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Six days of partying in Wageningen. | **p.6** |

Mobile pig pen

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Secret history

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RESOURCE ^[ENG]

For students and employees of Wageningen UR

no 1 – 13 August 2015 – 10th Volume

Farming at sea

It will be quite normal by 2050 | **p.13**




**INTERNATIONAL
EDITION**

>> PAUL + STARLIGHT

Paul Gerlach, graphic artist, freelancer at Communications Services

'The light that reveals secrets'

Paul Gerlach looks far into outer space with his telescope. Back in time, into the history of the universe. In search of the light of distant stars. It is delicate work. He does it from his back garden in Houten, until deep into the night. Tracking patterns of lines like a surgeon. 'Everything we know about the universe comes from light. That is really fascinating.'  RK / Photo: Guy Ackermans

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Zeeland doesn't want to lose it.



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STUDENT TEACHERS

Green further education looks to Wageningen.

LOCAL COLOUR

What do oysters and mussels have in common with pigs? Well, marine research centre Imares in Yerseke has had a reprieve and is to carry on in a slimmed-down form. Local research assignments weren't being followed up. The fisheries sector and the Province of Zeeland have woken up and are not keen on an exit from Zeeland. They have said they are willing to help Imares with assignments and thus with funding. Zeeland is always fearful of a brain drain out of the province, so this is hopeful. Especially if you frame the future research projects as a victory against all odds.

As for pigs: just over a month ago I was in Sterksel during the open innovation days at the Pigs Innovation Centre. This is another outpost in trouble. But the turnout was big and I didn't hear a word spoken against the need for the centre's existence. Once again, the problem is the lack of research assignments and funding from the market. A pig farmer wondered out loud whether they are asleep at the provincial headquarters in Den Bosch. See, mussels are typical of Zeeland but pigs are not really typical of Brabant. But any advertising bureau worth its salt could make them so. Time for a call perhaps?

Edwin van Laar

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CAUTIOUS OPTIMISM IN ZEELAND AFTER IMARES IS SAVED

- Retaining knowledge in Zeeland.
- Talks still ongoing.

Zeeland sees hope in the plan to keep the Imares site in Yerseke open. According to a provisional recovery plan presented by Wageningen UR in July, the site will be down-sized and will focus on regional research topics. The aim of the plan is to make loss-making Imares future-proof again.

'We're relieved that closure is no longer on the table,' says Addy Risseuw, the secretary of the Dutch mussel culture producers' association. 'The loss of Imares would lead to the fragmentation or even disappearance of knowledge in the shellfish sector.' Risseuw hopes to see close collaboration developing between businesses and the scientific community in the years ahead. 'Researchers

could take a look at what goes on in practice, for example, to see what requirements the cultivators have.'

The Provincial Executive Member for Zeeland, Jo-Annes de Bat (Christian Democrat), also calls the news 'promising'. However he emphasizes that the possibility of a collaborative agreement between the Zeeland science institutes, businesses and government is still being discussed, and this is a precondition for saving Imares. The province mainly has a facilitating role by bringing parties together, says De Bat. But he does not rule out the possibility of Zeeland co-financing relevant projects, for instance.

In the last while, important research programmes on subjects such as aquaculture and coastal defence have ended without any follow-up. That is why people were talking increasingly seriously about closing 'Yerseke'. Now they

are working on a collaborative agreement between the provincial authority and the regional fishing and shellfish industries instead. The idea is that Yerseke should become a research institute run by and for the region. 'An experiment,' says Martin Scholten, managing director at Imares, 'as all the other regional DLO sites are specialist innovation centres.'

The organization of the work is changing at other Imares sites too. 'The crux of the reorganization is that we are doing away with the traditional departmental structure,' says Scholten. 'It was hampering innovation. We'll be working with flexible, theme-based teams that perform market-oriented research.' These teams will be formed from the bottom up and staff can be in more than one team at a time. 'We want to let the researchers take the initiative rather than having the teams imposed on them from on high.'

Scholten gives the example of the 'Tropical Team', in which a diverse group of researchers from different locations are jointly studying marine ecosystems in the tropics. Scholten: 'Despite the barrier of the departmental structure, they have managed to join forces. It is currently one of the best-performing teams in Imares.'

The reorganization will lead to the loss of their job for 14 to 15 people. Others will have to work in a different area: for example, five fish farming researchers will be relocating to Wageningen Livestock Research. A different solution is being sought for the rest. Scholten: 'Over the past three years, Imares has shrunk from 205 employees to 160 through natural wastage and by not renewing temporary employment contracts. Now we need to focus on the remaining surplus capacity and jobs that will have to go.'

