

Learning on your laptop

Assessing online-only education | **p.6** |

New teaching building

1100 entries for new name | **p.7** |

The race for a vaccine

WUR takes first step | **p.8** |

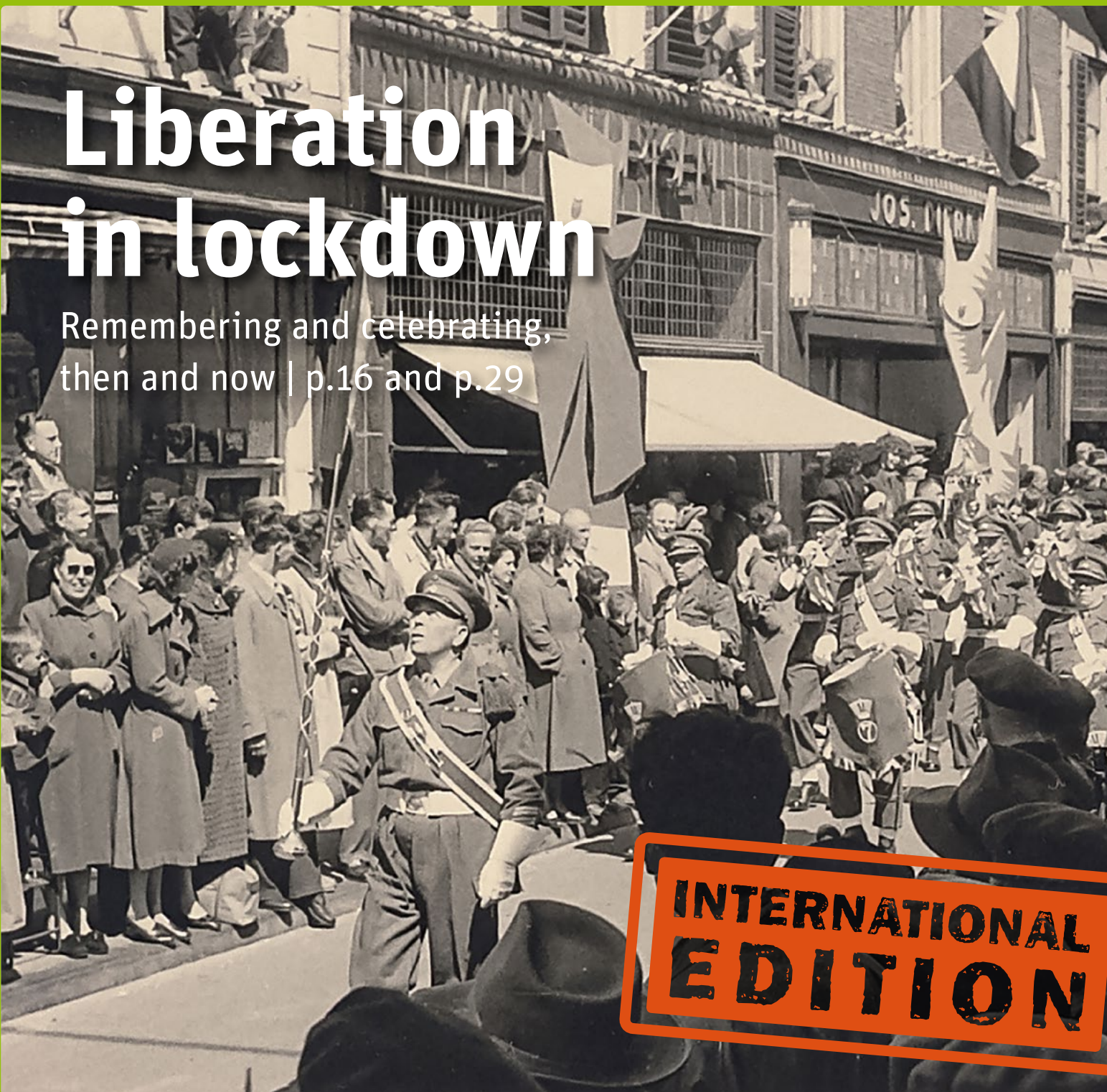
RESOURCE **[EN]**

For everyone at Wageningen University & Research

no 16 – 30 April 2020 – 14th Volume

Liberation in lockdown

Remembering and celebrating,
then and now | p.16 and p.29



Patrick + Reconyx Hyperfire 2 camera trap

WUR researchers work with all kinds of equipment. Meet ecologist Patrick Jansen of Wildlife Ecology and Conservation.



GOTCHA!

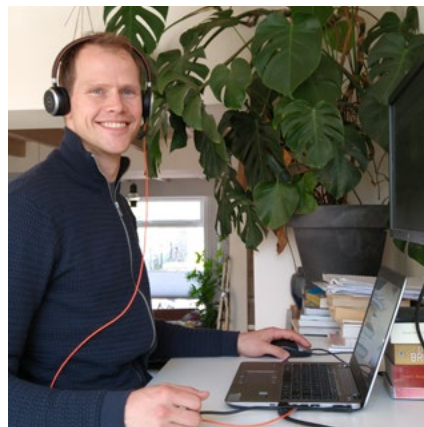
Camera traps have become an integral part of nature research. The cameras work night and day, recording passing wildlife. Jansen uses them in the Netherlands and abroad to study animal populations and their behaviour. As he has done here in the new nature area of Binnenveldse Hooilanden. The camera uses infrared to detect motion, then surreptitiously takes ten photos and a short video clip. The woolly collar is camouflage tape.  RK, photo Sven Menschel

>> CONTENTS

no 16 – 14th volume



>> **12**
A SOWER ALL HER LIFE
 Parent advisor retires



>> **18**
PIONEERS
 In the virtual classroom



>> **22**
RESEARCHERS STUCK
 In polar ice

LIBERATION IN LOCKDOWN

Prime minister Mark Rutte recently called the current situation the greatest crisis since the Second World War. Only to add that you should always be careful with such comparisons. The reference to the war is understandable but when you see the devastation in old photos and read the stories of what happened, his caveat seems crucial. The Netherlands was liberated 75 years ago. Each year, Liberation Day is an important moment — certainly in Wageningen — when we remember those dark days. It will all be different next week because of the coronavirus. No festival, no wreath-laying, nothing. Well, not quite. On page 29 you can read about students' efforts to find alternatives. And page 16 has a lovely photo of Wageningen celebrating after the Liberation. We will be commemorating it differently this year but perhaps that will make us more aware of what it means. We are free, despite all our current problems.

Willem Andrée, editor-in-chief

AND MORE...

- 4 New-look AID**
- 6 Swan equals its personal record**
- 8 Greenhouses without water pollution**
- 9 Fire is a serious risk**
- 11 Zero emissions means fewer animals**
- 20 Point of view: 'Online-only affects the educational quality'**
- 28 No toilet breaks during online exams**



>> **Why do so many PhD candidates experience imposter syndrome, and will they ever get over it? | p.24**

TEMPORARILY DOING DIFFERENT WORK

Four WUR employees unable to carry out their regular tasks properly because of the coronavirus crisis have temporarily found alternative work in WUR through Matchpoint.

Last week, Matchpoint found different work for a WUR employee who normally supports student practicals. This person is now doing analyses for the Organic Chemistry chair group. Another three employees have been given a short-term assignment for the Education Support Centre. They will be doing video checks during online exams to make sure the students don't cheat.

Matchpoint was launched at the start of April to match supply and demand in work. Joes van Meurs (AFSG), Martine Schroder (ASG) Ine van 't Land (ASG) and Marike Westra (PSG) act as brokers. To date, some 15 employees have applied to be temporarily deployed elsewhere within WUR.



PHOTO: SHUTTERSTOCK

Marike Westra now calls on staff to pass on more temporary opportunities to Matchpoint, whether general tasks or specific assignments. The Plant Sciences Group, for example, is currently looking for support in developing modules. **AS**

NEW-LOOK AID

The introduction week for new students will look quite different this year. The coronavirus has thrown a spanner in the works here too. How can you make AID corona-proof?

The sports day, the campus festival and the Crazy 88 challenges in the town centre — the traditional ingredients of the introduction week (AID) are great fun but not exactly suited to the '1.5 metre society'. The AID committee was at a loss at first when the announcement was made last week that all large-scale events would be banned until 1 September.

NO BIG PARTIES

'But the introduction week is definitely going ahead,' says Jessie Beirnaert of the AID committee. 'Although it's not clear in what form. We are considering various scenarios depending on how the rules change. We are discussing things with the university and we are also in



PHOTO: MARTE HOFSTEENGE

▲ The AID before the coronavirus.

contact with introduction committees in other cities. There will be no big parties but activities for smaller groups of students might be possible. For example, if gatherings of up to 50 people are allowed by then, we'll adapt the programme accordingly. We will obviously stick to the Dutch public health institute's guidelines.' Could postponing the AID week

be an option? 'That's really tricky because then the lectures will have started. Anyway, you don't know how the situation will develop. Will the end of September be any better? We aim to do as much as possible at the point when the new students arrive in Wageningen. We may be able to move a festival or closing party to later in the academic year.' **CJ**

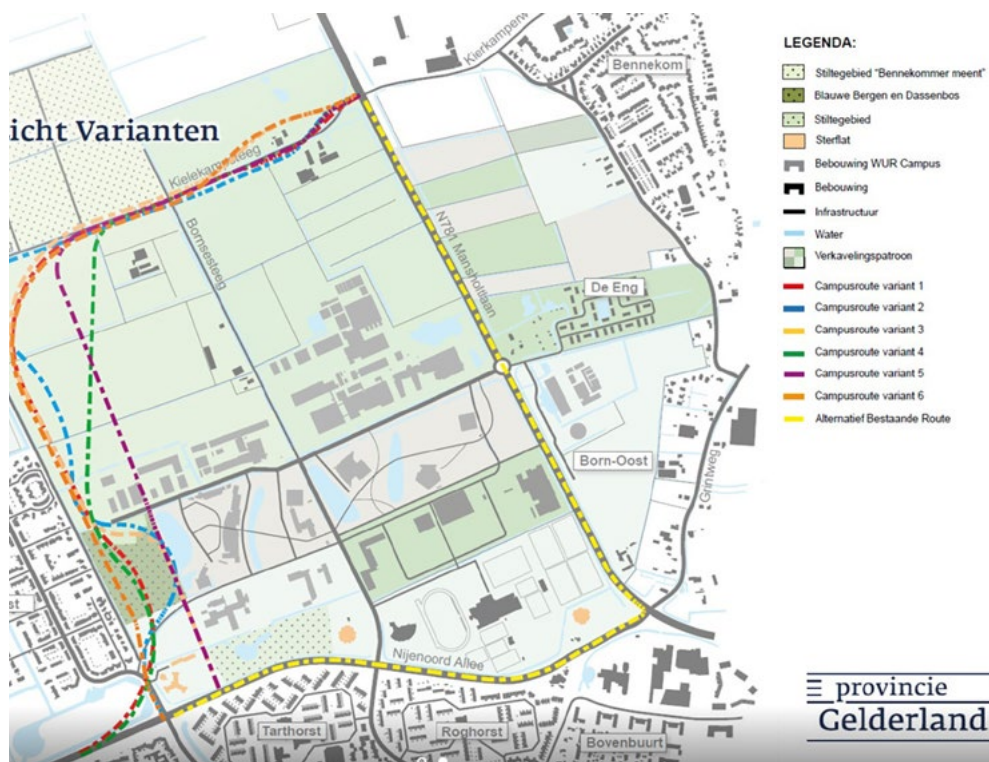
LOTS TO LEARN ABOUT MICRO-ORGANISMS

The Dutch Research Council (NWO), WUR and Delft University of Technology are jointly investing 24.8 million euros in equipment for studying entire microbial communities.

