

## The woman factor

WUR close to its professor target | p.4 |

## Changing course

From fisherman to researcher | p.18 |

## 'An emotional rollercoaster'

Reflecting on the climate summit | p.26 |

# RESOURCE [EN]

For everyone at Wageningen University & Research

no 8 – 19 December 2019 – 14th Volume

## Logos galore

Will the Nutri-score be the chosen one? | p.12




**INTERNATIONAL  
EDITION**



# Sevil + capacitive deionizer

WUR staff work with all kinds of equipment. Meet Sevil Sahin, PhD candidate in Organic Chemistry.

## HARVESTING WITH ELECTRICITY

How can you extract valuable materials such as phosphate, nitrate and lithium from wastewater? With electricity, for example, by sending the wastewater past two oppositely charged electrodes. This principle is known as capacitive deionization: charged particles are taken out of a solution by adsorption. The materials can then simply be removed from the electrodes and reused. Sevil Sahin is perfecting the method by making the electrodes selective for certain particles. The heart of the setup — the deionizer — is an in-house WUR design.  RK, photo Sven Menschel

# >> CONTENTS

no 8 – 14th volume



>> **8**

## GREEN FUTURE

The Netherlands in 2120 according to WUR



>> **18**

## CHANGING COURSE

Fisherman becomes fisheries researcher



>> **24**

## HOME FROM HOME

KSV and Konrad: like family

### AND MORE...

- 4 A list with a blemish**
- 7 Award for catching nanoplastics**
- 11 Cover Prize: whose is nicest?**
- 12 A tour of food logo land**
- 22 What should WUR do at last in 2020?**
- 27 Technology advice for the UN**

## TRADITIONS

Even the *Resource* editorial staff can't avoid the customary end-of-year process of reflecting on the past 12 months and looking ahead. We delved into our 2019 news archives and investigated the current status of all those issues we reported on: what loose ends are there and did WUR keep its promises? You will also find our traditional news quiz on the events and topics, both major and minor, that caused a stir over the past year. Talking about traditions: the science editors once again selected 10 thesis covers for the annual Resource Cover Prize. Check them out in this issue, then go to our website to vote. One final tip is the Point of View article, in which seven colleagues were asked: *In 2020 WUR should at last... do what?*

For now, I wish you a great festive season on behalf of all the editors. We will be back next year with our magazine and online. As ever – critical, engaged and honest.

*Willem Andrée, editor-in-chief*



>> **Hand that old mobile in! Now there are more collection containers thanks to Abigail Johnson and her fellow students | p.6**



## A LIST WITH A BLEMISH

**WUR performs well in the latest Highly Cited list. But there is one blemish.**

Every year, the scientific world eagerly awaits the list of Highly Cited Researchers, the top one per cent most cited scientists in a field. The list is compiled by the Web of Science Group. Highly Cited Researchers are important people in their field. WUR has no fewer than 22 scientists on the list this year. Of the Dutch universities only Utrecht has more (26). But there is a slight taint to Wageningen's achievement.

That is clear if you run through the list. In addition to the usual suspects — the acknowledged leading lights at Wageningen University & Research — one name stands out. This is the researcher who was involved in an international investigation two years ago into citation fraud by a Spanish scientist who was a friend of theirs. As an anonymous reviewer, the Spaniard consistently insisted on authors referring to his articles.

The Wageningen colleague benefited from this 'citation pushing' as a co-author of the Spaniard, as did many others. WUR's Scientific Integrity Committee decided the Wageningen researcher was not personally guilty of systematic citation pushing. However, the incident did lead to the Dutch Association of Universities including explicit rules on ethical reviewing in the new code of conduct at the request of WUR.

According to rector magnificus Arthur Mol, the Executive Board also urged the publishers of the journals in question to remove any unjustified citations. The only publisher to respond was Elsevier, but it did not see a possibility for doing this: it is apparently difficult to correct citations retrospectively. That means the unjustified citations still count for the Highly Cited list.

Mol acknowledges that academia's ability to purge itself has failed. Especially given that the university where the citation-pushing Spanish researcher works has not taken any measures. That is why this year's Highly Cited list feels tainted for WUR and the researcher in question. 'But we did at least get citation pushing into the code of conduct,' says Mol.

📍 RK

*The researcher in question does not wish to comment on the situation.*



PHOTO: JONNE SEIJDEL

▲ Bettina Bock, seen here chatting at OAY 2019, became a WUR professor in 2018. The share of women professors is growing by 1 to 1.5 percentage points a year.

## WUR CLOSER TO TARGET FOR WOMEN PROFESSORS

**Women now account for over 21 per cent of Wageningen's professors. But WUR will probably not achieve the target of 25 per cent in 2020.**

Last week, the Dutch Network of Women Professors once again published its monitor of female professors. This showed that women made up 23 per cent of the professors at Dutch universities in 2018. According to the monitor, the share in Wageningen remained stuck at 16.9 per cent in 2018.

Wageningen University itself has different, more positive figures on the number of women professors. The national network only counts chair holders whereas WUR also counts personal professors. In recent years, WUR has ap-

pointed a relatively large number of women to personal professorships. According to the HRM department, in 2018 20.2 per cent of WUR's professors (including personal professors) were women.

HRM also has the figures for 2019. The share of female professors including personal professors increased this year to 21.4 per cent. If you exclude the personal professors, the figure for Wageningen is 19.5 per cent.

The trend is for the proportion of women professors to grow steadily by 1 to 1.5 percentage points a year. The Executive Board's target is to have women making up 25 per cent of all professors (including personal professors) in 2020. Based on the trend in recent years, WUR is set to just miss that target. 📍 AS

## BORN-OOST SHELVED

WUR has to go back to the drawing board for the proposed Born-Oost business park and talk to local residents. This resolution was passed by a clear majority in Wageningen's municipal council. The council is responding to complaints by locals that they were not properly involved in the development of the plan. WUR wants to build commercial prem-

ises with a total floor area of 80,000 m<sup>2</sup> in Born-Oost. That is far more than was recently suggested. The local residents think the plans are on too large a scale. Before the municipal council can consider the plan's main points, WUR first needs to find a solution acceptable to the locals. The council thinks this will avoid lengthy legal action in the future. 📍 RK

## ROADS NAMED AFTER PROFESSORS

**Thirteen roads in the Wageningen residential district Kortenoord will be named after former WUR professors, the municipality has announced. The names include one woman.**

The streets are part of Kortenoord III, the third phase of new building on the west side of Wageningen. The Kortenoord land previously belonged to WUR. The names used in the first two phases of the plan were of Wageningen artists and sportspeople. Now it is the turn of the professors in phase three. The list was compiled in consultation with WUR. Only one of the 13 names is of a female academic: professor of Rural Home Economics Mien Visser (1907-1977). She was the first

woman professor at Wageningen, appointed to the then new chair of Rural Home Economics. The list of names is dominated by leading figures from the Agricultural College's early days.

The oldest name is the German Adolf Mayer (Oldenburg, 1843). Mayer was involved in agricultural education at Wageningen from the start. In 1876, he became a teacher of agricultural chemistry and technology at the National Agricultural School, the predecessor of the college. At that point, he was already professor of Agricultural Chemistry at Heidelberg. He became an honorary doctor of the Agricultural College in 1926. **📍 RK**

### IN BRIEF

#### >> LIVESTOCK AND BIOGAS

##### **Pig innovation centre almost sold**

WUR has almost sold the pig innovation centre in Sterksel. It will probably become the property of the biogas company Re-N Technology, which already has a biogas installation at the WUR location. After the takeover, the company wants to continue running its digester and to modernize the outdated research centre. Local residents in Sterksel would rather see the research centre, with its 3000 pigs, closed down. Re-N emphasizes that it wants to invest in reducing ammonia emissions. 'We are working hard on sustainability and developing of new technologies.' WUR will close the pig innovation centre in mid-2020. **📍 AS**

#### >> NOT GONE BUT SMALLER

##### **TIFN still exists**

The Top Institute Food and Nutrition (TIFN) has not been closed down, as *Resource* stated in the last number in the article 'Companies have less influence, not more.' TIFN is still the main organization for public-private research in the food sector. Only its turnover has fallen dramatically since the Dutch government stopped direct funding for TIFN in 2014. TIFN now submits public-private research projects to the Agrifood top sector and the Dutch Research Council NWO. There are now about 40 PhD students working on TIFN projects, as opposed to more than 100 five years ago. These figures reflect the gist of the article, which was that the turnover of contract research at WUR has gone down. **📍 AS**

#### >> PROTEST AND DISCUSSION

##### **Concern about Unilever**

Festive as the opening of Unilever's new Wageningen building was, criticism of the newcomer to the campus was not absent from the occasion. Student agricultural organizations Boerengroep and Otherwise organized a discussion, and the Wageningen chapter of Extinction Rebellion were represented by a flashmob. The students' concerns focus largely on the intensive collaboration between Wageningen University and multinationals such as Unilever. Will the university be able to maintain its independence? And will Unilever's sustainability stand the test of critical scrutiny, as a partner of our 'green' university? You will find a report on the discussion on [resource-online.nl](http://resource-online.nl). **📍 CJ**



▲ King Willem-Alexander opened the Unilever Foods Innovation Centre on 6 December.

## © COLUMN | GUIDO

### Bee-free

A colleague of mine recently pointed out a new scientific innovation: bee-free honey produced by a bacterium, *Bacillus subtilis* (ISAAA, 27 November 2019). She thought of me because I'm an amateur beekeeper. I have two bee colonies at home that I get honey from every year, some of which I give away at work.

The research team of students from a range of biotechnology disciplines has created a synthetic 'honey stomach' in which modified bacteria produce a 'nectar-like solution using secreted enzymes that mimic the honey stomach environment'. Now in theory I'm all in favour of further scientific innovation and the pursuit of knowledge, and in that respect I think it's a great project. But if you want to get any further than acquiring knowledge, you will need to define clearly what problem you are trying to solve. In this case, the researchers think their technology will help avoid 'poor treatment of bees from bee farming and prevent the phenomenon called Colony Collapse Disorder (CCD)'.

### 'Honey is unusual because the location determines the flavour'

To me, honey is the product of an extraordinary collaboration between humans and animals. I look after my bees and I do my best to give them a good life, and in exchange I take honey – which gets a unique flavour from all the plants around my home, and which is inextricably linked with my bees and my house. Honey is unusual because the location determines its flavour. Honey from Australia tastes of eucalyptus, autumn honey from the Veluwe tastes of heather, and spring honey from around Wageningen tastes of flowers. The bacteria project is a way of making a homogeneous syrup, but if you ask me that doesn't make it bee-free honey. **📍**

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





## CAMPAIGNING FOR A LAW THAT ALLOWS CRISPR-CAS IN PLANT BREEDING

**A group of young researchers at Wageningen University & Research and Ghent University are fighting for permission to use technologies for the precise modification of DNA in plant breeding. To achieve this, they are talking to policymakers at the European Court of Justice.**

CRISPR-Cas allows precise mutations in the DNA of plants, animals, viruses or bacteria. In 2018, the European Court of Justice ruled that plant breeding with CRISPR-Cas was covered by the strict legislation on genetically modified organisms (GMO). That means crops that were modified using CRISPR-Cas have to go through an expensive, intensive authorization process.