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ART ON BARE WALLS IN ORION

A huge mural now graces the concrete wall of the stairwell in Orion. Over the summer, artist Kim Habers worked on the artwork of 300 square metres with two assistants. They stood on scaffolding to apply a pattern of lines using black markers, tracing over a design projected onto the wall.

About her work, Habers say: 'It is purely abstract, growing over the concrete like a fibre, but it also contains recognizable figurative elements. That way I challenge everyone to look at the drawing without having to explain exactly what you see. For once, let go of scientific logic and give your fantasy free reign.' © KG



PHOTO: WILFRED BERGSMAN

WUR LIBRARY INVESTIGATES IMPACT OF BREACH WITH ELSEVIER

- **No new contract means no access.**
- **1 January is day of reckoning.**

The WUR library is asking researchers in a survey how they would feel if they were no longer able to consult Elsevier's scientific journals. This will actually be the case as of 1 January unless the universities and the publishing company reach an agreement on a new contract. If they fail to do this, Dutch scientists will be barred

from accessing all journal issues as of 2016. The negotiations are not going well. The aim of the universities is for all Dutch articles in Elsevier journals to be open access from now on. Anyone should be able to read the article without paying for a subscription. But Elsevier is not interested. On top of this, the universities do not want to pay substantially more than in previous years. The universities seem determined not to accept any deal that does not satisfy their demands. Gerard Meijer, the lead-

ing negotiator on behalf of the universities, said in the *NRC* newspaper in early July that they were even considering a boycott of Elsevier. Researchers at other universities are also being consulted on their views. The university libraries will use the results to help decide what to do if they lose access to Elsevier. The survey suggests a few alternative ways of consulting articles, such as approaching the authors or colleagues in other countries, searching online networks such as Mendeley or paying for individual articles. **RR**

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Salad days

Some say student life revolves around beer and sex. Nonsense. All memories are a selective version of reality. I can safely say that I saw more rotten cucumbers than naked girls during my salad days. Not that there were a lot of vegetables in our student house.

But, in contrast with naked girls, I have remarkably few memories of rotten cucumbers. Actually I can only recall one example. That cucumber looked alright until you picked it up. Then it turned out to be a kind of water balloon. One that could burst at any moment, with a fresh green skin. It might have been a courgette, come to think of it.

When it comes to naked girls, on the other hand, I have a rich store of memories. Notwithstanding the fact that all my attempts at courtship were a dismal failure. Seriously, Wageningen's women students are quite interested in the exciting things you can do with Excel. And in holding long discussions. But this means nothing. Once I was put off by email, preventively: 'I don't know how you feel about me but I just want to tell you I'm not interested in you.' The high point was when a mate was cross with me. At last, someone who saw me as a serious threat. He would have liked to punch me really, I think. I couldn't imagine a bigger boost for my ego.

In my memory, I just played hard to get. Half Wageningen was after me, but no one dared to ask me. That is the great thing about your student days. You are vulnerable, life is difficult, and everything is possible. But no matter how lonely and sad you get, you'll have fabulous memories later. **R**



in brief

>> CLARIFICATION

Parliamentary questions about top sectors

Henk Kamp, the minister for Economic Affairs, needs to clarify the decision-making process within the top sectors, as Socialist Party MPs Eric Smaling and Sharon Gesthuizen have asked parliamentary questions about this. An article in the previous *Resource* on top-sector policy prompted them to ask questions about 'the message that the allocation of DLO funding via the top sectors is largely an in-crowd thing'. This background article, part of the Wageningen UR & Business dossier on resource-online.nl, explains how research proposals are prepared within the top sectors and how the assessment process works for submitted proposals. The Socialist MPs want to know why most of the research funding is being granted to consortia of major companies and scientists who have quite a good overview of the fairly complex assessment criteria used by the top sectors. **KG**



Sharon Gesthuizen

>> MANSHOLT

Theatre on campus

The play *Mansholt*, based on the life of the former European Commissioner for Agriculture Sicco Mansholt, will be coming to Wageningen campus in September. It tells the story of a man and an agricultural sector in crisis in a series of short, powerful sketches. This story offers ways in to debates about agriculture today. After the performance, there will be an informal programme with an opportunity to discuss things with farmers and alumni. The play will be performed five times in Droevendaal Farm between 10 and 13 September. Further information on resource-online.nl. **AS**

>> NEW START

Roosegaarde to open academic year

Designer Daan Roosegaarde will open the academic year at the university on 7 September. The event will take place in Orion on campus. Roosegaarde is an internationally famous artist and designer. He is involved in New Dutch Digital Design, an artists' collective which explores the boundaries between people and cyberspace. He has design studios in the Netherlands and Shanghai. Roosegaarde is famous for Dune, a landscape of hundreds of LED lights which respond to touch and sound, and the Smart Highway project in which a highway is lit by means of glow-in-the-dark solar cells in the road surface. **AS**

Stijn van Gils (28) is doing doctoral research on ecosystem services in agriculture. Every month he describes his struggles with the scientific system.



