

Resource

NOVEMBER 2024 VOLUME 19

The journalism platform for all at Wageningen University & Research

Idealis tests
interview model

9000th PhD
at WUR

Data Science BSc
gets go-ahead

Fewer new members
for societies

Crane Radar
is now more
accurate

**Are we still
the best? p.12**



Contents

FOREWORD

NO 1 VOLUME 19



16

Urban farming



20

How does a student house get its character?



26

Interviews or get allocated: what do students think?

5 One supplier for all WUR book purchases

7 PhD candidate catches stock-market spoofers

8 Live & Learn: insecurity and stress

11 Joshua's column: Internationalization and keeping silent

34 Meanwhile in Valencia

Read the latest news and background stories at resource-online.nl



Change

The world around us — and around WUR — is constantly changing. For decades, Wageningen was clearly the place to be if you wanted the latest insights and top experts in food and agriculture, but is that still the case? There has undeniably been a spectacular increase in scientific publications from China, while WUR is slowly sliding down the rankings. Chinese scientists now produce half as many publications again as their European colleagues and twice as many as the US. Should we face the facts in Wageningen? Are we really still the best (p.12)? Everyone knows biodiversity is doing badly, both in the Netherlands and worldwide. But change can be seen there too if you look carefully enough. The biodiversity summit in Colombia at the end of October generated a lot of negativity as there were no major breakthroughs, yet Professor Liesje Mommer still sees possibilities for improvements (p.25). Inspiration for change can also be found by looking to the past, claims the renowned British food journalist Dan Saladino, who gave a talk in Wageningen. Like Mommer, he is concerned about the loss of biodiversity and the way our food system damages the planet. He argues we should return to older forms of cultivation (p.24). What remains unchanged is our call to you: do you have any comments about our articles or ideas or topics you think we should look into? Then let us know by contacting resource@wur.nl.

Willem Andréé
Editor





WUR WILL BE PROTESTING

The new government is planning big cuts in higher education and research. On Thursday 14 November, students and staff from Dutch universities will be going to Utrecht to protest against these plans. WUR folk who want to join the protests will get the day off, and students won't be required to attend practicals or lectures. Michiel Köhne (right) and Sven da Silva, both from the Social Sciences department, organized two sessions in which people could make protest signs and banners. The red square is a key component: it symbolizes activism in research and education and is used around the world. *by*

Photo Guy Ackermans

Idealis tests Utrecht's interview model

Tenants in student houses where rooms get allocated based on time spent on the waiting list have no say in who their new flatmate will be. Not everyone is happy about that.

So now student accommodation provider Idealis is testing the Utrecht 'hospiteren' model which combines time on the waiting list with interviews. The ten students who have been on the waiting list for longest get interviewed by the current tenants. Idealis director Bart van As emphasizes this is a pilot for an additional method for allocating rooms. 'The Utrecht model will not replace the "traditional" Wageningen *hospiteren*. We see it as a potential extra method alongside regular *hospiteren* and allocation purely based on waiting list times.' The pilot has been

in operation since the Costerweg complex became available in April 2023 and will also apply in the new Marijkeweg 20 complex. While the trial has been running for some time, it was a while before people were moving in large numbers and tenants noticed the effects of the new model.

Freedom of choice

In the traditional Wageningen *hospiteren* model, the tenants decide who to invite for an interview evening. The only condition is that the new flatmate must be registered in ROOM.nl and be studying in Wageningen or Ede. So the tenants can say applicants have to be of a specific gender, to speak Dutch or to be members of a specific society. The Utrecht mixed model does not offer that freedom. Van As: 'Many Idealis



tenants value the freedom of choice but it isn't fair on people looking for a room who don't get through the *hospiteren* "beauty contest" so easily. In theory, the Utrecht model should offer the best of both worlds. Now we're trialling it to see whether it works for Wageningen.' LZ

Point of View: what would you do if you were Idealis? See page 26.

Advertisement



MCB-51403: Commodity Futures & Options Markets

Always wondered about what is happening at the trading floor of exchanges like the ones in Amsterdam, Paris, Frankfurt, London and Chicago? Wondered about how (agribusiness) companies manage their risks and improve their financial performance using commodity futures and options markets? Wondered about how it would be if you were trading commodity futures in Amsterdam, Chicago, London, Frankfurt and Paris?

The *Marketing & Consumer Behavior Group* organizes a unique course that will introduce students to commodity futures and options markets. Students will develop an understanding of the markets and how they work, gain knowledge about the theory behind futures and options markets, identify their economic functions, and develop an analytical capability to evaluate their economic usefulness. This course is taught by Philippe Debie and Prof. dr ir Joost M.E. Pennings (*Marketing & Consumer Behavior Group*, Wageningen University). There are only 40 seats available. If you are interested in taking this course (3 Credits) please register in Osiris or contact Ellen Vossen, e-mail: Ellen.Vossen@wur.nl, tel. 0317-483385. Lecturers are on Fridays in period 5 (one lecture is on Thursday), one day a week, please check schedule in TimeEdit for time and location. Prerequisites: None.

Francerious Request helps toy bank

Seven KSV Franciscus members will be broadcasting non-stop between 22 and 24 November. The association and its members will also be organizing a variety of activities to raise funds for a local charity. This year's charity is the Speelgoedbank (toy bank), an organization which collects toys for disadvantaged families in and around Wageningen.

Francerious Request started as a tongue-in-cheek fundraising initiative during the COVID-19 pandemic but has since developed into an annual tradition. Each year, there are different activities, but the basis remains the same: a radio marathon to raise money for a local charity.

Roos Donkers is KSV Franciscus' current chair. 'Seeing Francerious Request grow bigger each year is great. Members inspire each other with their activities and that motivates others to do their best to raise money for a charity. This is not just about giving back to the community, but also about creating a sense of togetherness within our association.' Want to stay informed? Follow @franceriousrequest on Instagram.

1426

Single supplier for WUR book purchases

On the reference date of 1 October this year, there were 1426 new first-year Bachelor's students. That is 3.5 per cent less than in 2023, when there were 1477. The intake of international Master's students fell slightly but enrolments of Dutch students went up, keeping the total intake of first-year MSc students about the same. At 12,733, the overall WUR student population is down by 2.5 per cent on the student population of 13,057 in 2023. ^{LZ}

WUR employees will no longer be allowed to buy books for work through Amazon, Bol or the local bookshop Kniphorst. As of next year, the sole supplier will be Erasmus Boekhandel Amsterdam. The change was necessary due to EU tendering rules, says Alex de Kruijff (WUR Library). WUR spends 350,000 euros a year on book purchases. The library accounts for one third of that, while individual staff account for the other two thirds (about 4000 books). There are some 400 to 500 orders per year. The library already gets its books from Erasmus, and now staff will have to do the same. The advantage for WUR of dealing with the one supplier is that it gets attractive discounts. ^{RK}

9000th PhD at WUR

WUR's PhD factory has reached another milestone. When Shiyi Zhang from China got her doctorate last week, she brought the number of PhDs up to 9000. This milestone was achieved 104 years after Wageningen's new higher education institution handed out its first doctorate.

That first thesis was on colonial forestry on Java. Zhang got her PhD for her work on pig digestion kinetics. The research followed on from her Master's thesis on the same topic eight years ago in the Animal Nutrition chair group. After graduating, she first spent three years working for a commercial company in China.

Shiyi Zhang (32) was born in Harbin. She studied initially at

Nanjing Agricultural University, then did her Master's at Wageningen. Her PhD research was part of the Agricultural Green Deal development programme involving WUR and China, and she did some of the work in China and some in Wageningen. The Covid pandemic caused significant delays.

Record year

Rector magnificus Carolien Kroeze personally chaired Zhang's defence of her thesis. Kroeze called the 9000th PhD an 'impressive achievement'. WUR is producing PhDs at a considerable rate, averaging about 300 a year over the past ten years. The 5000th PhD was in 2011, the 6000th in 2015 and the 7000th (for another Chinese researcher) was

in WUR's centenary year 2018. The number of PhDs per year is growing. Last year, WUR achieved a record number of 359 doctorates. That record is likely to be broken this year with an expected 381 PhDs. Before Covid, the annual production of PhD theses was

about 300. The PhD factory is good for WUR's finances as each thesis qualifies WUR for a bonus of about 70,000 euros. Most of that money goes to the chair groups. ^{RK}



Rector Magnificus Carolien Kroeze, PhD candidate Shiyi Zhang and beadle Renata Michel. Photo Guy Ackermans

Societies get fewer new members

Wageningen's student societies have fewer new members than last year, *Resource* found after asking around.

WSR Argo, KSV Franciscus and SSR-W all three have a smaller intake this year. WSV Ceres is the only large society to see a big increase: whereas last year it had 'only' 110 new members, this year it has welcomed 163 new members.

Numbers of first-year members have fallen in other university towns too, show figures from the National Federation of Student Societies. Christel Konings of the Wageningen Federation of Student Societies says 'we shouldn't complain': 'Of course some societies are a bit disappointed in the numbers, but fewer people were at the AID week and we have fewer new Dutch students. Add to that everything that's going on in terms of the slow student fine, smaller grants and other uncertain factors, and I think the societies should be proud of what they *have* achieved.' LZ

Read more on resource-online.nl

Data Science clears final hurdle

The Data Science for Global Challenges Bachelor's programme can start. The curriculum for the new degree programme was subjected to a critical evaluation on Wednesday 6 November by a panel from the Dutch and Flemish accreditation organization NVAO. The day ended with the panel giving its approval. This New Degree Assessment, as it is called, resulted in a go-ahead, subject to certain conditions. That means a few details need to be improved in the next while.

The assessment is the final hurdle in the accreditation of a new degree. The recommendations will be worked out and sent within a month. Officially, the new BSc programme can only start once the NVAO board takes that decision, but the board always follows the panel's advice.

The new Bachelor's programme differs from other Dutch data science degrees in its combination with the life sciences, explains Dean of Education Arnold Bregt. 'We will be training creative bridge-builders.' The new programme is expected to start in September 2025. LZ

Advertisement

Vacancy

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



From January 2025: two student seats are vacant on the Board of Education

Your responsibilities / opportunities

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

Your qualities

You have a passion for education and ideas to develop and innovate WUR education. You are proactive and you have a critical attitude. Preferably, you have prior experience on a (programme) committee, a board or similar.

