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RESOURCE [EN]

For everyone at Wageningen University & Research

no 8 – 30 November 2017 – 12th Volume



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Innovation like the farmers of antiquity | p.18

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SUGARCOATING

Does it matter which particular soap box you climb on to share your scientific knowledge? I recently saw a copy of XTR, the *NRC* newspaper's commercial supplement. This edition's topic was sugar, and it was sponsored by Royal Cosun, sugar producer Suikerunie and the sugar and nutrition knowledge centre KSV. Effectively the supplement is a platform that is up for sale for 'telling the other side' of a story. The general public is always hearing that sugar is the new smoking, so the sugar sector wants to stand up for sugar. 'In the old days it was a medicine, and there is even sugar in your bread.' Two Wageningen experts are cited in this Sugar Special. Emeritus professor of Nutrition and Health Frans Kok explains how nutrition research works, and special professor of Dairy Science Tiny van Boekel goes into the various roles sugar plays in our diet. The scientists have been accused on Twitter of being out of place in a sponsored supplement of this kind. There is nothing to complain about in what they say, and they don't promote sugar at all. But the context is promotional. I wonder whether they knew that in advance.

Edwin van Laar



>> [Modified Cavendish banana resistant to Panama disease | p.9](#)

NOT ALL ON TENURE TRACK TO GET CHAIR

If it is up to the Executive Board, WUR will be easing up on the tenure track rules. In future, researchers will no longer necessarily be expected to progress to a personal professorship and there will be career opportunities for lecturers who don't do research. This is evident from a planned resolution by the board.

The tenure track system was introduced in 2009 as a way of attracting talented scientists from the Netherlands and abroad. All university lecturers are given a genuine chance to become a professor holding a personal chair as long as they satisfy strict requirements for teaching and research.

However the growing numbers of students has led to a sharp increase in the demand for teaching staff while the research capacity has not kept pace with this. Tenure track staff are therefore under considerable pressure from a big teaching workload. Moreover, not all lecturers want to become a personal professor.

The proposal entitled *Tenure Track 2.0* sets out various options for introducing more flexibility without dropping the link

between research and teaching. The position of personal professor will no longer be the default end point; that will be an associate professorship. These associate professors will also be allowed to supervise PhD candidates in future. They will still be able to progress to a personal professorship but the criteria for doing so will be imposed more strictly. The board expects a small proportion of associate professors to be promoted to personal professor.

A second important change is that the Executive Board wants to create a career path for talented lecturers who don't want to do research. Exceptions will be made in which the employee is given a permanent contract with limited research commitments and can progress to a position on a par with that of an associate professor. The main job requirement for these lecturers is that they pay a lot of attention to innovative teaching methods.

The proposal also covers some minor changes to reduce the workload for tenure track staff. For example, the board wants to introduce a mentoring system in which senior tenure track staff help younger colleagues.

The criteria for winning new business will also be amended: tenure track staff will no longer be judged purely on how successful they are in actually securing research funding — they will also be assessed on how they tackle this task and collaborate with other chair groups. Tenure track scientists who help deal with peaks in teaching demand will be given longer to fulfil their research commitments. The tenure track will be extended anyway from 12 to 16 years.

Rector magnificus Arthur Mol says the plans meet the wishes of the chair groups to alleviate the teaching burden for tenure track employees and respond better to the fierce competition for research funding. Mol is also aware that some lecturers would rather focus on the teaching side. 'But the combination of teaching and research will remain the norm.'

The board's proposal is based on recommendations by a working group headed by the former director of the Educational Institute Tiny van Boekel. It has now been submitted to the WUR Council, the central representative body, for its consent. **LvdN**

BLUEPRINT READY FOR DIALOGUE CENTRE

Broekbakema Architects from Rotterdam have produced an outline design for the Dialogue Centre that is set to be built on campus. The building will include a room for PhD ceremonies, taking over that function from the Aula.

The artist's impression will be the starting point for the tendering procedure for an architect and contractor that is due to start in January, explains Facilities & Services director Peter Booman. If things go well, building might even start in the centenary year 2018.

According to Booman, the Dialogue Centre will do what the name suggests: help give shape to Wageningen's dialogue with society. At the core of the centre will be a large hall with seating for 300, to be used for seminars, symposia and so forth. There will also be a room with 80 seats for PhD ceremonies, inaugurations and activities in the evenings and weekends. In addition, there will be eight to ten smaller rooms and a 'faculty club' — a kind of VIP space with luxury catering for important delegations. The receptions that follow PhD ceremonies will be held in the lobby area.

The new building will be on the corner



The outline design for the Dialogue Centre, which will be built on the corner where the bus lane meets the Mansholtlaan.

where the bus lane meets the Mansholtlaan. It will be one storey high and have a floor area of 2000 square metres. According to Booman, it will be a stylish building that will

fit in with the campus's sustainable image. The Aula organ won't be moving to campus but the portraits of former rectors and memorial plaques will be coming. **RK**

DEBATE FLARES UP ABOUT INSECT STUDY

Ecologist Kees Booij's critical comments on an alarming Nijmegen insect study have caused a stir. The discussion even reached the Dutch Parliament.

Booij expressed grave doubts about a study by Radboud University in Nijmegen that shows that three quarters of the insects in Germany have disappeared over the past 25 years. His criticism prompted a deluge of comments, including on the *Resource* website. Supporters and opponents heckled one another in heated and occasionally emotional exchanges.

The issue was also discussed this week in the permanent Parliamentary committee for Agriculture, Nature and Food Quality, during a

roundtable debate on biodiversity in the Netherlands. At the request of the D66, Green Left and Christian Union parties, Booij wrote a position paper setting out his views.

Of the nine papers that were submitted to the MPs, three came from Wageningen. In addition to Booij's paper, there were contributions from Wim de Vries (personal professor of Nitrogen Effect Modelling) and Michiel Wallis de Vries (special professor of Insect Ecology & Conservation).

The Wageningen experts have differing views. Wallis de Vries concurs with the severe decline in insect numbers based on his long-term studies of butterflies. Booij questions the reduction. **📍 RK**

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Exaggerated

'Here a troika, there a troika.' In a song called 'Death ride' by the Swiss-Dutch songwriter Drs. P, a family is driving towards Omsk, pursued by wolves. Dad tries to shake off the pack by throwing the kids overboard one by one. The song is a good illustration of our fear of wolves. That fear is exaggerated, of course. But then so is the future role some people imagine for the animals. A wolf that turned up in the Netherlands this month met a sad end: it was run over and then carted away in a Wageningen researcher's car boot. Yet wolves are already being talked about in the press as the natural solution to the damage caused by too many geese. And before that, a spokesperson from nature conservation society *Natuurmonumenten* wrote – perhaps with the membership of his society in mind – 'As long as there are no wolves we shall have to go on culling deer.' Now, I do see more connection between wolves and deer than between wolves and geese, but the underlying simplification here is no different: the arrival of a few big predators will make human intervention in our fauna superfluous. People are eager to believe it.

In the song, the family loses to the wolves. With his destination in sight, even the father is gobbled up. In reality, of course, the wolves are the prey. They have been for centuries. And all things considered, they've come through it pretty well. Their capacity to adapt is fascinating and it is going to be very interesting to see how the natural environment in the Netherlands reacts to them.

But are a few wolves really going to keep the wild boar out of the fields or the deer off the roads? 'Omsk is a lovely city, but just a bit too far...' **📍**

Vincent Oostvogels (22) is exploring the delicate interface between nature management and food production through his two Master's programmes, Forest and Nature Conservation and Animal Sciences



in brief

>> STUDENT COUNCIL Appeal to coalition

The Student Council wants the ministry of Education, Culture and Science to make haste to bring the funding of Wageningen University in line with that of other universities. The council has expressed its concern in a letter to the coalition parties. The new cabinet's coalition agreement states that green education will be funded per student from now on. But the Student Council has heard that for 2018, the ministry still wants to apply the two percent rule limiting Wageningen's education funding. That would be irresponsible, says chair Bregje de Regt. 'Wageningen University is reaching the limits of its flexibility, facilities and work pressure. It can't go on like this.' **📍 AS**

>> CLARIVATE ANALYTICS Most cited from Wageningen

Nine Wageningen researchers are among the one percent most cited researchers in the world in their fields, according to Clarivate Analytics. They are Harro Bouwmeester (Plant Physiology), Marcel Dicke (Entomology), Vincenzo Fogliano (Food Quality and Design), Ken Giller (Plant Production Systems), nutrition researcher Peter Hollman, Marten Scheffer (Aquatic Ecology), Bart Thomma (Phytopathology), Martin van Ittersum (Plant Production Systems) and Egbert van Nes (Aquatic Ecology). The WUR library's information specialist Ellen Fest misses two top Wageningen researchers: Willem de Vos (Microbiology) and Marianne Geleijnse (Human Nutrition). It might count against these two that Clarivate compared their performance with that of peers in the medical field. Fest will produce her own list soon. **📍 AS**

>> FUNDING FOR ARBORETA Donation by staff association

The university's staff association for Development and Recreation (O&O), which was closed down this year, has donated 100,000 euros to the arboreta. Belmonte Arboretum in Wageningen is to receive 75,000 euros and Oostereng Arboretum, tucked away in the woods between Wageningen and Renkum, 25,000 euros. O&O was started in 1945. Around the turn of the century an overarching staff association became superfluous, but the monthly contribution of 1 guilder (45 eurocents) was still levied and led to a surplus. **📍 AS**





Belmonte Arboretum has a famous collection of rhododendrons.

ENERGY EXPERTS FORM ALLIANCE

Wageningen scientists who work on energy-related issues have united in the Energy Alliance. Their aims are to promote internal cooperation and raise Wageningen's profile in this field.

The initiative was taken by Bas van Vliet of Environmental Policy (Social Sciences), Annemiek ter Heijne of Environmental Technology (Agrotechnology and Food Sciences) and Sven Stremke of Landscape Architecture (Environmental Sciences). Stremke has been working on energy transition in the Netherlands for 12 years. On the teaching front, he has already been collaborating with SSG and AFSG for some time. 'We contribute to each other's courses in the context of One Wageningen. Why wouldn't such collaboration be possible in our research too?'

A quick trawl through we@wur produced 30 colleagues who were working on energy issues in one way or another. Two meetings have been held since then, and the next step is a working paper setting out the objectives and mission. In the long term, the Energy Alliance seeks to make energy transition a key priority in WUR's next Strategic Plan. The group is still looking for researchers from the Plant and Animal Sciences Groups. Those interested can send an email to sven.stremke@wur.nl.   RK

UNIVERSITY PONDERERS ITS FUTURE

Is Wageningen University going to prioritize social impact or academic excellence? Are we going to go on growing and growing, or start selecting students? These are the kinds of questions about WUR's new strategic plan being asked by a university working group.

The working group, led by director of the Social Sciences Group Jack van der Vorst and director of Education Arnold Bregt, is holding meetings on campus this month. Judging by the number of student applications and the evaluations it gets, Wageningen University is doing very well, says Van der Vorst, but further growth in student numbers will force the university to make choices. The working group has sketched three scenarios for the future, as a starting point for discussion.