Research leader Hauke Smidt hopes he and his colleagues will find new microorganisms and conversion pathways. Cheese gets its distinctive flavour because different lactic acid bacteria species play a role in the conversion of milk to cheese. Indeed, microorganisms are often found to collaborate, for instance in the digestion of food in our intestines and the purification of wastewater. Smidt, professor holding a personal chair in Microbiology, wants to study those communities of microorganisms. He also hopes to find new useful microorganisms, because we don't yet know how 99 per cent of them function. NWO is investing 14.5 million euros in the UNLOCK project, in which these microbial communities will be studied. The money will mainly go on automated bioreactors and equipment for analysing DNA, RNA, proteins and metabolites from mixed cultures. 'There is huge diversity in the microorganisms in nature and with this new infrastructure, we will be able to study them efficiently in their natural environments,' explains Smidt.

FROM INTESTINES TO WASTE

The participants in UNLOCK will be studying a broad spectrum of topics. Smidt's research group will be looking at the optimum combination of gut bacteria for promoting health and preventing diseases. Wageningen environmental technologists will look at how impurities in water can be removed using microorganisms. The UNLOCK partners in Delft will consider the use of microorganisms for extracting raw materials from waste streams. The infrastructure will also be made available to other universities and companies. **AS**



▲ Variants for the campus ring road.

RING ROAD A STEP CLOSER

A ring road seems the best solution for the traffic congestion on the campus, shows a recently published environmental impact analysis.

Establishing a route across or around the edges of the campus could be the best way to absorb the extra traffic expected between the campus and the motorway, even in the relatively near future (2030). It would make commutes in the rush hour less than half as long again as those in off-peak hours. For the provincial government, this norm for commuting time is a strict criterion for traffic congestion.

FLEXIBILITY

The alternative to a new ring road, upgrading the Mansholtlaan and the Nijenoord Allee, would not meet that norm. Traffic heading towards the motorway would still be held up during the evening rush hour. And traffic experts see a few other disadvantages to upgrading the existing route. One is that traffic would have few escape routes in an emergency. A new campus route would provide that flexibility. A second disadvantage is that it would not really benefit cyclists going to and from the campus: it will continue to be difficult to cross the Nijenoord Allee, especially at the junction with the Churchillweg. But a campus route is not perfect in that respect either. If traffic increases

by another 10 per cent after 2030, commuting times in the evening rush hour still won't meet the norm.

CAMPUS ROUTE

Six variants of a route around the campus have been considered. The most promising are three routes with a speed limit of 80 km per hour. The three differ in the route they take through the Dassenbos wood and in how they intersect with the Nijenoord Allee. The cheapest option is a road that cuts through the Dassenbos, leading to the Nijenoord Allee between Rikilt and the Dijkgraaf block of flats. This would cost 22 million euros.

The environmental impact (the MER, in Dutch) outlines the implications for the environment. A campus route scores badly in this respect. A new ring road means new asphalt, thereby sacrificing nature and landscape. But many of the negative consequences will be compensated for by creating new nature areas. And a campus route has one point in its favour: it would reduce noise pollution by spreading the traffic. The provincial executive will announce their preferred solution this summer. Stakeholders such as local residents and nature organizations now have the chance to make their views known. Road-building will start in 2023 at the earliest. **📍 RK**

© COLUMN | GUIDO

Public health = animal health

'OneHealth' was the big thing when I was still studying veterinary science. OneHealth refers to interdisciplinary collaboration to improve the health of people, animals and the environment. It was still a fairly theoretical concept back then though, with vets and doctors operating in separate worlds.

But COVID-19 has shown how closely we are interlinked with animals and the ways in which we deal with them. This virus came from animals and it is expected that future pandemics will also be zoonoses (diseases that are transmitted from animals to humans).

In the past few weeks, the theoretical concept of OneHealth has taken on a much more practical form: vets discussed how they could make their face masks available as soon as possible for human healthcare and how many respiratory machines could be delivered to intensive care units in an emergency. Wageningen Bioveterinary Research and Royal GD, which are normally labs for animal diseases, adapted their labs in no time in the effort to scale up Dutch COVID-19 testing capacity.

The relevance of an integrated approach to animal and human health was underlined once again this weekend. After pet cats and tigers, minks too were found to be infected on a Brabant farm. Clearly this epidemic cannot be defeated without looking at the interaction between people and animals. OneHealth will become the new standard in how we deal with our health and the environment — with a key role for WUR. **📍**

Guido Camps (36) is a vet and a postdoc at the Human Nutrition department. He enjoys baking, beekeeping and unusual animals.



STUDY OF ONLINE-ONLY EDUCATION

Postdoc Tim Stevens of the Education and Learning Sciences chair group is conducting a study on the transition to online-only education. The results are expected to yield insights that will benefit education after the corona crisis.

When all WUR courses were shifted at great speed to online-only formats due to the coronavirus measures, Dean of Education Arnold Bregt and rector magnificus Arthur Mol contacted the Education and Learning Sciences (ELS) chair group under professor Perry den Brok. 'This is a unique situation, in which people were forced to learn a lot about online education in a very short time', says Den Brok. 'Some of the lessons learnt could be useful in the longer term. Arnold and Arthur asked us at ELS to monitor the developments.' Postdoc Tim Stevens was given the research assignment. 'Our research focusses on how the transition to online education affects the professional development of

teachers, the curriculum and the course design,' Stevens clarifies. 'We aim to shed light on the issues and challenges teachers and students face in online education. I also want to figure out what does work well. We study what tools are used for different courses, how they are used, and how teachers and students assess their use.'

'Teachers are forced to reconsider the learning process'

'There are different types of students and teachers,' Stevens continues. 'While some people are good at live interaction, others may be better at providing assignments and feedback. This is why I include students' and teachers' attitudes and how this may influence their use and assessment of the tools.' The insights from Stevens' research are to be applied in next year's education. 'I also want



PHOTO: SHUTTERSTOCK

to gain scientific insights for publication, but that will come at a later stage.'

Stevens expects the quality of the courses in period six to be an improvement on period five. 'Teachers have been able to gain more experience of teaching online. And the support for online education has improved, both technically and logistically. However, the students may now also have higher expectations, so whether the

ratings will improve is still unclear.'

Den Brok: 'This transition forces teachers to reconsider the learning process. It also requires a more precise approach. In front of a group, it is easier to improvise. Online, improvisation is hardly an option, so it is more important to be well-prepared. Teachers must now think differently about the learning process, and that is valuable.' **R LZ**

SWAN MATCHES PERSONAL RECORD

A pair of swans are once again brooding by the pond near the Forum. The pair have done their best: their nest contains no fewer than eight eggs.

You are lucky if you catch a glimpse of the brood. A breeding swan doesn't take many breaks. Last Thursday, however, mother swan decided to stretch her legs, revealing eight enormous grey eggs in the nest. Just like last year, when the couple produced eight eggs, all of which hatched out.

'Eight eggs is above average', says Jeroen Nienhuis of the Dutch Centre For Field Orni-

thology. 'Swans lay an average of five to six eggs.' Nienhuis is not sure exactly what the current record is, but thinks it is around 14 to 15 eggs. Too many for the Forum pond, which isn't very big. Anyway, swan production in the Forum pond has a sorry track record, with regular mishaps over the years. Last year marked an all-time low, when all eight youngsters were probably devoured by a large pike. This sparked a discussion as to whether the pike could not best be removed from the pond. That could be done but it's not going to happen, says ecologist Wiemer Wagelink. From an ecological perspective, it would be unwise to remove the pike – a top preda-



PHOTO: ROELOF KLEIS

▲ Fences surrounding the nest to keep passers-by at bay.

tor – from the pond's ecosystem. 'Swans must learn to protect their offspring. These parents

are probably still young swans. It's a learning process.' **R RK**

HOW MANY INTERNATIONAL STUDENTS WILL STILL COME?

The coronavirus crisis will probably have a big impact on the intake of new students. A fall in the number of international students is expected.

‘Education has come to a standstill in many countries so people are not getting their diplomas in time,’ says Student Service Centre head Ingrid Hijman. ‘What is more, assessment centres for English tests are closed and new students from outside Europe can’t apply for visas. And the economic crisis associated with the pandemic will create financial challenges for potential WUR students. In short, there is a lot of uncertainty at present.’

A solution can be found for some of these problems. For example, In’to Languages can run language tests for new students. Hijman: ‘But there is no immediate solution for some other issues. We can’t arrange

visas while the embassies are closed. And will students even be able to travel to the Netherlands? We simply don’t know.’ In view of that uncertainty, Hijman favours a second intake in February. ‘Some degree programmes are already doing this, so perhaps WUR as a whole should. Hopefully the situation will be more stable by then and there will be time to arrange everything properly.’

MAJOR BLOW

Dirk van Damme, the head of an education division in the OECD (Organisation for Economic Co-operation and Development), expects that the crisis will be a major blow to international student mobility; that universities dependent on tuition fees paid by non-EU students will suffer a lot; and that there will be a ‘huge drop’ in applications from Chinese students.



PHOTO: MARIE HOFSTENGE

Dean of Education Arnold Bregt: ‘I think the picture Van Damme gives is broadly correct. We don’t know what the impact will be here. Last year we got 13,474 applications from international students who weren’t directly eligible. They then have to go through the admission procedure and only 8 to 10 per cent enrol in the end. But at

the moment we don’t know how many of those applications *can* be admitted because everything is at a standstill due to the coronavirus measures. And we don’t know how many of the students who are admitted will actually enrol. We are dependent on how the situation develops here and in other countries.’ **LB**

LOTS OF STUDENTS THINK UP NAMES FOR NEW BUILDING

Students have come up with large numbers of names for the third education building on campus. To be precise, 467 unique names.

The building itself is yet to take physical shape and delivery is not scheduled until June 2021. But the new education building clearly already speaks to students’ imagination. The call to think up a name for the new building resulted in as many as 1100 submissions to Eddy Teenstra, the secretary of the naming competition. Teenstra gave 844 submissions his stamp of approval, meaning they met the competition criteria. Names must not be too long or short, for example (so four to six letters), they must be derived from Latin or Greek, and the person submitting must be a potential user of the future building. Therefore entries from outside of WUR are excluded from the competition.

ENTHUSIASM

‘That’s why I rejected submissions sent from a Gmail or Hotmail address,’ explains Teenstra. ‘I can’t tell then whether they are from someone at WUR.’ Three-letter words were rejected too, although he made an exception for Eos because it consists of two syllables. This all left



▲ The third education building under construction.

PHOTO: WUR

413 submissions with 467 unique names. Teenstra is surprised by how much enthusiasm there was for the competition. Students in particular sent in suggestions — they accounted for 90 per cent of the entries. One submission listed a whole 22 (approved) names for the new building. Some names were suggested by a number of people. ‘Helios was mentioned a lot, for example, as were Terra, Apollo and Agora.’

A four-person jury, which includes Dean of Education Arnold Bregt, has whittled the entries down to a shortlist of 32 names. They have not yet considered the supporting arguments. That will happen in the second round of voting, which will result in two names to be put to the Executive Board. Teenstra expects they will soon be able to announce the winning name. **RK**

GREENHOUSES WITHOUT WATER POLLUTION FEASIBLE

A four-year research project conducted by WUR Greenhouse Horticulture in Bleiswijk shows that it is possible to grow cucumbers and bell peppers for a whole year without discharging any wastewater.