### PROTEST

Protests have come from many sides and various initiatives have started to try and reverse the Court's decision. One such is the GeneSprout Initiative, set up in Wageningen, which gives voice to the concerns of young research-


ers. 'Students and PhD candidates who work with CRISPR-Cas regularly have innovative and valuable ideas while doing their degree or research, but they are unable to put them into practice in Europe because of the legislation. That forces them to look for jobs outside Europe. After all, CRISPR-Cas is allowed in countries such as China, Canada and the US,' says PhD candidate Juriaan Rienstra of the GeneSprout Initiative. The Initiative is convinced that precise mutagenesis techniques are a valuable addition to conventional techniques. Making changes by crossbreeding — the conventional method — can take years and is very labour intensive. The same changes can be made in one go if you use CRISPR-Cas. 'Europe is missing out on a lot of opportunities by sticking to this strict GMO legislation,' says Rienstra.

### TALKS

The GeneSprout Initiative wants the GMO legislation to be amended so that use of targeted mutagenesis such as CRISPR-Cas is permitted

in plant breeding. To achieve this, the young researchers have started talks with policymakers in Brussels. It turned out that some MEPs, such as Esther de Lange of the Dutch CDA party, are in favour. 'While we are just in the initial phase, this is already a step in the right direction,' says Rienstra.

### INTERNATIONALIZATION

At present, the GeneSprout Initiative is mainly active in the Netherlands and Belgium. But their goal is to become bigger, explains Rienstra. 'We are aiming for internationalization so that the GeneSprout Initiative becomes a Europe-wide endeavour. In addition to politicians, we also want to give the general public more information about CRISPR-Cas and foster an open dialogue. We hope this will encourage broad support among the public for a change of policy.'  **NWH**

## HAND IN YOUR MOBILE

**Nearly every home has a couple of old mobile phones lying around. What should you do with them? Hand them in! Thanks to some students, that is now possible at Forum and Leeuwenborch.**

International Development Bachelor's student Abigail Johnson and her group (Lenne Smeets, Jasmine Baswari and Else Kleiterp) came up with that idea when doing the Resistance, Power and Movements course. This is a new optional course in the programme of the Sociology of Development and Change chair group. Part of the course involves initiating your own 'act of resistance', minor or otherwise. The idea is you learn by doing.


### RAW MATERIALS

Johnson's group thought of doing something with discarded phones. She talks of research that shows there are at least three million old, unused mobile phones in Dutch homes alone. 'A lot of the raw materials that are used in mobile phones come from mines where working conditions are bad,' says Johnson. 'People often don't realize this when they buy a new phone. We want to raise awareness with our action. What is more, recycling reduces the need for new raw materials.' According to research, one telephone contains 160 grams of 30 different raw materials, mainly metals. That includes rare metals such as boron, gold, copper and silver. 'There is enough gold, for example, in 200 phones for one wedding ring.'

### CONTAINERS FOR PHONES

So it pays to collect old phones. However, Johnson discovered that is not an entirely new idea on campus. 'It turned out there was already a cardboard collection container on the third floor of Leeuwenborch.' They talked to the building manager and got that container

**'There is enough gold in 200 phones for one wedding ring'**

moved to the ground floor. Now there is a similar container on the ground floor in Forum thanks to Johnson and her group. Part of the proceeds from the mobiles that are handed in will go to KNGF, the organization that trains dogs for the blind.  **RK**

### ACTION, ACTION, ACTION!!

The new Resistance, Power and Movements course is in response to the need felt by students to do something about the situation in the world, say lecturers Michiel Köhne and Elisabet Rasch. This does not mean they want to turn students into activists. Köhne: 'The course is intended to give an understanding of how power, social movements and resistance work. We do this together with the Build Your Movement trainers. We explain the underlying theories and they talk about the practical application.' Fifteen students took the module this first time. Initiating your own action is one part of the course.



# PRIZE FOR CATCHING NANOPLASTICS

**Nanoplastics are becoming an increasingly urgent problem. Now Wageningen students have thought up a prize-winning concept for removing the plastic particles from drinking water.**

Nano-sized plastic particles end up in the environment in huge quantities. Opinion is divided on how damaging that is and a lot is still unknown. But there is no doubt that man-made plastic particles do not belong in the environment. So the choice of topic for the Holland Chemistry Students Competition was not difficult for BSc students Laura Akkerman, Dorien Westert and Ezra Bekkering.

## UNEXPLORED

'The assignment for the competition is to find a technological solution to a societal problem,' says Akkerman. 'A lot of research is already being done on microplastics, whereas much less is known about nanoplastics.' 'But that is precisely why there are still a lot of unexplored areas,' adds Bekkering. So the three honours students set to work developing a filter that can detect and remove nanoplastics. The method they chose is simple: adsorption onto activated carbon (also known as activated charcoal).

The mechanism that activated carbon - Norit - works by is well known: It purges impurities by adsorption. But it was possible that there might be ways of seriously improving that bonding by adding a coating. The competition organizers saw promise in the submission last spring of this idea, dubbed NanopLESStic, and the three Molecular Life Sciences students were given 27,000 euros to test the concept.

## ETERNAL FAME

As the coating, the students used a layer of silane with methyl or phenyl groups as hooks to catch the plastic particles. They used nanoparticles of polystyrene as the test material. And the technique turned out to work. The experiments showed that the phenyl group in particular was effective in trapping the nanoparticles. Carbon with the coating extracts four times as much nanoplastic out of the water as uncoated carbon. The students reckon this proves the concept. 'It works with this combination of coating and plastic,' says Bekkering. 'Even 100 per cent purification is feasible. We might need different coatings for other nanoplastics. But you can easily modify the surface of the carbon with this



PHOTO: MAARTEN SMULDERS

▲ The WUR students who won the Holland Chemistry Students Competition.

method.' At any rate, the students won the chemistry competition with this concept, which gets them eternal fame and 1000 euros each.

## CHLOROFORM

A fantastic result, agrees chemist Louis de Smet, one of the group's supervisors. It remains to be seen whether the concept has a future outside the lab, though. He foresees some obstacles. 'This works in the lab. But in real life you have various other compounds in the waste water that can also bond with the carbon. That is called

fouling, when biomaterial is deposited on the filter. Can you prevent this nonspecific adsorption? In other words, how selective can you make the filter? And can you reuse the filter? At present, the students are using chloroform to remove the nanoplastics. You can do this in the lab but using an anaesthetic isn't an option in practice, of course.' De Smet and his colleagues Maarten Smulders and Elinor Scott will be considering how to develop the method further. **✉ RK**

## NEW EXTRACURRICULAR PROGRAMME ON CLIMATE RESEARCH

**How can you cope as a climate scientist in these times of climate sceptics and alarming research results? In January, a programme will start centred on this question. It was developed by Studium Generale and the students doing the Climate Studies Master's (MCL).**

Topics covered in this extracurricular course include the controversies surrounding geoengineering, dealing with depressing research results and the debate with climate deniers. 'Many students start on the Climate Studies degree full of enthusiasm as they want to do something for society,' explains student Leonie Koenders, who was involved in developing the

programme. 'But during the Master's, they see again and again that things are going badly for the climate. There is a risk that your attitude becomes more negative. The regular courses don't cover that problem as they are purely about knowledge.'

## NO INUNDATING WITH FACTS

This extracurricular course also looks at the elephant in the room of climate studies, the climate denier. We want to use workshops and role play to prepare people for discussions about their research. Everyone knows someone who has doubts about climate change,' says Laurens Ganzeveld, who was involved in the new course as the chair of the MCL programme

committee. 'It's an enormously complex topic and if you get in a discussion, there is a risk of you inundating the other person with facts. But that just closes the debate down. It's better to ask the other person questions and look for common ground.'

## WHAT'S IN A NAME

The Climate Change and I course will be seven evenings and is mainly intended for current Climate Studies students. Ganzeveld hopes that the lessons will be open to a wider group in the future. 'It is a theme that is and will remain topical for many Wageningen students.' **✉ CJ**







# MAP SHOWS PROSPECT FOR A GREEN FUTURE

**The Netherlands will be a lot greener in the future than it is now. That is the first thing that strikes you in WUR's map of the Netherlands in 2120, which it presented last week.**

That green character of the Netherlands of the future is no coincidence. The project, which was for the Dutch government, is called 'A more natural future for the Netherlands in 2120'. This future in which nature is prior-

**'This Netherlands of the future is not utopian'**

itized was worked out by a team of Wageningen ecologists and landscape architects. 'That detailing was badly needed,' says the ecologist Martin Baptist. 'We have to start using our natural resources in a different way and this map gives pointers for that.'

## GREEN FUTURE

In this 'new narrative' for the Netherlands, there is plenty of room for nature. The area covered by forest is doubled, agricultural land is halved and livestock production is cut by two thirds. What is more, (nature-inclusive) agriculture is concentrated in places with suitable soil in Zeeland, Groningen and the Flevo polder. Some food production (seafood, seaweed) will shift to floating islands at sea. Cities will become greener, with urban woodland and food forests. New homes will mainly be built in the east and south of the Netherlands. Baptist: 'We are not only taking greenery to the cities but also taking cities to the greenery, to the higher lying parts of the Netherlands in Brabant and along the edge of the Veluwe.' The population will be over 20 million by 2120.

In this future Netherlands, rivers meander through the landscape as broad green ribbons. The River IJssel will be twice as wide so that it can take excess water from the Rhine. The strip of dunes will also become twice as wide to protect the Netherlands from the rising sea levels. The North Sea will be used intensively not just for food production but also for generating solar power and wind energy.

## DIRECTION

How realistic is this future Netherlands? Baptist says it is definitely not utopian. 'We deliberately chose not to perform a scenario study with extremes within which everything is possible. We have presented one prospect that we need to work towards. That prospect is even pretty conservative in some respects. It shows what direction we should be moving in.' **IR RK**

You can find out more about the map of the Netherlands in 2120 and the underlying principles in the report 'Een natuurlijker toekomst voor Nederland in 2120' (in Dutch only), which can be downloaded from the WUR site.



▲ The Netherlands now.

◀ The Netherlands in 2120.

## VISION

### Nature-based climate solutions



**The climate conference in Madrid failed to reach an agreement. Yet a growing coalition of countries, NGOs and companies are now supporting what are termed 'nature-based solutions', says GIS professor Martin Herold, who attended the climate summit.**

'The main negotiation issue in Madrid was carbon trading, or how to create market conditions that help lower global CO<sub>2</sub> emissions. There was no final agreement on this. But alongside the primary goal of reducing the use of fossil fuels, there is a growing understanding that we need "negative emissions". The only solution that has been proven to work so far for carbon sequestration on a large scale is nature itself. Nature already gives us "ecosystem services" by compensating for the increase in greenhouse gas emissions and tempering climate extremes.'