In the first scenario, the university prioritizes social impact. It offers broad Bachelor's programmes and interdisciplinary Master's degrees for about 20,000 students, tackles complex societal problems in interdisciplinary research teams, and collaborates with industry and NGOs to help achieve the sustainable development goals. In view of this focus on solutions, the university merges with Wageningen Research.

In the second scenario, Wageningen becomes an excellent research university. It stops offering Bachelor's degrees, selects the best 5000 Master's students and aims at

innovative fundamental research and a position at the top of the international rankings. This exclusive Harvard-style university is funded by the government and by rich alumni, and is clearly distinguishable from Wageningen's applied research institutes.

In the third scenario, Wageningen restricts its domain to agriculture and food, coordinating this with the other Dutch universities. Through this focus, the university can go for both social impact and academic excellence. It has a unique position with its roughly 15,000 Bachelor's and Master's students, and it merges with Wageningen Research.

The aim is not to make a choice between these scenarios, explains Van der Vorst. They simply provide a basis for discussion, and for finding out which elements we want and which we don't.



Education director Arnold Bregt has now attended a few discussions with professors and students. It was obvious to him that students do not want the university to do away with the Bachelor's degrees, as described in the second scenario. 'They also think it would be too extreme to cut back to 5000 students, because the university would then lack the capacity to solve complex problems.' Several of the professors, on the other hand, were attracted to the idea of focussing on excellence without Bachelor's degrees, says van der Vorst. 'Opinion is very divided on this point.'  AS



PHOTO: GUY ACKERMANS

BUCKET

Ignore the suffer is the title of this solo dance performed in Impulse on 22 November by the Belgian dancer and choreographer Justin Patfoort. He moved over the floor to the sound of *Nothing's gonna hurt you babe* by Cigarettes after sex, partnered only by a bucket. Patfoort was one of 14 modern dancers who performed dances they had choreographed themselves during the lunch break on 22 and 27 November. All the dancers are students at ArtEZ University of the Arts in Arnhem.  LdK

See the photoserie
on resource-online.nl

HITCH-HIKING TO A STATE FARM IN PRAGUE

Alumnus John van Ruiten's heart leapt when he opened the last edition of *Resource*. The old photo of men sitting on crates, which the editors asked for any information about, is familiar to him. It dates from a 1984 study tour that Van Ruiten went on.

No, he is not in the photo himself, he tells me a week later. 'Those are Czechoslovakian workers at the state farm in Prague that we visited on an exchange.' Van Ruiten had just graduated in Plant Breeding at the time. The tour was an initiative of the Wageningen student union WSO and the Czechoslovakian Union of Youth. Another of the participants was irrigation engineer Leen Verschoor, who went on to become editor of the *Wageningen Hogeschoolblad*, a forerunner of *Resource*. That must be why the photo ended up in the magazine archives.

Van Ruiten has happy memories of the trip, right from the way they travelled to Prague. 'There were 11 of us and we had two cars. So we didn't all fit; two people had to hitch. I wanted to hitch but only if a girl went with me. You got a lift faster then.'

The girl was Jet de Lange – more about her in a minute.

In Prague the Wageningen students stayed in a student flat vacated for the summer. By day they worked on the farm, picking raspberries and cucumbers, or, as seen in the photo, weeding in the chrysanthemum greenhouse. 'Those chrysanthemums were completely overrun by weeds. That took us a few days.'

Van Ruiten reaches for his own envelope full of photos. Slightly bleached colour prints of the flat they stayed in, the group, the greenhouse, and the cars. He also shows me the 112-page report. 'The aim of the study tour was to get to know Czechoslovakia and its horticulture. The study tour was run a few more times in the years after that.'

Nowadays, Van Ruiten is director of Naktuinbouw, an inspection service which monitors and promotes quality in horticulture. His work often brings him to the Wageningen campus. He still keeps in touch with Leen Verschoor. And Jet de Lange is the first person he sees every morning. 'Yes, sparks flew during that hitch-hiking trip. We got married in 1990.' **📍 RK**



PHOTO: LEEN VERSCHOOR

For alumnus John van Ruiten, this photo from the '100 years... of laughter' series, featured in the last *Resource*, triggered memories of an interesting study tour in 1984.



PHOTO: JOHN VAN RUITEN

John van Ruiten and his wife Jet de Lange. 'Sparks flew while we were hitch-hiking.'

OPEL ASCONA

Although you occasionally see a hitch-hiker on the Mansholtlaan in the A12 direction, it was much more common in the 1980s. But hang on ... *is* this the Mansholtlaan? Given their signs, these boys probably wanted the A15. Anyway, Hoeverstein isn't that close to the road. So could this be the road to Rhenen? But what block of flats is that on the left? If you know the answer, or have an interesting hitch-hiking adventure, pop into the *Resource* office in Atlas or send an email to edwin.vanlaar@wur.nl.

WUR will be celebrating its centenary in 2018, so the *Resource* journalists have been digging up interesting photos in the archives.

See the photo series
'100 years... of cooperation'
at resource-online.nl

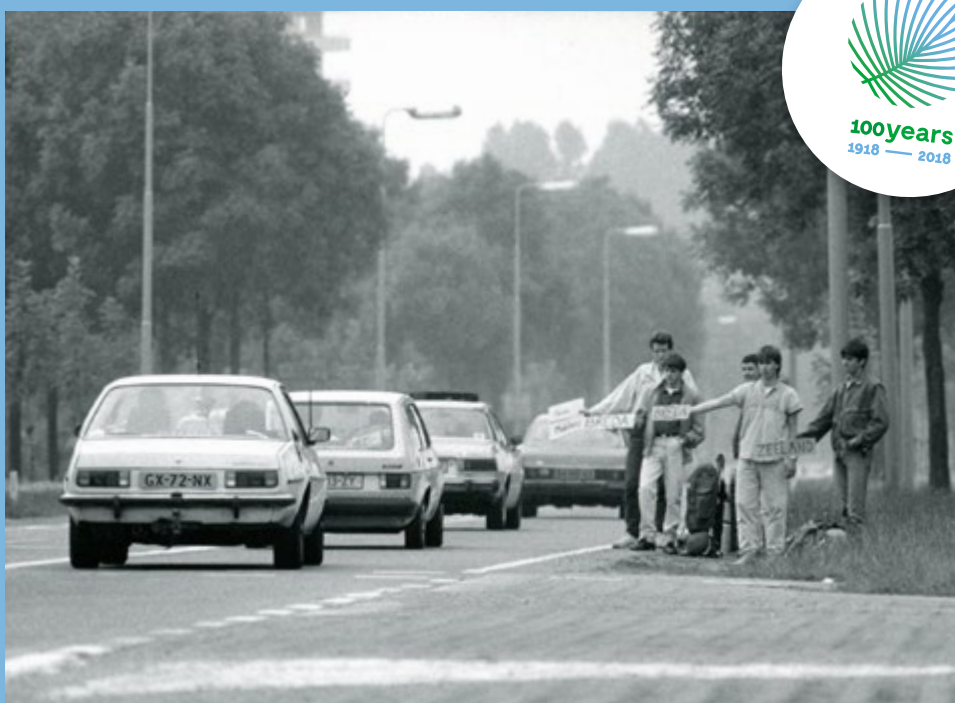


PHOTO: GUY ACKERMANS



GROWING INEQUALITY RESULTS IN A CRASH

Inequality is a natural phenomenon that pops up again and again in the course of history, leading inevitably to a crash — revolution or war. At least, if we don't do something about it. Marten Scheffer and the Utrecht economic historian Bas van Bavel put forward this argument in *PNAS*.

Wealth is concentrated among a small group: an estimated one percent of the global population owns half its capital. You see something similar in nature. In the Amazon, one percent of all species account for half the biomass.

'That is no coincidence,' say Scheffer and Van Bavel. In fact, there is an iron law underpinning this. Inequality is unavoidable, even if each individual has the same capacities and opportunities.

According to Scheffer, that inequality arises due to 'minor accidents, both good and bad, that multiply up.' This is a known phenomenon. What is new is the correspondence that Scheffer and Van Bavel see between the inequality in nature and that in society. Scheffer: 'With the difference that the inequality in nature is between species while in humans it's within a single species.' Even so, inequality is inherent.

But there are also opposing forces. In nature, dominance is systematically undermined by natural enemies. In human societies, the counter-pressure is mainly exerted by institutions such as the tax system. But such institutional forces cannot last forever. When inequality gets out of hand, sooner or later it ends in war or revolution, in which the inequality is reversed and the institutions reformed. Scheffer: 'In history,



PHOTO: WIKIPEDIA

Cologne destroyed by bombing in 1945. The researchers say the Second World War was the most recent major reset resulting from inequality that had got out of hand.

you see these cycles repeating across many centuries and in different civilizations.'

Scheffer says the Second World War was the most recent major reset moment. 'There was huge social inequality before the war. Wealth was in the hands of just a few people. And that hoarding is bad for the economy. What is more, people don't like unfairness. If the economy then stagnates, you have the ideal recipe for problems, in this case the Second World War. By the end of the war, a lot of capital had been destroyed and a new society was built up with institutions that were better at managing

inequality.'

A worrying aspect of the study is the role of scale. Scheffer: 'Ever since the Stone Age, we see a strong relationship between inequality and the scale of societies. Globalization is now undermining national institutions and driving inequality. If we don't manage to do something about this, there will be hell to pay.' He sees the *PNAS* article as a wake-up call. 'Global collaboration isn't easy. Even so, it is the only way to tackle issues such as the excessive concentration of capital, climate change and the refugee problem.' **✎ RK**

HEAT-RESISTANT PROTEIN FOUND IN COMPOST HEAP

Wageningen researchers found a bacterium in a compost heap in Ede with a protein that is resistant to heat. This opens the way for applications in biotechnology and medicine.

The new protein is called ThermoCas9. 'Thermo' refers to the heat resistance and 'Cas9' to the bacterial protein that is now being used in the CRISPR-Cas technology, which enables pieces of DNA to be altered very precisely. 'The new heat-resistant protein makes it possible to tinker with the DNA of thermophilic bacteria, which live at high temperatures,' explains Microbiology professor John van der Oost. 'This was really difficult before.'

The new protein lets heat-resistant bacteria be modified for use in biotechnological processes such as the manufacture of bioplastics. Van Der Oost: 'A lot of the bacteria used at present can't cope with high temperatures. Because bacteria produce a lot of heat during growth, we have to cool the reactors. That won't be necessary with heat-resistant bacteria.'

The new protein can also be used in medicine, says Van Der Oost, for example in immunotherapy. 'At the moment, the Cas9 protein of an ordinary bacterium is used to alter the immune cells such that they attack the cancer cells. The new protein is more stable and better able to cope with tougher condi-

tions. It is also less easily destroyed and remains active for longer.'

