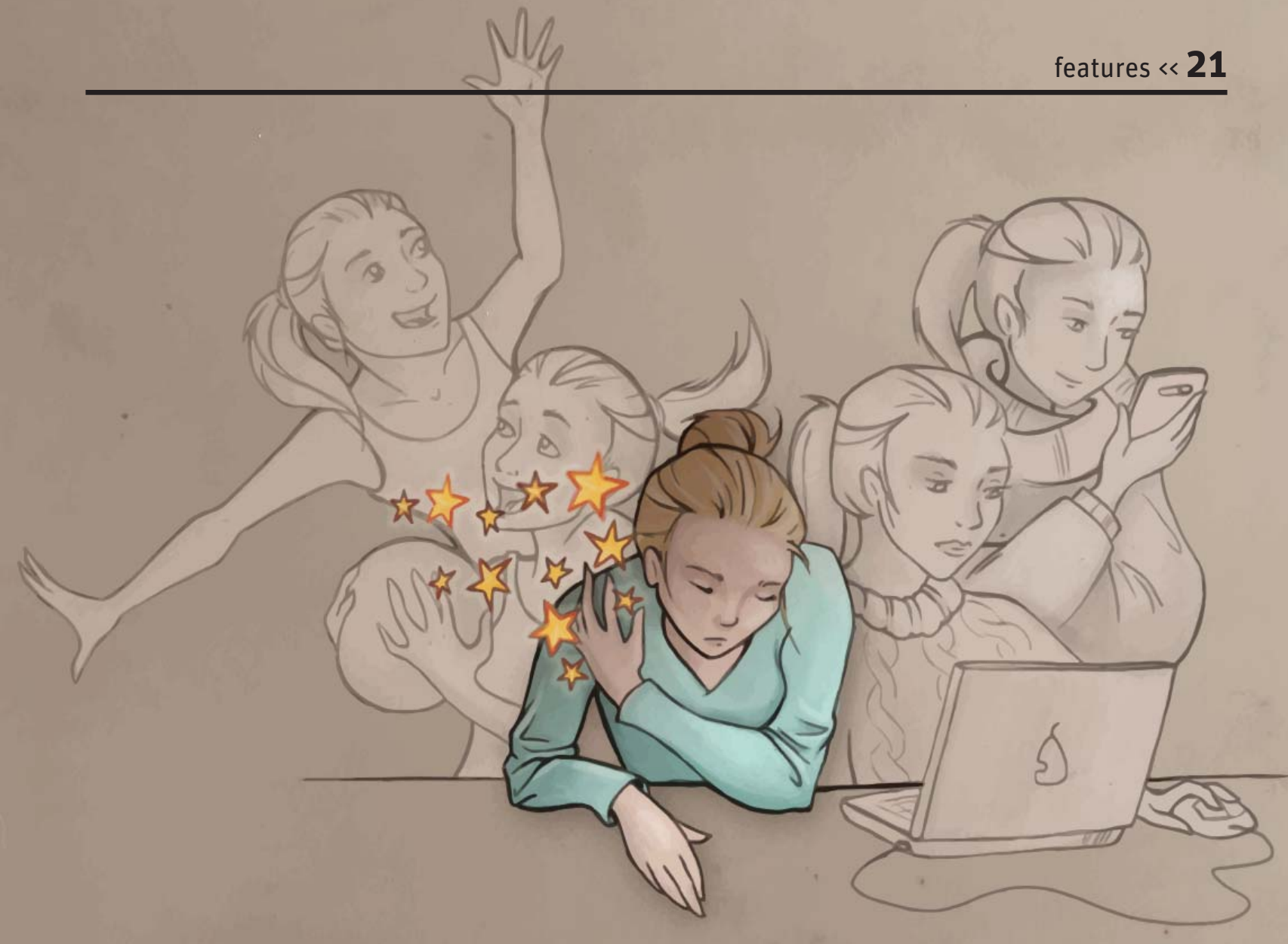
Meanwhile, physiotherapist Vaessen works with the students on the five Ws: work approach, workplace, work attitude, dealing with work pressure. The latter is important, says dean Ruur Boersma: 'Students with CANS have to learn to feel their stress levels and their bodies, so they are not just busy thinking all the time. They also need to start setting limits. Their whole attitude to life has to change.'

HOURS OF TYPING

In retrospect it was typing out interviews for hours on end that did for Nynke. 'From May onwards I was working for eight hours a day, with just one break.' That is not unusual among Leeuwenborch students, says physiotherapist Karin Vaessen. 'Social science students have to write very long papers and type out interviews word for word. That is a stumbling block.' Vaessen sees a lot of students of Forest and nature management and of Land-

RSI IS NOW CALLED CANS

CANS – complaints of arms, neck and shoulders – is the new name for what used to be called RSI. These complaints are caused by prolonged overuse of muscles, ligaments and connective tissue for small, static arm movements in combination with poor posture and/or stress. This leads to compressed blood vessels in the neck and shoulders, restricting circulation. Personality traits such as perfectionism play a role too, as does a person's capacity to feel where the limits lie. The complaints can range from tingling and soreness to a loss of functions.



scape architecture too. 'There are always a couple of students who get stuck, especially during the big studio assignments for Landscape architecture.' But lots of bending over and repetitive movements in the lab can cause CANS as well, says Vaessen.

Nynke eventually had to minimize all activities for which she used her hands. 'That really was very difficult, because you need your hands all the time. I took WhatsApp off my phone, installed an automatic email reply, and left the washing up to my housemates.' But she didn't just sit around and wait; she used the summer to look up old friends and now she teaches refugees a couple of days a week.