**'The only proven solution for large-scale carbon sequestration so far is nature itself'**

#### What are nature-based solutions?

'Nature-based solutions encompass a wide range of efforts to protect and restore ecosystems in order to store CO<sub>2</sub>, retain biodiversity and mitigate climate-change impacts. Many countries are starting to make plans for reforestation, less deforestation and landscape restoration. The Dutch government also wants to store more CO<sub>2</sub> in agricultural land as part of its circular agriculture policies. Raising water levels in peat wetlands in order to reduce CO<sub>2</sub> emissions from the soil is another interesting measure. These solutions are not necessarily new, but they exploit natural processes in order to combat climate change.'

#### Do companies also want to invest in nature-based solutions?

'We noticed increasing interest from the private sector in Madrid. Timber companies are reforesting large areas and oil companies also want to invest in this kind of thing. These developments point to the evolving interest from many actors, but they also raise questions and criticisms. Some environmental NGOs, for example, say that the new forests are monocultures with limited biodiversity and resilience. The NGOs are also concerned that the oil companies are using the nature-based solutions debate to distract attention from the foremost climate-change solution: rapid reductions in carbon emissions from fossil fuels.' **IR AS**

# ‘Without artificial fertilizer you just perpetuate the problem’

## AGRICULTURAL DEVELOPMENT IN AFRICA: WHICH FACTORS COUNT?

**The Wageningen alumnus Henk Breman and WUR researcher Tom Schut found out which African countries had succeeded in boosting their agricultural production over the past 50 years, and which factors lay behind that.**

The population of many African countries is growing fast, while food production to feed so many mouths is stagnating. But there are exceptions. ‘Look at Ethiopia and Rwanda. Food production per hectare is increasing fast in those countries, both of which have well-organized governments with a long-term strategy. Investments in agriculture there pay off,’ says Tom Schut, a researcher in the Plant Production Systems chair group. Together with Henk Breman, a Wageningen alumnus who worked on development projects in Africa for years, and the Israeli researcher No’am Seligman, Schut researched agricultural development since 1960 in 54 African countries.

Schut concludes that a combination of factors is always the key to good food production. One of the most important factors is good infrastructure – roads and railways for transporting agricultural products to markets. ‘Building roads causes a drop in the cost of food. And that is badly needed, as food is expensive in Africa – up to 40 per cent more expensive than elsewhere in the world where incomes are comparable.’

### **Why is food so expensive in Africa?**

‘The productivity of both land and labour is low: you need many hands in the fields to get a small yield, and there are a lot of mouths to feed just to get a truck-



▲ Building roads causes a drop in the cost of food.

load of grain to the city. Many African countries have mostly small farmers with less than a hectare of land. You can’t feed the urban population with small farmers alone. Studies indicate that a

### **‘Good farming practice is essential’**

small proportion of the farmers – about 20 per cent – grow 80 per cent of the food, and therefore need to intensify. That means the increase in production you need has to come from a small part of the agricultural land. Otherwise, African countries go on importing food.’

### **You say that Africa suffers from low yields due to poor soils.**

‘Many of Africa’s soils are naturally poor. Once those soils are tilled, the amount of food they produce goes down even more after a few years. So to feed the population, the politicians opt to import food, as a result of which there is no long-term agricultural development. That is roughly the process that many African countries have been through since 1960. And it is not an easy problem to solve.’

### **Your proposal is: provide artificial fertilizer.**

‘You won’t increase the productivity of African agriculture without artificial fertilizer because there is no alternative source of phosphate and potassium. There have been lots of Conservation Agriculture projects in Africa, in which soils are fertilized with crop waste and animal manure, but that is

just perpetuating the problem. External nutrients are indispensable for increasing harvests and biomass, and thus improving the soil. You need organic manure and crop residues as well, just as you need good seed and pest control, but the kick start for this development has to come from artificial fertilizer.’

### **How quickly does that generate development?**

‘We have just had a PhD study of grain production in Western Kenya, where the farmers get yields of one and a half tons per hectare. With a combination of nitrogen, potassium and phosphate, production goes up to five tons per hectare. If only two of these three nutrients are used, production drops again after a few years, and a shortage arises. Good farming practice is essential when using this fertilizer, meaning good seed, disease control and weeding. We tested it on 23 farmers’ fields and it worked everywhere.’ **AS**

### **ROLE OF TECHNOLOGY INTERESTING TOO**

PhD candidate Diana Kos concluded recently that small farmers in Africa can – under certain conditions – benefit from new technology such as drones, sensors and mobile phones as they get more opportunities to access new markets and thereby increase their income. Go to [resource-online.nl](http://resource-online.nl) for an interview with Kos about technology in food supply chains.



## PROPOSITION

# ‘Beating stress with a singsong’

**Deadlines, experiments you must carry out correctly, tests that go wrong. The path to a PhD has its stressful moments. Singing helps, noticed PhD student Jeske Hageman. So her proposition is: *PhD-students should sing together, both in and outside the lab, to reduce stress. ‘My favourite lab music is the uncool stuff they play in the “foute uur” on Q music.’***

‘I love singing. In our lab the radio is on all the time and most people, myself included, sing along enthusiastically. I read an article last year that showed that people who sang in a choir with their colleagues suffered

less work-related stress and felt less isolated. Singing is also said to be good for your heart and lungs.

### ‘Maybe it’s an idea to start a choir for PhD students’

I found singing in the lab very relaxing. I was working on experiments that could be quite stressful. There are a great many steps to follow, and often under time pressure. I also notice that singing makes you feel clos-

er to the other people in the lab. It’s almost a way of sharing the pain.

I think people do a lot of singing in the lab, but not so much outside it. We know that PhD students suffer from stress. Maybe it’s an idea to start a choir for PhD students. They already have a choir at Friesland-Campina, where I work. I don’t belong to it myself, because I’m afraid my voice isn’t good enough for it. I prefer to sing in places where not so many people can hear me, such as in the car. After a long working day, I really enjoy singing along to John Newman on the way home and emptying my head.’ **TL**



PhD candidates 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, Jeske Hageman, who was awarded her PhD in the Animal and Human Physiology group for her research on different sources of fat in infant formula.

# COVER PRIZE 2019: WHOSE WAS THE NICEST?

**A thesis is all about the content. But appearances do matter too. The Cover Prize puts the nicest thesis cover of 2019 in the limelight. Online voting opened this week.**

By the time they finish, most PhD students are delighted it’s all over. Writing up their thesis is a particularly arduous task. And then you have to think about the book cover. You can often see how much thought has gone into that: by no means all covers are particularly apt, let alone attractive. And a book does get judged by its cover – at least as a first impression. To encourage PhD students to aim for an attractive cover, *Resource* launched the Cover Prize 11 years ago. And for a few years now, it’s been visitors to *Resource*-online who decide whose thesis had the most appealing cover this year. To make that a manageable task, the science editors of *Resource* make a – by definition subjective – selection of 10 theses, paying attention to how the

content is visualized, originality and use of colour and fonts.

### THE HARVEST OF 2019

293 theses were published this year. Just under half of the PhD students (138) were women and a big majority (70 per cent) were international. This year again, the editors were pleasantly surprised by a couple of theses that stood out for the creativity of their covers, but which for practical reasons could not be entered for the online voting. A few 3D covers, which came with the appropriate pair of glasses, were passed over. Fun, but the effect disappears online. But Marco Santagi-

uliana deserves a special mention for a cover that responds to body heat. Inventive, but another effect that won’t come across in an online poll.

### GO AND VOTE!

The choice is yours. You can vote at [resource-online.nl](http://resource-online.nl) until the first Sunday in the New Year. The results will be announced online and in the magazine. **RK**



A tour of Logo Land

# The secret of a good food choice logo



The die is cast: in a little over a year's time, the Nutri-Score will grace food packaging in the Netherlands. Where the 'tick' previously used to indicate a healthy choice flopped, it is thought that this logo will succeed in guiding consumers towards healthier choices. Will it work?

*text and photo Tessa Louwerens*





#### FAILURE OF THE TICK

The Nutri-Score is not the first food choice logo to be launched in the Netherlands. We've already had the 'Conscious Choice' tick, which was abandoned in 2016 because people didn't understand it. 'One problem with the tick was that it assessed products per category,' says Hans van Trijp, professor of Marketing and Consumer Behaviour. 'That might help you buy the healthiest mayonnaise, but mayonnaise is still an unhealthy product. It's difficult to explain that. And the tick was not obligatory either, making it hard for the consumer to know whether a product without the logo was unhealthy or just came from a producer that didn't adopt the logo. On top of that, people were suspicious because the tick was introduced and financed by the food industry itself.'

### 'We shouldn't overestimate the effect of logos'

So the tick was a flop, and we have seen numerous other food choice logos come and go without success. So do such logos work at all? 'We shouldn't overestimate the effect of logos,' says Van Trijp. 'There is no conclusive evidence that consumers really start buying and eating healthier products thanks to food choice logos. Our studies show that most consumers in a supermarket pay attention to all kinds of things, but not so much to logos and consumer labels. They only do that if you ask them to choose a healthy product. Otherwise they are more guided by other features such as price, flavour and convenience. Seriously overweight people are not usually among those who do pay attention to logos, so logos are not the solution for people in that category. A food choice logo is mainly of use to people who are already motivated to make healthy choices.'

#### 'A' FOR APPLE SAUCE

Logos can help consumers choose what to buy in various ways. Health logos such as Keyhole,

**H**alf the population of the Netherlands is overweight. Which is why the National Prevention Agreement includes the introduction by the government of a food choice logo in 2020, aimed at nudging people towards healthier diets. State Secretary for Health, Welfare and Sports Blokhuis made the decision at the end of November, opting for the Nutri-Score, a kind of energy label for food

developed in France and used in Belgium, Germany and Spain. It wasn't an easy decision: nutritionists are critical of the Nutri-Score as it diverges on some points from the Dutch guidelines for a healthy diet enshrined in the long-established pie chart *De Schijf van Vijf*. So 160 scientists wrote to the government, and it was decided to get some research done on how to align the logo better with the Dutch guidelines before introducing it.



▲ The French Nutri-Score gives apple sauce, which is full of sugar, the same 'A' label as an apple.

### ABOUT NUTRI-SCORE

The Nutri-Score assesses products on the calories, sugars, saturated fat, salt, protein, fibre, fruit, vegetables and nuts they contain. The final score consists of letters and colours from 'A' (green) to 'E' (red). The goal is to have the logo on packaging from mid-2021.



used in countries including Norway and Sweden, or Healthy Choice, which is similar to the Dutch tick, show which products are the healthier option within a particular category. Van Trijp: 'You can't use these logos to compare products from different categories, but they do make it easier to pick a healthier option per category.' This is useful for consumers who scan the shelves briefly to make a choice. But it carries a risk of the 'halo effect', whereby the product seems healthier than it is and consumers eat more of it than they would if it didn't bear a logo.