The researchers at the Laboratory of Microbiology discovered the ThermoCas9 protein when they were looking in the compost heap for bacteria that can break down vegetable waste at higher temperatures. A lot of thermophilic bacteria are found naturally in compost heaps because temperatures can get up to 70 degrees Celsius.

Van der Oost is curious to see whether other heat-resistant bacteria might have even better proteins. 'We are in contact with researchers who are collecting data on bacteria in the geysers of Yellowstone National Park in the US.' **✎ TL**

GMO BANANA RESISTANT TO PANAMA DISEASE

Australian researchers have genetically modified a Cavendish banana to make it resistant to Panama disease. Wageningen professor of Tropical Phytopathology Gert Kema, who was involved in the research, calls it a breakthrough.

The researchers found a gene in a resistant species of banana and then used genetic modification to insert this gene, RGA2, in the Cavendish banana. It is the most important commercial species in the world, but it is endangered by Panama disease, which is caused by the fungus tropical race 4 (TR4).

Because of the monoculture in banana plantations, TR4 is spreading fast. The soil fungus has now destroyed banana plantations in Indonesia, Malaysia, China, the Philippines, Australia and Mozambique, and has also appeared in countries such as Pakistan, Jordan and Lebanon. Plantations with this fungus are permanently unfit for the cultivation of bananas. There are no effective chemical fungicides.

The Australian researchers tested Cavendish banana plants with the RGA2 gene for three years on a former banana plantation in northern Australia that was completely infected with the fungal disease. The control plants without the gene became diseased but those

with the gene did not, they announced on 14 November in the journal *Nature Communications*. 'This is a major breakthrough that we're really pleased with,' says Gert Kema. 'But it is just the beginning.'

The EU does not allow imports of genetically modified bananas. But an important detail is that the RGA2 gene occurs naturally in Cavendish bananas too, only in a weakened form. The researchers will now carry out follow-up trials with Cavendish bananas to find cultivars with good harvests and that are also resistant to tropical race 4. Gene editing is another possibility. They hope to use this to strengthen the effect of the resistance gene in the Cavendish banana.

Kema, who performed some of the analyses in the study, says something else needs to be done too. Resistance always gets broken sooner or later in monocultures, he notes. 'So the next step is to introduce more variation in banana cultivation.'

Panama disease is not the only fungal disease to threaten banana production. The leaf fungus *Pseudocercospora fijiensis*, which causes black Sigatoka, is another problem. Growers are having to spray more and more fungicides to keep this fungus under control. **AS**



VISION

'Impartial advice on technology is sorely needed'

Big data, artificial intelligence and robotization all have a far-reaching impact on society. So the new Dutch cabinet must appoint a chief scientific advisor who will brief politicians on the risks and opportunities, says senator and professor Alexander Rinnooy Kan in the newspaper *Financieel Dagblad*. 'Good plan!' responds Gert Jan Hofstede, professor of Applied Information Technology at WUR.



Does Rinnooy Kan have a point?

'I think he raises a very good point. I agree that the government is in dire need of impartial, open-minded and expert advice on technological developments. Only I don't know whether you'll achieve that with just one technology advisor. It would have to be a very clever person with broad interests, who enquires into everything without taking sides, because the scientific world is pretty compartmentalized. I would tend to think in terms of a pool of people whom the technology advisor could consult.'

Rinnooy Kan warns of the consequences of artificial intelligence. Is that justified?

'He emphasizes the learning capacity of robots and machines, and indeed, it generates fantastic possibilities. Deep learning, which he talks about, means advanced pattern recognition by machines, without anyone being able to explain how they do it. Personally I think there are some more mundane challenges as well. They have to do with how society relates to new technology. After all, politics works differently in different societies, but technology can cross borders. The more technology is allowed to do, the more influence it will have, and the greater the responsibility that falls to governments.'

What should the government be alert to, then?

'The Russians influenced the American elections with their technology – something the American government has tried in the past with varying success – and in their modus operandi 'might is right'. Is that what we want too? But keep an eye, too, on the big companies, which are already more powerful than many nation states. They are capable of bringing new technologies into use very fast, and escaping democratic control by playing off countries against each other. Politicians will have to address that too.' **AS**

THE THREE FACES OF A TOURIST VILLAGE

Tourist destinations evolve over time. You can trace this in their postcards and the stories people tell about the place. Tourism can only be steered if you properly understand these stories told about a place, says PhD candidate Chalermnat Pongajarn in his thesis.

Thailand drew 32 million holiday-makers last year, who accounted for around 20 percent of the country's income. The village of Pai in the mountains of northern Thailand has attracted tourists since the 1970s. Initially, these were mainly people hiking in the mountains. From the 1980s there were more and more backpackers and the village became a hippie centre. Then in 2005, a romantic Thai film set in Pai led to the place being inundated by Thai couples who wanted to relive the film.

Pongajarn, who will obtain a doctorate for his work in the Cultural Geography chair group on 1 December, investigated the chang-

es in this tourist destination by studying postcards sold in Pai by shops, hotels and restaurants. The images show how Pai's story changed. He concludes that tourist destinations are forever evolving. 'The development of tourist destinations is the result of exchanges between people, but also things.' By which he means that the atmosphere and layout of a place is determined by the residents and business owners who shape the place and the tourists who come there, but also by physical objects such as the film that drew romantic couples to Pai or the quality of the access roads.

The three versions of Pai — an outdoor activity centre, a hippie spot and a romantic village — now all coexist, says Pongajarn, and are embedded in different networks. But the three are also conflict with one another in the spatial layout. Backpackers want cheap youth hostels made of bamboo while the romantic Thai visitors want hotels in an Italian style.



The northern Thai village of Pai has three different reputations among tourists: as an outdoor activity centre, hippie place and romantic village.

Investments in tourism often fail if they are not based on a proper understanding of the place's story. That also applies to the state's attempts to steer the development of tourist destinations in a different direction, says Pongajarn. For example, the authorities have been unable to stop the sex

industry in the seaside resort of Pattaya. Pongajarn thinks that is because the ideal local conditions for sex tourism have not really been understood: powerful local operators running sex businesses, easy access to tropical beaches and large-scale migration of poor boys and girls from Bangkok. **RT**

NATURAL BURIALS DO NOT HARM VEGETATION

Some people wish to be buried in a natural environment. They are opposed in this by others who believe natural burial is harmful to nature. But a Wageningen study at Heidepol natural burial ground shows no negative effects on the vegetation or the soil.

In a study for nature conservation organization Natuurmonumenten, the researchers compared the composition of the plants and soil close to the graves with that in more distant parts of the grounds. There was no difference at all, says Wim de Haas of Wageningen Environmental Research. The establishment of natural burial grounds often meets with resistance from local residents, says De Haas. 'People fear environmental damage, or they just find the idea distasteful. Environmental damage in the form of leaching of harmful substances was studied previously, and the harm caused by drug residues, amalgam fillings or artificial hips proved to be minimal. What we have studied now is the possible damage done to the vegetation.'

Heidepol, a natural burial ground of 17 hec-

tares between Ede and Arnhem, has existed since 2012 and offers the possibility of a final resting place under a tree or in a meadow. The terrain can accommodate a maximum of 7250 graves. These are spread out across the grounds but outstanding spots are spared, explains De Haas. The density of the graves varies with the value assigned to the vegetation, from 200 to 1000 graves per hectare. At the places with the most graves, a maximum of one third of the ground can therefore be disturbed.

This does no permanent harm to the biodiversity, however. De Haas: 'Those graves are not all dug at the same time. That makes a difference.' Also, Heidepol is in the midst of a transition period, with former farmland and species-poor forest being transformed into flowering grassland, moorland and forest rich in biodiversity. The methods adopted for managing this have a much bigger impact than the digging of graves.

De Haas makes no claim that the study provides a definitive answer to the question of whether natural burials have a negative impact on nature. De Haas: 'Actually you should moni-



Relatives can mark a grave in Heidepol natural burial ground with a tree slab.

tor this continually. What is more, the situation is different at every natural burial ground. You need to do this kind of study for different types of vegetation and soil.' **RT RK**

Not all the news reported by *Resource's* journalists makes the magazine. You can find a selection here from the online articles.

EATING BEHAVIOUR



PHOTO: UNILEVER

Liesbeth Zandstra has been made professor by special appointment in Food Reward and Behaviour. She will be re-

searching the mechanisms that make it so hard for us to resist sweet, fatty and salty food. 'We want to find out what aspects of food are even more rewarding so that we can use them to compensate for a lack of sugar, for example.'

FLORIADE



PHOTO: SHUTTERSTOCK

The world horticulture exhibition Floriade is inviting 100 students to help think of solutions for the provision of food in the cities of the future on 8 De-

cember. This will take place during the Flevo Campus Live event. Go to resource-online.nl to register.

ABDUCTION



PHOTO: SHUTTERSTOCK

Delft students caused panic in Bennekom with a practical joke. They 'abducted' a committee member of Wagenin-

gen student society CSFR in revenge for the 'theft' of a ceremonial medal belonging to the Delft society. Bystanders and the police, who turned out in large numbers, thought it was an attack. The perpetrators got away with a warning.

LUNCH WITH STODDART



PHOTO: GUY ACKERMANS

Mirthe Sjoerds was a bundle of nerves when she sat down with Nobel Prize winner Fraser Stoddart for lunch on 17 November.

It turned out to be an amazing day. 'It was very sociable. A really relaxed conversation. He's a nice man,' says Sjoerds afterwards. She was one of the five Molecular Life Sciences students who had the privilege of lunching with

MEANWHILE ONLINE

Stoddart. Lots of people turned up to the Scottish scientist's lecture.

ALUMNI NETWORK



PHOTO: WUR

The Netherlands has around 112,000 international students. Now the Holland Alumni Network has been set up especially for them. The aim is to

help them get a foothold in the Dutch labour market. That is good not just for them but also for the Dutch economy: foreign graduates who stay on eventually earn the country around 1.5 billion euros.

Watch and read it all on resource-online.nl

PROPOSITION

'Rabbit meat can be a very good protein source'

Her PhD research was on pigs and poultry, but Hsuan Chen knows a thing or two about rabbits as well. That's why she devoted one of her propositions to these furry mammals.

'For my research I visited an experimental chicken and rabbit farm in Spain. There is a market for rabbit meat in Spain, Italy and France; people in those countries enjoy eating it. This made me think, because rabbit meat can be a very good protein source. However, the market for it is currently very small in most countries, compared to the market for beef, pork or poultry.

If we want to move towards sustainable forms of animal production, one good way to do so is to keep animals for meat in our own back yards. Most people would then choose chickens. But I say: keep rabbits in-



Hsuan Chen from Taiwan graduated with a PhD on 22 November for her study of protein digestion kinetics in pigs and poultry.

stead. It seems logical because quite a few people already keep rabbits. Also, rabbits are highly efficient herbivores, which means they thrive on a limited amount of feed. A little grass is enough. And on top of that, they reproduce very fast.