Horticulturists water their plants using a solution of nutrients such as nitrogen and phosphate, and then recycle the excess water. However, this causes salts to accumulate in the water, due to the salinity of surface and groundwater in the western Netherlands. So most horticulturists dump the water after three to four months. 'That is not necessary', says Wageningen Plant Research researcher Erik van Os. For a start, horticulturists must ensure they can collect sufficient rainwater to provide their plants with sodium-free water. Secondly, the rinsing water used to clean the filters and the new substrate (artificial plant bedding) can be reused rather than dumped. Thirdly, the water in the substrate should be released slowly so the drains don't overflow. These measures will enable horti-



PHOTO: ERIK VAN OS

culturists to use the same water for a year. The research is in line with Dutch legislation, which requires horticulturists to gradually stop discharging their wastewater into surface water. By the year 2027, they will not be allowed to discharge wastewater containing nitrogen and phosphate. It is not yet feasible to recycle all the water, according to Van Os. 'Previously, horticulturists would dump about 1000 cubic metres of water per hectare of greenhouse per year,' says Van Os. The horticulturists have managed to reduce that to 100 cubic metres. His proposal would bring it down to 10 to 20 cubic metres. **AS**

FIRST STEP TOWARDS DEVELOPING COVID-19 VACCINE

Wageningen virologists and process engineers are working on a vaccine against the coronavirus. The first step have been taken.

The Wageningen virologists Linda van Oosten and Gorben Pijlman have made the first adapted baculovirus with which they can simulate the spikes of the coronavirus in insect cells. This week Jort Altenburg and Dirk Martens at Bioprocess Engineering are going to culture the spikes in a small bioreactor. If that works, these proteins will then be refined by the Biochemistry chair group. The spikes of the coronavirus are very large, complex proteins with a lot of saccharides on them. 'The insect cells can simulate this protein,' says Pijlman, 'but we still have to see how many of them they can make.' Pijlman is also continuing to work on optimizing the function of the baculovirus in insect cells, to obtain stable proteins that don't change shape. That stability is important for a good immune response, Pijlman thinks.



The university is working at great speed to set up a production process for producing the protein. If it works, the process will go to a Danish company with which WUR collaborates. The company will make a trial version of the vaccine, with a bit of luck in the next month. 'The best thing would be if someone beats us to it,' says Dirk Martens. 'Then there will be a vaccine available sooner.' The introduction of a vaccine is expected to take another year, because it still has to be put through a lot of safety tests. **AS**

HOGVE VELUWE SOIL GETS FERTILIZER

Sylvana Harmsen has spread thousands of kilos of rock dust in the Veluwe. Over the next few years, cameras will monitor the effect.

In the heart of Hoge Veluwe Park, a woman in a face mask scatters a fine grey powder from a bucket. It is as if she is illegally scattering the ashes of a cherished family member, a joke she has heard many times before. But the powder is actually finely ground rock, which PhD candidate Sylvana Harmsen wants to use to restore the mineral balance in the woodland soil. Nitrogen deposits have severely af-

ected the soil composition. Rock dust has been proven to work as a soil improver elsewhere in the Veluwe. Harmsen is now looking specifically at its effect on forest rejuvenation. Oaks are having a particularly tough time in the Veluwe. The rock dust comes from a mine in Norway and is rich in potassium, calcium and magnesium. When these minerals are added to the soil, that is good for the growth of young trees.

EATING SAPLINGS

But there is a flip side as the saplings also become tastier for grazers such as deer and mousflons. It is unclear whether the

negative effect of the grazers offsets the positive effect on rejuvenation. That is where the cameras come in. Harmsen is using Snapshot Hoge Veluwe, an existing network of camera traps, to keep an eye on the grazers. The park has 70 cameras that keep track of grazing intensity. Harmsen is using 12 of these camera traps to track soil enriched with rock dust. Incidentally, the fertilization costs a lot of effort. Each trial plot measuring 30 x 30 metres requires Harmsen to scatter 900 kilos, or 180 buckets, of rock dust. Some of the plots have been fenced off to get a picture of the impact



PHOTO: SYLVANA HARMSEN

of the rock dust without grazers. The project will take five years. Harmsen expects to see the first effects in three years' time. **RK**

CHASING PLANKTON UNDER THE SEA ICE

What is life like for plankton and fish under the sea ice in the Arctic? That is what Serdar Sakinan of Wageningen Marine Research is investigating. 'These measurements will let us improve our predictions of the influence of the climate on food chains.'

Sakinan uses nets under the ice to collect fish and zooplankton (tiny creatures such as copepods and arrow worms). Sakinan: 'The Arctic Ocean is covered by a thick layer of sea ice for most of the year. That means there is not much light, whereas light is always necessary for growth.'

The algae just under the sea ice flourish again in the spring when there is more light. They form an important food source for the entire food chain. Little amphipods that consume the algae get eaten by fish, which in turn are eaten by predators such as polar bears and seals. Sakinan: 'We collect plankton and fish in order to better understand how the ecosystem works and what contribution these creatures make to the carbon cycle in the Arctic Ocean.'

DARK

Zooplankton are sensitive to light. In lower latitudes, they come up at night and sink to the depths during the day. 'When we arrived in February, it was permanently dark,' says Sakinan. 'From March on-



PHOTO: DELPHIN RUCHE

wards it has gradually become lighter and I was curious to see how the plankton would behave in the different day-night patterns of the Arctic.'

Sakinan is measuring this with acoustic signals. Sound pulses are sent into the water and the echoes are measured.

'Zooplankton are incredibly tiny but they are present in large numbers and they produce weak but measurable echoes.'

As Sakinan had expected, the plankton here too sank deeper in response to light. 'It was nice to see that our acoustic measurements worked because when we hauled up the nets, they were full of plankton.' **TL**

On pages 22 and 23, you will find a long interview with Sakinan about his experiences in the Arctic.

Adapt arable farming to climate

The project 'Climate Adaptation Open Cultivation' aims to reduce arable harvest losses caused by extreme weather conditions. Over the next four years, the researchers will study issues around soil quality, cultivation measures, how to address soil compaction, and how to create smarter, better irrigation.

Together with the Northern Foundation for Arable Farming Trial Operations (SN-PA), WUR is going to document the availability of water during the potato growing season. The project is also going to evaluate several different crops on different soils in various regions of the Netherlands using a stress test. This test was de-

veloped as part of a previous WUR project. The researchers will then study which adaptation measures the arable farmers could adopt. One of the things they will look at is soil quality. The researchers plan to conduct tests with green fertilizers and drill holes in the soil to make it retain more water.

The project will be working with arable farmers in the north of the Netherlands who have already adopted climate adaptation measures. Moisture will be measured in these farmers' fields, and in those of a control group of farmers and fields without climate measures. The researchers will look at which measures to reduce soil compaction leave soils less dry. **TL**

VISION

Fire is a serious risk



The major fires in De Peel and De Meinweg reveal a new and serious risk. Cathelijne Stoof, an expert in wildfires, hopes that the Netherlands has woken up to this risk.

Stoof (Soil Geography and Landscape) has been saying for some time that the Netherlands should be better prepared for large wildfires. She is an expert in this area and heads PyroLife, a European training programme for wildfire experts.

Was this really such a big fire?

'From a Dutch perspective it was, but not compared with other countries. In the Netherlands it's pretty unique to have a fire that lasts more than a day and burns several hundred hectares of nature. In other countries that can happen in a few hours in a major fire.'

Were you surprised by these fires?

'No. It is spring and the sap has not really started flowing. If you then have a couple of weeks without rain, you can get a fire. Fires in spring are normal in the Netherlands; most wildfires start in the spring. Summer wildfires are an exception.'

It was difficult to fight the fires because of poor access. Is the Dutch fire brigade optimally prepared for this?

'I would say more broadly, the Netherlands is not optimally prepared for such fires. It's not just about fighting them but also about policy, prevention, spatial planning, information and advice and so on.'

What can we learn from these fires?

'These weren't tricky fires given the way they behaved. There was no wall of fire. Getting access seemed to be a problem, as it often is in other countries. You don't always need water to put out a fire. But I don't know what the fire brigade did exactly. With a sound international evaluation you can learn what went well and what should be improved.'

Is more knowledge and expertise needed?

'Yes. Wildfires are a specialist area. I hope that the Netherlands has now woken up to this. Fires that get out of control can happen here too. There is a lot of expertise in Europe as a whole and we need to build on that together.' **RK**

HOW DO YOU GO ABOUT BREEDING INSECTS?

It is becoming increasingly common to rear insects as a source of protein or a form of pest control in horticulture. Shuwen Xia looked into whether we can breed insects the way we breed cows.

If we want to deal with a plague of aphids in the greenhouse, how do we select or create insects that will get that plague under control quickly? And if we want a honeybee that is no longer susceptible to the *Varroa destructor* mite, can we breed *Varroa*-resistant bees? The breeding of insects is still in its infancy.

USEFUL PARASITOID WASPS

PhD student Shuwen Xia made some preliminary investigations. She tested several breeding techniques on the *Nasonia vitripennis* parasitoid wasp. This wasp lays eggs in blowflies and large bluebottles, and can therefore be used for biological pest control. But Xia chose the *Nasonia* primarily because there is already a lot of genetic information about this parasitoid wasp. That makes it suitable as a model insect for testing breeding techniques.

'It is not easy to breed insects,' says Bart Pannebakker, a researcher at the Laboratory of Genetics. He was Xia's supervisor, together with Piter Bijma of the Breeding and Genomics group. 'First of all, the *Nasonia* is very small: just a few millimetres long. To get DNA from a cow, you take a blood specimen. To get DNA from an insect as small as this, you need the whole insect and then you can't go on breeding with that individual. Secondly, they reproduce so fast that you have to decide which insects you will use for breeding before you have had a chance to analyse the DNA. And thirdly, there are no DNA chips yet for making a quick comparison between insects. You have to determine the DNA of each insect separately every time in a sequencer. So it is labour-intensive.'

BREEDING VALUE

So Xia did not go for complex characteristics, but a clearly visible one: the wing size of *Nasonia* wasps. And she compared several different breeding routes. The simplest route is mass selection. You breed 1000 insects and select the insects with the largest wings (if



The parasitoid wasp is a useful model insect because a lot of genetic information about it is already available.

that is what you want). You then use these specimens to continue breeding, selecting the largest wings again. For many insects, this seems the most obvious breeding process to adopt. One variant is to select within a family, comparing the characteristics of perhaps 30 brothers and sisters.

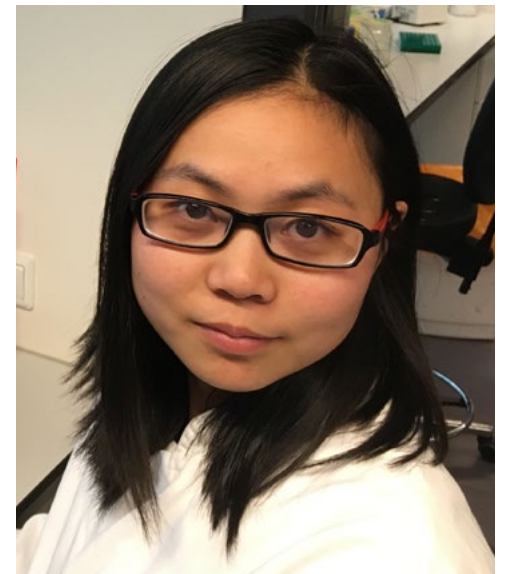
Xia conducted trials to test the most advanced breeding process, genomic selection. In this selection process, you scan the entire genome of an insect and ascribe a breeding value to it, based on the insect's useful genetic characteristics. This is a very successful breeding technique in livestock breeding, especially for characteristics that are difficult to measure in the animal. Such complex characteristics are often found in insects, and include protein levels or reproductive capacity. The older breeding techniques are inadequate for these kinds of characteristic.