Besides health logos, there are logos such as the new Nutri-Score or the UK's Traffic Light system, which evaluate each product separately. This has the advantage that the consumer has some way of comparing different kinds of products. 'But it can cause confusion too,' says Van Trijp, 'especially if a product comes out as healthier than expected, as sometimes happens with the Nutri-Score. A pizza can score higher than tea, for example. And in the French Nutri-Score, apple sauce, which is full of sugar, gets the same 'A' score as apples. So it is important to sort this out before Nutri-Score is introduced in the Netherlands, otherwise consumers will have no faith in it.'

### WARNING LOGOS

Food choice logos also exist that focus on the negative health impact of a product. These are used in countries including Israel and Chile, where red and black logos are used respectively to indicate that a product is unhealthy. Erica van Herpen, associate professor of Marketing and Consumer Behaviour, studied the effect of these warning logos in Chile, where they have been in use for about 18 months now. 'We compared the purchasing behaviour of Chilean consumers three years before and 18 months after the introduction of the logo. The logo

**'The logo can make the product seem healthier than it is'**

appears to be effective, because people really did make healthier purchases, even long-term. This applied mainly to middle-class households and those with children, and less so to people on low incomes, who probably can't afford to buy healthier products.' Van Herpen is not jumping to any conclusions, because rel-



atively few studies have been done on this yet. It is unlikely that there will ever be a black sticker on jars of mayonnaise in the Netherlands. According to European legislation, national governments may introduce food choice logos but it is not compulsory to use them.

**TRUST**

So there is no ‘one-size-fits-all’ logo, but there are a few criteria that a good food choice logo should meet, as a minimum. ‘It’s got to be easy to understand at a glance, for instance,’ says Van Herpen. ‘If people get too much information, it won’t work.’ The Nutri-Score is an overall assessment, so it doesn’t immediately tell you what is healthy and what is unhealthy. Van Herpen: ‘The downside is that the information is less detailed. So people who are looking for particular information, like salt levels for instance, will still have to read what’s on the back. Whereas warning logos do show you straightaway that a product contains too much salt, fat or sugar.’ A good food choice logo should also be recognizable. Nutri-Score does well there, says Van Trijp, because it looks like an energy label. But the biggest factor for success is whether consumers trust a food choice logo. Van Trijp: ‘Studies show that consumers are more likely to trust the recommendations of this kind of logo if they match the ideas they already have about what is healthy. If there are discrepancies, they have more faith in their own judgement.’ This makes good communication crucial, he says, especially given that consumer confidence is not particularly strong at the moment. ‘I think you can build this trust by communicating in a calmer, less black-and-white way about nutrition. The most important thing is to eat healthily in general, in which case you can afford to be “sinful” now and then and put a product with a red score in your trolley.’

**SOMETHING TO HIDE**

Will the Nutri-Score be a success? ‘Only if it is on all products,’ says Van Trijp. ‘For now it looks as though companies are going to be allowed to decide for themselves whether to use the logo. So we’ll have to see who takes the lead on it. I do think that in the long term it will be hard for manufacturers to avoid it, because that will make them look as though they’ve got something to hide. In this sense, the Nutri-Score provides an incentive for manufacturers to make healthier, more sustainable products, in the same way that the Fair-trade and the Better Life animal welfare labels led to big improvements in those areas.’ Then there is still the potential stumbling

**‘People do want a healthier product, but only if it is tasty’**

block that the Nutri-Score focuses on ingredients and nutrients, while the Dutch pie chart, *De Schijf van Vijf*, looks at products that fit into a healthy diet. Van Trijp: ‘If we adapt the Nutri-Score to the Dutch dietary guidelines, we’ll probably end up with a situation in which exactly the same product is on the shelves in Baarle-Nassau as in Baarle-Hertog a few hundred metres away on the other side of the Belgian border, but with a different Nutri-Score because the Belgians have different eating habits to the Dutch. That is confusing, so I think it would be good if we took the same line internationally. Otherwise the government will have to have a very good explanation for such discrepancies.’

**TASTY AND HEALTHY**

Whether this kind of food choice logo will make us switch to a healthier diet is another matter. ‘Logos alone are not enough to bring about behaviour change,’ says Van Herpen. Which is logical, since a logo the size of a postage stamp is just one bit of input in the huge jungle of information all around us. Van Trijp: ‘People do want a healthier product, but only if it is tasty. The tricky thing is that the Nutri-Score is based on fat, sugar and salt – precisely the things we enjoy. And it is human nature to go for short-term rewards, namely tasty food, instead of long-term benefits such as health. It is not enough to say: “This is unhealthy, make up your own mind.” Consumers need

some idea what to do. There is a big need for healthy products that are also both affordable and tasty.’

**NEW NORM**

More will have to be done before consumers can be persuaded to choose healthy options. ‘You would rather see healthy products displayed prominently, and unhealthy ones tucked away in a corner,’ says Van Herpen. But in reality it’s the other way round. ‘There are entire aisles full of crisps and chocolate, even though we know that products that are given more shelf space sell better.’

There is not much point in banning unhealthy products, says van Trijp. ‘You can see that now with the reduction of the speed limit: take something away from people and they dig their heels in. It would be better to look at how you motivate people to make healthier choices. Up to now, the main approach has been through information campaigns and education, but that has a fairly limited impact.’ According to Van Trijp, healthy needs to become the new normal. He already has an idea about how to speed up that process. ‘It will be easier to eat healthily if there are not as many unhealthy products on the shelves. So I suggest that supermarkets look at the Nutri-Scores of products every year, and give the producers of the lowest scoring 10 products time to improve them, or else they will be taken off the shelves.’



# News quiz

2019

**START**

Another year is almost over. Time to look back on all that's happened at WUR this year. With a nod and wink as usual – to Eva's insect, Pieter's parking problem, Bas's bike and a whole lot more. The solutions are on page 31. But do have a go yourself first!

*text* Roelof Kleis

**1. BIOLOGY STUDENT BAS NOOREN DREW ADMIRATION WITH THE FIRST VERTICAL TANDEM IN THE WORLD. HOW MANY BIKES DID HE USE TO CREATE THIS DOUBLE DECKER?**

- a. one      b. two      c. three      d. four

**2. THE ACTIVIST GROUP EXTINCTION REBELLION IS HAVING QUITE AN IMPACT. A HUNGER STRIKE STOPPED AFTER ONE WEEK THOUGH. WHY?**

- a. the students got hungry  
b. they had achieved their aim (attention)  
c. the supervising doctor intervened  
d. the students realized what extinction means

**5. 'I'D RATHER DO THIS THAN LIE ON THE BEACH.' WHO AND WHAT?**

- a. biologist Arnold van Vliet, explaining for the umpteenth time in mid-summer what an oak processionary caterpillar is  
b. student of Health and Society Hilde Jager, doing judo in July at the Universiade in Naples  
c. timetabler Fred Jonker, explaining that his job is not boring at all  
d. student of Business and Consumer Studies Marianne van de Wouw, at the Powerlifting World Cup in July

**4. CLIMATE ACTIVISTS SET OFF FOR THE CLIMATE SUMMIT IN CHILE BY BOAT, UNDER THE MOTTO SAIL TO THE COP. DUE TO CIVIL UNREST, THE SUMMIT WAS MOVED TO MADRID. NOT A PROBLEM: THE NEW MOTTO WAS:**

- a. fail to the COP      c. rail to the COP  
b. train to Spain      d. plane to Spain

**3. PROFESSOR ESTHER TURNHOUT CAUSED A STIR WITH HER SPEECH ABOUT SAYING SORRY. SHE SAID WUR SHOULD APOLOGIZE FOR:**

- a. helping to decimate biodiversity in the Netherlands      c. the development of solar farms in the Binnenveld  
b. Louise Fresco's board position at Syngenta      d. wanting to cover Born-Oost with business premises

**6. FARMER'S SON PIETER ROOIJAKKERS, MSC AGROTECHNOLOGY, HAD TROUBLE PARKING HIS VEHICLE IN THE HAGUE ON 1 OCTOBER. WHERE DID HE SUCCEED IN THE END, WITHOUT GETTING A PARKING TICKET?**

- a. at the Houses of Parliament, the Binnenhof      c. at the Ministry of Agriculture, Nature and Food Quality  
b. at the Central Station      d. at the Malieveld

**7. THE EXECUTIVE BOARD WANTS TO GET PROFESSORS FROM OTHER UNIVERSITIES TO WUR FOR ONE DAY A WEEK. WHAT WILL THIS NEW TYPE OF PROFESSOR BE CALLED?**

- a. lost soul  
b. exceptional professor  
c. borrowed professor  
d. a suitable title has not yet been found

**8. BIOCHEMIST DOLF WEIJERS DISCOVERED PROTEINS THAT FUNCTION AS AN INTERNAL COMPASS IN PLANTS. THEY HAVE BEEN GIVEN A JAPANESE NAME. WHAT IS IT?**

- a. Sudoku, which means direction  
b. Tatami, which means compass  
c. Soseki, which means cornerstone  
d. Murakami, which means foundation



**12. PLEUN VAN IERSEL, A STUDENT OF NUTRITION & HEALTH, WON THE FIRST WUR VEGETARIAN COOKING CONTEST WITH HER**

- a. oyster mushroom shoarma
- b. acorn cake
- c. Taiwanese rice dumplings
- d. cricket flour brownies

**11. WAGENINGEN ROBOTICS EXPERTS DEVELOPED THE TRIMBOT. WHAT CAN THIS MACHINE DO?**

- a. trim dogs
- b. trim lawns
- c. prune roses
- d. develop fitness programmes

**10. WHO SAID WHAT? 1 STUDENT OF BIOSYSTEMS ENGINEERING JELLE JOLINK, 2 PROFESSOR OF SOIL BIOLOGY GERLINDE DE DEYN, 3 TEACHER OF THE YEAR FRED DE BOER, 4 GOVERNANCE EXPERT JEROEN CANDEL**

- a. 'stop the quick fixes.'
- b. 'I'm fantastically lucky to have been born with this curiosity and this tendency towards fascination.'
- c. 'I do my best in everything I do. Even if it doesn't go well. You can't do more than that.'
- d. 'the health of the soil is in decline. Everyone's worried, but not enough is being done about it.'