AID GETS RECORD NUMBER OF FRESHERS THIS YEAR

- **National film première on Sunday.**
- **Closing with a festival.**

There will be more students than ever — about 2100 — taking part in the Annual Introduction Days (AID) from 14 to 19 August. The busiest AID so far was in 2013, with 2050 participants.

The freshers will be divided into groups of 11 to 13 students, with two seniors (papas and mamas) in charge of each group. Then there are the more than 125 crew members who will be responsible for setting up all the activities and making sure they go smoothly, while the student societies will have dozens of volunteers doing their best to give the freshers a good time. So all in all, about 2700 students partying hard during Wageningen's introduction days.

The AID starts on 14 August with the Campus Games. 'A fun way for the participants to get to know their AID group and the campus,' says AID chair Koen van Bezu. Then of course there will be a big party on the first evening with the DJ duo 2 Faced Funks. 'That will go until midnight, after which you can move on to one of the student societies.' Because the societies will of

course be putting on parties every night throughout the AID.

The second day will be all about Crazy88, in which AID groups have to carry out 88 assignments in Wageningen town centre. There will also be a street theatre festival on that day.

These are annually recurring AID events that are intended to let the freshers get to know the centre. Other successful elements from previous years are also on the programme this year, such as the sports day, the drinking songs and the international evening.

There will also be a national film première on the Sunday, with an open-air screening of the latest Woody Allen film, *Irrational Man*, at Duivendaal. The film is only due to be released in Dutch cinemas four days later.

A new element this year is the festival on the final day, with three music venues and various food stalls run by Wageningen restau-



rant businesses. This festival will segue into the big final party in the marquee on campus. The DJs Gregor Salto and Carl Tricks are the

crowd-pullers at this event.

You will find the entire programme at www.aidwageningen.nl. **KG**

WAGENINGEN UR INTRODUCES CROWDFUNDING PLATFORM

- **Joining online trend.**
- **Successful at other universities.**

In October Wageningen UR will be launching a crowdfunding platform. Here, people can donate money online to a Wageningen project. This move on the part of the Wageningen University Fund (WUF) comes in response to demand among Wageningen's

researchers, says WUF employee Arianne van Ballegooij. 'If we have an engaging project, we currently send Wageningen alumni and former employees a letter or giro collection form. But Wageningen has a lot of socially relevant projects that will appeal to more interested parties than just former staff and students.' Besides, crowdfunding is more in line with the current trend for acquiring funding online, via social media.

A working group is currently busy designing the platform. 'We want to present a mix of projects,' says Van Ballegooij. 'But we do require a concrete plan that translates clearly to the target group. Say, for example, a researcher wants to develop an app to make interesting results of his or her research widely available. Or a StartHub student wants to build a prototype of his or her latest invention. These are things you can use crowdfunding for.' With this

initiative, Wageningen is following the lead of universities in Groningen, Utrecht, Nijmegen, Tilburg and Leiden. At the University of Groningen, for example, crowdfunding has been used to acquire funding for new and more sophisticated instruments and materials for use in teaching at the Faculty of Mathematics and Natural Sciences. In Utrecht, money can be donated to enabled talented foreign students to study at the university. **LvdN**

ACTION PLAN TO PULL ALTERRA OUT OF THE RED

- **Concerns about financial shortfall.**
- **Innovative capacity must increase.**

As yet this year, Alterra has acquired too few research projects. As well as generating more work, an action plan has been devised to improve the distribution of work.

The Executive Board is concerned about Alterra's financial situation. This was revealed in the 'Summer Greeting' issued shortly before the summer recess. President of the Executive Board Louise Fresco, who is acting as interim managing director until Bram de Vos is appointed to the position in September, held consultations with Alterra's team leaders in early July. On the agenda was the issue of improving the financial results over

the short and long term.