FLOW CHART

Xia has made a handy flow chart that shows which breeding technique insect breeders should use to achieve their breeding objective. In many cases, mass selection will do, Xia concluded, but in certain cases it is better to use genomic selection.

This is useful information for companies

that are developing biological pest control methods or breeding insects for livestock and fish feed, says Pannebakker. 'But you need to make it practically usable first. We are going to work on that with Wageningen Livestock Research.' **AS**



▲ Shuwen Xia

ZERO EMISSIONS MEANS FEWER ANIMALS

A significant reduction in the livestock population is needed if the livestock sector is to become climate neutral, according to a WUR study.

A group of WUR researchers explored different scenarios to find out what farming and land use might look like in 2050. The study shows how agriculture could develop beyond the Climate Agreement, which only goes up to 2030. The choice of parameters has a big impact. The four scenarios vary in whether productivity or nature is prioritized in farm operations and in whether or not additional environmental targets are set. At one end of the spectrum is continuing on the current path (but without any increase in the livestock population). The other end of the spectrum is 'nature inclusive' farming

with fewer animals and double the area of forest.

EXCHANGE

Continuing in the same way as at present with the same number of animals and volume of meat and dairy products is theoretically possible but only if the goal of net zero emissions from agriculture is a European-level goal. In other words, if emissions in different areas, such as agriculture, energy and land-use, can be exchanged at the European level. The EU is applying this principle for 2030. If the Netherlands wants to be climate neutral at a national level, the livestock sector will have to shrink a lot. A reduction of up to 42 per cent is needed in the case of extensive agriculture that minimizes the impact on nature — where cows, pigs and chickens roam freely, much less fertilizer is used and fields are full of wild flowers. **R RK**

MAKING MEDICINE FROM PARASITE PROTEINS

Parasitic worms use specific proteins to infect us. PhD candidate Kim van Noort used tobacco plants to replicate these proteins, thereby laying the foundation for a possible medicine for type 2 diabetes.

Van Noort studied the parasitic *Schistosoma* worm, which infects some 250 million people each year in the tropics. She identified the substances this worm excretes to infect our bodies and bypass our immune system. This characteristic could be exploited to combat inflammatory diseases such as type 2 diabetes.

The worm's proteins have specific sugar compounds that she was eager to study, but the worms secrete these proteins in very small quantities. So Van Noort decided to create the proteins using a tobacco plant. These plants naturally produce proteins with complex sugars, but not the sugars she needed. Using genet-

ic modification, Van Noort first ensured the protein had the correct structure, after which she attached the right sugar compound to the base protein. 'It was like Lego building. By adding the correct enzymes to the tobacco plant in the correct sequence, I could replicate the sugar compounds on two of the worm's proteins.'

WORM

'The tobacco proteins aren't yet identical to those in the worm,' says Van Noort, 'but one of the tobacco proteins is recognized by our immune system and appears to have a beneficial effect on type 2 diabetes.' The effect of this protein is now being tested in Leiden. If the test proves successful, it could lead to a medicine for this common type of diabetes. Other possible applications are treatments for allergies, asthma and a worm disease in cows. **AS**

PROPOSITION

Make sure qualifications are uniform worldwide

PhD candidate Mark Roosjen has seen for himself how refugees can be held back in the Netherlands because their educational qualifications are not recognized. So one of his propositions is: Universities around the world should issue uniform diplomas for better and quicker integration of refugees in society.

'My wife is Iraqi and she came to the Netherlands when she was four. Several members of her family had been to university but found that they couldn't do as much with their degrees here. Her father was an accountant, for instance. In the Netherlands he has always worked in a supermarket distribution centre. Nuffic, the Dutch organization for interna-

tionalization in education, evaluates educational qualifications, but often rates a university degree gained elsewhere as equivalent to an applied sciences or vocational qualification in the Netherlands. For many people, returning to higher education is too big or too expensive a step, especially when they are breadwinners in their families. Western universities in Europe or the United States, for example, should try to help improve university education in developing countries or war zones, to bring it up to the same level as our universities. One way of doing this could be teacher exchanges. We have the resources and the money for that, and I think we would benefit because people would integrate more easily when they move here.

This applies not just to refugees, but also to students who got their first degree abroad and want to come to Wageningen. Now they usually have to take extra courses or meet ad-

'Going back into higher education is too big or expensive a step for many people'

ditional admissions requirements. With uniform degree programmes, that would not be necessary. Of course it would cost money, but it also benefits society. And apart from that, I think it's our moral responsibility: good education is a universal right. **TL**



PhD students are required to submit a handful of propositions with their thesis. In this feature, they explain the thinking behind their most thought-provoking proposition. This time it's the turn of Mark Roosjen, who graduated with a PhD in Biochemistry for his study of proteins involved in auxin signaling in plants. The plant hormone auxin is involved in most processes in plants.

A sower all her life

Parent advisor Hermien Miltenburg is retiring. Well, sort of, since she will still be around as a guest member of staff. WUR has no wish to say goodbye to its most successful blogger by far.

text Roelof Kleis *photos* Guy Ackermans

In the world of degree choice and student recruitment (not a good term, but more on that later), Hermien Miltenburg is a well-known figure. Her blogs on the website www.studiekeuzekind.nl are read by a lot of people. 'With 80,000 visitors in the busiest months, it is WUR's most visited blog by far. Last year I had half a million visitors. And this year, there will be 30 per cent more than that!' She is a welcome guest in schools, where she supports pupils and their parents in the difficult career choice ahead of them. She calls herself a 'parent advisor' and she is proud of being 'the only one in the Netherlands'. 'Do you know that I might be the Sower's

'I realized I wasn't the only one who struggled with this'

granddaughter?' Hermien Miltenburg gets out a small replica of the iconic campus statue. 'The story in our family is that my grandfather modelled for this statue. I was

born in Swalmen, near Roermond. My grandfather was the biggest farmer in central Limburg. A lot of my uncles and cousins studied and worked in Wageningen.' Miltenburg doesn't know if the story about the Sower is true, but what does it matter? It's too good a story to ruin it by fact-checking it.

Mother or nun?


In those days, Wageningen was an option for boys but not for girls. 'Girls really weren't important in central Limburg in the 1950s and 60s. I was the oldest of five children and I have two brothers and two sisters. Girls became wives and mothers. And I did really want to be a mother. Later, at infant school, I was also keen on being a teacher. Until I met a nun for the first time, in the first grade at primary school. Then I thought: I'd like that too. It took a while before I realized I couldn't be all those things at once. So I dropped the idea of being a nun.'

But Miltenburg did become a teacher. After going to a girls' secondary school, she trained as a teacher in Nijmegen. 'There I could combine two of my passions: Dutch and History. A double Bachelor's degree, as you would call it

now. That option for a double degree was an experiment that was abandoned later. But it suited me very well.'

So you were allowed to go to college?

'My mother thought it was important for me to study and get a degree. And I was a fast learner. She herself had gone to secondary school and gained a diploma in book-keeping. When she was young, that was quite unusual for a girl. My father wanted me to come and work in his office. We had an insurance busi-



‘Young people are a lot less independent these days. Parents solve a lot of problems for their children’

ness at home, and my father had TB, which was a serious disease at that time. He was not very happy about me going off the college, but I still did it. Of course I had to raise the money myself. My parents had saved, but that was for my brothers' education.'

How did you manage that?

'By cleaning. Being the oldest girl, I was good at cleaning. Going to college was one big leap in the dark, actually. When I took lodgings in Nijmegen, I had just enough money to get

through the first couple of weeks. Looking back, I don't know where I got the courage from as an 18-year-old. I was bothered by the feeling of abandoning my family in this situation. But I went home at weekends and could help then. Until I got a boyfriend. Then I knew for sure that the old dream of becoming a nun was not for me at all.'

She laughs loudly at this. Miltenburg married that boyfriend, Eric. They lived together for 31 years and had three children. And things worked out, moneywise. She got a grant and

taught the children of immigrant workers from Spain and Italy who worked at the Dobbelman factory. 'I heard on the grapevine that the soap factory was looking for people to teach needlework to the children of immigrant workers. I thought: that's up my street. But I wasn't very good at needlework. There I was with a class full of children, while their mothers sat outside chatting in their own languages as they knitted, crocheted and embroidered. So I made a deal with them: you teach my needlework class and I'll teach you Dutch.'

Not a Dr

Those language lessons for foreigners eventually led to her joining WUR. When the family moved to Renkum, Miltenburg started teaching in an adult education centre with the Volksuniversiteit in Ede. Minnie Kop, coordinator of Wageningen Language Centre at the time, hired Miltenburg in 1985 to teach a group of Indonesian students. Miltenburg rose up the ranks to be a team leader in the centre, helped several international partner universities to set up language courses, and made a start on a PhD based on the educational expertise she had acquired. 'That was not a success. I discovered I was more of a hands-on type. I wasn't cut out to become Dr Miltenburg.'

So then you became a parent advisor?

At some point I wanted a change. There was a vacancy for an editor in the publicity department. That was in 2003. Student numbers were falling at our university and I saw lots of room for improvement in the recruitment process. So I applied, but I was rejected because I was too old! Then I said: but I sit at my kitchen table with the target group. My children are at the stage of choosing a degree programme. That gives me a different perspective on the choice of degree than a fresh graduate in communication. In the end I was appointed after all. Initially to write text for the website, brochures and that sort of thing. But I couldn't shake off the idea of advising parents. And then my husband died in 2005, and I discovered that as a parent in such a vulnerable phase, you are very alone in the world. I missed having a sparring partner who could help me with the children's choice of degree programme. What is more, I realized I was not the only parent struggling with this.'

'There is a thin line between supporting and steering'

Miltenburg lobbied the Executive Board and got the go-ahead to set up shop as a parent advisor. 'I thought we as a university should do something about this. Advice about the choice of degree is the responsibility of universities. I knew a bit about providing information and

advice, and I knew a bit about being a parent, so I thought: let me do it.' Her 'shop' grew into a much appreciated source of advice and information for school and higher education students and their parents. In recent decades, parents have played a bigger role in their children's choice of degree programme.

Aren't children of that age old enough to make a good choice themselves?

'When I became a student myself I started out with the attitude: let's hope it's the right thing. You could do that then, but you can't now. A lot depends on your choice, financially. And young people need a sounding board to help them with it. On top of that, young people are a lot less independent than they used

to be. Parents solve a lot of problems for their children, or protect them from them. Why do we do that? We want our children to be happy. Happier than we are ourselves. So we become over-anxious and we go too far. That goes for me too. Only when young people go off to college do they start fending for themselves. And the first serious life questions only come then, when they move away from home.'

How can a parent be a good sounding board?

'Think about your role as a parent. Take on your role as a coach. Try to support your child in finding out who he is and what suits him. Give thoughtful feedback and above all, don't tell them what they should do. Don't decide for your child, don't give specific advice and, most importantly, don't push them in any particular direction. There is a thin line between supporting and steering. Make use of the wisdom of experience you have, because they are still kids, aren't they, who have to decide at 16, 17 or 18 what they are going to study. Point them towards the quality of the education. Nine out of ten people choosing a degree programme don't think about that. Notice the student-teacher ratio, the teaching method, and whether there is a lot of group work.'