Some people see rabbits more as pets and that might stand in the way of keeping them for meat. But I think it is a matter of education. We can convince people that if we are striving for more sustainability, this is the way to go.

In the Netherlands I guess it shouldn't be a problem because Flappie the rabbit was eaten for Christmas too... Yes, I know the song by the comedian Youp van 't Hek. It's a creepy song! In the end, the father who secretly slaughtered his son's rabbit for Christmas disappears himself. And you are left wondering if he went the same way as Flappie... LdK

Rabbits can become the new chickens in urban agriculture.



PhD at a tender age

Lifelong learning: it is never too soon to start on that path. Ruben van Heck, Marieke Verheijden and Wim Vermaas were so quick off the mark that they are now among Wageningen University's youngest ever PhD holders. How did that happen, and what have they gained from getting so far so young?

text Linda van der Nat photos Sven Menschel

On 6 July last summer, Ruben van Heck graduated with a PhD in Systems and Synthetic Biology, three days after his 26th birthday. After the ceremony in the Aula, guests suggested he might be the youngest PhD holder in the history of Wageningen. The suggestion took Van Heck by surprise. 'I hadn't given it any thought. It made my mother very proud but I had no strong feelings about it.'

Van Heck is certainly young to obtain a PhD, says WUR researcher Gab van Winkel, who is collecting data on all Wageningen PhDs for his own doctoral research. The average age of all PhD candidates to stand in the Aula in the past 96 years was about 35. But Van Heck was not the youngest ever. 'The first doctorate was bestowed in 1920. If you go through all the almost 7000 PhDs, you'll find 10 people who got their PhDs at a younger age than Ruben van Heck.'

LESS RIGOROUS

The youngest PhD graduate ever was Hendrik Robbertus Adrianus Muller, who was 23 when he became a Doctor of Agriculture on 10 January 1927, just three months after obtaining his Master's. This illustrates how quickly you could get a doctorate in those days, says Van Winkel. 'Often, the final thesis period of your Master's degree and your PhD overlapped. The requirements for a Wageningen thesis were less rigorous in those days. You could count a study that you had done as part of your Master's degree towards your PhD, for instance. You can't do that anymore.'

An example is Wim Vermaas. He graduated in 1982 and got his PhD two years later. He extended his research internship at the University of Illinois and Michigan State University, and combined this with his doctoral research in Wageningen and Berlin. Two years and 14 publications later he gained the title of Doctor of Agricultural Sciences. That speed turned out to be typical of Vermaas: on tenure track he reached the rank of personal professor at an American university four years faster than the appointed period (see the interview on page 14).

QUITE AN ACHIEVEMENT

Stricter regulations have meant a drop in the number of young PhD graduates. Of the ten PhD holders who were younger than Van Heck when they graduated, nine did so before 2000, eight before 1990 and six before 1980. The last one was Marieke Verheijden who obtained her PhD in 2004, the only woman in the group (see the interview on page 14). This reflects the demographics of doctoral research in the past, says Van Winkel. Nowadays there are more women than men PhDs.

Van Heck is the youngest of the roughly 3000 PhD graduates in the past 12 years. That is quite an achievement, says Van Winkel. 'You don't get extremely young PhD graduates anymore.' Nevertheless, Van Winkel declines to predict whether there won't be younger PhD holders in future. 'But if the youngest ever Wageningen PhD graduate stands in the Aula one day, she'll be from Asia.'

‘We all have our talents’

Wim Vermaas received his PhD in 1984 from Plant Physiology (Wageningen) and Physical and Biophysical Chemistry (Berlin), at the age of 24. Now he is Foundation Professor at the School of Life Sciences, part of the University of Arizona.

Wim Vermaas graduated with distinction in 1982, and got his doctorate two years later, again with distinction. He doesn't call himself clever, though. 'We all have our talents and qualities, don't we? I did get through my studies fast: I started in 1976 and got my PhD in 1984. How? I did a very nice degree. There was a small group of students, about five of us, so you can get through the material faster than in a bigger group and at some point you're done.'

Vermaas also combined his work experience, a kind of internship, with his doctoral research period. At the University of Illinois and Michigan State University, he continued his research on photosynthesis at the molecular level for one and a half years instead of six months. 'Nice things came out of that, which I was keen to work on in a PhD project.' Because it was a fairly new subject area, Vermaas did not have the facilities he needed in Wageningen. 'My supervisor introduced me at the Technical University in Berlin. I must have been the youngest both in Wageningen and in Berlin, but I never noticed it.'

Although? 'Maybe I got the occasional comment like 'here comes our young'un,' but that was it. Of course I wasn't some kind of prodigy who went to university at 16.'

Vermaas was keen to go further with work on the findings from his doctoral research but he didn't think he stood much chance of doing so in the Netherlands. 'I didn't fancy waiting till someone retired, so I left for America, where I still had contacts from my work experi-

ence.' After a postdoc in Delaware he ended up at Arizona State University, where his tenure track career went at lightning speed. He was a personal professor in eight years, whereas the appointed period for that is twelve years. 'As a result, by the time I was 35, I couldn't go much further in the academic system. That didn't matter much to me. I made good use of my time, setting up a new faculty, for instance, and developing the academic discipline further.'

Students who both graduate with distinction and obtain PhDs often end up working in academia. Vermaas is no exception. 'I knew when I was 18 that I wanted to go into science. I have an enquiring mind and I like investigating the unknown. I call it tinkering: how does this work, what is the underlying mechanism, how does it fit into the system? Improving the discipline, making new techniques possible – that is what drives me. And then I don't mind going the extra mile.'



PHOTO: AMANTHA LLOYD



‘It all went pretty smoothly’

Marieke Verheijden got her PhD at the age of 25 in Nutrition & Health. She is now research manager for Explosions, Ballistics & Protection at TNO research institute.

Marieke Verheijden never officially started on a PhD. The researcher on the project she worked on for her Master's thesis had to stop for personal reasons, and the university was looking for someone who could finish her work. Subsequently, so many follow-up questions came up that the research could generate a second thesis. Verheijden: 'Because I didn't

want to get my PhD for someone else's work, they extended the project. In the first year, most PhD researchers can only prepare for their research and don't get started on it. I got off to a very smooth start because all the data were there.'

The rest of her research process went very smoothly too. 'Of course I had a bad day now and then, but I was spared the notorious dip. I can still remember wondering at the end when things would go wrong, because it had

all gone so well. Was it too good to be true? But nothing went wrong, luckily.'

After getting her PhD, Verheijden went to work at the TNO research institute. Having hardly noticed that she was the youngest during her PhD research, her age was noticeable now. 'During a course on contact with clients they said: make sure you don't look too young because people don't expect a scientist with a doctorate to be a young girl. That annoyed me a bit.'

In fact Verheijden never noticed clients not taking her seriously. 'Only when I became team leader and later head of department, and had to conduct performance evaluations did people wonder out loud whether I had enough authority and sensitivity. People expect a particular form of seniority. That doesn't always go together with age, but counting the years is the easiest thing for a lot of people.'

It was a conscious choice not to go on in academia, says Verheijden. 'There are people for whom a PhD is the gateway to the rest of their academic career. I was not driven by gaining a title. It was more that it was handed to me on a plate. I did something I enjoyed and almost without noticing I reached a point at which we could staple it together and call it a thesis.'

Verheijden can't imagine herself becoming a scientist again. 'For job satisfaction, I am better off in a workplace that is closer to everyday practice and more people-oriented. As a researcher you sit in your bubble getting a grip on your field of expertise. My world is much wider now. I see and talk to a lot more people. If I do something now, something changes now. If a researcher does something now, a nice article comes out at the end of the year.'

'The main thing is that it looks good on my CV'

Ruben van Heck received his PhD in Systems & Synthetic Biology in July 2017, at the age of 26. He is now training to be a patent attorney at EDP Patent Attorneys.

Ruben van Heck is the youngest Wageningen PhD graduate in 12 years. The reasons for this are mainly practical, he says. When he was doing his Bachelor's there was talk of student grants for Master's degrees being abolished. 'Then I thought, if I'm done with my Bachelor's a little bit sooner I can get ahead and I'll get a grant.'


He tapped into unexpected potential. 'At first I didn't work too hard and I got sevens. When I started to take twice as many courses, I did have to start working hard for exams and suddenly I was getting nines. Apparently it was a good way to reach my full potential.' Eventually Van Heck finished his first and second degrees in four years, with a distinction for his Master's.

Going on to a doctorate felt like a logical next step, he says. In the past four years, he has worked on the development of metabolic computer models. He was the youngest PhD candidate. 'There were plenty of jokes about that, but nothing so specific that I've remembered it. The only time I really noticed I was younger than my cohort was during iGEM, an international student competition for synthetic biology. Two years after competing myself, I was a mentor. And I was younger than all eight students I coached.'

According to Van Heck, people were sometimes astonished to hear how young he was. Some saw it as inspiration to be more ambitious. Others felt the need to explain why they had not got so far themselves yet. 'And then they often came out with the assumption that I didn't do anything else but study and had no social life. Quite a natural reaction, but I thought it

was a pity that some people saw my age almost as a personal attack on them.'

When he started on his doctoral research, Van Heck thought he would go on in research after that too. Gradually, he came to the conclusion that he had been seeing science through rose-tinted spectacles. He declined a postdoc position. 'It really comes down to publishing as much as you can, because that's the way you get funding. Research topics are chosen because they will lead to a good or an easy publication, whereas that shouldn't be the goal. I spent a lot of time writing up the results as well as I could so that the article would score as highly as possible.'

Van Heck now works at a patent office. In the next few years he is going to study law, specializing in patent law. 'So lifelong learning just goes on.' So what did he get out of gaining a PhD so young? Van Heck laughs. 'I think the main thing is that it looks good on my CV.' 





BEST OF ALL, OUTDOORS

'Atelier', says a green sign next to the door in Gaia. In the room there is the pleasing kind of messiness you would expect in an atelier. Designs at various stages of completion cover the walls, tables and desks. Michaël van Buuren's desk is by the window

with a view over the Binnenveld. But he doesn't like sitting at it. 'I prefer working with others at the central table. Or best of all, out in the field. That's why I went into this line of work, of course.' Van Buuren and his two colleagues seek 'to apply the knowl-

edge available in the environmental sciences in practice'. He points at a sketch of the Vecht river in Overijssel province. 'We are trying to get a branch of the river to meander in a new direction. We dig a channel and let the river create the profile itself. It



is an experiment, a mix of design and research.' Van Buuren and his two colleagues transferred here more than three years ago from the now abolished government service for land and water use DLG. They've shared this atelier for two years now. 'A fan-

tastic space,' he thinks. 'Spacious, light and north-facing: perfect for designers. You don't get any deceptive shadows when you are drawing.' And that wine bottle on the shelf? 'Ha, I got that at a presentation I gave. The next day we had an evening ses-

sion here with pizza. So we opened the bottle then.'