The consultations were prompted by the shortfall in May. Alterra and the Executive Board are not disclosing the extent of the shortfall, but it is large enough for the Board to insist on an action plan. 'The Executive Board is worried about Alterra's results,' reports Fresco, 'and we must take action now to prevent the prospects of this great institute becoming a matter of concern.'

One action point is the improved distribution of work, explains spokesperson Simon de Ridder of the Environmental Sciences Group (ESG), under which Alterra falls. 'Some groups have acquired too much work for their own staff. Now they need to find good people in other teams who can take on some of that work. Bringing in people from adjacent specialist areas to work on a project requires not only creativity on the part of the team

leaders but also some guts.' In addition, the team leaders will do more to share the project overviews with one another and will discuss project staffing more often.

Secondly, in the short term Alterra is keen to solve a couple of problems concerning the financing of research projects. For example, the institute wants to intensify its relationship with the Ministry of Infrastructure and the Environment, a client of ever-increasing importance in the field of landscape, water and infrastructure, especially now that research programmes under the Ministry of Economic Affairs are coming to an end and not being replaced by new ones. The Netherlands Soil Information System (BIS) research programme is a case in point.

But Fresco also spoke with Alterra's team leaders about innovation and market opportunities over the

longer term. She believes that Alterra's innovative capacity is still under par. 'We are seeing that larger financiers such as the Ministry of Economic Affairs and Brussels are increasing driven by innovation and the valorization of knowledge. For this reason, more than used to be the case, Alterra needs to be working on concrete ideas, solutions, products, models and apps that it subsequently launches in new and existing markets.' **AS**

More news every day at resource-online.nl



WE ARE ECOLOGISTS, NOT PEST CONTROL OFFICERS



It is wasp time, so the questions are coming in?

'Yes, every year I get some phone calls and emails. Is there a plague? They never call to ask where the wasps are this year. And it's always about what you can do to get rid of wasps. But we are not into pest control, we are ecologists at Alterra.'

Do the phone calls annoy you?

'Oh no, but they do take up time and nowadays everything is measured in terms of hours and money. It would be nice if the interest once led to a research assignment.'

And, is there a plague?

'It's hard to say. In July and August a wasp population reaches adulthood. With the holidays and nice weather, lots of people sit out in their gardens and on terraces and encounter wasps.'

Another question for you: can you make wasps angry?

'Hindering a wasp from eating often makes it agitated and sometimes aggressive. They find the tables in no time, no matter how much people wave and flap at them. Just like us, they like everything that's on offer, from meat to sweet stuff.' **RK**

Who? Ruud van Kats

What? Researcher at Alterra

Why? The media consulted him about wasps

PROPOSITION

'Girls underestimate girl-power',

Lenneke de Winter, who graduated with a PhD on 19 June in Wageningen.

CineMec

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

Film

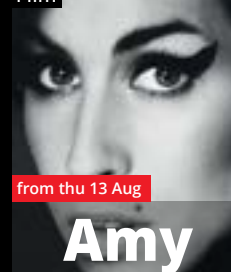


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Ted 2

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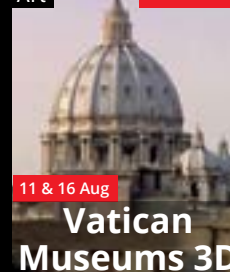


from thu 13 Aug

Amy

DOCUMENTARY ABOUT
AMY WINEHOUSE

Art



11 & 16 Aug

Vatican Museums 3D

ART FROM ROME
ON THE BIG SCREEN

PIG IS GOOD MODEL FOR DIABETES PATIENT



- **Effect of diet is measurable.**
- **Process accelerated from 20 years to 4 months.**

Not all fat people are unhealthy, suggests Wageningen research on pigs. Pigs work well as a research model for determining the effect of diet on our wealth-related diseases. This is because of strong similarities between the metabolisms of pigs and humans, says researcher Sietsje Jan Koopmans. They are also similar in size and weight, so you can measure the effect of diet on diabetes, obesity and cardiovascular disease in pigs. When Koopmans, an animal physiolo-

gist at Livestock Research, put a group of pigs on a diet with lots of olives and fish oil, he got fat but healthy pigs. 'Their blood vessels were perfectly clean, their blood sugars were low and their cholesterol levels fine.'

In humans you cannot use standardized tests to measure the effects of an unhealthy diet on things like hardening of the arteries or diabetes. But you can in pigs. What is more, in humans it can take 20 years before the effects of eating habits show up in the form of diabetes or cardiovascular diseases. In pigs Koopmans can accelerate that process.