Yet 20 per cent of university students drop out, and as many as 30 per cent in applied science and vocational programmes. How come?

'There has always been a high dropout rate. I think it is so high now because there is such an idiotically large number of programmes on offer. In that regard, Wageningen is doing very well: the number of programmes we offer hasn't changed much over the years. In other universities you see a lot more trendy degree subjects. My vision on this is: start with a small selection from broad programmes and explore the discipline as you go along, and what you want yourself. Wageningen does that well. And the dropout rate is much lower here. If you pass the first year here, you nearly always end up getting your degree. We do a lot to prevent

'Student information is enough. Why recruit? A student who doesn't fit here will drop out anyway'

dropping out. I am convinced there are universities that have thought up programmes purely to attract students. You know, I am against student recruitment actually. Yes, I know my department's called Recruitment and Information, but Student Information is enough. Why recruit? A student who doesn't fit here will drop out anyway. That is sad for the student and parents personally, but it's not good for the university either.'

Gap year fund as swansong


And for those who can't decide, a gap year can be a solution. Miltenburg promotes a gap year for young people who don't know what to choose. She recently established a small fund that supports young people in following a gap year programme. She also helps organize a gap year fair, where young people who want to take a year off can shop around. The list of stands for this year reads like a holiday fair. Miltenburg shudders at the sight of it. 'Ridiculous, isn't it? Sadly, that is the image it has: rich young white people who go travelling. The commercial big boys target them. Most of the stand holders link self-discovery with travel. But the image is not correct. Only 30 per cent of gap year kids choose to go travelling. And they are not the target group for my



fund. I'm talking about programmes focused on getting to know yourself. A number of applied science universities have programmes like that. I would like to see WUR offering a programme like that.'

There is a fair chance that Miltenburg will see that happen. Because she is not stopping after retirement – Tuesday 7 April was her last official workday. 'To my great delight, I was asked

whether I would like to carry on with a couple of plum jobs as a guest staff member. I'd love to! I feel really honoured. I would even have done it on a voluntary basis, but now I will be paid for it.' So she will carry on with the blog and the parents' evening at secondary schools and universities. Just like a modern Sower? She think about that for a moment. 'WUR offered me everything I was looking for as a

young teacher. I am grateful for the opportunity to do this. I try to share my experiences as a mother and a schoolteacher with anyone who will listen. I'm a schoolteacher at heart, and a farmer's daughter. Yes, I think I am a Sower.' 



LIBERATION

If you stare at this photo long enough, you can almost hear the joyful voices and the singing accompanying the accordion music. Not many photos were taken of Wageningen celebrating at the time of the Liberation itself; hardly anyone was left after the town had been evacuated in October 1944. The celebrations that we see here were in August 1945, not on 5 May. We won't be able to commemorate and celebrate 75 years of freedom together next week either because of the coronavirus crisis (see page 29).

Some Wageningen students took part in resistance activities during the war, before the Canadians liberated Wageningen. Bob Lagerwerff, who founded the illegal student magazine *Cereales*, says about 20 students and a few staff were in the resistance. The directors of the Agricultural College, as it was known then, mainly tried to get the institution through the war years as best they could without offending the Nazis. In the final months of the Second World War, the university suffered so much damage that it was no longer possible to continue teaching. © photo Beeldbank Wageningen



Pioneering in the virtual classroom

Since the start of the coronavirus lockdown in the Netherlands, all WUR education has been online-only. How are teachers going about it, and what do they think of it? Three portraits.

text Luuk Zegers

'I miss the interaction, the emotional side and the jokes'

Roel Dijkma, teacher of Hydrology

'Towards the end of period four, we noticed that the door was closing for campus education. Because we didn't want to take any unnecessary risks, we then quickly created an online version of a written exam for the Fundamentals of Landscape course, so that students who didn't feel comfortable sitting an exam on campus, or who had symptoms, could do it at home. Half of the group then did that, and the rest did the exam on paper. We just tried that out: learning by doing.'

COACHLOAD

Straight after that, period five started, with all the changes. I do quite a bit of fieldwork. Now I go into the field on my own with a camera and a tripod, instead of a coachload of students. I've done that a few times this week too. I set up the tripod somewhere and explain to the camera what I would normally explain to the group, so as to give them as near as I can the experience of being in the field. People do look at you as if you are crazy when you stand by yourself somewhere in the countryside, talking to the camera. Someone might be out walking the dog, and wonder:

what is he doing?

When I teach online, I place more emphasis than usual on learning goals: why are students looking at a spot somewhere in the Netherlands on their screens? For every course you have to ask yourself: are you achieving the learning goals? You can never completely reproduce fieldwork on-screen, but do they get enough of an idea about it?

JOKING

I think as long as teachers make clear what they expect of their students, most of them will follow you. And that interaction is still important, even online. There is a difference between uploading a film and expecting everyone to watch it, and discussing the film afterwards in a virtual classroom.

A lot of what I enjoy about teaching is the interaction with a group. When students are in the classroom, you see how the material goes down with them, you see their feelings. You can play with that, crack jokes and interact. There is a lot less of that now, and I miss it. On the other hand, the situation is so weird that you have to completely change the way



you look at your teaching. You have to reassess everything in a very short time. That is good. But it doesn't outweigh the lack of interaction with the group.'

‘All that planning for nothing’

Hannie van der Honing, teacher of Cell Biology

‘When I heard on the Thursday evening before the start of period five that everything had to be done online, I could have cried. We’ve been working to sort out the timetable since September. The Structure and Function of Plants is a large course with 235 students. The timing of some of the practicals is quite precise. That requires a lot of planning, because you might need to have hundreds of plants ready at the right moment for an experiment. And we had been training assistants on that very Thursday. In retrospect, it was all for nothing.

But after that, we got on with it. There are 14 practicals planned for the course, and 13 of them will be done digitally. I give seven of them, in which we look at plant tissues. Normally, students look at slides through the microscope. In the first few weeks we showed photos with captions, but it is tedious to do that for seven practicals. After that, my colleague Otto van der

Linden started filming through the microscope with his mobile phone. I record the text using WhatsApp, and Otto turns it all into a film, with arrows that point to what I’m talking about. In Brightspace, we create student quizzes and open questions about those films, and I record a discussion about them before and after, in Orion.

MORE DURABLE

Of course, it is not the same as a live practical in which students study the material themselves and dissect. The emphasis now is more on getting them working than getting them enthusiastic. They can’t learn to make slides themselves now. The advantage of the films is that we can use them again next year. That is good for people doing resits too: there is extra practice material now.

We have also come up with a regular feature:



Plant of the Day. Every day, a teacher or a student makes a film about their favourite plant – perhaps a houseplant. Last week was the mid-term test. They did just as well as last year’s group. Really great.’

‘We adapted our course quickly’

Tim Stevens, course coordinator for Internet-based Communication and Learning for Social Change

‘The course I give is partly about online learning. That is very relevant at the moment, of course, because all the WUR education had to be converted to online in no time. In a session with Ulrike Wild, programme director of Open & Online Learning WUR, we decided to reflect on the current situation this time, rather than delivering our usual programme. We split the students into groups and every group then had to interview students from other programmes about their experiences with online education. Which programmes and tools work well? How does the teacher keep the students’ attention?


After that each group got together – online – to compare notes on their experiences: what went well, and what are the factors of success? And what are the challenges for online education? Several factors came up. At the end, each group presented its findings to Ulrike.

TIPS FOR TEACHERS

There were a couple of striking points. It is harder for students to study at the computer

for hours without any interaction. Live interaction helps, because it means students have to be focused. Students also have a strong need for structure. Many courses have been changed quite a bit, and students no longer have an overview of them. In a lecture on campus you often finish by saying, this is where we are now, and next week we are going to carry on from here. So teachers need to make sure their students are clear about what is expected of them and when. It was also noticeable that many students find it harder to ask questions digitally. They are a bit more hesitant about sending an email than about asking a quick question after class face to face. You can reduce that barrier by explicitly creating moments for questions. At the start of every course, students introduce themselves briefly. Because we couldn’t do that in the usual way now, I asked everyone to make a video to introduce themselves. Then you have more of an idea who is in your class. Before every lecture, I now give my students a preparatory assignment. I use the input for that in the lectures. I combine previously recorded lectures with live interac-



tions. That way you try to think up an alternative for every activity.’ 

Read more about Stevens’ research on online-only education on page 6.

‘ONLINE-ONLY AFFECTS THE EDUCATIONAL QUALITY’



The COVID-19 outbreak has obliged WUR to offer all its education online only for the time being. In no time, almost all the courses were adapted to create online-only versions. Hurrah! Education can go on... But is WUR education suited to online-only?

text Luuk Zegers

illustration Henk van Ruitenbeek

Anne Grundlehner (22)



MSc student of Biology and Environmental Sciences

'It's all right for standard lectures. There is less social interaction but the information does come across. It is the tutorials and practicals that have become more difficult. If you need to do a lot of modelling or programming for a course, for example, these are not ideal circumstances. **It is harder to understand it, harder to ask questions, and harder to get help. In short, learning practical skills has become a lot less efficient.** That makes you less motivated to complete it, but that's another problem.

And then there are courses which involve fieldwork. During that fieldwork you see how passionate teachers are about their subjects. At moments like that, students can get really fired up about something. You don't get that online, so students become less enthusiastic about their studies.'

Thije van Es (23)



MSc student of Nutrition and Health

'I definitely think online-only affects the educational quality. It's not very nice watching recorded old lectures. It works a lot better if someone records a bit of video and shows it on a PowerPoint slide. But face-to-face lectures on campus are much nicer, of course.

Communication doesn't go completely smoothly when it is asynchronous, either. That way you never have a real conversation about something. So group work doesn't work as well, and it's harder to get feedback on your questions. If you get written feedback on your questions, you can also interpret it wrongly. In conversation it's easier to check whether I've understood something right. A big pitfall with online-only is that you are very much left to your own devices. It helps when you get a clear overview of each course every week: this is what is expected of you.

I am curious to see what will happen if it turns out that the pass rate dives in an online-only course. What will WUR do then? On the one hand, you can't just give away credits, and on the other hand, it means something is going wrong with the education.'

Paul Lichtveld (24)



BSc student of Business and Consumer Sciences

'I think the quality of the education has gone down. That is partly because both students and teachers have to get used to online education, and partly because the courses have not yet been optimized for online learning. I'm not a great fan of it, either: I miss the contact with other people. There is so much less of that now.

It is nice for students to be told clearly what is expected of them every week. At the moment, the course guides don't completely

tally with what has to happen. **If you give students an overview of what they must do every week, it makes it very clear. A clear structure gives you something to hold on to.**

If you have a class that goes on for two and a half hours, sitting at your computer the whole time, it's difficult to pay attention continuously. I sometimes do a few push-ups, otherwise you are sitting still all the time. It simply is a lot harder to concentrate in front of the computer.'

Aarzo Kohra (22)



MSc student of Plant Sciences

'I think the quality of the education is affected. I think, for example, that nobody can look at their computer screen continuously for hours. I know there is no better alternative at the moment. I do think, however, that online-only education could be improved by changing the workload for students. **The current workload is fine for campus education. But studying online is more difficult and takes longer. I think that the workload should be adjusted to that.**

Recently, I dropped one of my two courses because it just wasn't workable anymore. It feels bad to drop a six-credit course which I thought I would be able to do. But because of the switch to online education, it became more difficult for me to grasp the course content efficiently. Instead, I will focus on one course for now and look into options to catch up on my credits when I do my thesis in the second year of my degree. That will be difficult as well, but it is the best option I have now.'