© RK, photo Margriet van Vianen

Read all the instalments of Workplace on resource-online.nl

New applications for an ancient technology

Fermentation

Much of our food — sauerkraut, chocolate, yoghurt — has already been preprocessed by bacteria, fungi or yeasts. But these microorganisms can do a lot more. For example, WUR researchers are working in specialized fermentation labs on natural substitutes for E numbers and building blocks for plastics and biofuel.

text Tessa Louwerens *photo* Wageningen Food & Biobased Research

OLDER THAN THE ROMANS

Fermentation is the process whereby bacteria, yeast and fungi convert sugars into other substances such as alcohol and acids. It is even older than the Romans: archaeologists think fermented food began to be produced between 10,000 and 15,000 years ago, around the same time as the start of agriculture. There were no fridges, and farmers had to preserve their surplus grain, grape juice and milk somehow. One way of doing so was to use fermentation. Not that they knew about the crucial role played by microorganisms: we only found out about them 150 years ago thanks to Louis Pasteur.

Without fermentation, we would not be able to enjoy a piece of cheese or a beer. The microorganisms involved are essentially mini-factories that convert organic compounds into different — tasty or useful — organic substances. That is an interesting subject for scientists too. They want to know how to control the conversion processes to make the mini-factories produce what they want.

‘Awareness has been growing in the past few decades that we can make good use of microorganisms,’ says Eddy Smid from the Laboratory of Food Microbiology. ‘As a result, we no longer just look at the negative effects of microorganisms, such as disease and decay, but we also study the positive aspects such as fermentation.’

CLEAN LABEL

Fermentation can be used to manufacture clean label products. Consumers increasingly want ‘purely natural’ products without additives and E numbers, so food producers are desperately looking for ‘natural’ ingredients. They are not always readily available, explains Smid, so scientists make them in the lab. ‘Fermentation is a natural method for obtaining the necessary ingredients, such as vitamins, flavourings or preservatives.’

There are lactic acid bacteria, for instance, that make substances that inhibit the growth of other bacteria. They can be used as a natural preservative. ‘If manufacturers just add a substance, they have to report it as an E number,’ explains Smid. But that requirement does not apply if the manufacturer adds a bacterium that produces the same substance. Then the addition can be labelled ‘fermented sugar’, for example. Smid: ‘It’s often exactly the same substances, and they are also available as E numbers. Those E numbers are often made using natural methods as well but consumers don’t trust them.’



is hot

NUTRITIONAL VALUE

Microorganisms can also increase the nutritional value of food. Manufacturers can use bacteria to add vitamin B12 to vegetable products. This vitamin is normally only found in animal products. 'Animals themselves can't make B12,' explains Smid. 'Cows obtain it from the bacteria in the rumen and we then get it from meat and milk products. Bacteria can make vitamins. But we only started exploiting this fact about 20 years ago.'

Not only are fermented products nutritious and longer lasting, they also often taste better, says Smid. Sprouts, for example, are fermented to make them sweeter. 'People often compare the process to rotting but the crucial difference is that when food rots, undesirable microorganisms get the upper hand whereas in fermentation it's the desirable microorganisms.'

CHEMICAL INDUSTRY

It is not just food microbiologists who love fermentation; the chemical industry is also interested, says Jeroen Hugenholtz, senior fermentation expert at Wageningen Food & Biobased Research. It is used for producing chemical building blocks for coatings and plastics. They are then made not from petroleum but from renewable materials such as straw, sugar beet leaves or the water used to clean potatoes. In a bioreactor, bacteria from these raw materials can make fatty acids for use in lubricants or surfactants for use in cleaning agents.

Hugenholtz: 'Fermentation is affordable because we are reusing waste streams. What is

more, the process is energy efficient because the microorganisms do their work at low temperatures. This makes it more sustainable and better for the environment, especially if they are using waste streams that aren't suitable for consumption.'

BIOFUEL

Another promising application of fermentation is the production of fuel. 'Aviation companies will have to use at least 20 percent biofuel by 2020, which is why we are looking for sustainable alternatives,' explains Hugenholtz. 'We are starting to realize that we will never be able to produce enough biodiesel from rape or other crops.'

It has already been demonstrated in the laboratory that microorganisms can be used to produce aviation fuel from agricultural residues or organic waste. Fermentation of this organic material can produce acetone, isopropanol, butanol and ethanol, compounds that can be turned into hydrocarbons for diesel and aviation fuel in just a few chemical steps. However, the low oil prices are currently an obstacle to the further development, says Hugenholtz. 'The companies are not yet inclined to make the switch on a large scale, so the ongoing research is dependent on grants.' That is why coatings and bioplastics are the main industrial applications at present.


TINDER

A mixture of different species of bacteria are normally used rather than just a single bacte-

rium. One bacterium can convert the cellulose in the plant matter into sugars after which another bacterium can ferment them, for instance. 'These mix cultures ultimately often work better than genetically modified organisms because genetic alterations frequently disappear again after a few generations of bacteria,' explains Hugenholtz. 'So you have to keep remaking them.'

Genetically modified organisms are never used in the food industry anyway, says Smid. 'It is possible and it used to be one of our focus areas, but there's just too much opposition. We have got all kinds of things available, such as microorganisms that produce additional vitamins or sweeteners with fewer calories. But they are not being used.'

Now scientists are trying to let nature do more of the work, for example by letting bacteria evolve in the lab until they have the desired properties. Or by using mix cultures. Smid: 'If you bring the critters in contact with one another, that can lead to beautiful new things.' He calls it Tinder for bacteria. 'Once we understand this process better, we will be able to make more complex products.' Hugenholtz confirms this. 'Interest in fermentation is increasing and there are a lot of opportunities.'

And so we are seeing a new kind of industrial revolution quietly taking place. Not with huge steam engines but with minute creatures that can make all kinds of things. 

WOULD YOU LIKE TO LIVE ON CAMPUS?

The ever-expanding university is the subject of some grumbling in Wageningen. The many students are accused of squeezing starters and pensioners out of the housing market, and being a nuisance in neighbourhoods. The municipal council recently proposed building more student accommodation on campus. What do students think of that? Is living on campus fun?

text Yvonne de Hilster illustration Henk van Ruitenbeek



Lorette van Seeters



BSc student of Nutrition and Health from the Netherlands, lives in Campus Plaza

'I like living on campus, nice and close to everything.' The only thing is, you are in a uni bubble. That's why I joined a student society, to get myself off campus. Luckily I have friends in Campus Plaza; most evenings we

eat together in someone's room. It would be nice if there was more student accommodation on the campus itself.'

Philipp Scherer



MSc student of Biotechnology from Germany, lives at Hoevestein

'I practically live on campus, next door to the sports centre. In terms of distance and time, that has advantages but it doesn't add anything to your quality of life. At least, I don't feel as though I'm living in a town,

where you run into other people and can walk into a café any time. I grew up surrounded by people from lots of different backgrounds. However international your flat is, they are still all students. **You don't get away from the campus here and you are isolated from the rest of the town.** In Germany I shared a flat in town with a couple of students, and we did things together. Now I live on a corridor with eight people, all pretty much keeping to themselves. I would prefer to live in town, with a maximum of five people, and then really live together.'

Paul Bruggemans



BSc student of International Land and Water Management from the Netherlands, lives in the former barracks in Ede

'As students we can't afford to be too fussy. A friend of mine is still in a caravan at the campsite. I am living in Idealis's temporary accommodation at the Nieuwe Kazer-

nelaan in Ede, and I share a kitchen with 70 people. Luckily it's quite fun. Living on campus would be very convenient, with the supermarket and Wageningen town centre nearby. **But if I could choose, I would prefer to live in the town centre.** I come from Rotterdam, and although the centre of Wageningen might not be the liveliest place, the campus is really dead in the evenings.'

Engin Yucel



PhD candidate at Plant Breeding from Turkey, lives at the Haarweg

'I am on campus a lot, but I prefer to live at the Haarweg. On campus there are not enough places to get something to eat or have a coffee. And if the weather is nice, there is nowhere to sit. **I don't get any sense**

of buzz on campus. In the winter it's just like an office complex. Student housing won't change that. Not that there is all that much to do in the centre of town. Back in Turkey I've always lived in a big city. Wageningen is really a small village.'

Marina Pérez Naveira



MSc student of Biotechnology from Spain, lives at the Haarweg

'I would rather live at the Haarweg than on campus. The centre is much closer, and there is always something going on. Otherwise it would be very boring at weekends. It would only be handy in the mornings –

I'm not an early riser – or when you find out you've got a puncture. I reckon the student housing is on the Haarweg because we don't bother anyone there. In that sense it's a bit strange that they're building that new neighbourhood. I also wonder whether I would have got to know the town and the area as well if I had lived on campus. **Living on campus would be fine for a few months, but if I lived there for two years I'd feel stifled.** I like more diversity and more space.'

Marieke Reus



BSc student of Soil, Water, Atmosphere from the Netherlands, lives in Campus Plaza

'Living on campus is very easy, with everything nice and nearby. You are a bit further away from the town centre and student life, though. And because they are all self-contained rooms, you don't have

much contact with other residents. **I'm not sure I would like it if there was more accommodation on campus. It is lovely now, nice and open and quiet.** It shouldn't get too built-up. But I do realize there's a room shortage.'

Li Shizhi (Michael)



MSc student of Environmental Sciences from China, lives at Dijkgraaf

'At Dijkgraaf you are actually living on campus too, which is very practical. And it is a lot cooler here than at the Bornsesteeg, where everyone has a self-contained room. We cook and eat together. It's enough for


me that I have a wash basin in my room. There is an acute shortage of rooms; people are even living in Ede. **It is handy to live close to campus and I enjoy the peace and quiet here.** If I want to party, I'm in town in no time. I'm not keen on the idea of parties in the pub at Dijkgraaf; that will be noisy, especially for people on the lowest floors. I'd rather go out.'

Louise van der Stok



MSc student of Forest and Nature Conservation from the Netherlands, lives at Droevendaal

'I wouldn't like it if I had to live on campus. It doesn't have a nice enough atmosphere for that, it's too modern and cold. I like

somewhere cosy, with trees and birds. But I do think it would be better to build on campus than to take over yet another field. But if you are going to build, think more spaciouly than Campus Plaza. It could be so much pleasanter, with trees growing in the building and wall gardens, for instance.' 