You study in the domain of **Life Sciences** (BAS, BBI, BPW, BMS, MAM, MAS, MBI, MRF(MOA), MPB, MPS) or **Food & Nutrition** (BAT, BBT, BFT, BML, BVG, MBE, MBF, MBS, MBT, MFQ, MFS, MFT, MML, MNH, MDS). Students from other programmes are ineligible.

You receive three months of FOS per year and €40 per meeting. The appointment is for one year, with up to two reappointments.

Interested?

Send your CV and motivation letter, in English, *before 25 November* to boardofeducation.secretary@wur.nl The interviews with candidates will take place in the week of 2 December. wur.eu/boardofeducation



PhD candidate catches spoofers

Financial Markets researcher Marjolein Verhulst developed a method for detecting dubious orders in futures markets. She recently obtained her doctorate for this research. Interestingly, it is based on techniques used by CERN for modelling the behaviour of elementary particles. Text Roelof Kleis

The analogy between colliding particles and stock-market transactions derives from the fact that both are examples of big data where you are looking for a needle in a haystack. In particle physics, you are searching for that one deviant collision that could point to a new particle. In financial markets you want to detect that one deviant transaction that indicates possible fraud.

Professor of Commodity Futures Markets Joost Pennings was struck by that analogy four years ago during a tour of CERN. He secured funding for this research and took on Verhulst. She focused on spoofing, the practice of placing a fake order with the aim of driving up prices. 'The fake order is then withdrawn and the trader sells their contracts at the new, higher price,' explains Verhulst. 'But that is not allowed.'

According to the researcher, the essence of spoofing is that the trader doesn't intend going through with the purchase. But how do you demonstrate that? She used CERN's ROOT software to visualize transactions from the market's order books. She then applied the visualization method to a well-known case involving manipulation and the US bank JP Morgan. It worked and she was able to literally make the spoofing visible.

Strict

That showed the principle is right, but more is needed to prove spoofing in a court of law. Verhulst: 'I then went through 204 cases of spoofing to see whether there were common characteris-



tics. That revealed about 80 indicators of spoofing. It was a painstaking task.' She then selected seven criteria that were determining factors for spoofing.

Verhulst used this framework to ana-

'The German stock market is using my method and has already uncovered something'

lyse data from an American agricultural commodities futures market. Her analysis revealed more than 248 thousand spoof orders. 'That might seem a lot but it's less than 0.17 per cent of all orders,' says Verhulst. 'I actually thought it would be worse. But we were very strict in the criteria we chose.' In other

words, the actual amount of fraud is probably more than what is shown by the criteria.

Uncovered

Verhulst can't say how many traders are involved in the fake transactions. 'We only see the data, but the regulatory authorities have the traders' names as well. Our goal was to detect market manipulation. The regulators need to make sure the markets are safe. We developed this tool for them, and now they are using it. The German stock market is using my method and has already uncovered something, which is nice.'

[Live&Learn]

A botched experiment, a rejected paper: such things are soon labelled as failures in academia. As for talking about them — not the done thing! But that is just what WUR scientists do in this column. Because failure has its uses. This time, we hear from **Margaréta Banas, a Master's student of Resilient Farming and Food Systems.** Text Nicole van 't Wout Hofland • Illustration Stijn Schreven

‘Two months ago, I started my Master's thesis on how farmers' decisions on food production are influenced, and how we can map that. My supervisor and the project partners had a lot of confidence in both the project and me. With an average of 9.5 for my Bachelor's degree in Slovakia, I was one of the top students of my year. But here in Wageningen, the pace is much faster. To keep up, I have to work harder and I have less time for sport and free time. Even though I am still doing reasonably well academically, studying now requires much more energy and effort.

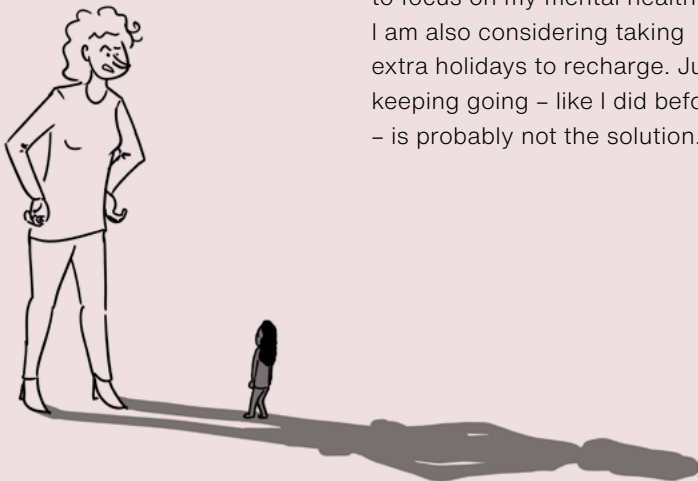
That started to impact my self-confidence. Researchers around me kept saying: ‘This is your thesis, you need to own and steer it.’ But in practice, several researchers are involved in my project, and they all give me advice and instructions. With good intentions, of course, but it feels like I am standing in a

maze, with everyone pointing me in a different direction. How am I supposed to find my own path? The low point came during a meeting with one of the project partners. She fired off questions at me at a rapid pace and

‘It's like I am standing in a maze, with everyone pointing me in a different direction’

I just did not have the answers. I felt myself shrinking and was paralysed by stress. Then she asked me why I was even doing this research if I knew so little about it. That was painful. At that point, I seriously considered quitting.

After this failure, I am still working on getting back on my feet. Rationally, I know I can finish this thesis, but I do not want to be overwhelmed by insecurity and stress. Therefore, I am now seeing the student psychologist and attending a support group to focus on my mental health. I am also considering taking extra holidays to recharge. Just keeping going — like I did before — is probably not the solution.’



Vidi for tackling potato sickness

Nematodes that harm plants are difficult to combat. Now nematologist Mark Sterken has been given a Vidi grant to try a different approach. His approach is to keep them at bay rather than attempt to wipe them out. He is one of five WUR researchers who got Dutch Research Council Vidi grants for innovative research.

At the heart of his study are the nematodes *Globodera rostochiensis* and *Globodera pallida*, which cause potato sickness. Both nematodes are found in large numbers in affected soils, where they fight one another constantly. Continuing to make potatoes yet more resistant is not the answer, says Sterken. ‘If you make them resistant to the one, the other turns up, and vice versa.’ ‘Anyway, the nematodes always find it easy to break down that resistance,’ continues Sterken. ‘And the number of known resistance genes is limited. So you need to make smart use of the resistance you do have.’ To do that, Sterken calls on the help of the nematodes themselves. ‘I will try to set the nematodes off against one another.’ He will investigate that by creating genetically diverse populations of the different species of nematodes that cause potato sickness.

Competition

Sterken then looks at how the populations compete with one another to get the potato. ‘I let them compete and examine the outcome to figure out why one population manages to get ahead of the

‘I will try to set the nematodes off against one another’

other. In the end, this should lead to new control options. You can learn how to play with the resistance to keep the nematodes at bay, or use those same nematodes to fend off other species.’

In addition to Sterken, microbiologist Nico Claasens, soil geographer Annegret Larsen, historian Pim de Zwart and communications scientist Sanne Kruikemeier also received Vidi grants. A Vidi is worth 850,000 euros. In total, 102 researchers at Dutch universities got Vidis. ^{RK}

New Crane Radar is more accurate

Now the autumn migration is about to start, Koen de Koning (Environmental Sciences Group) has launched a new version of 'his' Crane Radar. Similarly to the radar app for rain, this has a grid with colour codes showing the likelihood of a previously spotted group of cranes flying over a given location in the next ten minutes. Text Marieke Enter

In the previous version, the likelihood could be deduced from a kind of coloured blot that predicted the path of the cranes based on wind speed and direction. Now the path predictions are more accurate thanks to a new algorithm that also takes into account the estimated speed at which the birds are flying. The new version uses coloured blocks

'I love that interaction with people in the field. It immediately gave me ideas on how to improve the radar further'

of pixels to show the probability of a group of cranes being in your location. The location is marked by a black dot on the map. If the dot is in a block that has no colour or is light blue, the likelihood of the cranes flying overhead is negligible, but an orange or red block indicates a much bigger chance.

Map layers

Another new aspect is that users can call up multiple map layers and superimpose them — for example a layer with wind directions on one with the observations the Crane Radar is based on (through Waarneming.nl).

De Koning was able to confirm the new version works well at the end of October when the first flocks of cranes flew south across Limburg. 'I was in contact with people there through a birdwatching WhatsApp group. They confirmed



Cranes in Diepholz, Germany • Photo Shutterstock

what I could see on the radar: that the birds were flying slowly due to headwinds. I love that interaction with people in the field. It immediately gave me new ideas on how to improve the radar further, for example by taking account of the association between wind speed and flight behaviour.'

October saw the publication of an article by De Koning on the models underlying the Crane Radar. If you want to test the radar in practice, you will have a good opportunity over the next few weeks as the autumn migration can last until mid-December.

Also for bears, wolves and elephants

The Crane Radar started out as a hobby project, says De Koning, even if it has long outgrown that stage. 'I am a big fan of cranes but I was always too late and in the wrong place to see them. But of course it's really just a question of properly mapping the observations and having better predictions.'

The Crane Radar is one of the first concrete applications of digital twin technology in ecology, but there are more ideas. 'We are currently investigating whether it could also be used to track "problem bears" in Eastern Europe. If you know where the bears are active, you could calculate the likelihood of risk areas, which would allow local residents to take precautionary measures and protect their livestock. This approach may also work for problem wolves. Outside of Europe, we are looking at applications for preventing elephant conflicts, in Mozambique in particular. I definitely see opportunities for its use more widely in wildlife management.'

PhD theses **in a nutshell**

Caught out!