**9. PHD CANDIDATE MIRJA MICHALSCHEK STOOD UP FOR INTROVERTS. SHE PROPOSED:**

- a. not mowing the grass around the Forum, so you can hide in it
- b. introducing separate queues for introverts in the canteens
- c. designating silent zones on the campus
- d. introducing teaching methods that suit introverts as well

**13. THE MOST CONTROVERSIAL QUOTE OF 2019:**

- a. 'Cut the crap. You only live once'
- b. 'Being on the Syngenta board offers an opportunity to work on making food production more sustainable and reducing the impact on the environment based on the latest scientific insights'
- c. 'As director of a university it is not on to accept any additional positions in organizations with private interests, no matter what they are.'
- d. 'It can be quite nice to be surrounded by 28 ladies who don't talk back'

**16. BIOLOGY STUDENT EVA DRUKKER DISCOVERED AN INSECT NEW TO THE NETHERLANDS ON THE ROOF OF THE ERASMUS MEDICAL CENTRE IN ROTTERDAM. WHICH INSECT?**

- a. the braconid wasp
- b. the clown beetle
- c. the red mite
- d. the solarium bug

**17. FOREST ECOLOGIST UTE SASS-KLAASSEN IS WORKING WITH GOOGLE ON A NEW APP. WHAT CAN THIS APP DO?**

- a. twitter with tulips
- b. talk to plants
- c. facetime with fuchsias
- d. snapchat with fir trees

**20. A SUITABLE NAME IS WANTED FOR THE THIRD EDUCATION BUILDING NEAR THE DASSENBOS. WHICH NAME FITS THE BILL?**

- a. Triton (dog Latin for three)
- b. Sudorix (from the Latin *sudora*: sweat)
- c. Fresca (referring to Louise Fresco)
- d. Meles (from *Meles meles*, the badger)

**14. RESIDENTS AT STUDENT COMPLEX DUIVENDAAL HAVE A LONG-RUNNING DISAGREEMENT WITH THEIR LANDLORD XIOR STUDENT HOUSING. THE BAN WILL NOW BE LIFTED ON**

- a. taking mixed-sex showers
- b. using their own washing machines
- c. holding selection dinners for prospective housemates
- d. growing cannabis

**15. 'ACADEMICS FIND IT HARD TO DEAL WITH FOREST SPIRITS.' WHO?**

- a. professor of Forest Ecology and Forest Management Frans Bongers, lamenting the decline of the frankincense tree
- b. philosopher David Ludwig, who studies the worldviews of scientists and indigenous cultures
- c. (emeritus) professor of Resource Ecology Herbert Prins, looking back on his research in Africa in his valedictory address
- d. biologist Patrick Jansen, issuing a last warning against the ringroad that will affect the Dassenbos

**18. BSC STUDENT NUMBERS HAVE GONE DOWN FOR THE FIRST TIME IN YEARS. WHAT IS THOUGHT TO BE THE REASON?**

- a. the accommodation shortage in Wageningen
- b. the introduction of English-language degree programmes
- c. demographic developments in the Netherlands
- d. WUR's diminishing appeal

**19. WUR RESEARCHERS THINK OF ALL KINDS OF WAYS OF IMPROVING LIFE FOR ANIMALS. WHAT DIDN'T THEY ACHIEVE (YET) THIS YEAR?**

- a. virtual reality glasses for cows
- b. an orchard for organic chickens in The Valley
- c. a hotel for fish in the North Sea
- d. a nursery for Caribbean sea urchins

**FINISH**

See page 31 for the answers



# Changing course

Cees Meeldijk switched from a crab fishing boat to an onshore office in IJmuiden, and swapped his fisherman's oilskins for a Wageningen Marine Research windproof jacket. 'I am staying in the same world, but in a new job that suits me better.'

*text and photo Tessa Louwerens*



**S**orry about the smell,' says Cees Meeldijk, a fisheries researcher with Wageningen Marine Research (WMR). 'I came back from a week at sea on Friday, and I just left my oilskins in the cupboard, thinking I would rinse them out after the weekend.' Meeldijk used to wear his oilskins almost every day when he still worked on a crab fishing boat. Now he has swapped them for WMR's blue windproof jacket. He has been working here since September.

#### FED UP WITH BEING INDOORS

Meeldijk grew up with fishing. 'Every holiday from the age of seven, I went out on the boat with my father to fish for shrimp and crabs. I loved it, although I was always aware that there were other things I could do with my life than fishing.' At secondary school, Meeldijk developed a love of history, which he then studied at university. 'I grew up in fisheries, but history is my own real passion.' That is reflected in his office, with its walls covered in historical navigation charts. There is a fossil on the desk too. 'A mammoth tooth that I once fished up on the Brown Bank between the UK and the Netherlands.' And yet, when he graduated, Meeldijk did go to sea. 'At that point I was fed up with sitting indoors, although I didn't expect to go on fishing for four years.' On one trip, he met the WMR researcher Michiel Dammers. 'We got talking and I found it extremely interesting.' The seed was planted, although Meeldijk had not had enough of fishing quite yet. But when he was offered the chance to work as a researcher, he did change course.

#### EXTENSIVE NETWORK

Meeldijk now works on innovation for fishing nets at WMR. 'At the beginning of 2019, The Haringvliet dam was opened to let migrating fish such as salmon and sea trout through. These fish end up in shrimp fishers' nets as unwanted bycatch. We look at whether that can be prevented by changing the design of the nets. That is better for both the migrating fish and the fishers.' Meeldijk sees his fishing background as a definite advantage in his current work, especially thanks to his extensive network. 'I can always give someone a call if we need fishers in Zoutkamp, for example, or if we are looking for boats that use a particular fishing technique. Because there is trust,

and I can easily chat with them about all the various fisheries, it is easy to make contact.'

#### A DIFFERENT ROLE

His ex-colleagues have reacted positively to his career switch. 'They think it's good that there's someone with practical experience involved in the research now. Because I know both worlds, I can help improve communication between them. To prevent misunderstandings that put fishers on their guard, it matters a lot how things are expressed. Of course I've got a different role now: I think like a scientist and not like a fisher. If fishers take "we must make money" as their motto and therefore flout the rules, invalidating our research, I make a fuss. Luckily that hasn't happened so far, but in that sort of thing I don't hesitate to speak out.'

#### ODD ONE OUT

Meeldijk realizes that he still has a lot to learn as a researcher. 'Most of the people here are biologists. As a practitioner and someone who studied the humanities, I am a bit of an odd one out. We teach each other new ways of thinking. Biologists know everything about all the different fish species, whereas as a fisher I was first and foremost interested in the species I wanted to catch. On the other hand, I know a lot about the different techniques used on board, and about how and where to fish.'


#### COOKING WORKSHOPS

So far, Meeldijk is happy with his career move into research. 'I was always curious and there is so much happening in fisheries, including in the field of innovation. Now I am directly involved in that. Being at home so much takes

## 'Because I know both worlds, I can help improve communication between them'

a bit of getting used to, and the same goes for my girlfriend. But I think she likes it.'

The ex-fisher has plenty of ideas for filling the extra time he now has. He is collaborating with the fisheries knowledge platform *Vist ik het maar* on a project aiming to document the history of the Dutch fishing communities. He also likes cooking and he recently gave his first cooking workshop. 'I hear a lot of people saying they want to eat less meat so they are becoming vegetarians. I think that's a pity, because it's no problem to eat fish. It is healthy and tasty, and North Sea fish stocks are fine. People often don't know how to cook fish.'

Meeldijk is not afraid he will miss life on a fishing boat. 'I am staying in the same world, but in a new job that suits me better. Every Friday afternoon when the boats come in, I take a walk along the quay and have a chat. I can't imagine life without the fisheries.' 

### CEES MEELDIJK (WIERINGEN, 1992)

2011-2015 Student of History at the University of Groningen and University of Amsterdam  
2015-2019 Crab and shrimp fisher  
2019-present Fisheries researcher at WMR

Cees Meeldijk (27) was born in Wieringen and now lives with his girlfriend in Heemskerk.

# What's happening with...?

The *Resource* editors revisited their news reports of 2019. Some of them contain some 'loose ends' – things WUR promised to do or tackle. So what happened? A selection.

text Albert Sikkema

## VACANCIES: STILL 250 UNFILLED

In 2019, WUR would have as many as 800 vacancies, reported *Resource* in January. The board was planning to take on extra recruiters to fill all these posts. How did that go? 'We've had 800 vacancies at WUR this year so far, and the year is not over yet,' says Johan Kanis, WUR's Recruitment manager. The HRM department hired three recruiters in the spring to fill the rising number of vacancies. The first in-house recruiters were appointed after the summer break, and soon each WUR Science Group will have its own recruiter.

There are currently 250 unfilled vacancies, says Kanis. That is because most vacancies are only actually filled a few months after they are published. A lot of unfilled vacancies are in that in-between phase right now. Some of them are hard to fill. 'But if we don't find a suitable candidate, we just carry on looking.' Meanwhile, HRM is managing to find more, and more diverse candidates for the unfilled vacancies, says Kanis. One reason for this is that HRM



makes use of bibliometrics. 'When we have vacancies for researchers we look through publications and citations in that research field so we get a picture of the relevant research network. This network includes researchers we don't know yet, and we can pro-actively approach them.'



## LOST PROPERTY: STILL PILES OF IT

'So much gets left behind, it's incredible,' receptionist Mirjam Rutten told *Resource* with a sigh in May. So we organized a fashion show and put photos of it in the *Resource* of 23 May. Without the desired result. Only a handful of students went to the reception at the Leeuwenborch to pick up their jumper, glasses, charger or diary, says Rutten. Very few of the 90-odd items of lost property she put on WUR's I lost webpage were claimed

either. 'Hardly anyone turned up, except students who'd lost their telephone or their keys; they come to reception within two hours.' The managers at the Leeuwenborch keep lost property for about a year. Then the clothing goes to a second-hand store and Rutten only holds on to valuable items for longer. There is a golden ring and an Arm-ani buckle in the draw, for instance.



## MISTER CLIMATE: COME AND GONE

Early this year, Bram Bregman was appointed with a fanfare as the man who would draw Wageningen climate research together and get it into the limelight. But he's moved on already. What went wrong there? 'When Bregman started in Wageningen, he was still working three days a week as extraordinary professor and innovation director at Radboud University in Nijmegen,' says Derk Rademaker, Climate Change teamleader at Wageningen Environmental Research. 'That's why he started with two days a week here, to work on a Wageningen climate strategy and WUR's positioning at the Ministry of Environment. In no time,

he was inundated with questions. And we wanted him to bring in projects for Wageningen Research as well. He had a lot to do and not much time, so we had some discussions about how to do justice to him. It wasn't easy. In that period, around the summer vacation, he was no longer director in Nijmegen and wanted more hours here. Then a job came up at the Netherlands Environmental Assessment Agency (PBL) that was right up his street, at the meeting point between research and policy. He opted for the full-time position as sector head at PBL. Pity, but understandable.'