Laura Mommers (23)



MSc student of Biology

'I am currently taking just one course: Advanced Statistics. It's quite a big course, with students from several different programmes. Our teachers do their best to arrange things as well as possible. We received a home timetable, and twice a week

a teacher explains things live and you can ask questions in the virtual classroom. And you can email your questions in between. We get answers quite fast. The teachers are doing great. **The education is different, but I don't think it's necessarily worse. You are on your own more, so you are more responsible for the quality of your studies.** A few courses are not being run, those involving fieldwork for instance. That is a shame, but by postponing them you do safeguard the quality of the education: you'll just do them later. And actually, for some practicals there are perfectly good online alternatives: there are apps with which you can dissect a virtual animal online.

Tip for WUR: make free software available to students now we can't make use of the PC rooms on the campus.' 📢

Stuck in the ice

Weeks without daylight, heavy storms and temperatures of down to -40°C . Polar research is not for wimps. *Resource* talked to Serdar Sakinan, a researcher with Wageningen Marine Research. He was due to hand over to someone else at the beginning of April, but because of the coronavirus travel ban, a new team of scientists will not be coming and he is stuck on the ship until June.

text Tessa Louwerens photo Alfred-Wegener-Institut / Stefan Hendricks

Sakinan boarded the *Polarstern* on January to do research on plankton and fish. The researchers on board only realized quite late how extensive the corona crisis is. For his research, it is not a problem to stay on board longer, and there is the possibility of evacuation in an emergency. 'Of course I would rather be at home, but I don't mind staying here.'

You've been working for months in extreme conditions. What's that like?

'The ship is anchored to ice that is so thick that it sometimes feels as though you are walking on solid ground. Sometimes the ice breaks and big cracks appear, so we can't work at certain locations. We work from the ship and from tents set up on the ice, sometimes over a hole in the ice where we take measurements. Those tents are heated to



Serdar Sakinan

researcher with Wageningen Marine Research, has been doing research in the Arctic since 1 February

15°C . That is not just for the people who work in them, but also because the instruments cannot withstand extremely low temperatures. And the holes would freeze up and close otherwise. Sometimes the temperature can drop to -40°C . At lower temperatures we stop

'It was dark all the time for the first weeks'

going out of doors. I found it difficult to protect my nose and fingers from the cold. But since mid-April it's been less extreme and is rarely lower than -30°C .'

What were the biggest highs and lows?

'Part of my research is on zooplankton, and an exciting moment for me was when I caught a specific type of zooplankton at a depth that exactly fitted my predictions, showing that my acoustic measurements were correct. (Read more on this research on page 9).

The toughest moments was when I had to rescue the underwater camera because the ice was starting to crack. That camera hangs 270 metres below the ice. The images are sent to the ship through a fibre-optic cable, and the cable was frozen in the ice, which was two metres thick. We had to remove the ice, but it was a cold and windy day. My gloves got wet and my fingers were freezing. When we got

the camera up, it turned out that the hole in the ice wasn't big enough. The whole operation took more than two days.

What is your working day like?

'Even though there is no rhythm of day and night – for the first few weeks it was dark all the time – we keep to Western European time. After breakfast, we have a daily briefing about the weather conditions and the state of the ice. Based on that, we plan the day's activities. We collect the zooplankton, for instance, in "Ocean City", a big tent on the ice about 300 metres from the ship. We walk there, pulling our equipment behind us on a sled. The tent stands over a big hole in the ice, which we can lower nets into. Later we make way for other scientists who come to take water samples, for instance. In the afternoon we process our samples in the lab on board ship. After the evening meal, there is a team meeting, followed by a general meeting with all the scientists. At the end of that, people show each other the photos they took that day, in a slide show.'

What do you do in your spare time?

'We have a gym on board, a sauna, a bar and a swimming pool. And outdoor activities are organized on the ice, such as a walk or a game of football. There are about 100 people on board, so there is always someone to talk to. I share my cabin with a German researcher who I get on well with. But I would prefer to have a place to myself.'



▲ Researchers make a hole in the ice. The Polarstern is in the background. In the winter months it never gets really light at the North Pole.


What's it like to be away from home for so long, especially now during the corona pandemic?

'I've been away for over three months now. I spent the first month on board a Russian ice-breaker that brought us to the *Polarstern*, the research vessel. That was a slow voyage and I

'We pull our equipment behind us on a sled'

got frustrated sometimes because I couldn't do very much. At the same time, it was the first time I had seen sea ice, and that was fascinating. Since I've been on board the

research ship, time has flown. I have now developed my own routine and I'm afraid I'll have to get used to being at home again. We don't hear much news here, so at first the scale of the corona outbreak was not clear to us. When it did become clear, we immediately heard that we would not be able to leave the ship for a while, since the travel ban meant the new group of scientists and crew couldn't come. At first I was very worried about my

family in Turkey, especially my elderly parents. Now I have more contact with them and I know they are fine. I was also worried about how my work is delayed by this, but that has been solved now.' 

You can read more about Sakinar's research on page 9.

STUCK IN THE SEA ICE FOR A YEAR

The MOSAIC expedition is one of the biggest polar expeditions ever. The German research ship *Polarstern* set off from Tromsø, Norway on 20 September. Now it is drifting around the Arctic, frozen to an ice floe. In total, 300 scientists are doing research in a region that is almost impenetrable in the winter, but which is also crucial to the global climate. They are collecting data on the ecosystem, the atmosphere, the ocean and the sea ice: missing pieces of the puzzle which help us gain a better understanding of climate change worldwide.

Imposter syndrome

The feeling that you have no idea what you are doing, while your colleagues seem to be sailing effortlessly through their doctoral research. Why do so many PhD students suffer from ‘imposter syndrome’, and do they ever get over it?

text Nicole van 't Wout Hofland illustration Steffie Padmos

A lot of PhD students feel just like Frank Abagnale Jr. in the film *Catch me if you can*: scared of being exposed as a fraud. They think other people overestimate their abilities whereas they personally don't believe they are capable. Yet, unlike the ultimate con man Frank Abagnale Jr., they do have the right education and background knowledge. Wageningen PhD students suffer from imposter syndrome too. *Resource* talked to 32 PhD students, and 19 of them said they have experienced imposter syndrome. One of these is Katrin Heidemeyer, a third-year PhD student in the Biochemistry chair group. Although she knows a lot about her subject, in her own eyes her knowledge is only basic and others know a lot more. 'I feel like everyone sees the shortcomings in my work and thinks I don't know anything.'

CURLING PARENTS

And she is not the only one. Elsbeth Kuneman has been a welfare officer at Wageningen University & Research for 20 years, and she notices that imposter syndrome is



more common than it was when she first started. Kuneman thinks it is partly a generational problem affecting millennials, including the current cohort of PhD students. Among the possible reasons, she mentions the typical parenting approach experienced by this generation – ‘curling parenting’, where parents sweep difficulties and obstacles from the path ahead of their children. This prevents children from learning to deal with failure and disappointments. ‘On top of that, millennials grew up with slogans like “success is a choice” and “If you work hard enough, you’ll get there”,’ says Kuneman. So when they don’t succeed, they blame themselves and self-doubt can take over.

Imposter syndrome affects people in many walks of life, but the context in which PhD students find themselves can provoke an extreme form of it. Tjitske Geertsema graduated in December 2019 in the Hydrology chair group. On her MSc programme she was one of the better students: ‘There were students around me who were less able than I was. I thought: if they can do it, so can I.’ But that changed once she started her doctoral research. ‘Suddenly I was surrounded by people who were all incredibly capable. When my supervisors got into heated discussions, I kept in the background. I thought: they are sure to know far more about it than I do’. This sounds familiar to welfare officer Kuneman. ‘If you are used to standing out in the class, a new setting among people who – as you see it – are more intelligent and experienced than you can make you doubt yourself.’

FAILED

For many PhD students, their research project is their first job, and that plays a role in how common this problem is. ‘PhD students concentrate far too much on their actual results and not enough on the development and learning process,’ says Kuneman. That is all too recognizable for PhD student Heidemeyer. Three years ago, the first experiments in her research failed, contrary to her expectations. ‘For me those negative results meant I wasn’t good at my job,’ says Heidemeyer. She was so convinced about that, that she expected to be sacked after her trial period.

Something else might also underlie the high rate of imposter syndrome about PhD students: it is part of their training. Many PhD students embark on a research project out of interest in a particular field, but also because they have thus far been good at their subject. In that situation, the teacher provides the learning materials and once

‘For me, negative results meant I was not good at my job’

you have mastered the knowledge, you can get a good grade in the exam. It’s all quite different when you do research. Now, nobody tells you what you should learn, and no one knows the answers to your research questions. It is up to the PhD student to figure that out. So doctoral research confronts you with what you don’t know, and precisely for that reason many people start doubting their own abilities.

Imposter syndrome should not be confused with fear of failure, though. ‘A particular hurdle that someone finds difficult, such as a test, invokes fear of failure,’ explains Kuneman. So fear of failure is directly related to an event. ‘With imposter syndrome, that is not the case. It is a state of mind.’

THE IMPORTANCE OF DOUBT

Imposter syndrome can have a number of consequences. PhD student Geertsema worked long hours in an effort to prove herself, but that stressed her out. She was also too critical of her results, causing her to doubt them as well as her own abilities. Keeping up appearances over a long time is very draining and undermining, as social worker Kuneman has seen. Besides the stress and work pressure it creates, keeping up appearances also reduces people’s interest in social activities, and causes sleep problems. Not getting enough sleep reduces concentration levels and effectiveness, and feeds self-doubt. In short: it is a vicious circle that is not easy to break out of.

And yet imposter syndrome doesn’t have to be all negative. Professor of Environmental Policy Simon Bush tries to make imposter syndrome work in his favour and get the best out of it (see inset). Professor Martin Schwarz goes so





far as to emphasize the importance of self-doubt and 'stupidity' in the sciences. He wrote in the *Journal of Cell Science*: 'The more comfortable we become with being stupid, the deeper we will wade into the unknown and the more likely we are to make big discoveries.'

TALKING


Talking could well be the solution. 'When you talk about it, you bring the problem into the light of day and you can't act as though it didn't exist anymore,' explains Kuneman. Heidemeyer discussed her doubts with her colleagues, partner, friends and supervisor. 'The conversation with my colleagues was very useful for me,' she says. 'They go through the same difficulties and can genuinely empathize.' Kuneman stresses that there is no one right person to talk about it with: 'It might be a welfare officer, but it doesn't have to be. You need to talk about this with someone you feel able to be open with about your vulnerabilities.'

Unlike Heidemeyer, Geertsema hasn't talked about her imposter syndrome with anyone before. But in her new job as a researcher and advisor at Deltares, it is not so much of a problem. One big difference is that she is working in a team in her new job. 'As soon as I start working in a team, and there is consultation, I am less insecure,' says Geertsema. So imposter syndrome can spontaneously ebb away as you gain more experience, or when you switch to a new work situation.

#IMPOSTERATWURK

Could WUR do more to help? Nowadays, Heidemeyer feels less of an imposter, because she notices that many of her colleagues struggle with the same imposter syndrome. 'For that reason, a course or lecture about imposter syndrome should be compulsory for every new PhD student,' says Heidemeyer. 'The graduate schools could integrate that into the introduction day, for instance.'

Welfare officer Kuneman would love to see more attention being paid to the development of PhD students, alongside the standard appraisal appointments, and separate from substantial matters of planning and results. 'If PhD students and their supervisors have a really good talk about how things are going on the emotional level, you can catch a lot of problems early, including imposter syndrome,' says Kuneman.