Ships' engines emit polluting nitrogen oxides, for which rules have been laid down. But how can you find out whether a ship in the middle of the ocean is sticking to the rules? Christoph Riess, a German PhD candidate, successfully uses satellite images to examine the fumes from ships for nitrogen oxides. With some unexpected results. It turns out that newer ships actually emit more nitrogen oxides per horsepower than older ones. So the rules need revising, says Riess. ^{RK}
Spaceborne monitoring of nitrogen oxides emissions from ships with TROPOMI. Christoph Riess ◀ Supervisors Wouter Peters and Folkert Boersma

Drunken flatworms

Some of us can take our drink better than others, and why that is, nobody knows. It is clear that genetics play a role in it. PhD candidate Marijke van Wijk used wild strains of the roundworm *C. Elegans* to study this. Just like humans, *C. Elegans* reacts strongly to alcohol. A drunken roundworm crawls differently to a sober one. Van Wijk identified several places on the genome of the worm that are related to that motor effect. Genetic differences are also behind the fact that some worms break down alcohol faster than others. The effects of that appear to be hereditary too. ^{RK}
From alleles to adaptation. Marijke van Wijk ◀ Supervisor Jan Kammenga

Less methane

Cows produce relatively large amounts of the greenhouse gas methane. So sustainable agriculture benefits from breeding livestock that emits less methane. PhD candidate Anouk van Breukelen studied the potential for this. Sustainable breeding starts with a method of selecting cows for their methane output. She has demonstrated that a 'sniffer' that detects the gas in the breath during feeding does the job. She has also shown that breeding for reduced methane emissions does not preclude breeding for other desirable (production-related) characteristics. That is good news for the farmers. Time to get to work, then. ^{RK}
Breeding climate smart dairy cattle. Anouk van Breukelen ◀ Supervisor Roel Veerkamp

THE PROPOSITION

PhD candidates explain their most provocative proposition. This time it's the turn of Marie-Luise Puhmann, who received her PhD on 9 October for a study of the effect of nutritional fibre from chicory on bowel health.



Researching the biological female body is key to addressing current unexplained interindividual variations.

'My PhD research was about bowel and metabolic health. I was struck by the fact that women suffer from bowel problems more than men do.

'For the HappyFiber study, we are looking for an equal number of men and women with bowel problems. But at the moment the response we've got is almost exclusively from women, and we don't understand why that is. Why does one half of the population have more difficulties than the other? We also noticed that women who have signed up for this study often also suffer from endometriosis, a condition in which the mucus membrane in the uterus grows outside the uterus as well.

The female reproductive system is very close to the intestines and the two influence each other. When women are

menstruating, they need to go to the toilet more frequently. The cycle has an impact on bowel movements. Hormones that are produced to get the uterus to contract during menstruation have an impact on the surrounding organs such as the bowel too.

If we are to gain a real understanding of how a woman's body works, we need to do more research on it. After that, we can compare it with the way a man's body works. In the older literature there are only studies of men, based on the idea that the research "will not then be hampered by the interference of the hormones". That is nonsense of course. That is simply how the body of half of the world population works. It's ludicrous to exclude women because a man's body "is just easier" to measure.' ^{dv}

Internationalization and keeping silent



Joshua Wambugu

The future of internationalization is on the brink. In October the Dutch minister of Education Eddo Bruins announced additional rules to reduce Englishification in higher education and the influx of international students. This raises curiosity about how WUR's international classrooms would look without the diversity of the international students. It also poses a critical question: whom does the internationalization benefit, or who is it really meant for?

From a business perspective, international students, particularly those from non-EU

Lack of openness simply creates an assumption that WUR is a 'silent' supporter of the Dutch government's policy

national classroom is that it broadens the educational approach so that local (Dutch) students get different international perspectives on global challenges: a good preparation for an international career.

countries, are a financial boon for many Dutch universities. And the reality of the inter-

The current Dutch government is clear on its intention to rein in international inflow by limiting English-taught Bachelor's and Master's programmes. Unfortunately, WUR has been reserved about offering its views on this. The silence doesn't come as a surprise considering WUR is itself working on curbing the international inflow by imposing a compulsory English proficiency test on all applicants, with exemptions for those from Australia, Canada, Ireland, New Zealand, Singapore, South Africa, UK and USA. In keeping with its top rankings in several categories, particularly its having been the best University in the Netherlands for the 19th time in a row, WUR needs to demonstrate openness and announce its position on the internationalization issue. Lack of openness simply creates an assumption that WUR is a 'silent' supporter of the Dutch government's policy. WUR's position has a great influence. In the past, we have witnessed Dutch farmers occupying the campus to protest against government plans to shrink the dairy sector to address the nitrogen crisis. WUR must be bold and proactive rather than passive and unheard. Regardless of whether WUR leans toward abolishing or towards rebalancing the internationalization strategy.

Joshua Wambugu (41), from Kenya, is a PhD candidate in the Marine Animal Ecology and Environmental Policy groups. He is a Social Safety Guide and he loves cooking, hiking and birdwatching.

WUR is slowly falling in the rankings

Are we still the best?

For many people, the best agricultural university in the world is in Wageningen. But is that still true? And is the phenomenal rise of Chinese science a threat to that status?

Text Roelof Kleis • Illustration Valerie Geelen

At the start of 2016, the champagne flowed on the sixth floor of Atlas, the administration building. Wageningen University & Research could officially call itself the best agricultural university in the world, according to the reputable British QS ranking. For the first time, WUR overtook the American universities UC Davis and Cornell in the fields of agriculture and forestry. The first Chinese university in the ranking, the China Agricultural University (CAU) was in position 22 at that point. Less than ten years later, things are looking quite different. WUR is still in pride of place at the top, but CAU has climbed to eighth position. And it is not alone in that climb. In the past decade, China has grown into an 'R&D superpower', declared the Rathenau Institute in a study published in August. Its power comes from investments, the institute concluded. Thirty years ago, China invested the same amount in science as the Netherlands, a small coun-

try. Then things changed fast. When the champagne was flowing at WUR in 2016, Chinese investments surpassed for the first time those of the entire European Union. China currently has the most scientists in the world. And only the US still spends more on scientific research than China.

This investment leads to measurable scientific achievements. Since 2019, the majority of scientific publications, a key factor in the scores that determine the ranking (see p.14), have come not from Europe or the US, but from China.

That is shown by figures – based on the Scopus database – from Ellen Fest, head of Research Support at WUR Library. Ten years ago, Chinese researchers published half as much as their European and American counterparts. China overtook the US in 2019, and Europe two years later. The leap in production of the past three years has been particularly spectacular, and Chinese scientists now produce half as much again as their European counterparts, and twice as much as those in the US. And this includes academic domains that have traditionally been WUR's strengths.

Achievements

'And those figures are not just about the actual publications,' says professor of Soil Biology Jan Willem van Groenigen. 'The number of articles submitted is a lot bigger than that. You can't see that from Scopus, because we don't know

'The Chinese government has invested an awful lot in science'

'Apart from a few areas, we are not the best anymore'



Since 2019, China has been responsible for the biggest number of scientific publications, rather than Europe or the US as in the past.

what editors have rejected. But I do know the figures for *Geoderma*.' Van Groenigen is editor-in-chief of that leading soil sciences journal. 'We get about 2300 articles a year. Three quarters of them come from China. About 15 per cent of those get into the journal. We are seeing the same trend as you see in the library's graph: China overtook the US about three years ago, and the EU a bit later. In the journal, it means that 45 per cent of the published articles now come from China. Next comes Europe with 32 per cent and then the US with only 11 per cent.'

Professor Han Zuilhof (Organic Chemistry) is not surprised by the boom in Chinese science. He regularly spends time in China as a visiting professor.

'The Chinese government has invested a lot in science. Over the past few decades, the big manufacturers of scientific apparatus have sold up to 70 per cent of their goods in China. I've seen expensive equipment that we've been haggling to get for years sitting idle in a corridor there, because no one's had time to unpack it. That level of investment is reflected in the output. Chinese society also expects a lot of its citizens. For many Chinese scientists, excellent performance is a must for finding a job and making a living. The competition is fierce and everything revolves around output and impact factors.'

The increased rate of publication is reflected in the diverse rankings of

universities. The Chinese universities score well in rankings that only look at the number of articles and citations. In the Leiden Ranking, for instance, eight of the ten most productive universities in the world are Chinese. In the Wageningen domain (life and earth sciences), seven Chinese universities are in the production top ten, with WUR in eleventh place. But Chinese science is keeping its end up qualitatively too. 'There's been a massive improvement in the





average quality of the Chinese articles we are sent in recent years,' says Van Groenigen. Here too, the figures speak for themselves.

Distorting

But Dean of Research and editor of three journals Wouter Hendriks has a side note about that development. 'Most of the Chinese research is along the lines of 'the effect of this on that.' It is more of the same. There isn't very often a hypothesis behind it. As an editor, I reject a lot of Chinese research because the quality is not good enough in my view.' Van Groenigen perceives the same lack of originality. 'The average quality is good but there are relatively few really excellent articles among the Chinese studies. I don't see very many great ideas or big names. We reject four times as many Chinese articles as European or American ones.'

'The pressure to perform in Chinese scientific circles stimulates opportunism,' says Zuilhof. 'In order to climb the ladder several articles are written about the same subject. Nobel Prize work is all about originality, about research that people do because it's cool and not because it scores citations.'

Hendriks also points out how rankings can have a distorting effect. 'Rankings can be influenced by things like self-citation. I asked the library to analyse that a few years ago. Chinese researchers reference other Chinese researchers

'What does a ranking really tell you? In the sciences, I think reputation is far more important'

nearly twice as often as foreign studies.' And then there is the impact of predatory journals, which 'are only made to earn money', says Hendriks. 'Among those journals, the review process is less strict and everything that is submitted gets published. After all, more articles mean more references, and therefore a higher impact factor for the journal. And so the whole system becomes

commercialized. The volume of output increases but quality goes down across the board. While we used to have faith in the review process, you have to take that with a pinch of salt these days. It is much more up to the reader to assess the quality.'

And how is WUR faring on the publication battlefield? Are we still the best? No, says Hendriks decidedly. 'Apart from a few areas, we are not the best anymore. We are still the best when it comes to educating students. But we are slowly falling down the rankings.' And he doesn't think it will be easy for us to reclaim the lost ground. 'In terms of quantity, we're never going to win as an

RANKING THE STARS

Positions in a ranking depend a lot on the indicators used by its creators.



Leading rankings in the sciences are the Times Higher Education (THE) and Quacquarelli Symonds (QS). Both these look not just at research impact (number of papers and citations) but also at the institution's education and its scientific reputation among peers and in the business world. As an agricultural university, sub-rankings matter most for WUR. In QS, WUR has been number one for Agriculture and Forestry since 2016. For Environmental Sciences, it is number two, between Harvard and Oxford.



The National Taiwan Ranking emphasizes impact and excellence, and does not score for reputation. A lot of weight is given to the number of top publications in a subject area. In the broad domain of Agriculture, Environmental Sciences, Ecology and Animal Sciences, WUR is in first place, followed by CAU in China, and the Swiss Federal Institute of Technology. In Agriculture, WUR has had to give way to CAU, and there are five more Chinese universities in the Agriculture top ten.