Nynke tries to improve her circulation by swimming and walking. That is important, says Vaessen. 'The fiddly little movements you make when you're at the computer generate waste products but little circulation. So you are producing a gigantic rubbish heap that doesn't get carted away.' After even just a quarter of an hour of real exercise your body cleans up the mess, says Vaessen. 'Simply getting enjoyable exercise, that is the main trick.'

UNCERTAINTY

Nynke can start her internship in February if her symptoms diminish, which they have not done yet. 'I find it very hard to live with that uncertainty. I am really scared of the pain becoming chronic.' There is a risk of that, admits Godkewitsch. He reckons about five percent of the people laid off work for health reasons suffer from a form of CANS. 'It is a very cruel and extremely stubborn complaint.' Although Nynke is very pleased with the way WUR handles CANS cases, she feels the university could do even more to inform students about the importance of good posture, enough rest, and the effects of CANS. Vaessen agrees. The university currently spreads information through the introductory courses for first-years. But at that stage the information doesn't stick in their minds, says Vaessen. 'Information campaigns would work better later in the year, once they realize how many papers they have to write and start to get themselves organized.' Vaessen also thinks information campaigns would be useful at the point when students embark on their Bachelor's or Master's theses. **Ⓜ**

PREVENTION WORKS

Fifty students with CANS consulted the deans at WUR in 2015. That was a big drop: in 2012 there were 122 students reporting these problems. Prevention of CANS has been a priority for the university since the 1990s. At that time pain related to computer use was such a widespread problem that student doctor André Godkewitsch sounded the alarm and set up a working group. WUR then bought a lot of adjustable furniture and tried to reduce the problems with information campaigns, subsidizing ergonomic aids, lowering work pressure and installing workbreak software. This worked. Physiotherapist Karin Vaessen: 'At the end of the nineteen nineties we honestly saw people who couldn't lift a cup to their lips. I rarely see that now, luckily.'

IS THE CAMPUS LIVELY?

A lively campus with more activities, art, debates and bustle. That was one of the executive board's objectives for this year. New features include more shops in Campus Plaza, food trucks and benches in front of the Forum and a digital and paper activities calendar. So is it working? Is the campus abuzz?

text Yvonne de Hilster illustration Henk van Ruitenbeek

Timo Jonker



Third-year student of Biology

'In the first few weeks of the academic year, when the weather was still nice, I had more of a campus feeling than now. **The campus is nicer than it used to be, with the market square at the Forum and the food trucks. It's nice that you**

can sit outdoors on benches now. It's the people that make it a sociable place. To me it's a real university campus now. I don't notice that there are industrial companies here too. As for the campus calendar, I wouldn't put it in bins as a folder or on a separate website, but just in Resource. Apart from that I mainly look on the internet to see what activities are coming up.'

Dave van Hemert



Advisor on marketing and communication at Schuttelaar & partners in Plus Ultra

'**What gives me a campus feeling is a brown café you can wander into on a Friday afternoon.** Where it still smells of

the party the night before. That's all part of a campus to me, and it's missing here. The campus is a bit too clean as it is. But it's one up on the Agrobusiness-park at least.'

Frank Elbers



Product developer at FrieslandCampina

'**People from FrieslandCampina generally just drive from the roundabout to the building and go through the barrier at the end of the day to go home.** I don't

have time to attend events. I do go for a walk every lunch hour with a few colleagues. The campus is certainly becoming more and more attractive. I've been working here since our building was

first finished and the footpaths that have been created are a big improvement. And it has become greener and more landscaped. I think Campus Plaza with its apartments and shops really belongs here.'

Anja van Holland

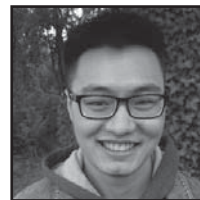


Secretary at the Laboratory for Microbiology

'**It is nicer here than at the Dreijen, where we were until the start of this year. There is more going on; it is very dynamic.** And I feel more involved in

WUR here. I do have a sense of a campus here. I am familiar with the campus calendar, I've had a look through it to see if there's anything on that's up our street. There is something to do at Impulse every week, I think: I often see announcements of events. My colleague and I want to go along some time but we don't usually have time. You have to plan for these things.'

Liyou Dong



Fresh food & chains, Wageningen Food & Biobased Research

'**I haven't been here long but I love the campus.** Nice people everywhere. I feel at home here. But I never go to activities. I do go to the sports centre for basketball or to use the gym. I didn't

know there was an activities calendar, but I think it's a good initiative.'

Ruben Kuijer



Intern at Green Dino in Plus Ultra

'Here inside I don't get a campus feeling: it is just an office. I only see students when I look outside. **I didn't know there were all sorts of things to do here.**'



Victor Roos



Minor student at Communication sciences

'I am at Breda university of applied sciences and I've been here for three months now. The campus is a safe environment: all the degree programmes together and you can see in to the lecture rooms. **But I don't see much sign of creativity in the Forum: as a housemate of mine said, there are only nerds working here.** In Breda we sometimes have a week where you are given a sentence or a key word and you do what you want with it. I miss that kind of space for self-development at WUR. Whereas creativity is important in science too, as well as in the interaction with society. There is a creative atmosphere at Impulse though. I'm at this lunch concert now because I saw something about it on a screen. A folder is an outdated medium. And who looks at posters nowadays?