So it is not uncommon among PhD students to feel that you are not as smart or able as the others around you. Maybe more openness about imposter syndrome on the workfloor – or in corona times via social media (#ImposteratWURk) could help ensure that in a few years, fewer PhD students feel like Frank Abagnale Jr., and more PhD students enter the aula to defend their thesis bursting with confidence. 



Two professors talk about their own road to success

Simon Bush is chair-holding professor in the Environmental Policy chair group. Even he experiences imposter syndrome and sometimes thinks: 'Who am I to say anything about this or to decide?'

I have experienced imposter syndrome quite regularly during my career, and it comes back again sometimes even now. It is a natural reaction when I face new challenges. So I don't see imposter syndrome as something negative in itself. I think it is very healthy to regu-

larly reflect on your work and the situation you are in – particularly if you want to go on growing. The way I see it, self-doubt is a normal part of professional life. It's good to realize you are not the only person who feels this way: a large majority of the people around you are in the same boat. I make that clear to my PhD students too. I explain to them that doctoral research is an exercise in self-doubt and that we train them to deal with this kind of insecurity and to embrace it.'

John van der Oost is personal professor of Microbiology. He is one of the masterminds behind the CRISPR-Cas technique, for which he won the Spinoza Prize in 2018.

'This is the first time I've heard of the imposter syndrome. Looking back on my own PhD research and career, I can only feel satisfaction. Did I never doubt myself? Of course I did. My career has been a long and winding road, with ups and downs. When an experiment failed, I tried not to dwell on it

for too long, but went in search of a solution. What got me where I am was a combination of curiosity, willpower, collaboration, perseverance, following my heart, the odd good idea and a lot of luck. Not to mention a lot of fun as well. I often say to my PhD students that they need the mentality of an icebreaker: keep trying to force a breakthrough, but if the ice is too thick in one place, you have to look for another place where it will be possible. The moral of the story: you don't need a *cum laude* to win a Spinoza Prize.'

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.

'Image of nature conservation often romanticized'

Up until the 1980s, the village where I did my field research was still raw jungle. But when I came, the area had electricity, a proper road and sometimes even an internet connection. The landscape is really hilly. Houses are scattered on top of the hills, the view only being interrupted by coffee plantations. Walking was the best way to get anywhere.

JUNGLE TRIPS

I went to Peru to research community-based conservation. The people I worked with were trying to protect 8000 hectares of nature without any support from the government or other big players. Local farmers often showed me around. It was amazing to see how they moved through that rough environment, wading through deep rivers, walking perfectly balanced and incredibly fast. I was always lagging behind, drenched in sweat, tripping over roots. They had a lot of fun laughing at the obvious city person that I am. One time I went with some guys to build a surveillance post in the jungle. For a whole week, we stayed in the middle of pure, untainted jungle. To be able to witness that was a true privilege.

NOT SO ROMANTIC

Within my academic study, I notice that the image of conservation in the Global South is often ro-

manticized. Surely community-based conservation must mean everyone living in harmony with nature. The reality is really not so simple. People are people and with that come different opinions, views and stakes. Many people I spoke to were not interested in protecting the forest because that could mean less food for their family. Others were afraid to speak up. Others again lost interest in my questions when they realized I didn't come from an NGO and wasn't planning on giving them money. I think it's important that we continuously keep an open mind and realize the world is often not what we expect it to be.

WALK TO SPAIN

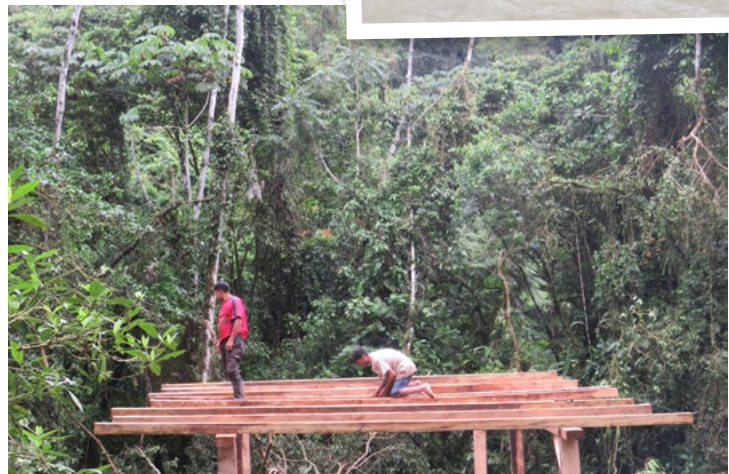
The community was incredibly united and took care of each other's wellbeing. But for them, the world stops existing past the jungle and mountains that surround the village. That was a major culture shock. Some didn't know where Peru was, didn't know their history and thought they could walk to Spain. However, they were always really curious. At the end of the interviews I often showed a map of the world and tried to answer all the questions they had for me. It's strange that even though we speak the same language, we live in completely different realities. 🌍 IC

THE WORKS

Who? Ignacio Auger (26), MSc on Forest & Nature Conservation
What? Research on community-based conservation
Where? Peru

Do you too have a nice story about your internship or thesis research abroad?

Email resource@wur.nl



IN OTHER NEWS

CORONA (1)

According to researchers at Arizona State University, testing sewage is a much quicker and more efficient way of testing for the coronavirus than testing individuals. Their method is called wastewater-based epidemiology.

CORONA (2)

The method uses viral genetic material that ends up in the wastewater. This involves millions or billions of copies of the genome per infection. These remains are amplified and analysed. The test is extremely sensitive. The researchers claim that in the best-case scenario, they can detect the presence of one infected person in two million uninfected people. Of course, then you need to track down that person.

SWEET

Sweet foods have less of a taste when cold. Does that mean taste receptors don't work so well in the cold? No, say scientists at the University of California. The sweet signal is dampened by neighbouring neurons that feel the cold and start firing more as a result. At least, that is what happens in fruit flies. Rhodopsin, a light-sensitive protein, plays a role in this, but light itself is not a factor. Sweet food tastes just as sweet in the dark as in bright daylight.

SUGAR

Sweet food is 'tasted' not just in the mouth but also in the intestines, claim researchers at the Howard Hughes Medical Institute. The gut walls have nerve cells that react specifically to glucose. According to the researchers, this explains why sugar is so addictive. The body responds twice: first in the mouth and then in the intestines. It's just not a fair struggle.



Sports scholarship for Floortje Hoogstede

The Niels Smith sports scholarship of 1500 euros will be going this year to Floortje Hoogstede (20), a Nutrition & Health Bachelor's student. Only she won't be sailing competitively for the next while.

WUR student Floortje Hoogstede has been sailing for years. 'I started in an Optimist, progressed to a Splash and now have a Laser Radial. These are all one-person boats. The Laser is pretty much the final stage for women who sail single-handedly — I've now basically done all I can in that class.' Hoogstede was recently approached by a friend and asked to join a team for a sailing competition in Helsinki. 'In a four. All the team members are girls I've sailed with in the past. We were supposed to start training in April, but that hasn't happened. Those one and a half metres, hey. The competition has been cancelled anyway so it's not clear how that team will develop.'

The sailing competition is not the only thing that has been wiped out by the coronavirus crisis. 'I started a minor in Valencia in



PHOTO: FLOORTJE HOOGSTEDE

mid-January. I was supposed to come home in June but I flew back early. In principle I'm still studying for it and doing exams online but I'm not getting that experience. It's obviously a shame but I think everyone is having such setbacks at the moment.'

EXPENSIVE SPORT

How do you get a sports scholarship? 'I took part in a lot of international Laser sailing competitions last year. That is quite expensive so I got a sponsor deal with MagicMarine and put in an application to the Niels Smith

'This is a boost for my development as a sportswoman'

fund. And now I've got it: 1500 euros to spend on my sport. This is a boost for my further development as a sportswoman. It's fantastic.' The sailing world may have come to a standstill but Hoogstede still sails sometimes. 'I come from Oud-Beijerland and I can easily take my old Laser out on the water at the club where I started, WSV Binnenmaas.' **LZ**

No toilet breaks during online exams

Online testing raises privacy issues for students. And toilet break issues: you are not allowed to go to the toilet. Not even in a three-hour exam.

To prevent students from cheating in online exams, they are going to be monitored through the webcam, screen recording and their microphone. When it emerged that students had been asked to install the software for this before a privacy statement was available, there was an uproar in the Wageningen Student Plaza Facebook group.

A privacy statement has now been available since Monday 20 April. Online education programme di-

rector Ulrike Wild explains that the delay was because the contract with software supplier PSI needed an update. 'We have already been using their software for WUR's online education for five years, but now we are suddenly running more exams than in all those five years put together — 15,000 of them.' In terms of privacy, says Wild, the contract is in line with national guidelines.

NO TOILET BREAK

And then there is the matter of toilet breaks. While other universities such as Maastricht advise teachers to allow for a toilet break, WUR does not. Rolf Marteiijn (programme director of Nutrition &

Health): 'If you do, you have to make it a 15-minute break because others in the house might need the toilet too. And then some students will communicate with each other.'

'We understand that this isn't ideal'

People with medical reasons for going to the toilet should hasten to contact their dean, says Marteiijn. 'We understand that this isn't ideal, but at least this way there can be no doubt about the validity of the exam.' **LZ**

CELEBRATING FREEDOM IN LOCKDOWN

Every year, students are involved in running events on 4 and 5 May, whether as storytellers, wreath-layers or volunteers at the Liberation Festival. 'It is a great pity to have to celebrate freedom in a situation in which that freedom is restricted.'

Board members of the Transvaal student militia have a long tradition of laying a wreath at the national war memorial on the Grebbeberg hill every year on Remembrance Day, 4 May. 'As a student militia, we offer students the chance to learn a bit about defence,' says Soil, Water, Atmosphere student Floris Lafeber (23), president of Transvaal. 'Our members are involved in the commemoration ceremony on 4 May and the Liberation Day celebrations on 5 May in various ways.'

Last year, Lafeber was one of the students who laid a wreath at the war memorial on the Grebbeberg hill. 'You join the procession in full ceremonial uniform and walk to the cemetery, where 12 wreaths are laid. The national anthem is sung and everyone observes two minutes' silence. That made a tremendous impression on me. It makes you realize how amazing it is that we have freedom. That is not something to take for granted.'

LAYING A WREATH

Even though the commemoration ceremony and the celebrations are cancelled because of the coronavirus outbreak, Transvaal members are enquiring as to whether they might be allowed to lay a wreath after all. 'We are in touch with the ministry of Defence. We hope that two people might be allowed to lay a wreath at the memorial on the Grebbeberg. We'll hear the decision soon. We think it would be a nice way to still commem-



▲ The National Monument on Grebbeberg Hill on 4 May.

orate 75 years of freedom.' Jaenet ter Schure (23, MSc student of Plant Sciences and Plant Biotechnology), is one of the organizers of Kabaal am Gemaal, one of the venues at the Liberation Festival. 'It is brilliant to work towards the Liberation Festival with an enthusiastic team and to be able to celebrate freedom with the visitors. It was a shock when we heard that it couldn't happen this year - because you look forward to it all year. I fully understand the reasons for cancelling it, but of course it's a real pity to celebrate freedom in a situation in which that freedom is restricted. Luckily, we are weighing up whether we can hold a scaled-down

version of Kabaal am Gemaal in the autumn. That is if the coronavirus situation allows it by that time, of course.'

VETERANS

On 4 May, Ceres member Lukas Golterman would have been telling the story of a group of Wageningen members of the resistance who invaded the city hall to steal the population register. 'Amongst other things, that register showed which residents were of Jewish origin. Their actions made it harder for the German occupying administration to track people down, and so lives were saved. An important story that we must go on telling.'