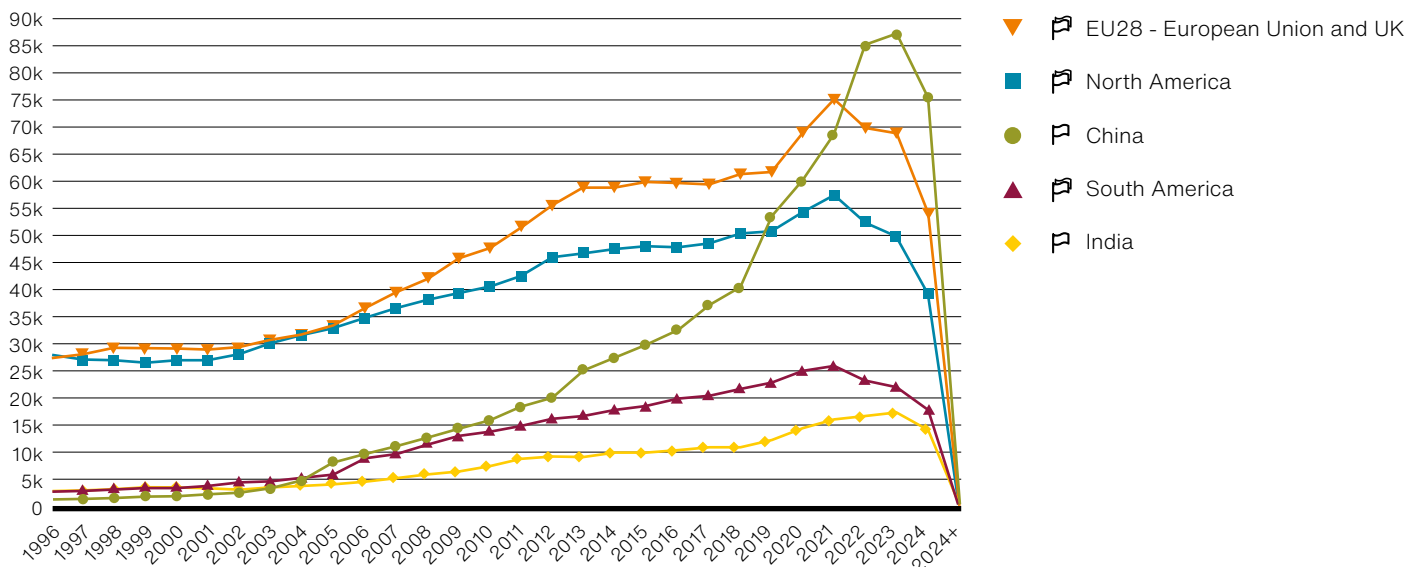


The Shanghai Ranking is based on international collaboration as well as the impact of the research (citations and publication in top journals). For Agriculture, WUR is in third place, after the Chinese universities Northwest A&F University and CAU. After WUR come five more Chinese universities in the top ten.



The Dutch Leiden Ranking is also mainly based on bibliometric impact. In the Life and Earth Sciences, WUR is in seventh place for the number of top articles (in the best 10 per cent) it produces. Above WUR are six Chinese universities, led by CAU.

Number of scientific publications since 1996. Source WUR Library



organization anyway. The only strategy is to go all out for quality. In my chair group, for example, we've made a list of journals we would like to be published in. Journals with a good review process, which we are happy to be associated with. WUR needs to focus on quality, and we mustn't go along with all the benchmarking. Utrecht University has stopped participating in rankings. We should do the same.'

Impact

China coordinator Xiaoyong Zhang is equally clear on the subject. 'If you look at the various international rankings, WUR is no longer at the top. Especially not in the domain of nutrition research. But it depends how you look at it. According to the Dutch universities guide *De Keuzegids* WUR is still the best Dutch university.' The rapid rise of the Chinese universities has certainly had an impact, says Zhang. 'We can see that from the big drop in the number of Chinese students who have enrolled here this year. I actually think WUR should embrace the progress made by Chinese universities. It makes us more equal partners. We shouldn't see it as a competition, but as an opportunity for a stronger partnership and joint innovations.'

Idiotic question

'Actually, I think whether we're the best is an idiotic question,' replies Wopke

van der Werf of the Centre for Crop Systems Analysis. He collaborates a lot with Chinese universities, and goes to China frequently. 'China is super-ambitious. They are eager to be a world leader in many areas, and they're working hard on it. But what does a ranking really tell you? I'm a ranking agnostic. In the sciences, I think reputation is more important. As a researcher, it's very important to make a name for yourself so that other people link your name to a subject area, with a positive feeling about it. That reflects on the university. For CRISPR-Cas, we've got John van der



Oost. Ken Giller is a big name in farming systems in Africa. And Paul Struik has a fantastic reputation in agronomics and the ecology of the potato. I think Wageningen has a relatively large number of people with a high standing in their scientific field.' This impression is confirmed by a recent Elsevier report, *Global universities' and institutions' contributions to agricultural biology and technology innovations*. Among the institutions with the most top scientists (ranked as the best two per cent) in agriculture, WUR is in third place with 105 researchers. Only UC Davis (119) and the US Department of Agriculture (243) are ahead of WUR. The Chinese Academy of Sciences (77) and CAU (58) follow at a distance in the top ten. 'I think we are still number one, actually,' says Van Groenigen after giving it some thought. 'In terms of ideas and insights, and the quality of the people. That is incredibly important, because it all starts there. But the question is: how long will it be like that?' Maybe we shouldn't worry too much, he thinks. 'What counts is that others still see us as number one. It's a bit like what Margaret Thatcher once said: "Being powerful is like being a lady. If you have to tell people you are, you aren't".' ■

URBAN FARMING

The residents of Oosterwold, a living lab for urban agriculture, are all doing a bit of farming. And it's not a walk in the park, shows a study by PhD candidate Jan Eelco Jansma.



Text Roelof Kleis

Oosterwold is a sprawling suburb to the north-east of Almere town centre. On its 600 hectares, an experiment has been going on here since 2016, aimed at combining urban life with farming. There are now about 5000 residents, and this is just the start. On the other side of the A27, in the neighbouring municipality of Zeewolde, a much larger section of Oosterwold awaits development.

Jan Eelco Jansma can rightly consider himself the founding father of urban farming in Oosterwold. Back in 2009, *Resource* reported on his dream of getting this ambitious plan off the ground. This month, he will receive his PhD for a sociological study of the planning and implementation of the neighbourhood. It was he who prompted the urban planners of Almere to go down the route of urban farming. They were sceptical at first. 'Who wants to live in the middle of a field of potatoes?' was the scathing response. Jansma made that comment the title of his thesis.

Oosterwold is a combination of 'wild' living and urban farming. 'Wild' refers to self-build projects. 'People here are at the helm in the development of their neighbourhood,' explains Jansma. Self-organization is the driving principle. And the main planning rule is that half of each plot (51 per cent, to be precise) must be used to produce food. How you carry out that task is

up to you. And that freedom produces attractive and extremely diverse housing. There's no other place like it in the Netherlands.

Vegetable gardens

But the freedom poses a bottleneck as well, especially when it comes to developing urban farming. 'The municipality has left that development too much to chance,' is one of Jansma's conclusions. 'Residents do have to submit a plan in advance, outlining how they are going to produce food, but the implementation is not monitored.' When analysing drone images a few years ago, Jansma saw that less than one third of the residents achieved the norm established for urban farming. That was a disappointment for him. What is more, the farming that was going on often didn't extend beyond a vegetable garden. At that rate, says Jansma, the goal laid down in the plans, of having Oosterwold supply 10 per cent of Almere's food needs, is not feasible.

Various reasons can be identified for this disappointment. 'It was the decision of the planners back in the first phase of the development of the neighbourhood to do things this way, partly to keep project developers out of it,' says Jansma. 'But they envisaged a much more diverse landscape, with smallholdings here and there, for example. In practice there are mostly houses with vegetable gardens, and the area has become a random patchwork.' That fragmentation is partly related to the ever-rising land prices, making for ever-smaller plots.

'IT WAS SNEERED AT AS
MICKEY MOUSE FARMING'

Then there is the fact that not all the residents are equally interested in producing food. Jansma: ‘Of course, people want to live here for more than one reason: beside the urban farming, there’s the green environment, the proximity to Amsterdam, the price of the land (in the early years especially), and the chance to self-build. There is a group of diehard urban farmers, but there are also residents who have no interest in that at all, and just plant a few fruit trees to satisfy the rules. And farming is a skill. The majority of the residents do feel an affinity with the idea of urban farming but lack the knowledge and skills to engage in it.’ Nevertheless, you couldn’t call Jansma’s project a failure. The gardens of Oosterwold do produce food. ‘But you’re never going to feed a town with urban farming. We still need conventional farming. You should see urban farming as the new cousin in the agriculture family. It has its place in the full palette of food production methods. Gearing an entire neighbourhood to it is a planning choice. I think it was cool of Almere to give this radical approach a try. And yes, when you do that, not everything will go to plan. But Oosterwold has also challenged a lot of people to try some kind

of urban farming. There is now a colourful range of bakeries, care farms, vineyards, pick-your-own gardens and tea gardens. Not to mention the organic farm Vliervelden, with its residential community.’

Odd ones out

Jansma emphasizes that Oosterwold is certainly not a blueprint for planning urban farming. ‘Could it have been done differently and better? No doubt. But see it as an incredibly interesting learning process, a pilot that hasn’t been done like this anywhere else in the world. Other towns can all learn from it for future efforts. For example, that self-organization is more than just “figure it out for yourself”. And that leaving food production to amateurs is tricky. A radical planning choice like this doesn’t work without a new division of tasks and responsibilities among those involved.’