Antonia Lagarde

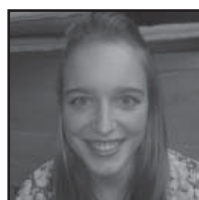


Taste panel member at FrieslandCampina

'The atmosphere on campus feels lively to me: a positive atmosphere, different from the town. Everyone here is busy with research, you can sense that. It is open and invigorating here, as you could expect anything to happen and you could always find someone to go to with a new idea. But I have no

idea what there is to do on the campus. And that is a pity because town residents and researchers could enrich each other's lives. So **share that Wageningen campus calendar with the rest of the town through Wageningen websites.**

Vera Bunt



First-year Master's student of Nutrition and health

'**I like the fact that there are lunchtime concerts.** It's nice to go to them in the break. It gets you out of the Forum for a while but it's not far to go. I saw an announcement about this concert when I went out to get something to eat with a friend last week.'

Peter Ravensburger



Business developer at Wageningen Food & Biobased Research

'**On a working day I don't usually get further than Impulse to have lunch with colleagues.** Sometimes I walk along the footpath past the amphitheatre. It's good we've got Impulse.

There is always something going on here. But I tend to just hang around after coming here for lunch, rather than specifically coming for an event. My colleague thinks the bus stop and the AH on campus are the biggest improvements.' ③

Recipes wanted for vegan cookbook



Watch the video
on resource-online.nl

PHOTO: SVEN MENSCHER

Eveline Delnooz is going to write a vegan cookbook with recipes from all around the world. The alumna is looking for people from Wageningen to send her recipes and the stories behind them.

Five years ago when she was still a student at Wageningen University, Eveline went into business as Eveline Cooks. She started out making vegetarian take-away meals that people could pick up from her flat in the Dijkgraaf. That company is still going and Eveline now also works as a cook in two vegetarian restaurants, Voorheen Slagerij de Jong in Nijmegen and Enig Alternatief in Arnhem. 'I just wanted to do something hands-on after my degree and I ended up doing this. I thoroughly enjoy it; in fact I like it better than anything I've done before.'

But Eveline has a new plan too: writing a vegan cookbook. 'Actually it was my father who came up with the idea a few years ago. There are people from every continent living in Wageningen and they all know recipes from home that are important to them. They remind them of their home country or of their childhood. We are going to collect these recipes.'

Eveline wants to tell the stories behind the recipes as well. With photos of the contributors and short texts, she wants it to be a cookbook with a difference. She already has about 20 rec-

ipes but aims at about 100.

NASI PECEL

Eveline tries out all the recipes she gets sent in the restaurants she works in. 'Up to now people have been very enthusiastic about them. It's a nice way of seeing how people like the recipes and whether I need to change any-

**'Some people think
vegan cooking is
boring and tasteless'**

thing about them.'

Eveline has already received recipes from several different international cuisines: Greek, Indonesian, Scots and Indian. 'An Indoensian girl sent me a recipe for nasi pecel, a vegetarian recipe with peanut sauce. She told me it's a simple but typically Indonesian recipe which she has missed since living in the Netherlands. The dish can be prepared in various ways, you can use all sorts of vegetables and it's up to you

how hot you make the sauce. Her mother made it for her just before she left for the Netherlands because she was worried that her daughter would miss that kind of food here.'

MISSION

'Some people think vegan cooking is boring and tasteless. My mission is to show that these prejudices are unfounded. The food I cook at my work only has to be vegetarian food, but I cook vegan dishes as well so that guests can get to know this way of eating. People often have no idea that they have just eaten something vegan and they are pleasantly surprised. And it's not difficult to cook vegan food, it just takes a bit of adjusting. You can't add flavour to a dish by throwing in some cheese, for instance, but once you catch on to how it works, it really isn't difficult. There are plenty of options too, with lots of different plants to choose from. You can use all kinds of fruits and vegetables and combine them in an incredible number of ways.' **RM**

Do you have a recipe for the vegan cookbook?
Email it to evelindennooz@gmail.com She'll
send you a form with all the information.

‘Two seconds to get everything right’

Iris Brunsmann (24) is doing a Master's in Food Technology and Nutrition and Health. She also has a passion: powerlifting. She has only been doing this for about 18 months and yet she will already be competing in the Dutch championships in December.

Iris won gold this year in the Dutch Student Championship (NSK) Powerlifting. That meant she qualified for the ‘ordinary’ Dutch championship. If you ask her how she expects to do, she is quite explicit: ‘I don’t have any expectations. I haven’t even looked to see who I’m competing against because I’m afraid then I’ll start thinking about it and setting myself unrealistic objectives. I will go there with an open mind. I’m really pleased even to be able to take part in such a major event.’

Iris will be competing in the under 73 kg weight class, with the goal of improving her personal best. ‘If you’re at a higher level, of course you want to beat everyone but I don’t yet know whether that’s realistic at this stage. I’m pleased I already got some experience with the NSK; I was very nervous about that. You have two seconds to get everything right. Now I understand more how it all works.’

LONELY KILOMETRES

Powerlifting consists of three different exercises: the squat, the deadlift and the bench press. It is all about correct execution and lifting the maximum weight in one go. ‘Before I started this sport, I used to cycle and go running. But after a while I got bored with those lonely kilometres. I decided to go to the gym one time and I turned out to be far too keen because I just wanted to lift more than everyone else. So it got a bit out of hand,’ laughs Iris. ‘My two brothers and my sister also do a lot of strength exercises because of their skating. And my boyfriend does powerlifting, so you get into it automatically.’

‘What I like about this sport is the individual aspect. I can continue to challenge myself. In a competition, I’m competing against myself as well as against the others.’ In the run-up to the championships, Iris is training mainly by lifting increasingly heavy weights. ‘It feels very different when you’ve got more kilos on your shoulders, so you have to train for that. Here

too, I’m trying to think as little as possible about expectations. If I start thinking about that, I get nervous. That has the wrong effect on me.’