'We hope that two people might be allowed to lay a wreath on the Grebbeberg'

Later on 4 May, in the evening, Ceres usually opens its doors to veterans, who are welcome for a beer after the commemoration procession. The building is a meeting point for veterans on 5 May too, so they can reminisce and tell their stories to visitors. 'Sadly, the coronavirus makes it impossible to commemorate it together,' says Golterman. 'Nevertheless, we shall find a way to mark 4 and 5 May and we shall make sure the story can be told again next year.' **LZ**

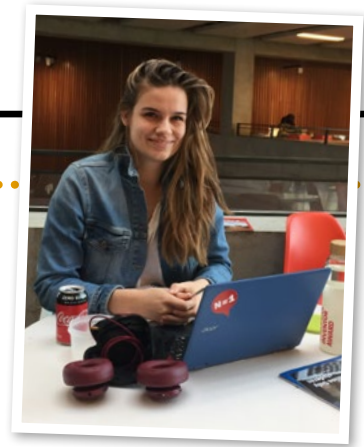


PHOTO: TRANSVAAL

▲ The Transvaal committee at the Grebbeberg monument.

YOU

YOU (STILL) ON CAMPUS 'I ACTUALLY NEVER STUDY AT HOME'



Tamara Bos (23), MSc student of Epidemiology at Nutrition & Health, discovered by chance that she could still come to campus to study. Better than at home, since her sister is living with her now.

When you arrive on campus, you notice immediately that there are fewer cars, bikes and students. But the front door of the Forum still turns invitingly, and there are a few students sitting inside. It's a bit busier on the first floor: the library is closed, so everyone is working in the corridors, at the correct distance from each other. Including Tamara.

'I actually never study at home because I really associate the university with studying. At first I assumed it wouldn't be possible to study on campus. When I came here this week to print something, I was pleasantly surprised to

find students here. It's nice that it's allowed, and people are good about sticking to the rules. And it's nice and quiet.

At the moment I'm sharing my student room with my younger sister, because she lives in a house with 22 others who are not sticking to the coronavirus measures. They were still

'At first I assumed it wouldn't be possible to study on campus'

throwing parties and inviting people for dinner and to hang out. My sister is a teacher so she's extra careful. Luckily my room is quite big, but noise-wise it's still difficult if you are sharing a room.' So that's why Tamara is wor-

king on the landing in the Forum. 'I can concentrate better on campus.'

After her exam at the end of this period, Tamara will start on her thesis already. 'I wasn't planning on doing that, but I feel it's a shame to do collaborative courses online. So I've turned my whole programme upside down. I'll start on my thesis next month, so before I've passed all my courses. That is a bit scary.' Some courses lend themselves to distance learning better than others, she says: 'Normally I learn a lot from working in a group on a case study, but I have noticed now that the penny doesn't really drop. Even though in terms of planning, group work goes well through distance learning! The results and the structure are good, but it's a pity that you don't get to know each other so well this way.' **AdH**

Vacancy

Do you have a passion for education? There is a vacancy for a student on the Board of Education from September 2020.

The Board of Education is the legal board of all accredited study programmes at WUR and consists of 4 professors and 4 students. The activities of the BoE take up about one day a week. This includes a meeting every two weeks on Wednesdays between 9:00 and 12:30.



Your responsibilities / opportunities:

- To represent students from Wageningen University on the board that decides on the content and quality of accredited study programmes and advises the Executive Board on various educational issues;
- To deal with a variety of topics, like: new study programmes, quality of courses and teachers, new education policies and education innovation.
- To take an in-depth look at the management of your university;
- To enrich your curriculum vitae with education management experience.

Your qualities

You have a passion for education and innovative ideas about how to develop WU

education. You are proactive and you have an analytical mind. Ideally, you have prior experience on a programme committee, a board or similar. You study in the domain of the Life Sciences (BAS, BBI, BPS, MAS, MAM, MBI, MOA, MPB, MPS).

The appointment is for one year, with the possibility of two re-appointments. You are compensated with three months of FOS (financial compensation for board activities) per year.

Interested?

Apply by sending an email before 4 May, 2020 with your motivation and CV to: boardofeducation.secretary@wur.nl. The interviews with candidates will take place in the week of 11 May. Because of the Covid-19 measures, the interviews will be held via Skype.

More info: www.wur.eu/boardofeducation



MEANWHILE IN... ITALY

‘I think the Italian government is doing the best they can’

The north of Italy was the first part of Europe to be hit hard by COVID-19. Based on seemingly stable data, the Italian government is now allowing small shops to open again after six weeks of national lockdown. MSc student Davide Bottacini is pleased that Italy is cautious: ‘Since the finish line is not yet in sight, taking it slowly is the only way we can fight this virus.’

‘The start of the Corona virus pandemic in Italy was a bit messy. The government kept changing the regulations every two days, which made it difficult for people to keep track of everything. Moreover, many people who had once gone north for work went back to their home towns in the south. Trains and train stations were all very crowded. Regions like Sicily tried to close their borders to prevent the virus from entering, but people were already arriving, which caused some panic. The government feared a big peak in COVID-19 infections in the south, but fortunately that did not happen.



MSc student of Plant Sciences Davide Bottacini (24), who comes from a small town near Verona, reflects on the crisis in his home county.



PHOTO: GIULIO NAPOLITANO / SHUTTERSTOCK.COM

Even with this initial chaos, I think the Italian government has been doing the best they can. It is easy to criticize them and say how they should have done it, but no one knew then what to expect. At the moment, the strict regulations have achieved a certain balance in hospitals. The care homes for the elderly, on the other hand, remain a big problem because many people die unaware of their infection. I am lucky that my two grandmothers can take care of themselves. Yet I also feel that I must stay in touch with them, because they miss company the most.

EUROBONDS

It will probably take a while before I go back to Italy again. In the meantime, I hope Italy finds a way to get cheap reliable tests for everyone because it is impossible to keep everything closed until we have a vaccine. It is also important to find a balance between health, safety and the economy, as Italy is already struggling economically. Eurobonds may be an option, but I do understand that countries disagree on this as each country experiences the virus differently.’ **HB**

Colophon

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

Address

Droevendaalsesteeg 4,
6708 PB Wageningen
(Atlas, Building 104, bode 31)
PO Box 9101, 6700 HB Wageningen
Secretariat: Thea Kuijpers,
resource@wur.nl, 0317 484020
Website: www.resource-online.nl
ISSN 1389-7756

Editorial staff

- Willem Andree (editor-in-chief)
willem.andree@wur.nl, 0317 483774
- Helene Seevinck (editor)
Helene.seevinck@wur.nl, 0642220084
- Roelof Kleis (ecology, social sciences, campus developments)
roelof.kleis@wur.nl, 0317 481721
- Tessa Louwerens (animal sciences, nutrition)
tessa.louwerens@wur.nl, 0317 481709
- Albert Sikkema (plant and animal sciences, organization)
albert.sikkema@wur.nl, 0317 481724
- Luuk Zegers (students and education)
luukfl.zegers@wur.nl, 0317-486002
- Coretta Jongeling (social media)
coretta.jongeling@wur.nl, 06-42220078

Others who work on Resource

Guy Ackermans, Hannah Begemann, Bregje van der Bolt, Guido Camps, Evelien Castrop, Cathy Chen, Inge Corino, Rijk Dersjant, Tim den Duijf, Marieke Enter, Donatella Gasparro, Anna den Hartog, Gina Ho, Hoger Onderwijs Persbureau (HOP), Femke Janssen, Clare McGregor, Sven Menschel, Emma Mouthaan, Henk van Ruitenbeek, Julia Schäfer, Monique van Schie, Konstantina Togka, Inge van der Wal, Clare Wilkinson, Nicole van 't Wout Hofland, Geert van Zandbrink

Graphic design

Geert-Jan Bruins, Paul Gerlach, Alfred Heikamp

Printer Tuijtel, Hardinxveld-Giessendam

Subscription

A subscription to the magazine for one academic year costs €59 (€135 if abroad). Cancellations before 1 August.

Advertising

External: Bureau van Vliet,
l.paap@bureauvanvliet.com, 023 5714745
Internal: Thea Kuijpers, resource@wur.nl,
0317 484020

Deadline

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

Publisher

Sander Fransen a.i., Corporate Communications & Marketing Wageningen University & Research



In memoriam

Kees Eveleens



We have recently received the sad news that our former colleague Kees Eveleens died in his sleep.

Kees was an engaging colleague - very honest and friendly, with his own style of humour.

Eveleens' appointment in the 1990s as course director of the MSc programme in Crop Science turned out to be an excellent choice. Kees Eveleens was strongly committed to Master's level education and brought to it a wealth

of experience and knowledge of integrated crop protection in many FAO programmes under often very difficult conditions in developing countries. He was able to connect disciplines and give the Wageningen slogan *Science for impact* form and content, even as a non-‘Wageningen’ (he was a Utrecht biologist). Many students from more than 80 countries were guided by him and many teachers were drawn into the programme, so that the whole was much more than the sum of its parts.

Kees was an effective motivator, and provided a haven of calm and security for the students, with re-

spect to both their studies and their personal lives. For many colleagues, Kees was the very model of a driven, committed, engaging and extremely honest stimulator. His peaceful death, however difficult to accept, was in accordance with his life.

In Kees, we lose a great colleague, an enthusiastic and committed course director and above all an empathetic, good friend.

On behalf of many colleagues,
Rudy Rabbinge (former chair of the programme committee) and Paul Struik (professor of Crop Physiology)

>>TYPICAL DUTCH



ILLUSTRATION: HENK VAN RUITENBEEK

Quiche Hollandaise

Hongrui Cui arrived in Wageningen a few months ago. He notices some interesting and even funny things around here. How to make quiche Dutch-style, for example.

Having been keen on cooking for years, I am popular with my friends because I cook fabulous Chinese meals. After arriving in the Netherlands, an amazing country famous for various types of cheese, I just cannot help trying many new things. From swallowing herring with onion by pinching its tail, to sipping wine with a piece of cheese and taking cheese sandwiches for a quick lunch, I quickly got into the local diet and I enjoy it a lot.

Having grown up without cheese, I put some time and effort into understanding how many types of cheese there are. Last week I decided to bake a healthy vegetable quiche. Grated carrot and courgette are low-calorie while providing useful carbohydrate and fibre, adding some cheese provides good protein, and some spices and garlic add flavour. Then, put everything in the oven and anticipate a delicious meal! A bit later, a nice Dutch corridor mate came along and asked: 'Do you smell something?' I quickly opened the oven to check if anything was wrong. A strong smell filled our noses. 'What on earth are you making?' He smiled and rushed to open the window. 'Oh, just vegetable quiche.' 'Cool. With which cheese?' He seemed to have hit on a clue. 'One I bought at the market, a good one with low fat', I said. I am confident of the quality of my ingredients. 'Well, it could be a good one but I think it is quite mature... and normally very mature cheese is for eating with wine or nuts. But not for cooking.'

Well, this was really helpful information. Now I knew there is a new classification for cheeses: the eat-as-it-is type and the can-be-cooked type. By the way, though: the vegetable quiche tasted very good. Just don't smell it before taking a bite. **🇨🇳 Hongrui Cui, PhD student from China**

'I quickly opened the oven to check if something was wrong'

Do you have a nice anecdote about your experience of going Dutch? Send it in! Describe an encounter with Dutch culture in detail and comment on it briefly. 300 words max. Send it to resource@wur.nl and earn 25 euros and Dutch candy.