‘Twenty years ago I wondered whether we could get a better connection between cities and farming,’ recalls Jansma. ‘Urban farming was totally new at the time. My colleague Jan Willem Schans and I were the odd ones out at WUR in that regard. It was sneered at as Mickey Mouse farming. And just look where we are now, with projects like Oosterwold, vertical farming, *Herenboeren* (a Dutch form of community farming, ed.) and many more innovations. There is tremendous dynamism. What urban farming has set in motion has proved irreversible.’ ■



Jan Eelco Jansma: ‘See urban farming as the new cousin in the agriculture family!’ • Photo Resource





SUSPENDED CORAL

This is such a nice image you could almost blow it up and hang it on your wall. But the reason for the photo is not so pleasant. Coral is vulnerable to climate change, so WUR students and researchers are working in Shimoni (Kenya) on how to reduce heat stress in restored reefs. Since 2015, 70 WUR students have worked on this restoration project, including eight Master's students at the moment. Researcher Ewout Knoester (Marine Animal Ecology Group): 'Every day at low tide the corals are exposed to extreme temperatures, both low and high. We compare their response to that of "normal" corals in deeper water by diving to take photos alongside references for colour and size. We suspend the corals using cultivation structures.'^{WA}

Photo Marine Animal Ecology Group

Student analyses the character of her student house

You are where you live

Your house is more than the place where you happen to live. Student houses and residential communities often have their own character. How does that happen? And how does the house influence its residents? Judith Rommens (International Development Studies) wrote her thesis about the house she lived in for eight years – De Wilde Wereld – from the perspective of the building itself. Text Coretta Jongeling

It had to be done at some point. One day, Rommens plucked up enough courage to start tidying up the large wooden cupboard in the living room of H15/B5. As she emptied it out, she came across all sorts of things. CDs with music collections from years ago, games that can now be considered vintage, and old electronic gear. 'I thought: where did all these things come from?', Rommens recalls. 'Who brought them here? And how long have they been here?' These questions were the start of a quest to find out about the history of De Wilde Wereld. 'I became

very curious about the people who used to live here. Would I have had anything in common with them, apart from a shared address?'

The interaction between the house and its residents is the central question in Rommens' final thesis. Did the ideals and the lifestyle of the first residents determine the character of the house? And inversely: are people changed by the house they live in? 'At first, I wanted

to study that in several residential communities, but that was too broad a topic. If I wanted to achieve some depth, I needed to focus on one house.'

Rommens found her supervisor through the post that was still arriving for former residents: associate professor of Rural Sociology Joost Jongerden was one of the first residents of De Wilde Wereld. Rommens managed to contact a further 25 former residents through his contacts and her own network.

Squatters' movement

Interviews with those ex-residents provided a good picture of the house over the years. For additional information, Rommens delved into various archives and her own diaries. 'De Wilde Wereld has its own sizable archive,' says Rommens. 'Piles of folders full of documents, handwritten minutes of the first meetings in the 1980s – really nice to read. I also found posters from the time of the protest movement and some strange objects like a glass full of cigar butts.' The squatters' movement left its mark on the house too. 'Values like community spirit and freedom were very

De Wilde Wereld is a building in the middle of Wageningen, on the corner of Herenstraat and Burgtstraat. Twelve people live there in three groups, there is a theatre, a record shop, and rooms for working and cultural activities, and it is the headquarters of the LGBTQ+ association Shout.

It was built in 1905 as a Catholic girls' school. Over the years, several kinds of school were housed there, until the badly maintained building fell into disuse in 1985. A group of Wageningen squatters saw its potential. After years of squatting, they were looking for legal accommodation in which to combine living with work and cultural activities. A sympathetic councillor convinced the municipal council of the merits of the plan. Renovations started in 1985, and a year later the first residents moved in and community life started, based on the squatters' ideals such as emancipation, freedom and community spirit. That moment is where Rommens' study of the personality of the house begins.



De Wilde Wereld today • Photo Guy Ackermans

important. They were passed on to the next generations, only not always quite the way the first residents had in mind.' 'For example, the first generation believed in self-sufficiency and thought the residents should do all the maintenance on the house themselves. But that proved difficult: according to ex-residents, there was endless whingeing about the jobs needing doing, and less and less maintenance was carried out. Nevertheless, the current residents still mention self-sufficiency as a value they hold. But they tend to see it as meaning: if you want something done, you've just got to do it yourself.'

The house speaks

'I thought it was funny how later generations increasingly talked about the house as if it was a person. As if it had its own personality and did things – like losing things or giving them back.' That was one of the reasons that Rommens decided to let the house speak for

'Later generations increasingly talked about the house as if it was a person'

itself in her thesis. For example: *'Every day my residents turn me into their house again by experiencing me. I'm the stage on which their daily lives are performed.'*

The house as an entity is a bit like Frankenstein's creature, says Rommens. 'The first residents constructed the skeleton; the next generations covered it in bits of life. Some bits die off, others become part of the house, and eventually the creature comes to life. A communal house is a dynamic system that is constantly developing. Both the house itself and the things inside it change all the time, as does the culture of the house and the ideals harboured there.'

The house culture that evolves doesn't suit everyone. 'When I was living there, for instance, you didn't have much per-

sonal space. You could withdraw if you liked, but it was the norm to hang out together. I didn't mind that, but I can understand that it's not everybody's cup of tea.' The advantage of communal living, in Rommens' view, is that your social skills increase enormously. 'You learn to get on with all kinds of people, make decisions together and not always getting your own way. These are skills that stand you in a good stead all your life.' ■



Painting in the gutter • Photo former resident's private archive

Stories about food systems at B+FS conference

Saladino's soup

He came to tell a story, really. 'But today I have also heard enough new stories to fill at least six months' worth of radio programmes.' So said the well-known British food journalist Dan Saladino, who was in Wageningen at the invitation of Liesje Mommer and Marleen Riemens, coordinators of the WUR-wide research programme Biodiversity-Positive Food Systems (B+FS). Text Marieke Enter

Saladino was in Wageningen for the closing conference of the programme. He, Mommer and Riemens share a major concern: the incredibly fast decline in biodiversity, which is driven to a significant extent by the global food system. Saladino wrote a book about it: *Eating to Extinction*. During his presentation on the subject, the attendees hung on his every word: Saladino is a born storyteller.

An apple a day

Saladino kicked off by sketching how his interest in this topic was awakened. While preparing for his BBC radio programme, he stumbled upon Ark of Taste, an international list of threatened culinary heritage drawn up by the Slow Food movement. 'I discovered that in Victorian England, you could eat a different apple every day for four years. That level of variety is in stark contrast with what the British supermarkets have to offer nowadays. I wanted to get to the bottom of why that happened, how it happened – and whether we should be worried about it.'

His curiosity led to years of exploring the global food system and its history. In *Omnia* he talked, for example, about the 'wheat man' Arthur Ernest Watkins, a contemporary of Vavilov, about whom ex-WUR President Louise Fresco wrote the novel *The Plant Hunter*

from Leningrad. Watkins studied in Cambridge, but was sent to France shortly after the outbreak of the First World War to scout for possible food supplies for the British troops. He was struck by the vast range of wheat varieties in France. When he returned to Cambridge after the war and got to know the work of William Bateson, the 'father of modern genetics', he

Deliberately 'eating to extinction'

Last month, the Dutch culinary journalist Joël Broekaert published a book exploring the option of deliberately eating 'to extinction' in the interests of biodiversity. His book *Eet eens een wasbeer* (Eat a raccoon) is about invasive exotic species such as the Egyptian goose and the Japanese oyster. 'We kill these animals and just throw them out while at the same time we raise animals in unsustainable numbers and often under horrific conditions to supply ourselves with meat,' says Broekaert. What if we put these exotic species on the menu? Is that possible, and is it even allowed? And are they at all tasty? He explores these questions in his book, for which he consulted experts including WUR researchers such as shellfish expert Karin Troost (Wageningen Marine Research) and crayfish experts Ivo Roessink and Fabrice Ottburg (Wageningen Environmental Research).





The British food journalist Dan Saladino was in Wageningen at the end of last month at the invitation of Liesje Mommer and Marleen Riemans, coordinators of the WUR-wide research programme Biodiversity Positive Food Systems (B*FS). • Photo Guy Ackermans

approached his contacts in France and parts of what was then the British empire so as to collect as many different grain varieties as he could.

Watkins Wheat Collection

This resulted in what is now known as the Watkins Wheat Collection, with 827 different grain varieties from 32 countries. Recently, British and Chinese scientists have sequenced the DNA of every variety, thus opening up a 'genetic goldmine', as *The Guardian* called it. Among the researchers' finds in the collection were 33 still unknown species of wheat that are resistant to a devastating fungal disease, and species that can grow in salinized soils. 'In a time when the world has more and more mouths to feed, and growing conditions in many places are becoming increasingly difficult, these are crucial finds,' says Saladino.

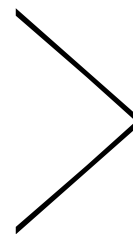
He thinks this story is indicative of how incredibly precarious agro-biodiversity is. 'We have that single individual to thank for the fact that the world can now fall back on those old, robust wheat varieties. Without Watkins, the heritage of 10,000 years of agriculture by our forefathers could just have been lost.' In that con-

'Humanity has already crossed six of the nine planetary boundaries. And food is largely to blame for that'

text, Saladino also points to Cary Fowler, the founding father of the famed Svalbard Global Seed Vault in Spitsbergen. Since 2008, a collection of the seeds of nearly 1.2 million plant species have been stored under the permafrost to prevent them being lost to climate disasters, plant diseases or wars.

Planetary boundaries

Saladino also paid attention to the dramatic effects of the modern food system. 'Humanity has already crossed six of the nine planetary boundaries. And food is largely to blame for that.' He gives a few examples: 'Our food system is the biggest emitter of greenhouse gases: between 25 and 30 per cent worldwide. It is also the biggest cause of biodiversity loss. The fact that we are now talking about the sixth mass extinction of species is partly due to the sacrificing of rainforest and



‘People have always “eaten the landscape” for a reason’

wetlands to agriculture or grasslands. The food system is also the biggest user of fresh water: 70 per cent of all the fresh water in rivers, groundwater and lakes is used for irrigation. And then there is the massive impact of excess nitrogen and phosphorus, or the overdosing of pesticides, insecticides and herbicides – the list goes on.’

Health threat

This reality is depressing, but it does offer an opportunity, emphasizes Saladino. ‘As Johan Rockström (the scientist who coined the concept of planetary boundaries, ed.) says: the planet is starting to send us bills. The food system not only harms the planet but is now the biggest threat to human health. Every year, 10 to 11 million people die too young because of unhealthy food: globally, diseases such as obesity and type 2 diabetes are rising fast. With far-reaching consequences.’

He illustrates this with the recent announcement by the British government that it plans to pump 300 million pounds into a project with the pharmaceutical industry aimed at combatting obesity with new drugs such as Ozempic. Obesity already costs the British healthcare system more than 11 billion pounds a year. ‘So we have ended up with a food system that we have to combat with drugs for the sake of our health. That suggests that we urgently need to repair our food system. If we manage that, we also have a chance of repairing the planet!’