Brunsmann trains with Wageningen Beasts in De Bongerd sports centre. ‘It is an individual sport, but we train together with a trainer. Everyone has their own programme. My boyfriend writes out my workout schedules so I know what I have to do during a session,’ explains Brunsmann. ‘We’ve reduced the number of training days a bit as we get close to the championship. I’ve now got four proper training days and on the other three days I cycle or do stomach exercises. I normally train every day.’

ENJOYING FOOD

The Master's student doesn't follow a strict diet. ‘If I know I’ve eaten enough and slept enough, then I feel good. I can start worrying about all that if I ever get to a higher level in future. At the moment, it relaxes me to eat food I enjoy and not to have to think about that. If I had to start doing that, I’m afraid I wouldn’t get any more pleasure out of my sport.’

Iris doesn’t find it difficult to combine her powerlifting with her studies. ‘When I hear how many TV series other students get through in one day, I realize how much less free time I have,’ she laughs. ‘But I find it quite easy to combine the two. I mainly schedule my training for after lectures or in the morning. That means I have a couple of free hours in the evening for relaxation. The only thing I don’t do much is go out on the town, but I don’t really feel the need for that any more.’ **R MF**

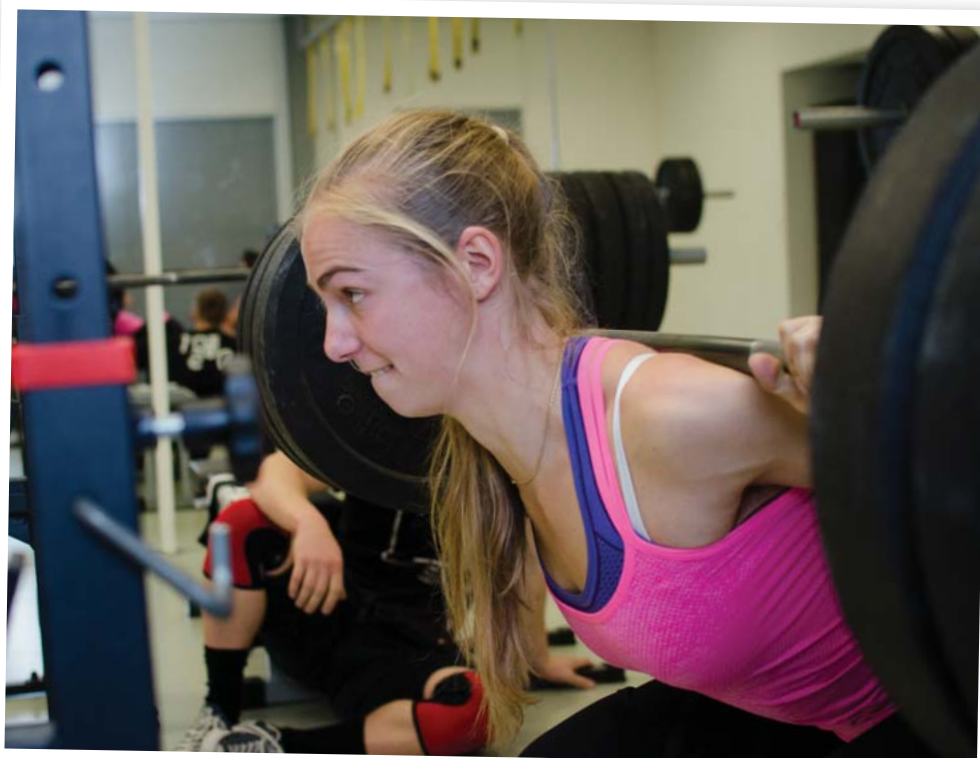


PHOTO: AARTJAN VAN DE GLIND

Master's student Iris Brunsmann will be competing in the Dutch Powerlifting Championships in December.

AGING FAST

Smoking dope makes you age faster, scientists at the University of Western Australia have discovered. Long-term cannabis use affects the arteries, speeding up the aging process. This acceleration can be more than 10 percent. So a confirmed dope smoker of 30 is 33 in biological terms. But this faster deterioration does not give you the right to retire at 60.

MEMORY

Researchers at Northwestern University studied the brains of a number of deceased 90-year-olds with exceptional memories. To their surprise, the brains showed signs of dementia, in pathological terms. The search is on to find out how that is possible. With a view to a cure for the devastating effects of dementia.

PRESENT (1)

Women don't know their partners as well as they think they do. One in three men get birthday present from their partners that are wide of the mark. But the women rarely hear about it: in 60 percent of cases, men keep their disappointment to themselves. Admittedly the source of this finding could be suspect: a survey by tool manufacturer Black+Decker.

PRESENT (2)

Curious what a man does want then? A few examples: a drive in a Ferrari, a barbecue, whisky, concert tickets and – okay then – a drill. And what they definitely don't want? Yucky aftershave, socks, a set of saucepans or tickets for a musical. Useful information just before the

December festivities. Let's hope Sinterklaas and Father Christmas are reading this.



ber 2016

Wageningen gets student trade union again

After five years without one, Wageningen once again has a student trade union. The Student Alliance Wageningen (SAW) is the successor to the Wageningen Students' Organization (WSO) and was set up in response to the student protests against evening lectures last May.

The main objective of the new student trade union is to poll opinions on the evening lectures and present the results to the executive board. The SAW also wants to provide information on matters such as housing. According to SAW chair Fons Janssen, there is a need for another lobby organization besides the Student Council, to look beyond student interests within the university. 'It is important to have an independent party which has even closer contact with all the different organizations in Wageningen,' says Fons. 'Take housing and public transport access to the university. A student union can make sure the right stakeholders are brought together.'