## DE MARKE EXPERIMENTAL FARM: IN FARMERS' HANDS AFTER ALL

The 'De Marke in farmers' hands' campaign in August did not go down well in Wageningen, but attitudes have thawed up a bit since then. The Executive Board intends to sell the experimental farm for circular agriculture to a farmers' cooperative in the *Achterhoek* in the east of the country. 'WUR wants a stronger connection with the region,' says Menno van Manen, Operations Manager at the Animal Sciences Group and responsible for De Marke. 'In recent months we looked into what would be the best way of collaborating with farmers. The most promising option is to sell the farm to a farmers' cooperative that will develop De Marke.'

WUR wants to transfer the buildings at De Marke but not the fields. WUR will also continue to do research on circular agriculture at De Marke, but from now on it will do so for the cooperative. The latter will also invest in the farm. The cooperative is an initiative of innovation broker Carel de Vries and dairy farmer Jan Eggink, who together launched the 'De Marke in farmers' hands' campaign last year. Their cooperative is looking for 100 members who want to invest at least 5000 euros in De Marke. They have already got 50 new members. WUR will probably join too.

## INTERNATIONAL LOUNGE: SHORT DELAY

On 14 March, *Resource* reported that an International Lounge would be opening: a kind of common room on the campus where everyone with an international mindset would be welcome every day, and where the boards of the international associations IxESN and ISOW could be based. The target date for the opening of this lounge at the Campus Plaza was 1 January, but has now been postponed to the end of February, says Liesbeth van der Linden of Education & Student Affairs. 'Because the construction industry has been so booked up, building started later than planned. It is now in full swing, though, and we expect it to be ready at the end of February.' 



# IN 2020 WUR SHOULD AT LAST...

The year is drawing to a close and 2020 is just around the corner. Time for New Year's resolutions. What should WUR finally get around to in the next year?

text Albert Sikkema, Luuk Zegers and Coretta Jongeling illustration Henk van Ruitenbeek

## Clara de Mik



**Receptionist at Gaia/Lumen**

'Discouraging cars on campus. There are more and more of them, and some of the drivers could come by public transport or by bike. I live in Arnhem myself. If I have to start very early in the morning, I come by car. If I'm starting later, I take the train. The campus is very accessible by public transport. **I'm glad WUR stimulates cycling with speed pedelecs and WUR bikes, but more could be done to discourage travel by car.** WUR could raise the travel allowance for public transport, for instance. Public transport is more expensive than coming by car.'

## Arjan Breugem



**Soil Physics and Land Management researcher**

'Sort waste more and better. I still too often see all kinds of stuff dumped in the same bins – paper and even food in the bin for non-recyclable waste, for instance. **Even outdoors on campus, I often see litter like plastic, paper and tins lying on the ground.** That is annoying and bad for the environment. What should we do? Point out to people what they are responsible for. Knowledge, awareness and willingness are very important, I think. Surely the cam-

pus is full of educated people who want to protect the environment? Come on then!'

## Tessa Louwerens



**Resource editor**

'Make the expense claims system more user-friendly. When I hear my colleagues grumbling and groaning, I think I'm not the only one who thinks this. **For every little sum you claim, you have to get the receipt printed, if it's digital, and signed. Then you have to scan it in and make sure it's uploaded in the right format.** It's partly a question of trust: I think the signature is just to make sure you only submit a receipt once. And then there are people in the finance department checking all this. My guess is that this system costs more time and money than it saves.'

## Marlies Koerts



**MSc student of Food Technology**

'The university is currently running campaigns on learning to cope with stress (Surf Your Stress) and get enough exercise (Sit Less, Feel Better). In other words: we are supposed to take good care of ourselves. But at the same time, WUR is making that more and more difficult with the Bring Your Own Device policy, which

means there are fewer work stations with computers and students have to work on their laptops, often at non-adjustable tables and chairs. That makes you adopt a poor working posture and increases the risk of RSI. There is a shortage of space anyway: there is no hope of finding a place in the library after eight o'clock in the morning. **In short: in 2020, WUR should invest in good work stations. And put adjustable tables and chairs in classrooms.** And make more information available about good working posture.'

## Karin Schroen



**Personal professor of Food Process Engineering**

'We should have more interaction between scientific disciplines. At WUR we certainly have the knowledge to contribute to several of the Sustainable Development Goals, but at the moment we don't bring it all together enough. PhD students and their supervisors are too much on their own little islands. A missed opportunity. **Dare to explore the fundamental side of your subject if you are an applied scientist, and to find out which applications you might support if you are a fundamental researcher.** My proposal is an Open Science Forum, where you present subjects from different perspectives. Then WUR could produce talented researchers who really contribute something, dig deeper and are capable of talking to various





different disciplines. I want to organize the first get-together on nanotech and nutrition. After that, it's up to PhD students to take it further, as far as I'm concerned. The new Dialogue Centre offers scope for it.'

### Pablo Vanneste



#### MSc student of Organic Agriculture

'WUR should now finally give organic agriculture pride of place in its research fields. It is a bit strange to be the most sus-

tainable university in the world and yet to allocate less than a quarter of all your research fields to use for organic farming. **I have often heard that WUR does research on making conven-**

**tional farming more sustainable, but perhaps it's time to go a step further than that.** Why should we stop at organic, and not start looking at more stable production systems as an alternative to always using annual plants? A good New Year's resolution for WUR would be to expand the area used for food forests from one to 10 hectares. That would be perfectly possible on the fields opposite the campus.'

### Xanthe Verschuur



#### MSc student of Forest and Nature Conservation

'WUR should now finally stop expanding the campus. The new plan to build on Born-Oost, the green area next to the campus, is

a shame. **A green university should be the first to see the importance of nature around a city.** I understand that innovation is needed sometimes, but the university could do more to repurpose existing buildings, such as those at the old Dreijen campus, the business park or in the Nude neighbourhood. Many companies that want to move onto the campus already have offices at other locations, which are now empty. It would be good to give some thought to the growth of the university. There is a shortage of accommodation already, and not just for students but for other Wageningen residents too.' **📍**

# Home from home

Konrad Peckolt Fordal (22) from Norway couldn't speak a word of Dutch when he arrived in Wageningen as a student. But that didn't stop him joining KSV Franciscus, where Dutch is the language of communication. 'It's a bit of a homecoming with them.'

*text* Luuk Zegers *photo* Guy Ackermans

**A**fter secondary school and national service in Norway, I wanted to go abroad, so I went to live and work in Berlin for six months. In that period I visited some friends in The Hague. And because I already knew I wanted to study abroad, and preferably something to do with the environment and sustainability, I took a look in Wageningen while I was at it. I felt at home right away in the small town of Wageningen. Zurich was also an option, but I chose Wageningen, partly because of the green surroundings. That is very important to me: in Norway I could practically walk out of my door and through the forest to Sweden.'

## ALL-DUTCH

'I started on the Bachelor's in Environmental Sciences in 2018. Normally during the AID there are at least two internationals in each group, but I happened to be in an all-Dutch group. They talked constantly about which student society to join. We don't have anything like that in Norway, so I wondered: what kind of craziness is this? But because all those Dutch students wanted to join a society, I knew it must be good.'

'KSV Franciscus held an AID presentation for international students. It was the first time they had done so. They said, "Everyone is welcome, but you do have to learn Dutch, because KSV is a Dutch club with Dutch traditions." I was planning to learn Dutch anyway and make Dutch friends, because I think that's the only way to really get to know a culture. So I joined KSV, even though it might have been easier to join an international society.'

## NICE GROUP OF PEOPLE

'During the introduction period, I really wondered what I had got myself into. All aspiring members wonder that, but it was extra hard for me because I didn't speak the language yet. Luckily I had been through a kind of introduction period in the Norwegian army, which gave me a bit of a headstart on Dutch members. I met some nice people during that KSV introduction period. Our year group formed itself spontaneously, really. A nice group of people who supported and helped me.'

'They loved the fact that I joined the society, but to really be part of it, it was important that

**'When I go to KSV, I can really put it all to one side and do as I please'**

I learned Dutch fast. So they organized a member with whom I could practise the language every week during the lunch hour. Mainly talking to work on my speaking skills, and also working on the basic grammar, so I got to grips with the sentence structure faster.'

## GO WITH THE FLOW


'Alongside my studies, I am on the board of my study association. When I go to KSV, I can really put it all to one side and do as I please. I am on the international committee, but other

than that I don't have many responsibilities. It's just nice to chat to people, party and enjoy my spare time with friends – it really feels like I've come home.'

'In 2019, we've gained five international students: a guy and a girl from America, two German girls and a guy from New Zealand. We gave them some extra attention before the introduction period: we try to make clear to them that nobody gets what's going on during the introduction – not even the Dutch candidates. The only thing to do is to go with the flow. In the end they all became members. Four of them are doing a language course at In'to Languages, and the fifth is having one-to-one lessons from a Dutch KSV member. They are well distributed over the different year groups. It is nice to see that they are now really starting to speak Dutch.'

## DUTCH DIRECTNESS

'Thanks to the society, I have made good friends, learned a new language and got to know Dutch culture. The Dutch are very direct, to the point of bluntness. I am trying to learn from that directness and openness. Personally I tend to avoid conflict. Here I learn to say it how it is.'

'My year group is one big friendship group: it is laid-back, relaxed and fun. It's a bit of a homecoming with them. All in all, it was a great decision to join KSV.' 





Curious what the deal is for international students at other Wageningen student societies? Read more about it at [resource-online.nl](http://resource-online.nl)



## IN OTHER NEWS

### STARTLED

When you startle you stop moving for a moment. This startle response is universal in the animal kingdom and is caused by serotonin, discovered researchers at Columbia University who studied it in fruit flies. They think the sudden freeze gives the nervous system a chance to gather information at lightning speed, assess the situation and formulate a response.

### 10TH

Want to hear Beethoven's 10th Symphony? Then you should make sure you're in Bonn on 28 April. Beethoven only wrote a few notes of his 10th. The rest has now been completed by a computer, with input from programmers and musicians. Next year sees the 250th anniversary of Beethoven's birth, making 2020 Beethoven Year.

### NOTHING

Wherever people get together, language develops. Scientists from the Max Planck Institute got children to skype with each other with no sound. In no time, they developed a sign language. They even found solutions to abstract concepts. They communicated the concept of 'nothing', for instance, by pointing at a white surface. There are 6000 languages in the world. Surprisingly few, considering.

### SPLITTING HAIRS

Thin hair is stronger than thick hair. This counterintuitive conclusion was reached by researchers at the University of California. The difference lies in how the hair breaks. Thick hair breaks like a banana, with a nice clean break. Thin hair breaks more like a branch, tearing along a jagged line. And that takes greater force.

Something to talk about at the hair-dresser's.



# Madrid climate summit 'emotional rollercoaster'

The results of the climate summit in Madrid are disappointing, says WUR student Pippi van Ommen (23). She attended on behalf of Sail to the COP to highlight the need for sustainable, fair travel. Despite everything, she is proud. 'Flying has been put on the agenda as a problem'.