Soup

The million-dollar question is, of course, how? Saladino described some examples of international practice that resemble projects implemented by researchers from the B*FS programme and the related CropMix programme: strip farming, specific crop combinations, combined cropping and ‘intercropping’. Saladino is a particular fan of the latter. He gives an example in which crops such as lentils, grass peas, fava beans and rye are sown as a mix in one field and are all harvested at the same time. ‘There’s a reason for this: they form a single meal together, a soup. So they belong together

– both in the field and at the table. They are a unit, culturally and nutritionally.’

According to Saladino, this is an important concept to grasp. ‘There’s a reason that people have always “eaten the landscape”.’ Intercropping is based on the way different plants cooperate in the interests of soil quality and resistance to pests and diseases. And it works. So in spite of all the alarm bells that are ringing, I’m optimistic about the future, not least because nobody wants a scenario in which governments are dependent on big pharma to protect people against the food the system serves them up. We urgently need to invest in a food system that is good for the planet and for us. And I think biodiversity forms the heart of that.’ ■

Maroon rice

A study of Maroon rice by the Biosystems chair group fits seamlessly in Saladino’s narrative. The term refers to varieties grown in the interior of Suriname by the Maroons: descendants of Africans who fled slavery. The 136 varieties of rice being studied turn out not just to be of historical interest (reflecting colonial history) but also relevant to the future. The global rice market is dominated by a handful of varieties, all of which flourish under highly specific conditions. The Maroon varieties can cope with a wider range of climatic and ecological conditions, and without pesticides and artificial fertilizers. *Nature* recently published a new article about this study.

The essential 17

Three quarters of our food comes from just 17 species of plants and animals. That alarming fact was shared on LinkedIn recently by Wageningen Livestock Research. In that post, Sipke Joost Hiemstra, director of the Dutch Centre for Genetic Resources (CGN: one of WUR’s statutory tasks) explained: ‘Breeding has drastically increased the production value of species, but it has also gradually made agriculture more homogeneous, with species that produce bigger yields, but that require a lot more “pampering”. That brings risks with it. We can see a similar trend in livestock farming. We must look for a bigger variety of breeds in order to make our farming systems more resilient. The CGN’s huge collection of genetic resources will play a key role in this quest.’

COP16 Biodiversity summit

‘Hope as long as we are connecting’

The Biodiversity summit in Colombia (COP 16) only had marginal results, but it was still important, argues Belowground Ecology professor Liesje Mommer.

Text Roelof Kleis

Mommer started the Wageningen Biodiversity Initiative, which brings together WUR’s research efforts to halt the loss of biodiversity. WUR was represented in Cali (Colombia) by a group of ten scientists. But no significant breakthroughs were achieved for biodiversity.



Liesje Mommer • Photo Duncan de Fey

You didn’t go to Cali?

‘No. It would have been nice to go again, but we sent some excellent experts. Jelle Behagel attended the policy negotiations of various countries, Marielos Peña Claros was at the side events on the Amazon and Nico Polman was involved in discussions on how to make the financial system more sustainable. The delegation also had the support

of knowledge and expertise in the side events. In these events, thousands of people from all over the world meet up and share information and inspiration. That is where people connect with one another and build momentum for change. In my opinion, this bottom-up activity can have a significant influence on what is decided top-down.’

edge about it over the generations. We shouldn’t force our Western views on them about what they should be doing – quite the reverse. They deserve a seat at the biodiversity table.’

Once again, no agreements were made on money for the protection of biodiversity.

‘No, that’s a major disappointment. It was agreed at the previous COP that 30 per cent of land and water should be protected by 2030. That will cost 750 billion euros a year, but only 200 billion euros was promised, so there is a huge funding gap. We would have that money if we used all the subsidies that currently go to polluting industry and mining. The task is to switch from these polluting industries.’

Can you see that happening?

‘I am very worried by the slow place at which our governments are acting on this urgent topic. But as long as we are connecting, there is hope.’

‘We would have that money if we used all the subsidies that currently go to polluting industries and mining’

of Jeanne Nel in the Netherlands; she is the Biodiverse Environments programme leader in the Environmental Sciences Group.’

How important are the side events?

‘A COP basically consists of two things: negotiations between governments about regulations, and the exchange

The impression from the news was that once again, little progress was made.

‘That’s correct, but it’s the tip of the iceberg. Two important things were achieved, in fact. An agreement was made on the use by industry of digital sequence information, for example on plant species. Large companies that use it must devote one per cent of their profits to biodiversity restoration. The second important achievement was that indigenous people got a permanent seat at the UN table on this topic.’

Why is a seat at the UN table so important?

‘Indigenous peoples play a key role in nature management. They live in that nature and have acquired a lot of knowl-



IF I WAS IDEALIS, I WOULD...

Should rooms be allocated in order of application, or through *hospiteren* – a Dutch system in which student-house residents interview would-be housemates over dinner? Or a combination of the two? Or by some other means, like a room lottery? How would students allocate rooms if they were student housing association Idealis?

Text Luuk Zegers • Illustration Shutterstock



COMMUTING TIME

Isa Tiebosch (21), Bachelor's student of Environmental Sciences

'I was given priority in my first year because of the long travel time from my home, which meant I found a room faster. I've been living in the old Marijkeweg complex ever since. It's got to stay possible for international students to find a room without having to go through *hospiteren*. You just can't do that from abroad.

'I also think waiting time is important. **If you are a third-year student, you want something nice and if there are lots of people with priority, the waiting time might be the deciding factor.**

'For shared houses it is still nice for residents to be able to choose their new housemate, or to propose someone themselves. The main thing is to keep it in balance.'



GOT LUCKY

Aravind Menon Krishnakumar (24), Master's student of Plant Biotechnology

'I had to find a room in Wageningen from India. Thanks to the priority for international students, I found a place in Dijkgraaf. All rooms here are allocated based on ROOM.nl rankings, so you don't get to decide who you live with.

'My corridor is quite international: we have students from Spain, Ghana, Colombia, Romania and more. **Initially, we did not talk much with each other, but after some time we started talking and hanging out more. Now, we see each other every day and we often have shared meals.** I'm happy with my place.

'Not everybody is as lucky as I am: there are corridors where housemates don't click. In such cases it might be good to combine ranking with *hospiteren*.'



NO HOSPITEREN HORROR

Sarah Noyon (25), Master's student of International Development Studies

'As a Bachelor's student in Amsterdam, I found rooms through *hospiteren* or via friends. That is pretty much the only way to find anything there – I don't know many people who found a place via a student housing association's waiting list, or only as a Master's student. 'I started my Master's in Wageningen last September. I succeeded on my third attempt at *hospiteren*, and I've been living in Rijnveste since 9 September. **No horror stories about *hospiteren* from me, because thanks to *hospiteren* I'm living with people who became my best friends.** If you are placed at random, that doesn't happen. I wouldn't fancy an anonymous corridor in a high-rise block of flats at all.'



ASSOCIATION HOUSES

Christel Konings (23), chair of the Wageningen Federation of Student Societies

‘Many Idealis houses have long corridors with a lot of people, where rooms are allocated without *hospiteren*. As a result, resident don’t bond with each other as strongly. If you allocate rooms through *hospiteren*, the chances of housemates getting on well are bigger. Then people live less individualistically, and you realize sooner if somebody is having a hard time. From the welfare point of view, that makes *hospiteren* a good way of allocating rooms. **And *hospiteren* is important to student societies : student society houses are an important part of Wageningen student culture.**

‘At the same time, it’s still important to allocate rooms through the ROOM.nl ranking. Otherwise only chatty people get rooms. The pilot at Costerweg, in which the first 10 people on the ROOM.nl list were invited to *hospiteren*, is quite an interesting hybrid approach. ‘In terms of balance, I’d say it would be enough to allocate a quarter to a third of the Idealis rooms through open *hospiteren*. Because that is already the norm for a lot of houses on the private market.’

‘IF YOU ALLOCATE ROOMS THROUGH *HOSPITEREN* THE CHANCES OF GOOD RELATIONS WITH HOUSEMATES ARE BIGGER’



DROEF CULTURE

Sowmya Chowdhury (28), Master’s student of Resilient Farming and Food Systems

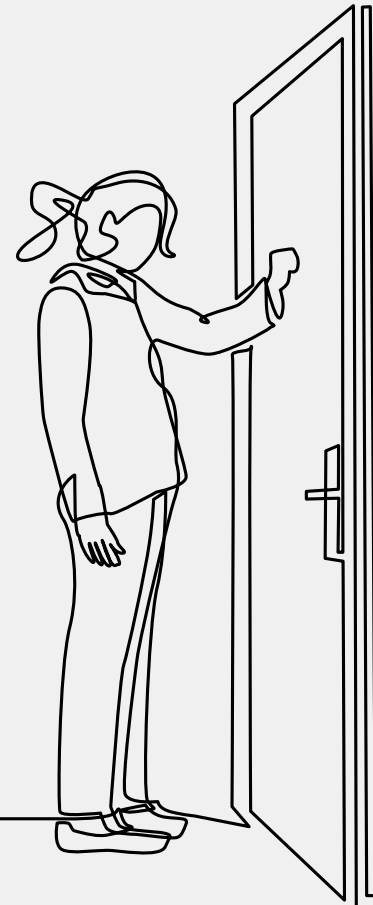
‘It is good that there are rooms allocated without *hospiteren*, because all students need a roof over their heads. This way, I was able to find my first room in Wageningen from abroad. At the same time, people like to be able to choose who they live with, so they feel more at home with the people they share their house with.’

‘After living in Wageningen for a while, I made friends and found my community. Currently, I’m subrenting a room in Droevendaal. Droef’s people practise a sustainable lifestyle. Some houses have chickens, others like to get their groceries directly from farms or grow their own food in the gardens. The sense of community here is strong.

If Droef’s rooms were allocated based on rankings, it would not be the place it is today.

‘A friend who was subrenting a room on Costerweg had a great relationship with

her housemates. When a permanent room became available, they wanted to offer it to her, but this was not possible because of the room allocation system there: she hadn’t been registered for long enough. In cases like this, I think there should be more flexibility and autonomy for students to choose who they live with.’ ■



TURNING EXERCISE INTO CHILD'S PLAY

If you turn it into a game, people enjoy exercise more and engage in it more readily. Postdoc Ayla Schwarz researched how gamification can help neighbourhood sports coaches get residents moving.