Meanwhile 22 associations have joined the Wageningen student union. These include study associations, sports association and social clubs. This does not mean that the members of these associations are automatically members of the SAW. 'The association is a member and individual members have a say through their association,' explains Aart-Jan van de Glind, secretary of the SAW.

Ex-WSO board member Wiebe Aans, who now works at Studium Generale, sees the revival of a student trade union as a good initiative. He does feel, however, that the Student Alliance should focus on study associations rather than on all the different kinds of associations. 'The aim is to look at the interests of the student. All students are represented in a study asso-



Fons Jansen (left) and Aart-Jan van de Glind of the students' union.

ciation. That's different in a sports association.' The WSO was closed down in 2011 after 46 years, because there were no new board members. That a student trade union is being set up now is due to dissatisfaction on issues of capacity caused by the university's continuous growth. 'There weren't such big problems in the past as there are now. Recently students have felt they were not listened to, and they feel they were not consulted enough on the introduction of evening classes. And this led to protests. After those protests many associations saw the need for a voice that speaks up for students' interests.' **MF**

Students hold fundraising week for Serious Request

The student desk of the Red Cross in Wageningen will be running a fundraising week for the national campaign Serious Request from 28 November. From Monday to Thursday there will be a DJ in the Forum during the lunch hour and students and staff can put in requests in exchange for a donation. The Mayor of Wageningen will open the fundraising week in the Forum on Monday. Lottery tickets will

be sold all week at one euro apiece. Prizes include a Red Cross First Aid course. On Tuesday evening several student bands will be performing in Loburg café and on Wednesday evening there's a pub quiz in The Doctor café. All week there will be 'Serious banana bread' for sale in the Leeuwenborch, with part of the proceeds going to Serious Request.

Serious Request is a national

fundraising campaign, hosted by Breda this year, where three DJs will lock themselves into the 'Glass House' for three days to raise money for Red Cross projects. 'The goal this year is to raise money for the battle against pneumonia in children under five. Worldwide almost a million children die of this disease every year,' says Welmoed Sprong, board member for the Red Cross Wageningen student desk. **MF**

SHOUT Wageningen is organizing Pink Week

SHOUT Wageningen, the society for lesbian, gay, bisexual and transgender (LGBT) people, will be organizing a Pink Week at Wageningen University. This will be in the week of Purple Friday, a national day on which people wear purple to protest against homophobia in education.

SHOUT is organizing Pink Week from 5 to 9 December to demand more attention for the LGBT community at the university. 'There is openness within the university about homosexuality but it's not very visible,' says Rinske de Vries, in charge of PR at SHOUT. 'I felt having the rainbow flag flown at Forum on Coming Out Day was a real milestone.' She would like shorter lines of communication

between SHOUT and the university. 'I recently spoke to a dean who didn't really know much about what we do. I also think the university could do more on transgender issues such as the toilets.'

That is why Pink Week will be beginning with a gender day. 'Many people think you are either a man or a woman, but there are lots of variants in between. We want to talk to students about that. There will be two gender-neutral toilets in Forum for the whole week,' says Rinske. On Tuesday, the Heerenstraat cinema will be showing a film about the transformation of a transgender teenager. On Wednesday, there will be a lunchtime debate in Impulse on what it is like to be an LGBT person at the university, and a pink pub quiz in the



evening in The Spot. On Thursday the documentary *Inside the Chinese Closet* will be shown in Impulse. This film follows two LGBT people in China. 'We chose this documentary because there are a lot of Chinese students in Wageningen, and

the pressure many young Chinese feel from their parents to marry was a hot topic recently,' says Rinske. On Purple Friday, SHOUT will be in Forum handing out purple wristbands that you can wear to show your support. **MF**

MEANWHILE IN... INDIA

'India has a parallel, black economy'

Last week, the Indian government suddenly decided to declare all 500 and 1000 rupee notes invalid. The government has taken this measure in an effort to combat corruption and the black market. Rahul Shenoy tells us how his family have experienced these events.

'Normally my family and friends are not the biggest supporters of the current government but we appreciate this policy a lot. In our WhatsApp group, we keep each other up to date on recent developments, for instance how long the queue is for the bank. Because the demonetization has worked out well so far, we also share a lot of jokes and memes.

I sense that this positivism is more widespread in Indian society. Volunteer organizations help the poor and elderly to change their money and an exception has been made for essential public services like hospitals, which can still be paid in the old money. In this way, the policy is almost becoming a social movement in which people work

together to reduce corruption.

I personally experienced corruption most when I was admitted to high school. The school asked me to bring part of the school fees – 14,000 of



PHOTO: SINGH LENS/SHUTTERSTOCK.COM

the 70,000 rupees – in cash and that amount didn't appear later on the receipt. I knew what was happening but I cooperated because I wanted to go to that school. India basically has a parallel economy: you have to make an extra, black-market payment for every registered purchase. It's ridiculous!

Of course the demonetization has some negative effects too, for example for poor people who don't have a bank account. And for me: I still have some old rupee notes in my pocket. As there isn't an Indian bank nearby, I won't be able to change them before the end of December. I think I will just keep them as a souvenir.' **TF**



Rahul Shenoy, Master's student in Environmental Sciences from India, talks about events in his country.

YOU ON CAMPUS

Roos Goedhart (20) is a Bachelor's student of Molecular Life Sciences. She is currently writing her thesis and walks between the Axis and Helix buildings every day. Talking about her life, she uses the word 'super' a lot.

'It is super-nice to work on the environment. What I like best is to apply my chemical and molecular knowledge to this field.' That is why Roos is writing her Bachelor's thesis at Environmental technology, even though this is not a chair group involved in her programme. For months she has been delving into the world of bacteria, granules and bio-films. A thesis for her programme is worth 24 ECTS – almost six months of study. She does the quantifying in Helix and writes in Axis. Luckily they are not far apart: she only has to cross the road.