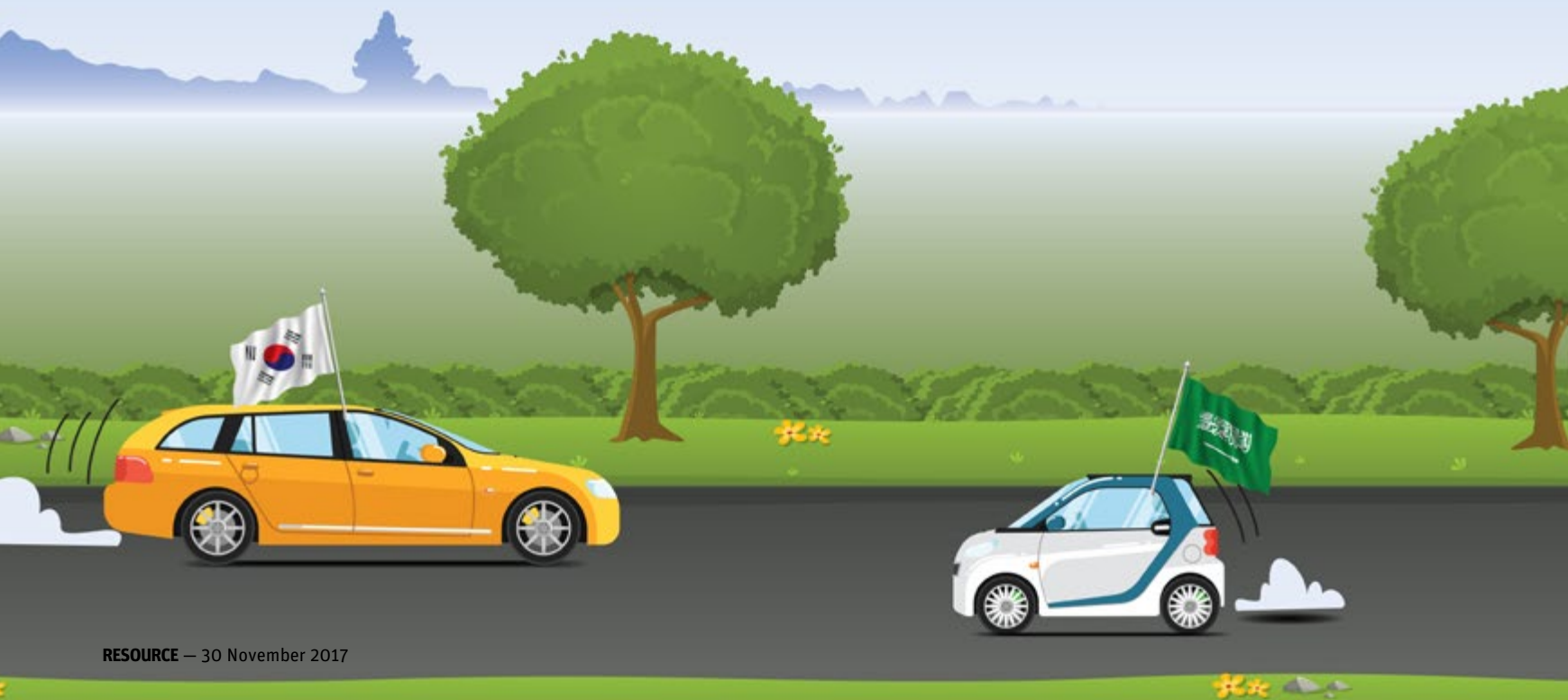


n wheels

International students in cars

It can be a hassle for international students in the Netherlands to find the means to buy a car, obtain a legal driver's licence and get used to the Dutch traffic habits. Nonetheless, some do manage, either with support of their parents or by working hard for it. 'Having a car definitely has made my life much easier here.'

text and photos Cathy Chen illustration Paul Gerlach



‘Sometimes elderly Dutch people drive a bit too slowly’

Ahmed Alhusays – Master’s student of Plant Sciences from Saudi Arabia, drives an Opel

Ahmed Alhusays used to be an assistant lecturer at his home university in Saudi Arabia. He saved up for his degree programme in the Netherlands. He bought the car from a friend of his right at the beginning of his time as a student here. To Alhusays, buying a car is much easier in the Netherlands than in many other countries where he has lived. ‘You only need to find a seller and go to the municipality to register the car under your name.’ He was very happy about the deal. ‘The seller was Saudi Arabian too, and he gave me a good price.’

For Alhusays, having a car means a convenient life and less stress from the need to find a room near campus. ‘It was too hard to find a room here in Wageningen, so I lived in Ede first. With my car, I could always drive to class instead of taking the bus,’ says Alhusays. Once he got a room in Bornsesteeg, he could move all his furniture with his own car. And in winter, when he finds it too cold to cycle, he will drive to various supermarkets with his classmates after classes or at the weekend.

Having a car also enabled Alhusays to deal promptly with an urgent medical problem. A few weeks ago, he had a severe allergic reaction to a plant and he had to go to the emergency post at the hospital at midnight. ‘If I hadn’t had a car, I would have had to order a taxi. It would have been quite expensive and I would have had to wait for it.’

Driving in the Netherlands is a joy for Alhusays, apart from one thing. ‘Sometimes elderly Dutch people drive a bit too slowly.’



‘I sometimes help my friends to move house’

Tea Stojanovic – Master’s student of Business, Economics & Consumer Studies from Croatia, drives a Volkswagen

Tea Stojanovic got her car from her parents, who used to work in Germany. They wanted to trade in their old car for a new one, but they were not offered a decent price for it. As Tea had finished her degree in the US and was to go on to a Master’s in Wageningen, they decided to give the car to her. ‘The car is officially registered in Germany, so I can use it in the Netherlands. My parents pay the insurance and tax for me.’

Having a car has definitely improved Stojanovic’s life as an international student. ‘When I go out to student parties downtown, I will drive if the weather is not really good. Also, I sometimes help my friends to move house. And when they have to buy a lot of things from the supermarket, I help them to bring it home.’

Having a car enabled Stojanovic to discover new places in the Netherlands cheaper and faster. ‘I visited Giethoorn, the Dutch Venice. If you go there by train and bus, you might not make it back the same day. By car it is about one and a half hours each way.’

Sometimes Stojanovic will drive to campus, but she is quite concerned about the lack of parking space. ‘I like that it is free to park here, but there are too many cars. Especially as Unilever is building a big company here now, I don’t know how they will fit all the cars in, in the future.’





‘Driving helps me to relax when I’m stressed’

Daegeun Choi – Master’s student of Plant Sciences from South Korea, drives a Vauxhall

At home in South Korea Daegeun Choi studied English literature, owned a small company selling sweet potato products, and was a car racing driver. ‘I decided to come to the Netherlands as I received a lot of feedback from my customers, which encouraged me to go to university,’ says Choi.

At first, his parents were not very positive about his decision to study abroad and he didn’t get any financial support from them. So instead he sold his car in Korea to pay for his tuition fees and rent in the Netherlands. He did his first degree at Van Hall Larenstein University of Applied Sciences and now he is going for a Master’s degree at WUR.

Choi bought a car in the Netherlands because driving is one of his biggest hobbies. ‘It helps me to relax when I’m stressed from studying. Sometimes I drive with my friends to grab some fast food at KFC during the lunch break. Sometimes I just drive somewhere else in the weekend. It is my way to unwind.’

Buying the Vauxhall II was like a dream come true for Choi. He had already been looking for that car when he was still in Korea. However, this model was only sold in Europe. He considers the purchase of this dream car as a reward for studying hard. Also, he sees the car as a monument to his independence from his parents. In fact, the Vauxhall is so special to him that he has decided to ship it back to South Korea when he finishes his studies.



‘There are cows next to the Dutch highways’

Tyna Novotna – Master’s student of Biotechnology from the Czech Republic, drives a Volvo

Christina Novotna, known as Tyna to most of her friends, is from Prague, the capital of the Czech Republic. She has found herself a part-time job at a training company in the Netherlands, which comes with a company car. She uses it to bring the trainees from the airport to the company. The company gave her permission to use the car outside working hours as well. The insurance and taxation are taken care of; Novotna only pays for the petrol she uses.

She is a big fan of driving life: she got her driver’s licence back when she was a Bachelor’s student in her hometown. ‘Having a car has definitely made my life much easier here. I can go anywhere I want to.’ She is a safe driver with a lot of experience of driving long distances; she always drives home to Prague from Wageningen during the holidays. Sometimes she takes her Wageningen friends to Amsterdam at the weekend. They share the costs of petrol and parking. This is more efficient and cheaper than using public transport.

Novotna used to drive everywhere in her home country, but these days she only drives when it is necessary, because she is strongly influenced by the idea of sustainability promoted on campus. She only drives to university in the winter when she knows she will come home late. ‘I live at the Haarweg, and I heard about a mugging that happened nearby. It is not really safe to bike around at night in winter when it is dark all the time.’

Novotna really enjoys her driving experience in the Netherlands. ‘It is fun to drive around the highways in the Netherlands; there are cows next to the highways.’

‘Without a car you miss out on a lot of nice places’

William Xing Fu – Master’s student of Biotechnology from China, drives a Honda

William Xing Fu is currently doing his second Master’s in Wageningen. He passed a Dutch driving test when he was doing his first Master’s degree here. He bought his first car right after he got his licence. He needed it, because of the part-time job he found outside of town. ‘Some companies require you to have a car. Owning a car is definitely an advantage for finding part-time or holiday jobs. The income you earn can help to balance out the expense of a car.’

Xing Fu has married a classmate who is now doing a PhD at WUR. Their parents provided them with the means to buy a new car earlier this year, when their son was born. Having a car makes family life enjoyable, says Xing Fu. ‘It is much easier to go out and about by car. We often drive to The Hague or Amsterdam to have a family meal at the weekend.’

They used to join other Chinese students on the trips organized by CASSAW, the Chinese Student Union. These trips usually go to popular touristy destinations. Now that he has a car, Xing Fu can take his family and close friends to more unusual places. ‘We went to a very nice cherry farm in July this year; the cherries were cheap and tasty. We could even pick the cherries from the trees ourselves. But it was quite tucked away, and very hard to reach without a car.’ He highly recommends buying a car if students can afford it. ‘Otherwise you will miss out on a lot of nice local places in the Netherlands.’ 📍



COFFEE

A cup of coffee won't do you any harm. In fact, drinking three or four cups a day could even do you good. It lowers the risk of death and heart failure, cancer, diabetes and dementia, suggests a review of more than 200 studies by researchers at the University of Southampton. But they do not go so far as to suggest doctors prescribe coffee for their patients. Or that people should start drinking coffee for the sake of their health. That would require further research first.

COLOUR

The oceans are full of microplastics. At least, we think they are, since it is not easy to prove the presence of that plastic. Researchers at the University of Warwick have now developed a simple method for doing so: dyeing the plastic with fluorescent dye. The particles then light up, making them easier to detect. This paves the way for solving the riddle of the 'vanishing plastic'.

COGNAC

The French-Polish composer Chopin died of TBC, reveals new Polish research on Chopin's heart. The researchers are not 100 percent certain of this, though. His heart is preserved in a crystal jar that they are not allowed to open. The researchers base their conclusion on an examination of detailed photos. Chopin died 168 years ago at the age of 39. Small detail: his heart is probably preserved in cognac.

HELLO?

Messaging Extra-Terrestrial Intelligence International (METI) has sent a message from Norway to GJ273, a red dwarf in the Canis Minor constellation. It was discovered this spring that the star has two planets in a 'habitable zone'. It will take the message 12 years to get there, and if there is intelligent life there that chooses to respond, we can expect an answer in about a quarter of a century. Could the answer be 42?