'Just like humans, pigs vary in their predisposition to overweight, hardening of the arteries

and diabetes. If they are on a sugary and fatty diet over a long period, the saturated fats accumulate in the arteries and the liver, as well as in the pancreas, where insulin is made. This leads to more inflammation and poorer functioning of these organs, causing metabolic syndrome, the precursor to diabetes.' In the pig we can simulate this process in just 4 months by putting the pigs on a sugary, fatty diet.' Pigs put on this kind of diet develop high blood pressure and cholesterol levels in no time, just like humans. It can take years, however, before there is any sign of diabetes. This is because the pancreas makes far more insulin than the body needs. Old age and poor

eating habits eventually lead to a shortage of insulin. Koopmans can break down this insulin buffer in pigs in a few weeks using the substance streptozotocin, he reports in the *European Journal of Pharmacology*.

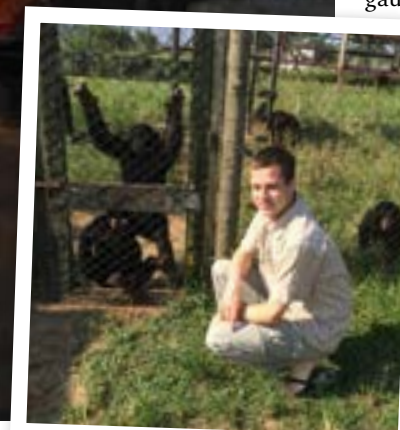
This enabled him to become this first researcher to succeed in developing a model of an obese pig on the brink of diabetes. These pigs are now being offered different meals in order to study the effect of diet on diabetes. 'If you give the pig a western diet with a lot of sugar and fat, it will become diabetic, whereas on a healthy diet it will go back to normal. This way we test which diet you can use to keep the blood sugar low in pigs and humans.' **AS**



LIVE BAIT

Wageningen researchers have to be prepared to suffer in the cause of science. Entomologist Niels Verhulst visited a sanctuary for chimpanzees in the Congo this year, with the aim of catching mosquitoes which transmit malaria from primates to humans. Verhulst camped out at the *Jane Goodall Institute's Tchimpounga Chimpanzee Rehabilitation Center*. 'The two tents we slept in were made of gauze. We served as bait for the mosquitoes, which would then fly into a trap.' The research aims at finding out which mosquitoes transmit malaria from primates to humans. Verhulst is also collecting skin bacteria and odours from chimpanzees in the centre in the Congo.

AS



ALTERRA AND THE ART OF MEANDERING

- **Handbook for stream meander.**
- **A good stream lets nature do the work.**

Today, the course run by very many of our streams is far from natural. As a measure to combat flooding, many traditionally meandering streams were straightened in the last century. Straight streams carry water away at a faster rate. But these days that is no longer what we want. Rapid drainage leads to drying out and straightened streams offer few opportunities for a diversity of flora and fauna. With stream restoration, we are trying to turn that tide. Bart Makaske and Gilbert Maas of Alterra have written a book about the best ways we can let streams meander.

This is trickier that it seems at first sight. According to Makaske, much more is involved than simply restoring the former meanders shown on old maps. 'The historical situation is very often not the best aim,' he explains. 'The natural course of a stream is in harmony with all kinds of factors, such as hydrology and the condition of the terrain. Changes in these factors can mean that what counted as harmony in the past no longer applies. In addition, the dynamics of the stream's forms must be accurately estimated. Will the location of bends shift due to erosion? Will sandbanks and embankments be created? Old maps can't tell you that.'

The answers to such questions can be found in the Handbook for Geomorphic

Stream Restoration. The main principle underlying the approach is revealed by the book's title: geomorphology. The natural condition of the terrain is of primary importance. The form and dimensions of the meanders must be appropriate to their environment. 'It's all about using nature, letting nature do as much of the work as possible,' says Makaske. 'In this way you can create a natural harmony that is self-sustaining.'

This is because how a stream finds its course and behaves can be calculated with a fair degree of accuracy. Provided you know the conditions – the drainage, the difference in height, the type of subsurface and so on. The design process used by Makaske and Maas also involves a clear-cut step-by-step plan. The idea is that if the form and dynamics of the stream are well chosen, ecological restoration will follow. 'Rather than being about returning to the historical situation, restoration is about limiting human intervention.'