A big plus for many thesis students is free coffee. But Roos was already used to that: 'I also have a coffee card for the Forum and Orion.' Alongside her studies Roos chairs

study association Alchimica. It is quite time-consuming work: three evenings a week on average. There is a meeting once a week, there are get-togethers over drinks with other study associations, and then of course there are the association's own activities. 'It is very intensive but I enjoy keeping busy. And it is super-fun and super-sociable!'

'The yummiest thing in the world is grilled aubergine'

In any spare time she has left, Roos makes vegan snacks. 'The yummiest thing in the world is grilled aubergine.' Roos is vegan by day and vegetarian in the evening. She would really prefer to be vegan all the time but finds it tricky to combine it with sharing meals with the board or with her house-

mates. Vegan food took a bit of getting used to – 'cheese adds flavour to anything really' – but it is part of her passion for the environment. It has also made her more aware of what she eats. 'I used to just make a quick cheese sandwich. Now I give more thought to what I eat. And as a result I generally eat much more delicious food!' **AB**



PARTIES

In the party mood? Wageningen Party Promotion (WUP) tells you where to find one. See too www.wageningenup.nl.



ARGO - NACHTDIER: ACRONYM AND J&L

Friday 25 November from 22:00 to 06:00

The Wageningen techno platform Nachtdier is organizing another party at Argo rowing club, with views of the Rhine. The tenner admission charge is pretty steep but worth it if you are into techno.

VREEMDE STREKEN: SPANISH EVENING WITH TAPAS AND MUSIC

Saturday 26 November from 18:30 to 01:00

Tapas and a performance by flamenco duo Gino & Jiri Taihuttu will make you feel you are in sunny Spain. The full programme including food costs 17.50 euros. You can enjoy the music (from 21:00) for free.

KSV FRANCISCUS: RADIOACTIVE

Thursday 1 December from 23:00 to 05:00

KSV's public parties are always highly recommended. This last one for 2016 is all about 'radioactive' beats and black light. Admission is the usual 4 euros. **AB**



Many students joined in the pub crawl to mark the Doppelpalm procession in Wageningen on 9 November.

PHOTO: SVEN MENSCHER

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.

'Dutch suddenly sounded very odd'

'We had to go into the field at six o'clock in the morning. The sun was just up then and shone beautifully through the leaves. We had to set off that early because the tree branches are still well hydrated at that time of day. My thesis was about drought resistance in giant trees in the tropical rainforest.

In very dry conditions, air bubbles can form in the tree's vessels, interrupting the water transport and stopping water reaching the leaves, which then hang lifelessly. The formation of these air bubbles is called cavitation.

PRUNING SHEARS

In the morning Mariazinha, my field assistant, and I went into the forest with a pair of pruning shears to collect branches. Only she didn't speak English and I spoke very little Portuguese. I knew my numbers after a while, and I knew 'left', 'right', 'here' and 'there'. That went a long way during the fieldwork. Mariazinha always helped students in the forest, she knew a lot of species and animals, she could find her way around, and she was always cheerful and happy.

I studied the branches we collected in the lab. The species on the dry plateau were more drought-resistant than species in the valley. With climate change come longer periods of drought. Species which can't cope well with that will suffer more. This means the combination of species can change, which can have serious implications for people who make their living from forest products. And it is not just people who live in the forest, but a great many animals as well.

When we came back from the forest at around 10 am, the lizards were already basking in the sun. We even saw a poisonous snake eating up one of these lizards. That was really cool! And close to the camp was a harpy eagle's nest. That's a big bird of prey. One of its young sometimes flew rather brashly our camp.

SKYPE

What did I learn? That family and friends are very important. Not many Brazilians speak much English so you do miss that communication. I didn't call home all that often: in three months I skyped with my mother twice. The time difference and the bad internet connection made it difficult. When I got back, Dutch suddenly sounded really odd. Even when you're the one speaking. You think, Oh yes, that's how it goes!' **IK**

THE WORKS

Who? Emma van Baalen, Master's student of Forest and nature conservation
What? Thesis on drought resistance in giant trees
Where? Reserva Florestal Aldolpho Ducke, Manaus, Brazil



Read all interviews on
on resource-online.nl.

Forum Irregular Opening Hours Christmas Holidays 2016/2017

	2016	The Building	The Library	Student Desk IT Service Point	WURshop	Restaurant	Grand Café	Wageningen in'to Languages
Friday	23 December	8 am - 8 pm	8.30 am - 5.30 pm	Closed	9 am - 2.30 pm	Closed	Closed	9 am - 5 pm
Saturday	24 December	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed
Sunday Christmas	25 December	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Monday Christmas	26 December	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Tuesday	27 December	8 am - 8 pm	8.30 am - 5.30 pm	Closed	Closed	Closed	11.30 am - 1.30 pm	Closed
Wednesday	28 December	8 am - 8 pm	8.30 am - 5.30 pm	Closed	Closed	Closed	11.30 am - 1.30 pm	Closed
Thursday	29 December	8 am - 8 pm	8.30 am - 5.30 pm	Closed	Closed	Closed	11.30 am - 1.30 pm	Closed
Friday	30 December	8 am - 8 pm	8.30 am - 5.30 pm	Closed	Closed	Closed	Closed	Closed
Saturday	31 December	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed
Sunday New Years Day	1 January	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Monday	2 January	8 am - 8 pm	8.30 am - 5.30 pm	12 pm - 2 pm	10 am - 2 pm	8 am - 7 pm	11.30 am - 1.30 pm	Closed
Tuesday	3 January	8 am - 8 pm	8.30 am - 5.30 pm	12 pm - 2 pm	10 am - 2 pm	8 am - 7 pm	11.30 am - 1.30 pm	Closed
Wednesday	4 January	8 am - 8 pm	8.30 am - 5.30 pm	12 pm - 2 pm	10 am - 2 pm	8 am - 7 pm	11.30 am - 1.30 pm	Closed
Thursday	5 January	8 am - 8 pm	8.30 am - 5.30 pm	12 pm - 2 pm	10 am - 2 pm	8 am - 7 pm	11.30 am - 1.30 pm	Closed
Friday	6 January	8 am - 8 pm	8.30 am - 5.30 pm	12 pm - 2 pm	10 am - 2 pm	8 am - 2 pm	11.30 am - 1.30 pm	Closed
Saturday	7 January	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed
Sunday	8 January	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed

During working hours, the building is open to the public. After working hours, entrance is only possible with a WUR card.



Orion Irregular Opening Hours Christmas Holidays 2016/2017

	Friday 23 December	Saturday 24 December to Sunday 8 January
The Building	8 am - 6 pm	Closed
Bike basement	8 am - 6 pm	Closed
Restaurant	11.30 am - 1.30 pm	Closed
The Spot	8 am - 6 pm	Available for Christmas celebrations, email your request to osp.fb@wur.nl Check the opening days and hours during Christmas Holidays on facebook.com/TheSpotOrion



Leeuwenborch Irregular Opening Hours Christmas Holidays 2016/2017

	2016	The Building	Coffee Bar/ Restaurant	The Library
Friday	23 December	7 am - 10.30 pm	9.30 am - 3 pm	8.30 am - 5 pm
Saturday	24 December	8 am - 5.30 pm	Closed	Closed
Sunday Christmas	25 December	Closed	Closed	Closed
Monday Christmas	26 December	Closed	Closed	Closed
Tuesday	27 December	7 am - 6 pm	11.30 am - 1.30 pm	Closed
Wednesday	28 December	7 am - 6 pm	11.30 am - 1.30 pm	Closed
Thursday	29 December	7 am - 6 pm	11.30 am - 1.30 pm	Closed
Friday	30 December	7 am - 6 pm	Closed	Closed
Saturday	31 December	Closed	Closed	Closed
Sunday New Years day	1 January	Closed	Closed	Closed
Monday	2 January	7 am - 10.30 pm	9.30 am - 3 pm	Closed
Tuesday	3 January	7 am - 10.30 pm	9.30 am - 3 pm	Closed
Wednesday	4 January	7 am - 10.30 pm	9.30 am - 3 pm	Closed
Thursday	5 January	7 am - 10.30 pm	9.30 am - 3 pm	Closed
Friday	6 January	7 am - 10.30 pm	9.30 am - 3 pm	Closed
Saturday	7 January	8 am - 5.30 pm	Closed	Closed
Sunday	8 January	Closed	Closed	Closed

After 6 pm entrance is only possible after registration at the reception desk.



announcements

Shout Wageningen

Shout Wageningen is looking for some new 'Out Now' mentors. Another Out Now group is due to start in early January. It will hold about 10 meetings to talk about coming out, falling in love, relationships and homosexuality in society. If you are interested in mentoring this group, please email us. People interested in attending the meetings can also send an email to info@shoutwageningen.nl.

agenda

Thursday 10 to Wednesday 23 November

5 FILMS FOR STUDENTS

Le fils de Jean: drama/thriller about a young man and the truth about his dead father who lived in Canada; *Bacalaureat*: a Romanian social and psychological drama about a father and his daughter who faces obstacles to her education plans;

La pazza gioia: comic feel-good film about two women in Tuscany; *Fukushima mon amour*: poetic Japanese drama about survivors in the area around Fukushima after the earthquake; *Fuocoammare*: heart-breaking Italian-French portrait of the migration crisis on Lampedusa. Venue: Wilhelminaweg 3A, Wageningen.

WWW.MOVIE-W.NL

Monday 28 November, 19:30

WURTALKS: 'HOW DO YOU INFLUENCE BEHAVIOUR?' WITH REINT JAN RENES AND EMELY DE VET (IN DUTCH)

Organizations and individuals are constantly trying to influence our behaviour. Just think of supermarkets that try and persuade us to buy all kinds of tasty goods. How can you get more insight into behaviour and what effect does your environment have? Get inspiration from Reint Jan Renes (Teacher of the Year 2005 and author of *Draai-boek gedragsverandering*, a manual

on changing behaviour) and Emely de Vet (professor in strategic communication and nominated for VIVA400). Venue: Cinemec Ede.

Thursday, December 1, 12:30-13:20

LUNCH WORKSHOP WAGENINGEN WRITING LAB 'WHY AND HOW TO REVISE YOUR TEXT'

It is a myth that a well-written text is written in one go. It's crucial to revise! The first step is to focus on the content, and then you deal with all the other aspects of academic writing. In this workshop we'll offer you practical strategies to revise your text. Bring your draft. Be there in time, as participant numbers are limited to 20. Admission free. Venue: Forum Library, room C0408. Info: info.wageningenwritinglab@wur.nl.

Sunday 4 December, 14:30

MUSICAL ROAD TRIP: CONCERT BY THREE STUDENT WIND AND BRASS BANDS

Student band De Ontzetting will be putting on a concert in the Junush-off theatre in Wageningen together with the student wind and brass bands of QHarmony (Nijmegen) and SHOT (Twente). This concert will take you on a musical journey through the three university towns of Nijmegen, Enschede and Wageningen. To be sure of a ticket (at €7.50), you can make a reservation via shot.utwente.nl/kaartverkoop.