Text Dominique Vrouwenvelder

Ayla Schwarz, assistant professor of Implementation and Engagement in Digital Health, studied gamification apps aimed at getting people moving. 'Compare it with Pokémon Go, an app that caused a hype in 2016. Thousands of people went out to capture virtual Pokémon in parks and high streets. Although the Pokémon app was not developed with the aim of promoting health, the game did get people moving. The purely scientific apps, based on theories of behavioural change, are often no fun at all. I studied how we can develop

games that make good use of scientific knowledge, and that people will be keen to play.'

Schwarz recently published a study for which she talked to 25 neighbourhood sports coaches about the use of gamification in their work. 'A neighbourhood sports coach is tasked by the municipality with motivating people – especially children – in the neighbourhood to get some exercise. They know the children well and see them regularly. If they build gamification into their programmes, theoretically, we can make a lot of young people much healthier,' says Schwarz. During the interviews it turned out that the sports coaches already make use of elements of play, such as giving children points for taking part in an activity, but that they didn't see that as gamification and didn't make strategic use of it.



An image from the MissieMaster app.

Treasure hunt

When people think of gamification they often think of big, expensive screens or technology, explains Schwarz. 'That's not necessary at all – it can be very simple things like lots of small tasks with which you can earn points or badges.' She mentioned the app MissieMaster, which was developed for neighbourhood sports coaches and children. 'With this app, the sports coaches can easily create tasks with which children can score points. An example would be designing a GPS treasure hunt in the neighbourhood, or getting them to take part in a boxing training session at a club, thus improving the skills of the character they

‘ALTHOUGH POKÉMON GO WAS NOT AIMED AT PROMOTING HEALTH, THE GAME GOT PEOPLE MOVING’

are playing. Then you combine the digital and the physical world in an accessible, playful way.’

A major stumbling block for the neighbourhood sports coaches proved to be their lack of knowledge about what gamification tools are available and what you can do with them. There were financial constraints too. Schwarz: ‘There are rarely any subsidies available or it is not clear how you can apply for a subsidy for an app or another tool.’ Her research also revealed that there is often nobody who takes responsibility for making the municipality aware of the uses of gamification, which makes it harder to get initiatives of the ground, so they remain ad hoc.

The sports coaches themselves do see the potential for gamification. ‘They expect that if they used gamification tools, they could activate target groups that they otherwise find quite difficult to motivate. And they are open to investing time in it.’ On the basis of their research, Schwarz and her colleagues have drawn up some recommendations. ‘We think gamification will be used more if a clear overview is available of the tools, the way they can be used, and the available subsidies. A gamification network – of people both within and outside your own organization – can help with that. Also, the responsibilities of neighbourhood sports coaches should be more clearly described, and municipalities should offer supervision when promoting gamification.’

Summer parties

‘Gamification can work well for getting people enthusiastic about physical activities, if it is used well,’ says Schwarz. And that is precisely what doesn’t always happen. ‘New games are developed all the time, but a lot don’t go anywhere because the technology behind them doesn’t work well, or people quickly lose interest in them.’

Pokémon Go was supported by a big marketing campaign. ‘Developers invested a lot in publicity for the game. Health initiatives don’t have that kind of



An image from the MissieMaster app, which was specially developed by and for neighbourhood sports coaches. Coaches can use the app to create simple tasks with which children can score points. A GPS treasure hunt through the neighbourhood, for example.

money, and that impacts the chances of success.’ But that doesn’t mean that such initiatives don’t stand a chance. ‘Some municipalities make systematic use of MissieMaster or similar gamification apps. They bring the app into every event: at summer parties or local sports matches, for instance.’

Gamification has a negative image, Schwarz adds. ‘People are quick to think: yet another app – that just means even more screen time for children. That was a common criticism of Pokémon Go too, as users were on their mobiles continuously to track down the Pokémon. There were stories about children falling into water or narrowly missing traffic accidents because they were staring at their screens so much. If an app that aims to make you get more exercise requires you to stare at your screen nonstop, then obviously you’re missing the mark.’

Schwarz hopes to improve on both the enjoyment of the users of gamification apps, and the health benefits of the apps. ‘To achieve that, we must first research what it takes to use such apps well. Only when an app is well-designed and is then used correctly by the target group, can we judge its effectiveness,’ she concludes. ■

How to survive the Dutch winter

Dutch winters can be long, cold and dreary, especially for internationals. **Ananya Doraswamy**, a *Resource* columnist and Communication, Health and Life Sciences Master's student from India, asked her fellow students and others for tips on how to survive winter in Wageningen. Illustration Marly Hendricks

Veggies

'Find indoor hobbies, get into board games, find ways to exercise indoors, take your vitamin D and include lots of veggies in your diet, get out and talk to people — and keep loving life.'

Nikshap Trinetra, Environmental Sciences MSc student, India

VITAMIN D

'Find something to jumpstart your day. I used to go swimming every morning in the winter, which made for a great start. It's more the lack of sunshine than the cold that makes the winters seem longer, so maximize your time in the sunshine and take your vitamin D pills. There are also lights you can buy that mimic sunlight — that's good to start your day with.'

Ralph Ali Yaha, recent MSc graduate in Biosystems Engineering, Mauritius

STAMPPOT

'I survive these autumn and winter days by making things cosy at home and cooking myself nice dishes. In the autumn I like to cook pumpkin and in the winter I like *stamppot*, with mashed potatoes, sauerkraut, red cabbage or endives. It's nice to invite friends over for dinner or to cook together with a theme.'

Ilse van 't Leven, recent MSc graduate in Food Technology, Netherlands

Thin layers

'Rather than choosing awkward, bulky coats, use thin layers and thermals to stay warm. Make your home as cosy as possible so you feel comfortable inside while it's cold and miserable outside. One day climate change will come, and winter will be a thing of the past so enjoy winters while you can!'

Maeva Benetto, Resilient Farming and Food Systems MSc student, Australia and Spain

Cuddle up

'Winter weather is perfect for cuddling up with someone, whether housemates or pets. In the summer it's always sweaty, but in the winter it's nice to use others as your personal feet defroster.'

Jeanne Lagerweij, Nutrition and Health MSc student, Netherlands

EASY ON YOURSELF

'Go easy on yourself, if you're not performing your best in winter. It really helps to do some sports because this releases endorphins and helps set a routine for yourself.'

Marta, PhD candidate in Soil Physics, Italy



Board games

'I realized that it was the darkness that affected me most. Rather than focusing on the lack of sunshine, plan dinners or meet-ups with your friends, or board-game or movie nights.'

Silvia Martinez, Nutrition and Health MSc student, Italy

Live with winter

'My first winter started really well. I was very excited by all the winter things that I'd never experienced before. There was snow for two weeks and I went on short trips within Europe. I was also invited to a family Christmas dinner by a Dutch friend. But after December things started getting difficult: I was feeling very tired and had a lot of muscle pain.

I have been living in the Netherlands for many years now and I have a few tips. Make sure you have a good raincoat and waterproof over-trousers. Stay active throughout autumn and winter, go for walks when it's sunny, do classes in a hobby. In the end, you need to learn to live with winter and not resist it.'

Neha (name changed), Climate Studies MSc student, India

CHRISTMAS MARKET

'In the winter it's nice to visit different cities, to go to Christmas markets and go ice skating. Have movie nights with friends or go into the woods to spend some time in nature.'

Nika Cozijn, Nutrition and Health MSc student, Netherlands

FRESH AIR

'Fresh air can make such a difference so don't forget to let it in. The most energy efficient way to ventilate your home is to open the windows wide for ten minutes with the heating off. We Germans call it *stoßlüften*.'

Laura Esche, Resilient Farming and Food Systems MSc student, Germany

SUNSHINE

'I like to adopt the "fake it till you make it" attitude to the winter. So focus on whatever little bit of pleasant weather and sunshine you get and do what makes you feel better.'

Axel Hernandez, Resilient Farming and Food Systems MSc student, France

**ENJOY**

'I am from Barcelona, so winters in the Netherlands can be rough for me. It is difficult to make a forecast for the 2024/25 winter. Our models have become much better and more accurate, but the uncertainty for a forecast in two to three months is still very high. There are two main types of winter in the Netherlands: mild temperatures, wet and a lot of cloud; and cold, dry and sunny. The latter type, normally associated with ice on the canals and the possibility of skating, is becoming less frequent due to climate change.

My advice as a foreigner is that whatever the winter type, get waterproof or warm clothes and go outside and enjoy the Dutch landscape. As we say in Spain: "When the weather is bad, put on a good face".'

Jordi Vilà, professor of Meteorology and Air Quality, Spain

Be social

'I have spent winters in various parts of Europe, and I think it's important to make the most of the few sunlight hours there are. When it's light go for a walk, do a sport or whatever floats your boat. What helps me the most is being more social, being around people, doing fun things. I really recommend this, because the cold and the dark in combination with isolation is a recipe for loneliness!'

Tanvi Agarwal, PhD candidate in Water Commons, India



Limelight



Not much culture in Wageningen? In this regular feature, we show how wrong that is. This time date adventures at Netflix & Chill Storytelling Night. Text Coretta Jongeling

SAT
23-11-2024

Theater De Wilde Wereld

20:00

Admission 8 euros
(non-students 10 euros)

Netflix & Chill

You went on a date that ends in a sleepover. The next morning you wake up to find not only your guest missing, but also your vibrator. Can't get enough of horror date stories like this? During the event, students will relate their true dating adventures and you will have the chance to share your own experiences anonymously. 'We'll have cards with prompts to fill out and I'll read some of them on stage,' organizer Emma Holmes

explains. 'That's one of the highlights of the evening, if only because I'm pretty prudish myself and have the greatest difficulty saying words like penis out loud. The fact that you can share your story anonymously means you get to hear things that some people don't even dare tell their friends.'

Other things you can expect are a review of Grindr profiles, songs about dating, a live takeover of someone's Tinder account on stage and a themed cocktail with an innuendo name. The Netflix & Chill theme is an annually recurring event in the storytelling programme and for good reason. 'It's a topic with an infinite number of anecdotes. I sometimes think Wageningen is pretty tame but nothing could be further from the truth.' The familiarity of the situations is reassuring for many people. 'Anyone who has ever dated knows that experiencing ridiculous situations is part of it. And that's okay. I think it's good to realize that you shouldn't take dating too seriously. That takes the pressure off.'