And that last point is music to the ears of water authority managers. A stream that is self-sustaining keeps management costs at a minimum. This approach is completely at odds with taking the desired ecology as the starting point for stream restoration, an error which Makaske believes has been often made in the recent past. 'That leads to artificial meanders and a stream profile that has nothing to do with the natural forms that arise under the influence of flowing water.' **RR**



The meandering River Dommel near Valkenswaard.

VISION <<

Return of the sturgeon to the Rhine

Nature conservationists want to see the severely threatened European sturgeon return to the Rhine. A good idea, thinks Erwin Winter, but lots of questions remain unanswered.



Until the 1950s, it swam in the Rhine: the European sturgeon, which measures up to five metres in length and weighs 1000 kilograms. Today its only remaining habitat is the Gironde near Bordeaux but studies are underway to establish whether the fish can be reintroduced in the Netherlands. A valuable endeavour, thinks Erwin Winter, DLO researcher at Imares. 'The sturgeon is an iconic fish.'

Why did the sturgeon disappear?

'This large fish is relatively easy to catch with traditional fishing gear. Ever since the Middle Ages the sturgeon has been heavily under threat from the fishing industry. In addition, many barriers have been erected in the Rhine, such as weirs and dams. River pollution was never an issue for the sturgeon because it had already disappeared by then.'

Now we are going to try to reintroduce the sturgeon. Is there any point?

'Certainly. The fishing industry no longer poses a heavy threat to river life and many obstacles have now gone. Take the Haringvliet Dam, for example. Soon it will be left open. And these days the Rhine is less polluted. Moreover, climate change is making the sturgeon's current habitat in the Gironde less suitable – the level of reproductive success there is now low – while by contrast the Rhine and Elbe are suitable as future habitats.'

How great is the chance of success?

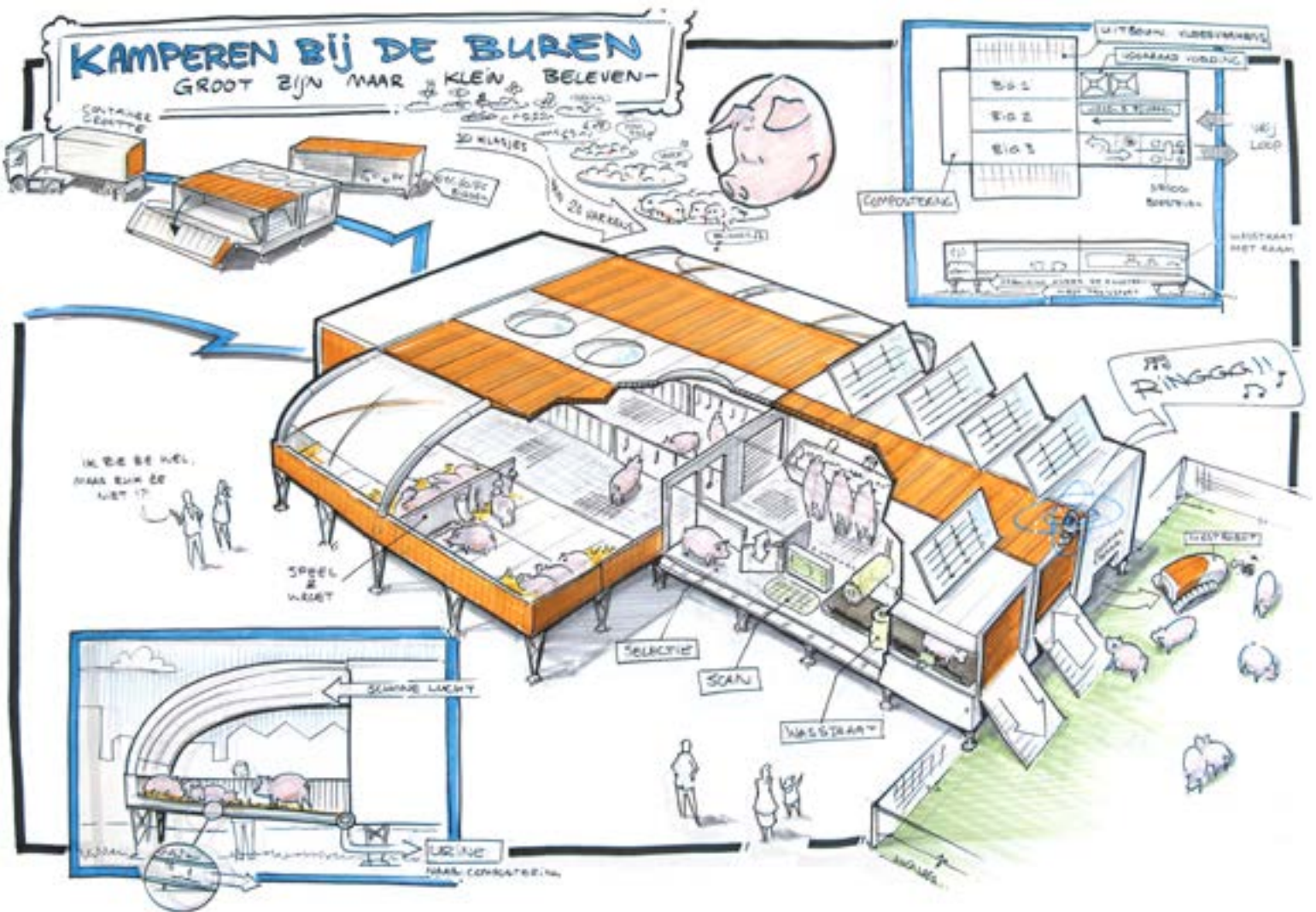
'That is difficult to estimate. The severity of some of the problems involved is unclear. Take the fishing in the North Sea. The key questions are in how many fishing activities is the sturgeon bycatch and can the fish be returned unharmed to the sea after the right treatment. While the Rhine is cleaner, its "estuarine character" – a dynamic river mouth where fresh water gradually becomes salt – has been lost. There are indications that habitat of this kind is less essential for success than was previously thought, but for the time being it remains unclear.' **RR**