International Club turns off tap

The International Club at the Marijkeweg is not allowed to serve alcohol until 24 January. Wageningen municipality says there is a problem with the club's food and beverages licence.

The municipality has slapped this penalty on the International Club Association (ICA) because the club did not meet all the requirements for a food and beverages licence, says spokesperson Pauline van Roekel. In *De Gelderlander* newspaper, the municipality denies rumours that the penalty has been imposed because the club was serving alcohol to minors.

According to ICA spokesperson Kitty Cruden, the licence was not extended because the ventilation system is out of order. The bar has also undergone minor renovations which mean the licence should be adjusted.

According to Van Roekel, there has been 'frequent' consultation with the International Club,

but this did not result in a complete new licence application. Cruden says she is talking to the municipality in order to resolve the situation. 'Until 24 January the International Club will stay open for all activities but no alcohol will be served.'


Students and other young people like to end a night out at the ICA because the bar there stays open longer than most Wageningen bars. Besides parties, the club is used for lessons and courses. It can also be hired for private parties. One student who regularly throws parties at the International Club is student of Environmental Sciences Jerry Gumbs. He is 'really fed up' that there won't be any alcohol served for a while. 'That leaves very few nice places where students can organize a party or go to celebrate something.' The nice thing about ICA is that it is so spacious, says Gumbs. 'And there is always good music.'  LvdN




PHOTO: SVEN MENSCHIEL

Farm Fitness

A number of student teams went head to head in the Battle of the Studies on Thursday evening, 23 November. The theme was 'Farm Fitness', and the programme in-

cluded 'farmers golf', milking an inflatable cow, and shooting potatoes from a catapult. The Plant Sciences team won first prize, in spite of their less than promising name: 'We're no athletes damn it'. And they won the prize for the

most creative outfit for the costumes they made themselves out of jute sacks.  TL

See the photo series on resource-online.nl

Can cress withstand Martian radiation?

Radiation levels on Mars are roughly 20 times higher than those on Earth. Can plants such as rye and cress withstand that? That is what BSc student of Plant Sciences Nynke Tack is trying to find out. The aim of her research is to help answer the question of whether we could ever live on Mars.

Tack does her research at the Reactor Institute Delft, which is part of Delft University of Technology. She is going to subject rye and cress seedlings to the levels of radiation they would be exposed to if they grew on the surface of Mars. Her trial is part of the research project run by Wieger Wamelink of Wageningen Environmental Research. He is trying to figure out how you could grow vegetables on Mars. Wamelink thinks gardening on the planet will have to be done underground because the level of radiation on the surface is too high. But that is an assumption. 'If I am wrong, that is good news.'

Plants on Mars are subjected to 610 microsieverts of radiation per day. (By way of compari-

son, the level on Earth is 36 microsieverts.) Tack doesn't think that is too bad, though. 'The doses that are used to stimulate mutations are in the order of one sievert: a million times higher.'

The expectation is that the peaks in radiation that accompany explosions on the surface of the sun do much more damage than the regular dose of radiation on Mars. Besides the 'standard' radiation, Tack is therefore also going to simulate the radiation during sun spots by administering 50 times the daily dose of Martian radiation. This is only an approximation, however. Tack: We can only simulate the equivalent dose, not the whole spectrum of radiation on Mars.'

To be allowed to conduct the radiation trial, Tack has to take a tough course. The exam is not until half way through the planned experiments. 'So I've got a babysitter to supervise me for the first couple of weeks,' she says with a grin. Tack starts at the end of this month and should be done by Christmas. Mid-November she left for Delft with everything she needed, and she will live there temporarily. **LvdN**



Nynke Tack is going to subject plants to the doses of radiation they would be exposed to on Mars.

PHOTO: WIEGER WAMELINK

MEANWHILE IN... ZIMBABWE

'Mugabe's departure might not mean a different regime'

After interventions by the army and his own party, Robert Mugabe has resigned as president of Zimbabwe. He reigned over the country for 37 years. The big question is what is to come, with former vice president Emmerson Mnangagwa in power. Mejury Shiri hopes for free and fair elections.

'We Zimbabweans are a patient people. For years, people have been waiting for the end of the Mugabe era. It should be noted, though, that he was kept in power rather democratically, because many Zimbabweans – especially older people – believe in the ruling party ZANU-PF. I feel that, during the past, young people did not actively participate in democratic processes in Zimbabwe. They often failed to register for voting. I think that recently young people have become more educated and aware of their role in the political system. This was already visible in the solidarity march on November 18th, when Mugabe was peacefully urged to resign.

Of course, I do realize that the departure of Mugabe might not necessarily mean a different kind of re-



PHOTO: SHUTTERSTOCK.COM

gime. If former vice president Mnangagwa takes power, the same policies are likely to continue. We have not been oppressed by Mugabe directly, but the regime was too powerful. Thus, the main question is: how do we keep checks and balances on the president and how do we prevent any abuse of power? Our leaders need to recognize that we cannot live in isolation, despite the historical context of being liberated from colonialism. Instead of a continuation of the same regime, I would rather have free and fair elections, which are scheduled for next year anyhow. For the people of Zimbabwe, and for my generation specifically, it would be a chance to elect a leader whom we believe will act according to our great values. Because I really believe that people in Africa care most deeply about each other.' **TF**



Mejury Shiri is a Master's student of Plant Sciences. She comments on recent events in her country, Zimbabwe.

YOU ON CAMPUS

Joshua Wanbugu (34) is in the second year of his MSc in Leisure, Tourism & Environment, and therefore also in his second year in the Netherlands. 'People are very welcoming, which is nice. In Kenya, where I come from, there is always a lot of social life. So it's very nice for me that people are friendly here too.'

Wanbugu's convivial nature is obvious from his hobby: cooking. 'I invite a few friends round for a meal and we exchange stories.' In other ways his activities have changed a bit since he came to the Netherlands – he cycles much more here than he did in Kenya, for instance. One thing that hasn't changed is his love of birds. 'I don't have as much time for bird-watching here, but I enjoy watching the ducks on the campus pond sometimes.'

The campus is not the only thing Wanbugu likes about Wageningen University. 'I enjoy my Master's programme. Tourism and conserva-


'My aim is to inform, educate and involve people'

tion combine well: people can enjoy nature as tourists and help to protect it at the same time.' He is also impressed by the diversity here. 'There is a diversity of people, subjects and knowledge.'

Wanbugu is chair of UCAS (United Community of African Students), where he works to promote integration and internationalization in Wageningen. 'I want to help students in Wageningen to understand the stories, the people and the diversity of Africa. Some people see Africa as one big country, but it has lots of countries, cultures and potential.'

The Master's student is aiming at leadership, not just in UCAS but also in Kenyan pol-

itics. 'I believe in progressive leadership, for which you need transparency and confidence in government institutions.' He has stood for election in Kenya in the past and he hopes to do so again in five years' time.

'My aim is to inform, educate and involve people. The elections give me a good starting point for going to people and saying: 'I am one of your sons, I come from your village, I understand your problems, and this is my vision.'  AvdH

Read all the interviews on resource-online.nl

PARTIES

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

LUCA - IXESN 10 YEARS

Friday 1 December from 23.00 to 04.00

International student network IxESN is celebrating its 10th anniversary with a Blacklight Party. Come in white clothes you don't mind getting dirty; blacklight markers are available.


IMPULSE - FRÉ

Tuesday 5 December from 12.30 to 13.30

There are regular concerts by good musicians in Impulse. FRÉ is singer Frederike Berendsen's band. Berendsen's songs are inspired by singers such as Joni Mitchell and Björk, and are often about nature.

WAGENINGEN – MUSIC AT THE NEIGHBOURS'

Sunday 10 December from 12.00 to 18.00

On this Sunday afternoon there is live music in a number of Wageningen living rooms. Entrance is free, and a remarkable experience is guaranteed. A nice way of meeting the neighbours and discovering up-and-coming talent. 



Various bands performed in the International Club during Rock Ascension on 16 November.

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.

Looking for glyphosate in the soya fields

'Even though it's on the other side of the world, El Colegio de la Frontera has a similar vibe to Wageningen. It has five campuses in the south of Mexico, and the focus lies on nature conservation, responsible fisheries and sustainable development. That means you are in a completely different context but you immediately meet people who are on the same wavelength as you.'

SOYA FARMING

I met my Mexican supervisor when she was a visiting lecturer at WUR. She and I drove four hours into the jungle from Campeche. Tucked away in the forest there are vast fields where soya is grown. Not by Mexicans but by Mennonites from Canada. This closed Christian community owns vast tracts of land there. They farm the soya very intensively for export on a large scale. That exhausts the soil very fast. After harvesting they just cut down another patch of forest.

For my research I looked at the accumulation of glyphosate, or Roundup, in the soil, and at one of its breakdown products, AMPA. My supervisor and I took samples of soil, plants and invertebrates in the soya fields along the edge of the remaining forest, and in the jungle itself. By doing that we could look at where the pesticide is found in flora and fauna in the vicinity. We still have to make our statistical anal-

yses, but we can already say that you find traces deep into the forest.

PROMOTING GLYPHOSATE

I found the atmosphere in this region unpleasant. Every day I saw big machines injecting the fields full of glyphosate, while local children were playing in the fields. Glyphosate and other pesticides are used in vast quantities and pollute the groundwater and the soil. What is more, they end up in the local honey – one of the district's main export products. Ironically enough, the Mexican government is happy with the Mennonites because they are hard-working people and 'they keep agriculture going'. The craziest thing to my mind was that people my age go from farm to farm promoting glyphosate.