Deadline for submissions: one week before publication date (max. 75 words)
Email: resource@wur.nl

colophon

Resource is the magazine and news website for students and staff at Wageningen University & Research. Resource magazine comes out every fortnight on Thursday.

Address

Droevendaalsesteeg 4,
6708 PB Wageningen
(Atlas, building 104, bode 31).
POBox 409 6700 AK Wageningen.
Secretariat: Thea Kuijpers,
resource@wur.nl, 0317 484020
Website: www.resource-online.nl.
ISSN 1389-7756

Editorial staff

- Edwin van Laar (editor-in-chief)
edwin.vanlaar@wur.nl, 0317 482997
- Lieke de Kwant (editor)
lieke.dekwant@wur.nl, 0317 485320
- Roelof Kleis (ecology, social sciences, economy),
roelof.kleis@wur.nl, 0317 481721
- Vincent Koperdraat (website coordination)
vincent.koperdraat@wur.nl, 0317 481338
- Linda van der Nat (students, education)
linda.vandernat@wur.nl, 0317 481725
- Albert Sikkema (plant sciences, animal sciences, organization)
albert.sikkema@wur.nl, 0317 481724

Others who work on Resource

Guy Ackermans, Annie Berendsen, Jessica Bernard, Ton van den Born, Alexandra Branderhorst, Daniël Dreadson, Teun Fiers, Marijn Flipse, Stijn van Gils, Aart-Jan van de Glind, Anne van der Heijden, Yvonne de Hilster, Hoger Onderwijs Persbureau, Milou van der Horst, Anja Janssen, Liza van Kapel, Iris Keizer, Jan-Willem Kortlever, Kito, Helena Ligthert, Anna Luijten, Django Kaasschieter, Piotr Kukla, Sven Menschel, Linda Meijer, Carina Nieuwenweg, Rik Nijland, Kim Peterse, Henk van Ruitenbeek, Julia Schäfer, Eva van Schijndel, Twan van der Slikke, Joris Tielsen, Pascal Tieman, Didi de Vries, Rob de Winter, Remo Wormmeester

Design

Geert-Jan Bruins

Translators

Clare McGregor, Susie Day, Clare Wilkinson

Printer

Tuijtel, Hardinxveld-Giessendam

Subscriptions

A subscription to the magazine costs €58 (overseas: €131) per academic year. Cancellations before 1 August.

Advertising

External: Bureau van Vliet, T 023-5714745
m.dewit@bureauvanvliet.com
Internal (reduced rate): Thea Kuijpers,
resource@wur.nl. T 0317 484020

Publisher

Marc Lamers, Corporate Communications & Marketing Wageningen University & Research

carbon neutral
natureOffice.com | NL-215-174413
print production

FSC
www.fsc.org
MIX
Paper from
responsible sources
FSC® C007225



Reception

Reception after your inauguration or PHD defense? Colors has all-inclusive possibilities for € 6,00 per person. We can serve in the aula or at Colors restaurant at the market. Check our website for more info!

Colors World Food for World Food in a colorful surrounding!
Markt 15, 6701 CX, Wageningen
T: 0317-417463
E: info@colorsworldfood.nl
W: www.colorsworldfood.nl

Documents, Photos lost? Broken USB?
Computer Hacked? Software, Hardware
Failures? Laptop Slow or Down? ...

Call **SUNSHINE!**
0317 - 420 739
06 - 5119 0005

**NO CURE
NO PAY**

IngenieursBureau
SUNSHINE
Pomona 20, Wageningen
lordsunshine@gmail.com

**Data Recovery &
Computer Services**

www.ingenieursbureau-sunshine.nl

CineMec

Laan der Verenigde Naties 150
www.cinemec.nl / 0900 - 321 0 321

FILM



NOW IN CINEMEC

**Fantastic Beasts and
Where to Find Them 3D**
By J.K. Rowling

FILM



FROM NOV 24

I, Daniel Blake
Winner of the Golden Palm

EVENT



GET INSPIRED!

MONDAY NOV 28

Seminar
Are you
easily influenced?

€2 STUDENT DISCOUNT ON FILMS & EVENTS

Have a very nice meal at

Kelly's

TEXMEX RESTAURANT

RESTAURANTKELLYS.NL

>>TYPICAL DUTCH




Sinterklaas comes on a steamboat

When Christmas was coming last year, I decided to check out how it is celebrated in the Netherlands. It seemed to me that it was a little bit different here. Then I found out about Sinterklaas. At first I thought it was the Dutch name for Santa, but he is actually totally different. The Netherlands, apparently, is so special and unique that they have their own version of St Nicholas.

He gives presents on the 5th of December, not on Christmas day. He doesn't live in the North Pole, but in Spain. He doesn't use a sled, but a steamboat. And he has no reindeer, but a white horse that miraculously walks on rooftops.

You can imagine I was laughing at this point, but wait, here comes the really funny part: the helpers. They are not elves, but 'Pieten'. If you don't know them just google it and see for yourself. Children who don't behave well will receive no presents; Piet will put them inside a bag and take them back to Spain.

I've seen Sint and Piet arrive at the harbour and had the opportunity to experience this moment that is so magical to Dutch people. The joyfulness of the children was amazing. And of course it was really cool to get some 'pepernoten' from the Pieten. So if you didn't do this, go to the supermarket and buy some 'pepernoten' and other typical Sinterklaas goodies, which are delicious. And enjoy the 5th of December.

I think Sinterklaas and Santa are relatives and they divide the tasks at the end of the year. It's too much for just one person.  **Julio Silva**, PhD student of plant pathology, from Brazil

Sinterklaas and Santa must be relatives who divide the tasks at the end of the year

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