New housing for pigs in mobile units

Wageningen UR has developed a new kind of housing for pigs, dubbed 'Camping at the neighbour's'. It consists of shipping containers with outdoor access, which could be placed on a piece of disused land in a city or on a country estate. One farmer has already expressed interest.

text: Albert Sikkema / **illustration:** Livestock Research




The 'Camping at the neighbour's' concept was developed in a design studio in collaboration with pig farmers, veterinarians, technicians and researchers. From within Wageningen UR, there were contributions by researchers at Livestock Research, Alterra and CVI. The design means the pig farmer houses about 300 sows and piglets in a central barn. The units, the size of a shipping container, have an outdoor pen linked to sleeping and farrowing units. The piglets grow up in these containers, which have good climate control technology and sunlight. After about four weeks the piglets are lured into a weaning unit, and this mobile 'pen' can then be loaded onto a truck and moved to another location.

The design makes it possible to raise 3000 pigs in groups of 200 in mobile units. Each group, housed in seven linked containers, can be moved to any suitable location. Ten pairs of pigs take it in turns to go outside to a patch of ground of at least 200 square metres. When the pigs are ready for slaughter they are transported to the abattoir in their container. Once it has been cleaned, a new batch of pigs can be housed in it.

Project leader Bram Bos of Livestock Research involved pig farmer Erik Stegink in developing the design. Stegink keeps 50 pigs out of doors on his farm, Piggy's Palace. He has even installed a mud pool and a slide for his pigs. Stegink is interested in this concept because he is keen to be more in tune with meat consumers. It also enables him to expand his farm without building any more barns, meeting the wishes of local residents. There is already a certain amount of pig farming where the animals are kept outside at changing locations, says the project leader. Ex-Alterra worker Willem Rienks, for example, founded *Buitengewone Varkens* and keeps unusual breeds of pigs out of doors at several locations.

The technical and economic feasibility of the concept



has not yet been established, says Bos. 'That is why we do this kind of innovation research. We want to try out this concept with limited resources first, for example in a consortium with a pig farmer, a container company and a climate technology company.' Bos was previously involved developing the innovative Rondeel barn for layer hens, the Kwatrijn barn for cows and the Windstreek barn for poultry. 'It never works out exactly the way you envisaged it beforehand: that is where innovation comes in. And initially you shouldn't look at the cost price, because if you do you'll end up with the conventional barn.' Bos does not yet know, either, whether municipal councils will grant licenses for these kinds of mobile pig pens. 'Sometimes we have to clear up those kinds of bureaucratic obstacles in follow-up projects.' 

MORE INNOVATIVE BARNES

In recent years Livestock Research has led a series of interactive design projects under the auspices of 'Design for System Innovations'. The best-known design is the welfare- and environment-friendly Rondeel barn for layer hens. This design came out of Livestock Research's 2004 poultry-keeping project 'Houden van Hennen'. Three Dutch poultry farmers have now built a Rondeel barn and the eggs are marketed under this brand name. Meanwhile, a mini-Rondeel with 300 chickens has been started at the RAI in Amsterdam.