The 2019 COP ended on Sunday 15 December with an unimpressive agreement. Van Ommen: 'It was disappointing for everyone involved. Next year, at the summit in Glasgow, countries will have to present their climate plans for fulfilling the Paris Agreement. The summit in Madrid was supposed to set the tone by tightening up those plans and proposing more ambitious targets. It didn't succeed so that will have to happen next year. But we'll be one year further then. It is taking too long. This is a real blow for the millions of young people in particular who have been campaigning over the past year for the climate.'

### FROM SAIL TO RAIL

Sail to the COP started with the idea of highlighting the climate impact of flying by having a group of 36 young people from Europe sail to the climate summit in Chile. The ship was halfway across the Atlantic when it turned out the summit would not be held in Chile after all because of the unrest there. When it was announced the summit would be in Madrid, turning

## 'How bad does it have to get before we do what is necessary?'

back was not an option so the climate sailors switched to Plan B. Using the hashtag #railtotheCOP, they called on European summit attendees to travel by land to Madrid. They also put together a new team to represent the sailors at Madrid. Van Ommen was one of the members of that new team. 'We were in daily contact with the ship crew to discuss strategy and see how we could best tell our story.'

### POWERLESS

'I found taking part in the COP much harder emotionally than I'd expected,' says Van Ommen. 'There were people there from islands that have to be evacuated because sea levels are rising so fast. And meanwhile we just carry on building and expanding airports. How bad does it have to get before we actually do what is necessary?'

'A group of us young people were trying to get flying as a problem on the agenda,' she continues. 'At the same time, Shell, Exxon and BP were organizing huge



PHOTOS: SAIL TO THE COP

▲ Plans are already being made for the 2020 COP in Glasgow.

events for loads of people. Then you feel so powerless, as if no one is going to hear your message.'

### CLIMATE MARCH

One of the highpoints in Madrid for Van Ommen was the climate march. 'A half million of us showed that we really do want this. It's like the Greenpeace director said: "There has never been such a big gap between what the people want and what is being decided in here".'

'All in all, I feel very ambivalent,' concludes Van Ommen. 'It was an emotional rollercoaster. I am proud that we really put flying on the agenda as a problem. We got a mention in the Dutch children's news programme and the topical TV show *Zondag met Lubach*. We got our message across at the COP too. Ministers had to explain why they had come by plane. Our message reached an awful lot of people.'

### FUTURE PLANS

The young people behind Sail to the COP are now making plans for the 2020 COP in Glasgow. 'We will be continuing our #railtotheCOP campaign. We want to see whether we can arrange a special climate train and we are investigating whether we can arrange a ship to take young people from South America to Glasgow.' Expect to hear more from them soon. 📍 LZ

▼ The young people behind Sail and Rail to the COP wanted to highlight the problem of flying. And they succeeded, says Pippi van Ommen.





# Students advise UN on technology impact

**Sixteen WUR students have investigated the potential impact of various technologies and have written policy recommendations for the UN. 'Blockchain, 3D printing, Big Data and CRISPR could reduce global social inequality or they could increase it: everything depends on sound policy.'**

'New technologies are being developed at an ever faster rate. That makes it difficult for policymakers to regulate them properly: developments are going so fast that policymakers are constantly lagging behind. And these are complex topics. If these technologies are steered in the right direction with sound policy, they have the potential to close the gap between the rich and the poor. But if the policy is not sound, there is a risk that only rich countries will benefit.'

## QUALITY OF LIFE

These are the words of Sara Mancinelli (24), Environmental Sciences Master's student. She is

one of the 16 WUR students doing the Academic Consultancy Training (ACT) project. The WUR students considered blockchains, 3D printing, Big Data and CRISPR while students from the State University of New York investigated genetic modification in humans and geo-engineering.

Mancinelli and her little group looked at the opportunities and risks with 3D printing. 'It is a

**'It would not be a good idea for big companies to be in control'**

disruptive technology that could lead to major improvements in the quality of life in developing countries. If you can 3D-print what you need on site, you disrupt the present supply chains. But if the focus is on how to use 3D printing for

the military or space travel instead of for clothes, tools or medicines, for instance, that will put developing countries at a disadvantage.'

## IN THE RIGHT DIRECTION

Max van Deursen (24), Climate Studies Master's student, was in the blockchain team. 'The technology came about because a bunch of nerds wanted to decentralize the banking sector. Now you see countries like China and companies like Facebook and Amazon producing their own cryptocurrencies and trying to centralize things again. It would not be a good idea for big companies to be in control here; this is the perfect moment to push the development in the right direction, for example by investing in start-ups and making knowledge about blockchain technology publically available.' **EM**

## MEANWHILE IN... THE UNITED STATES

### 'It's totally out of our hands'

**Last week, Democrats moved closer to impeaching US President Trump for abusing his presidential power and for obstruction of Congress. WUR student Erika Lee shares her view on the impeachment proceedings.**

'I follow the news surrounding the impeachment daily and consider myself to be politically active, but I don't feel involved in the impeachment procedure. That's because I can't influence the decision-making process, which makes it very different from the elections. It started with the Muller investigation and now we have this. Everyone is so focussed on impeachment that people forget about all the other crazy things that he does. I think the whole situation is also kind of embarrassing as an American.

I do think people underestimate the severity of the issue though, and even I downplay it now, just because ever since Trump took office, everything he does has been unprecedented. His erratic behaviour has become typical by now, unfortunately. If Trump gets impeached, I

think there might be riots by Trump supporters, but if he doesn't get impeached, I don't think it will affect



Erika Lee (29), a Master's student of Health & Society, reflects on the current situation in her home country.



PHOTO: REMA SCHILD / SHUTTERSTOCK.COM

the 2020 election much. His supporters already think the impeachment inquiry is "the greatest witch hunt in American political history". I think they just turn a blind eye to what he does.

If you're not a Trump supporter, but he does get impeached, I think it depends on what you dislike about Trump whether you will be happy or not. In this case, Mike Pence will become President. He is extremely conservative, and I think women and gay rights will be severely impacted in a negative way. So the prospect that Mike Pence might become President is a bit frightening as well.

I think it is really important to be a part of political campaigns. If you're not being active, you're just letting it happen. After the 2016 election, it became more common to volunteer for campaigns. Nowadays my group of friends will go campaigning together. We have similar values and we do it as a kind of social activity. It's nice when your friends are involved too.' **EM**

# YOU ON CAMPUS

**After finishing his second Master's in Amsterdam on Plant Biology, Andriy Volkov (25) from Ukraine recently started a PhD at WUR on plant cell polarity.**

Andriy works in the Biochemistry lab where he researches various fundamental mechanisms. As he explains, 'It is not yet understood how a plant cell knows what is up and what is down, or where the inside of the cell is and where the outside is. How does the plant's sense of direction work? You can imagine it's important for the plant to send its nutrients in the right direction but how does it do that? And how does it make sure no nutrients are lost?'

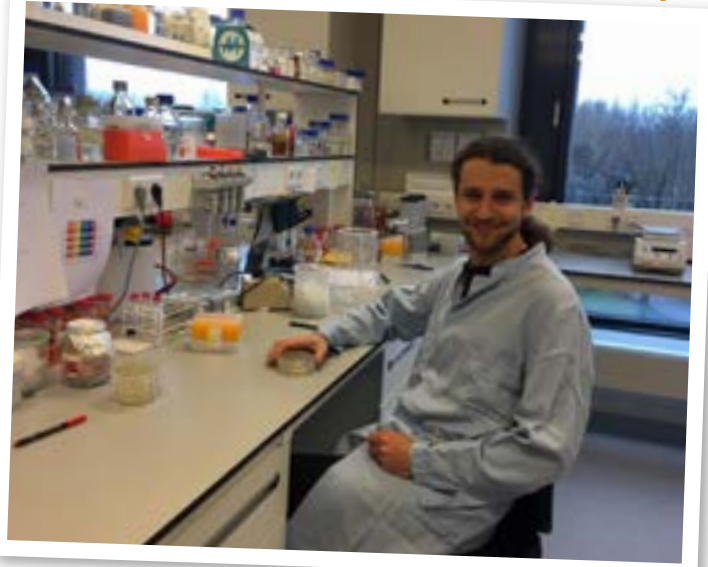
The opportunity to explore this uncharted territory in combination with his interest in cell biology and his previous experience are what led him to apply for this particular PhD. 'It is exciting to find topics that no one has ever investigated before and to be transforming

the foundations of the field.'

In the two and a half months that Andriy has been in Wageningen, he has noticed that WUR is very different to the universities in the Netherlands and Ukraine where he studied before. One char-

**'It is exciting to be transforming the foundations of the field'**

acteristic that stands out is students' devotion to their subject. 'The students are basically enthusiastic and down to earth, and focused on delivering good research. There was



a more competitive and status-oriented attitude at the other universities'. The large Plant Sciences department and the many opportunities in this field have helped Andriy soon feel right at home. As for the festive season, Andriy will be experiencing a proper 'Christmas sandwich'. Since Christmas is two weeks later in Ukraine due to the Orthodox calendar, he will be celebrating it first in the Netherlands and then in Ukraine. This means a double Christmas with a New Year in between. **AdH**

## Hard to be plastic-free

**Geert van Zandbrink's housemates were up for a plastic-free week. You know, a challenge to raise awareness. It wasn't all plain sailing but Geert would recommend a plastic-free experiment like theirs.**

'In the world of vloggers and influencers, it's one challenge after the other. And it's also really trending to live waste-free and green. The two trends meet in the plastic-free challenge. My student housemates were up for organizing a plastic-free week, aiming at raising awareness. The rules for a plastic-free week are simple; disposable plastic is banned, glass and paper are allowed. Dairy packaging is allowed as long as it doesn't have a plastic

top. That makes it impossible to do all your shopping at the mainstream supermarket, because there is only a limited selection of products that are not wrapped in plastic.

### BEST FRIEND

Your best friends are then the baker, the greengrocer and, especially, market stallholders. And of course, your own bags, which you take with you everywhere. If you want to get some battered fish, for instance, you take your own Tupperware box along. You might get a funny look from the fishmonger, but that will soon change.

It was not all plain sailing, though. Without thinking, I ordered some clothes online during our plas-

tic-free week, and they came with a plastic bag around every item of clothing. Fail, I thought to myself.

### STAB OF GUILT

If the world makes it so difficult for a consumer to live plastic-free, the economist in me is quick to conclude that the problem lies on the

**'You might get a funny look from the fishmonger, but that will soon change'**

production side and not with the consumer. That immediately reduces my sense of responsibility. And yet deep down, I do get a stab of guilt when I put a plastic-

wrapped bell pepper in my basket at the supermarket. Say what you want, but this challenge really has made me more aware. I can recommend it! **AdH**

## BLOG



Geert van Zandbrink studies Economics and Policy. Read all his blogs on [resource-online.nl](http://resource-online.nl).