Emma Holmes • Photo Sandesh Bartlett



TIPS

Wed 20 November 20:00

Spoken (open stage) in the bblthk

SAT 23 November 21:00

Elmer (rap) in Junushoff

TUE 3 December 15:00

Oriol Marès & Talal Fayad

(Arab/Latin fusion) in Impulse

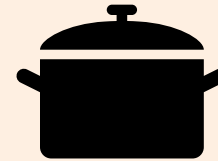


You see great-looking people in awesome outfits on Wageningen campus. In this column, we put one of them in the spotlight. This time, it's **Lilly Erdmann**, a Forest & Nature Conservation MSc student from Germany. Text and photo Ana Clara Mattiuzzi Martins



'I've been working for the past year in a garden centre, where I could never wear nice outfits. I was outside all day getting dirty. But since I've started studying in Wageningen, I can indulge my fashion urges again. 'I don't think a lot about what I am wearing. I just follow my whims; sometimes it comes out weird and sometimes nice. How else are you going to figure out what actually works? I remember in middle school putting on leggings for the first time and I thought: what is this? I know everybody's wearing them, so I'm going to try it. But it's just not my thing. What I wear depends on my mood. If I'm in a good mood, you'll get a nice outfit; if not, then you'll get a sweater and trousers. I get a lot of inspiration from my friends, the internet and the queer scene. I get all of my clothes second-hand: I find them on Vinted or sometimes people give them to me. It feels like people are giving clothes away everywhere, and I just pick them up. Sometimes I have something in my cupboard for three years until suddenly I realize the outfit has been waiting all this time for this one specific moment. But even then it was worth keeping the clothes.'

You encounter all the flavours of the world in Wageningen. Athéna Besançon (18), a Nutrition and Health Bachelor's student, shares a recipe from France.



Flavours of WUR

Ratatouille

'When I told my flatmate that I'm French, she wanted us to eat ratatouille, probably because of the Disney film of that name. I asked my family in southern France how I should make this Provençal dish. They said there isn't an "official" recipe but the crucial thing is to cook the vegetables one by one. And to add thyme. And make sure I don't use ginger. And if I was to leave out any one of the vegetables — *légumes du soleil* — it would turn into tatouille instead of ratatouille.'

- 1 Cut aubergine into small pieces (because it cooks more slowly) and courgette in larger pieces or slices. Chop the pepper, garlic and onion.
- 2 In a frying pan, heat the oil and sauté the onion and garlic. Add the aubergine and stir until it is more or less cooked.
- 3 Put the aubergine, onion and garlic in a casserole dish (preferably earthenware) and sprinkle the thyme on top.
- 4 Fry the courgette and pepper in the frying pan (add some olive oil if needed), then add the tomatoes. Put these vegetables into the casserole dish. Let the vegetables simmer for 40 to 60 minutes on a low heat (or put them in the oven at a low temperature). Stir every now and then to make sure the ratatouille doesn't burn.

Ingredients (for 4 to 6 people):

- 1 aubergine
- 2 courgettes
- 1 bell pepper
- 400g tinned tomatoes
- 1 onion or shallot
- 2 to 3 cloves of garlic
- 1 thyme sprig, some rosemary and a bay leaf
- salt, pepper
- olive oil
- (optional) olives, fresh basil, cumin

Preparation time:

🕒 ~90 minutes

- 5 Add herbs, salt, pepper and/or olives to taste. *Bon appétit!*



Athéna Besançon
Nutrition and Health
Bachelor's student

Meanwhile in... Valencia

WUR is incredibly diverse, with hundreds of internationals working and studying here. In this column, we ask one of them to comment on certain events in their home country. This time a special report by [Linde Klop \(21\)](#), Bachelor's student of Environmental Sciences and a Resource student editor. Linde is on an exchange in Valencia, which was hit by heavy flooding last week. Text Youssef el Khattabi

Extreme weather

Klop: 'With my life packed into luggage and pockets full of promises, I set off for what everyone assured me would be the best semester of my life. By the midpoint of my Erasmus exchange, I'd formed a close-knit group, eager to explore everything Valencia had to offer. It seemed everyone had been right.

Until last week, when our studies were abruptly interrupted by a frazzled professor announcing campus evacuation due to extreme weather. We laughed—back home, we'd have just put on thicker jackets. We abandoned studying for the day and that night we danced in the kitchen, blissfully unaware that entire streets were sinking underwater.

It took a while for me to switch off that exchange student part of my brain – the part that turns everything that happens into an "experience" Yet taking action, even with mixed intentions, is better than doing nothing, so the next day, we joined the cleanup efforts, armed with three-euro shovels and brooms,



along with thousands of other volunteers. As we crossed into the flooded areas, the grim reality struck. Cars lay piled in heaps, homes in ruin, and the air was thick with the stench of rot and loss. We worked tirelessly, shovelling mud and clearing debris. After hours of labour, it felt like we'd accomplished nothing except dirtying our clothes. It rained again the following day. The futility stung as we shovelled away fragments of people's lives, discarding them as if they were meaningless. By evening, we felt hopeless. But when the elderly woman with her broom thanked us, we knew we had to return. We wanted to ensure that even when the world moved on and new headlines replaced this town's struggles, its residents wouldn't be left alone. So, we'll keep going back—tomorrow, and in the weeks that follow—hoping to see Paiporta's streets clean before we return home.'



Column **Ananya Doraswamy**

Grief travels

'Hey, it's not good news': my sister's voice cuts through before I can say hello. I hold the phone close to my ear, the rest of her sentences pushing through in a rush, words nearly tumbling over one another.

One of the first things I had to accept when I left home was that I'm no longer part of my family's everyday lives, and they aren't part of mine. And I'm so occupied with my own packed present that the best I can do is hope everyone I care about is looking after themselves. But I'm low-key, always expecting the other shoe to drop. And then it did.

Now this has happened, I find myself simultaneously living two realities. My world is on the brink of shattering, and yet, for now, my schedule is undisturbed. A big chunk of energy goes into keeping my mind from wandering down alleys of unfinished conversations, regrets and the worst prognoses. The distance between us comes up as a frustratingly immovable obstacle but, apparently, grief travels. But so does lightness. Because what comes up just as easily is a reminder of the strength of the same person I'm worried about. I grew up watching him, and others that I've already lost, fight their battles with grace and humour. It is painfully sinking in that they spent years preparing us to do the same, regardless of their presence.



Ananya Doraswamy, a Master's student in Communication, Health and Life Sciences from India, delights in cloud-watching and tree-gazing. She enjoys being in busy, multicultural kitchens that have plenty of food and stories to offer.


MOVIE NIGHT
WITH ENGLISH SUBTITLES



17.11.2024 • 20.00 • movie.w.nl


Tender and intimate coming-of-age drama about the burgeoning relationship and political awakening of two young adult women.

filmhuisMovie W



Change subscription?

Scan the QR code and submit your change.
(only for Idealis or INFacility student houses)



Resource

IN MEMORIAM

JÜRGEN VAN BAAL

Our highly valued colleague Jürgen van Baal has passed away at the age of 57. His loss is felt deeply by his colleagues and PhD candidates. Jürgen had been a researcher at the Animal Nutrition Group since 2007. He was a point of enquiry for everyone with his detailed knowledge about metabolic regulation mechanisms in animals. A true expert who used cross-species comparisons to give more insight into the effects of nutrition. Using simple examples and drawings, he was able to make many physiological processes and cellular mechanisms of action more understandable. Whether it was chickens, cows or cats, Jürgen dipped into the literature, looked at the genome, made comparisons and devel-

oped new hypotheses as to why one species had developed this regulation and another did it slightly differently. He also had 'golden hands' when it came to work in the laboratory. With the death of Jürgen, the chair group has been deprived too soon of a highly valued, helpful colleague and mentor with a listening ear. We wish his wife Erica and two daughters Lyra and Merle much strength in bearing this loss. Jürgen's legacy lives on, not only in our memories but also in the scientific literature.

*Wouter Hendriks,
Animal Nutrition chair group*

Colophon

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

Contact Questions and comments for the editors:
resource@wur.nl | www.resource-online.nl

Editorial staff Willem Andrée (editor-in-chief), Helene Seevinck (managing editor), Roelof Kleis (editor), Luuk Zegers (editor), Marieke Enter (editor), Coretta Jongeling (online coordinator), Dominique Vrouwenfelder (editor).

Translations Clare McGregor, Meira van der Spa, Clare Wilkinson

Design Alfred Heikamp, Larissa Mulder

Overall design Marinka Reuten

Cover illustration Valerie Geelen

Printing Tuijtel, Werkendam

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

ISSN 1874-3625

Publisher Corporate Communications & Marketing,
Wageningen University & Research





Photo shutterstock



HOLLAND GETS HIGH IN LSDECEMBER

If you stopped smoking in Stoptober or grew a moustache in Movember, you will be pleased to hear next month has a theme too: it's LSDDecember. The use of LSD has been falling in recent years, which is a shame says the More Acid Now foundation.

Take an acid trip and the grey December weather will suddenly seem a lot more colourful and exciting, claims More Acid Now spokesperson Lucy Skaai. 'After swallowing a tab, you will see the dark winter clouds turn into cheerful, rotating mandalas. We see it as the ultimate solution for the winter blues. It certainly worked in the 60s.'

Skaai hopes all of Holland will get into the LSDDecember spirit by dropping acid and spacing out. 'Of course we aren't encouraging the use of drugs,' says Skaai, 'But what else are you supposed to do in that miserable week between Christmas and New Year? Anyway, LSD has been proved to be the drug least damaging to health by far.'

That is shown by a Wageningen University study with pigs. 'Of course pigs are not humans, but we see pigs in factory farms really perk up when you give them the occasional tab that lets them escape from reality for a day,' says Ken

Var, senior researcher in Drugs Use and Animals.

The latest Substance Abuse Monitor, a survey of young people, shows that the use of LSD has declined in recent years. That is unfortunate, says Skaai. 'It's difficult to believe that young people these days are all taking ketamine and 3MMC when there are

**It is time to
reinstate LSD
as the drug of
choice**

healthier alternatives. It is time to reinstate LSD as the drug of choice.'

Skaai does however wish to add a warning. 'Psychedelic drugs aren't for everyone. If you have been doing a lot of doom-scrolling recently or keep a close watch on global politics, don't take LSD. The risk of having a bad trip is too big. Stick to good old alcohol instead.'