Fortunately, the job of sampling only took a few days; then we went back to ECOSUR. I got to do a very cool research project at a great university. I would have preferred to analyse our results more from a social perspective: what are

THE WORKS



Who? Ilsa Phillips
What? Thesis research at El Colegio de la Frontera Sur (ECOSUR)
Where? Campeche, Mexico

the implications of large-scale soya production for the local people? When I write my thesis I will include that as much as possible.' **LH**

Read all the interviews on resource-online.nl



Orion Irregular Opening Hours Christmas 2017

| | Friday 22 December | Saturday 23 December to Sunday 7 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 | Closed |



Leeuwenborch Irregular Opening Hours Christmas 2017

| | 2017 | The Building | Coffee Bar/ Restaurant | The Library |
|-----------------------------|--------------------|-----------------|---------------------------|-------------|
| Saturday | 23 December | 8 am - 5.30 pm | Closed | Closed |
| Sunday | 24 December | Closed | Closed | Closed |
| Monday Christmas | 25 December | Closed | Closed | Closed |
| Tuesday Christmas | 26 December | Closed | Closed | Closed |
| Wednesday | 27 December | 7 am - 6 pm | Closed | Closed |
| Thursday | 28 December | 7 am - 6 pm | Closed | Closed |
| Friday | 29 December | 7 am - 6 pm | Closed | Closed |
| Saturday | 30 December | 8 am - 5.30 pm | Closed | Closed |
| Sunday | 31 December | Closed | Closed | Closed |
| Monday New Years Day | 1 January | Closed | Closed | Closed |
| Tuesday | 2 January | 7 am - 10.30 pm | 10 am - 2 pm | Closed |
| Wednesday | 3 January | 7 am - 10.30 pm | 10 am - 2 pm | Closed |
| Thursday | 4 January | 7 am - 10.30 pm | 10 am - 2 pm | Closed |
| Friday | 5 January | 7 am - 10.30 pm | 10 am - 2 pm | Closed |
| Saturday | 6 January | 8 am - 5.30 pm | Closed | Closed |
| Sunday | 7 January | Closed | Closed | Closed |



Forum Irregular Opening Hours Christmas 2017

| | 2017 | The Building | The Library | Student Desk IT Service Point | WURshop | Restaurant | Grand Café | Wageningen in'to Languages |
|-----------------------------|--------------------|--------------|-------------------|----------------------------------|--------------|--------------------|---------------|-------------------------------|
| Saturday | 23 December | 10 am - 6 pm | Closed | Closed | Closed | Closed | Closed | Closed |
| Sunday | 24 December | 10 am - 6 pm | Closed | Closed | Closed | Closed | Closed | Closed |
| Monday Christmas | 25 December | Closed | Closed | Closed | Closed | Closed | Closed | Closed |
| Tuesday Christmas | 26 December | Closed | Closed | Closed | Closed | Closed | Closed | Closed |
| Wednesday | 27 December | 8 am - 8 pm | 8.30 am - 5.30 pm | Closed | Closed | Closed | Closed | Closed |
| Thursday | 28 December | 8 am - 8 pm | 8.30 am - 5.30 pm | Closed | Closed | Closed | Closed | Closed |
| Friday | 29 December | 8 am - 8 pm | 8.30 am - 5.30 pm | Closed | Closed | Closed | Closed | Closed |
| Saturday | 30 December | 10 am - 6 pm | Closed | Closed | Closed | Closed | Closed | Closed |
| Sunday | 31 December | 10 am - 6 pm | Closed | Closed | Closed | Closed | Closed | Closed |
| Monday New Years Day | 1 January | Closed | Closed | Closed | Closed | Closed | Closed | Closed |
| Tuesday | 2 January | 8 am - 8 pm | 8.30 am - 5.30 pm | Closed | 10 am - 2 pm | 11.30 am - 1.30 pm | Closed | Closed |
| Wednesday | 3 January | 8 am - 8 pm | 8.30 am - 5.30 pm | 12 pm - 2 pm | 10 am - 2 pm | 11.30 am - 1.30 pm | Closed | Closed |
| Thursday | 4 January | 8 am - 8 pm | 8.30 am - 5.30 pm | 12 pm - 2 pm | 10 am - 2 pm | 11.30 am - 1.30 pm | Closed | Closed |
| Friday | 5 January | 8 am - 8 pm | 8.30 am - 5.30 pm | 12 pm - 2 pm | 10 am - 2 pm | 11.30 am - 1.30 pm | Closed | Closed |
| Saturday | 6 January | 10 am - 6 pm | Closed | Closed | Closed | Closed | Closed | Closed |
| Sunday | 7 January | 10 am - 6 pm | Closed | Closed | Closed | Closed | Closed | Closed |



announcements

Call to take part in Rathenau Institute survey: 'What motivates researchers?'

We want researchers and scientists to tell us how science works in the Netherlands. The Dutch cabinet used the results from the previous survey in 2013 as input for its new vision on science. In addition to the motivating factors in your work as a researcher, Rathenau is also interested in international mobility and the transfer of knowledge. 'Knowledge transfer is about the economic utilization of knowledge, using knowledge to resolve social problems and/or contributing to public debates' (Science Vision 2025). Go to bit.ly/2AbL8Zs to fill in the questionnaire.

Introduction course on zen meditation

A course for people who are not familiar with zen meditation or who need a refresher. You will learn about the background, how to adopt a good position and concentration techniques. By gradually increasing the time you meditate for, you will be ready by the end of the introduction course to join a continuation group if you want. The course is given by Martijn Wevers, Marloes Harkema and Vincent Pompe van Meerdervoort. It is on Wednesday evenings from 19.00 to 20.15. Venue: KenKon, Nieuwe Kanaal 11, Wageningen.

ZENINWAGENINGEN.NL

agenda

Thursday 30 November to 13 December

FILMS FOR STUDENTENS

Weidevogels in het Binnenveld: unique nature film with the 'Big Five' of the local Binnenveld area. *The Net*: engrossing satirical drama about a North Korean fisherman in South Korea. *Your Name*: sensational Japanese animation film tells a modern, romantic fairy story. *Daphne*: British comic drama about a young woman adrift in London. *Love is Potatoes*: moving personal portrait of the director's Russian mother and sisters. *Back to Basics* and *Harvesting Happiness*: two documentaries about a farm for everyone and community farming. OtherWise and the Farmers

Foundation will organize a Q&A afterwards. Venue: Wilhelminaweg 3A, Wageningen.

MOVIE-W.NL

Saturday 2 December, 22.00-03.00 AMÉRICA LATINA PARTY

Are your hips stiff from all the studying or sitting in the office? Come and shake your sexy body at our América Latina party. We'll start off with classic salsa to warm up the evening and continue with the best of pop music from Latin America! What's more, you can enjoy some specials at the bar. So join in and get a taste of gay culture in Latin América at SHOUT in the Wilde Wereld at Burgtstraat 1. Info through Facebook.

Thursday 7 December, 12.30-13.00 LUNCH LECTURE: 'FOOD

ALLERGENS, REDUCING THE RISK'

Do you suffer from a (food) allergy or know someone who does? Always wanted to know more about the mechanism behind allergy development and the research conducted in Wageningen to help protect and assist the allergic consumer? Come to this lecture by representatives of the Allergy Consortium Wageningen, Monique Bremer and Shanna Bastiaan-Net. They will give an update about the ins and outs of research at Rikilt and Wageningen Food & Biobased Research on consumer-friendly allergen detection, the characterization of (novel) allergies and the prospects for immunotherapies. Venue: Impulse.

Thursday 7 December, 19.30 SYMPOSIUM ON GHANAIAN AGRICULTURE: CHALLENGES FOR WOMEN IN AGRICULTURE

The third event at the symposium organized by Boerengroep is a discussion in small groups on how to promote gender equality in agriculture. The outcome will be shared with the local authorities in Ghana, so your participation can make a difference. Speakers: Daniel Nyarko and Ivy Jones. Venue: The Spot in Orion.

BOERENGROEP.NL

Friday 8 December, 15.00-21.00 NATIONAL CONGRESS FOR BIOLOGY STUDENTS (NCBS)

During the congress, biology students from different universities will do battle in Burgers' Zoo competing

for the 'Darwin', the nationwide thesis award for Biology. To buy tickets, go to ticketkantoor.nl/shop/ncbs. Venue: Safari Centre, Burgers' Zoo, Antoon van Hooffplein 1, Arnhem.

Wednesday 13 December, 20.00-22.30

DOCU NIGHT ON INNOVATIVE FARMING SYSTEMS @MOVIEW

OtherWise and the Farmers Foundation invite you to an inspiring cinema evening followed by a lively discussion supported by guest speakers. The first documentary, *Back to Basics*, tells the story of the successful Herenboeren initiative in Bostel, where a dedicated group of citizens embrace the idea that it should be possible to collectively own a farm and hire a farmer to produce their food. Their strategy has proven to be a revolutionary concept in the Netherlands. The second screening, *Harvesting Happiness* by future farmer Jildou Friso, is about Community-supported Agriculture (CSA) in the Netherlands. Six CSA farmers are portrayed, with their passions and ideals, their relationships with their members, their struggle for land, their doubts and setbacks, and their dreams for the future.

Venue: Movie-W, Wilhelminaweg 3A, Wageningen.

Thursday 14 December, 16.00

WEES SEMINAR: 'ENDOGENOUS VIRUSES USED BY PARASITIC WASPS TO DELIVER VIRULENCE MOLECULES TO THEIR HOSTS'

Anne-Nathalie Volkoff (Research Director at the University of Montpellier, France) will present genomic analyses combined with proteomics to unravel the origin of virus-like particles that deliver 'virulence' molecules that can ensure the success of insect parasitoids. There will be a workshop earlier in the day. Venue: Impulse.

WEESWAGENINGEN.NL

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

colophon

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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.
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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
- Linda van der Nat (students, education)
linda.vandernat@wur.nl, 0317 481725
- Tessa Louwerens (animals, nutrition),
tessa.louwerens@wur.nl, 0317 481709
- Albert Sikkema (plant sciences, animal sciences, organization)
albert.sikkema@wur.nl, 0317 481724

Others who work on Resource

Guy Ackermans, Sam van Beljouw, Annie Berendsen, Alexandra Branderhorst, Evelien Castrop, Cathy Chen, Susie Day, Teun Fiers, Marijn Flipse, Stijn van Gils, Aart-Jan van de Glinde, Clare McGregor, Anne van der Heijden, Yvonne de Hilster, Hoger Onderwijs Persbureau, Lotje Hogerzeil, Anja Janssen, Liza van Kapel, Echica van Kelle, Helena Ligthert, Piotr Kukla, Sven Menschel, Carina Nieuwenweg, Rik Nijland, Madhura Rao, Manon Römkens, Henk van Ruitenbeek, Julia Schäfer, Eva van Schijndel, Joris Tielens, Pascal Tieman, Didi de Vries, Clare Wilkinson, Rob de Winter, Remo Wormmeester

Design

Geert-Jan Bruins, Paul Gerlach

Translators

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Advertising

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

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Marc Lamers, Corporate Communications & Marketing Wageningen University & Research



>>TYPICAL DUTCH



ILLUSTRATION: HENK VAN RUITENBEEK

Congratulations all round

In my country it is the custom to congratulate the person who is celebrating something. In the Netherlands, however, guests at a party congratulate practically everybody in the room.

I was invited to a Dutch birthday party. When I arrived, I congratulated the 'birthday girl'. I gave her my present and sat down to wait for the other guests to arrive. When people came in, they congratulated their host too. But the funny thing was that they also congratulated the other family members who were present. 'Congratulations on your daughter's birthday,' they said, and 'congratulations on your sister's birthday'. They even congratulated her boyfriend: 'congratulations on your girlfriend's birthday'.

This seemed really weird to me, since in my country we don't congratulate someone on someone else's birthday. We leave it at saying 'happy birthday' to the person in question. When I asked my Dutch friend, she said congratulating the person's relatives and friends is customary here. I think that's funny but it's a nice tradition. 🇮🇩 **Sastrin Negara, MSc Student of Animal Sciences, from Indonesia**

Guests at a Dutch birthday party congratulate practically everybody in the room

Have you had an interesting encounter with Dutch culture? Send your anecdote (in 250 to 350 words) to resource@wur.nl and earn 25 euros and a jar of Dutch sweets. The editors reserve the right to shorten and edit the contributions before publication.