**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.**

# 'The Garifuna joined in enthusiastically'

'For my thesis research I was in Guatemala from May to October to study the hydration status of lactating women. To do that, I collected urine samples and data on body composition. And together with four other girls – two from Guatemala and two from the US – I also worked on a research project on breast milk and breastfeeding habits.

## CULTURAL DIFFERENCES

The five of us went to Livingston, a small village on the Caribbean coast which you can only reach by boat. Our aim was to approach women for both projects, working with the local health centre. We asked women in the waiting room if they were willing to participate in our study. It was nice to work in such an international team, although cultural differences in the way we worked did emerge. The girls from Guatemala were clearly used to waiting around a lot, whereas the American girls and I felt the urge to use that time for something else.

## TROPICAL OUTINGS



In Livingston, the American girls and I lived in a hotel at the coast. We were there for five weeks and made friends with staff at the hotel, who took us on outings every weekend. We went to several beaches and tropical islands nearby.

## TRADITIONAL TRIBES

We also went for a trip up the Rio Dulce river. It was very interesting to see how many traditional tribes still live on the river banks. There are three different groups in Livingston, including the Q'echi, who were originally a Maya tribe, and the Garifuna, who are descended from stranded slaves and the indigenous Caribbean inhabitants. These tribes have their own languages, so communication could be difficult. Luckily most people also spoke Spanish. Another group living in this area is the Ladinos, who are of mixed

indigenous and Spanish ancestry. There were big differences between the tribes. The Q'echi were fairly reserved, whereas the Garifuna were far more outspoken and joined in our study enthusiastically.

## COOKING BY THE BEACH

Two locals taught us how to make the typical Garifuna dish 'tapado', which is a soup with fish, shrimps, crabs and fried bananas. We cooked it in the outdoor kitchen at their home, using only fresh ingredients. We filleted the fish ourselves and made coconut milk from coconuts they grew themselves. All just a few metres from the beach. A very special experience.'  



## THE WORKS

**Who?** Lisanne Bergsma (24), MSc student of Nutrition and Health  
**What?** MSc thesis on nutrition, physiology and health status  
**Where?** Livingston, Guatemala

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

# Irregular Opening Hours

## Christmas Holidays 2019/2020

### Forum

		2019/2020	The Building	The Library	Student Desk	IT Service Point	WURshop	Restaurant	Grand Café	Wageningen in'to Languages
<b>Monday</b>	<b>23 December</b>	8 am - 8 pm	8 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Tuesday</b>	<b>24 December</b>	8 am - 8 pm	8 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Wednesday Christmas</b>	<b>25 December</b>	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Thursday Christmas</b>	<b>26 December</b>	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Friday</b>	<b>27 December</b>	8 am - 8 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Saturday</b>	<b>28 December</b>	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Sunday</b>	<b>29 December</b>	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Monday</b>	<b>30 December</b>	8 am - 8 pm	8 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Tuesday</b>	<b>31 December</b>	8 am - 8 pm	8 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Wednesday New Years Day</b>	<b>1 January</b>	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Thursday</b>	<b>2 January</b>	8 am - 8 pm	8 am - 6 pm	Closed	10 am - 2 pm	10 am - 2 pm	11.30 am - 1.30 pm	Closed	Closed	Closed
<b>Friday</b>	<b>3 January</b>	8 am - 8 pm	8 am - 6 pm	10 am - 12 pm	10 am - 2 pm	10 am - 2 pm	11.30 am - 1.30 pm	Closed	Closed	Closed
<b>Saturday</b>	<b>4 January</b>	10 am - 6 pm	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed
<b>Sunday</b>	<b>5 January</b>	10 am - 6 pm	10 am - 6 pm	Closed	Closed	Closed	Closed	Closed	Closed	Closed

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

### Orion

		2019/2020	The Building	Bike basement	The Spot	Restaurant
<b>Friday</b>	<b>20 December</b>	8 am - 6 pm	8 am - 6 pm	8 am - 9 pm	8 am - 2 pm	11.30 am - 2 pm
<b>Saturday</b>	<b>21 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Sunday</b>	<b>22 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Monday</b>	<b>23 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Tuesday</b>	<b>24 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Wednesday Christmas</b>	<b>25 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Thursday Christmas</b>	<b>26 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Friday</b>	<b>27 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Saturday</b>	<b>28 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Sunday</b>	<b>29 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Monday</b>	<b>30 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Tuesday</b>	<b>31 December</b>	Closed	Closed	Closed	Closed	Closed
<b>Wednesday New Years Day</b>	<b>1 January</b>	Closed	Closed	Closed	Closed	Closed
<b>Thursday</b>	<b>2 January</b>	Closed	Closed	Closed	Closed	Closed
<b>Friday</b>	<b>3 January</b>	Closed	Closed	Closed	Closed	Closed
<b>Saturday</b>	<b>4 January</b>	Closed	Closed	Closed	Closed	Closed
<b>Sunday</b>	<b>5 January</b>	Closed	Closed	Closed	Closed	Closed

### Leeuwenborch

		2019/2020	The Building	Coffee Bar / Restaurant	Library
<b>Monday</b>	<b>23 December</b>	8 am - 6 pm	8 am - 6 pm	Closed	Closed
<b>Tuesday</b>	<b>24 December</b>	8 am - 6 pm	8 am - 6 pm	Closed	Closed
<b>Wednesday Christmas</b>	<b>25 December</b>	Closed	Closed	Closed	Closed
<b>Thursday Christmas</b>	<b>26 December</b>	Closed	Closed	Closed	Closed
<b>Friday</b>	<b>27 December</b>	Closed	Closed	Closed	Closed
<b>Saturday</b>	<b>28 December</b>	Closed	Closed	Closed	Closed
<b>Sunday</b>	<b>29 December</b>	Closed	Closed	Closed	Closed
<b>Monday</b>	<b>30 December</b>	8 am - 6 pm	8 am - 6 pm	Closed	Closed
<b>Tuesday</b>	<b>31 December</b>	8 am - 6 pm	8 am - 6 pm	Closed	Closed
<b>Wednesday New Years Day</b>	<b>1 January</b>	Closed	Closed	Closed	Closed
<b>Thursday</b>	<b>2 January</b>	7 am - 10.30 pm	7 am - 10.30 pm	10 am - 2 pm	Closed
<b>Friday</b>	<b>3 January</b>	7 am - 10.30 pm	7 am - 10.30 pm	10 am - 2 pm	Closed
<b>Saturday</b>	<b>4 January</b>	8 am - 5.30 pm	8 am - 5.30 pm	Closed	Closed
<b>Sunday</b>	<b>5 January</b>	Closed	Closed	Closed	Closed

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



# Thesis students:

interested in a research assignment?



Assignments with society topics like:

- sustainable textiles
- nature inclusive urban planning
- fair tourism
- greening the city
- post fairtrade chocolate production

Get in touch and start with your assignment right now!  
Check out [www.wur.eu/scienceshop/student-assignments](http://www.wur.eu/scienceshop/student-assignments)



## Announcements

### PhD training in Presentation Skills & Nerves

This practical course is for PhD candidates who get nervous when having to present work. Experienced skills trainer Marloes Harkema will teach you strategies for feeling more at ease when standing up in front of a group. We also practise non-verbal communication, voice use and interaction with the audience. Separate dates in January for PhD students and MSc/BSc students. For brochure, costs and dates: [www.marloesharke-ma.nl](http://www.marloesharke-ma.nl).

### Looking for WUR artists

Forum Library is looking for artwork for our upcoming exhibits. Are you an artistic scientist or a scientific artist? Are you also a WUR student or staff member? Then the Forum Library could be the perfect exhibition space for you! We offer the unique opportunity to share your work with a wider audience. For more information, contact [monique.braakhuis@wur.nl](mailto:monique.braakhuis@wur.nl).

### Come and sing with us!

The choir HAK in Wageningen has room for enthusiastic singers (m/f). Come along to one of our regular rehearsals to see and hear what we do. We rehearse on Saturdays or Sundays, in Utrecht or Wageningen. We have 10 to 12 rehearsals a season, some of them with our own orchestra HWSO. In April, we put on concerts in Wageningen and in the wonderful Music concert hall in Arnhem. More info: <https://hwsok.nl/>

## Agenda

### FORUM LIBRARY: TWAN DE VOS EXHIBITION

Twan de Vos (1961-2019) was a well-known artist from Wageningen. As a tribute to this versatile artist, Forum Library is hosting a small exhibition of his work. His colourful, expressive figurative art is on display in Forum Library until February 2020.

### Answers to News Quiz (p.16-17)

1d, 2b, 3a, 4c, 5d, 6d, 7d, 8c, 9a, 10 (a4/b2/c3/d1), 11c, 12a, 13d, 14c, 15b, 16a, 17b, 18c, 19a, 20 The building has no name yet.

## 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](http://resource-online.nl). The magazine is published every fortnight on Thursday.

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**Science Cafe Wageningen**  
[www.sciencecafe.wageningen.nl](http://www.sciencecafe.wageningen.nl)

Music by: Troubagroove

**Attention in a distractive world**

Thursday, Jan 16th  
Café Loburg  
19:45 Live music  
20:15 Science  
FREE ENTRANCE

Speakers:  
Prof. Stefan van der Stigchel (UU)  
Prof. John van Opstal (RU, Donders Institute)

Partners:  
KLV  
WAGENINGEN UNIVERSITY & RESEARCH  
RESOURCE

# >>TYPICAL DUTCH



ILLUSTRATION: HENK VAN RUITENBEEK

## Certified swimmer

**Little did I know about the Netherlands before arriving in Wageningen. I soon found out it's surrounded by plenty of water, it's even below sea level and almost every Dutch person can swim. I have been afraid of water my entire life and never learned to swim. I even hated the outings with my friends that involved a kayak, boat or anything else related to water.**

Through a Dutch friend I found out about this Thymos swimming course for internationals. Initially I was reluctant, but after meeting the teacher and seeing there were other adult internationals at the course I signed up. In just two months I learned to swim and my teacher Natasha invited me to take the exam. The idea of becoming a certified swimmer sounded fun and who doesn't like that extra little accolade? So I said yes, without knowing what I was signing up for - until the day of the exam.

On exam day I was surprised by the ambience of the pool – all decorated, as if it was a big festival. My fellow participants were only five-year-old kids, their parents sitting around the pool area to witness their success. Since I was the only adult, I had to begin every drill of the exam – followed by all the kids. 'Nobody knows me here, so just do your thing and get it done,' I said to myself.

However, my sneaky friends knew about my exam and to my surprise they were in the audience to cheer. I found out that the swimming diploma is the very first exam Dutch kids will ever take and as a reward they get a medal and a diploma. It's a nice occasion to celebrate with family and you get some presents and an 'ijsje'. I got the same from my friends. This typical Dutch experience will stay with me forever. **Suraj Jamge, Knowledge Valorization Officer, Corporate Value Creation (CVC)**

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

**'The pool was all decorated, as if it was a big festival'**