At the end of May, State Secretary Dijksma opened the Kwatrijn barn at Sjaak Sprangers' dairy farm in Kaatsheuvel. This came out of the design project *Kracht voor Koeien* in 2009. In Kwatrijn separation of manure in the barn reduces ammonia emissions and improves the use of minerals, while giving the cows more space.

The Windstreek broiler chicken barn is currently under construction in Raalte. This chicken barn came out of the *Pluim-vee met Smaak* project in 2011. This open barn for broilers

makes use of natural ventilation. 'We ended up with a barn with outdoor access,' explains Bos. The young chicks keep each other warm under the innovative breeding hood, and in spite of its openness this barn produces little ammonia or fine particles.

It also fits into the landscape well.

It is almost always possible to find one or more poultry keepers who are willing to invest in an innovative barn design. What do these pioneers have in common? Bos: 'They have a natural urge to innovate. They look ahead, assess social trends and have the courage to take the plunge and build a new barn. A barn has to last 20 to 30 years.'



Seaweed is the future

In 2050 large seaweed plantations could be providing us with food and minerals. Wageningen researchers are conducting research on sustainable seaweed farming in the Oosterschelde estuary.

text: Rob Ramaker / **photo:** Leonard Passchier

Large bunches of green and brown seaweed surface when researcher Julia Wald pulls in a few ropes from the pontoon. It is chilly and raining on the Oosterschelde today and you have to watch your step on the slippery platform. Apparently the bright green sea lettuce has grown fast over the last few weeks so it will be harvested today. Wald simply snips off the seaweed with a kitchen scissors. It is taken off in a garbage bag, in this case to the laboratory.

This sea lettuce grows on the Wierderij, a Wageningen UR test site where researchers are experimenting with sustainable seaweed cultivation. An idea brought in by Willem Brandenburg, DLO researcher at Plant Research International (PRI), who sees it as a first step towards a new kind of crop farming. At sea.

Brandenburg has a vision for 2050. What he envisages is people growing enormous quantities of seaweed out at sea, sustainably as well as intensively. To this end, developments which on land took 10,000 years must be compressed into a couple of decades. 'At sea we are still hunter-gatherers,' says Brandenburg. 'We hunt fish and dump our waste in the oceans.' He has a vision of people as farmers at sea. Minerals for 'green chemistry' can be extracted from seaweed, as well as the proteins which the world population – 9 billion by 2050 – is crying out for. 'But with just 2 percent of the total ocean surface – twice the size of Portugal,' says Brandenburg, 'we can meet the global need for protein.' And these marine farms can be combined with aquaculture and wind farms, for example.

Cultivating seaweed can help reduce the negative impact of a growing world population. It would diminish the growing demand for farmland, for instance. Brandenburg hopes this would mean less destruction of nature. That way biodiversity would be preserved and biomass would not be turned into the greenhouse gas CO₂. The seaweed can also absorb nutrients such as phosphate and nitrate. You can grow sea lettuce, for instance, in estuaries where the water can contain high concentrations of fertilizer ingredients. 'Capturing' these ingredients in seaweed is a first step towards a closed cycle.

Anyone standing on the Wierderij on a grey day can see that there is a lot to be done before Brandenburg's vision becomes a reality. This is only a small test site. Four pontoons float alongside a central platform for the researchers, with ropes of seaweed hanging from them. In total the researchers are growing just a few dozen square metres of seaweed. It is not growing out at sea here but in a sheltered inlet created during the flood of 1953. A farm out at sea



Researcher Julia Wald inspects the sea lettuce, which grows fast in the summer.

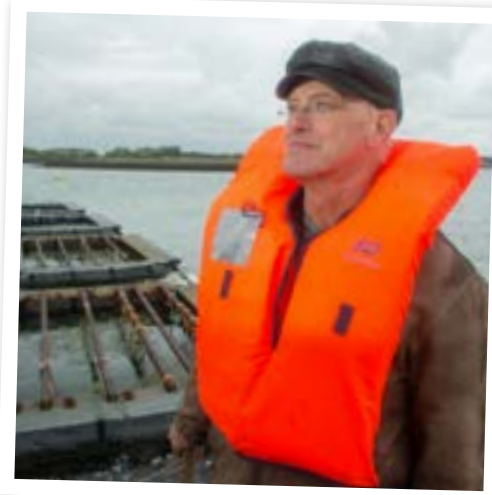
is exposed to the elements and is a lot less peaceful. The impact of this still needs to be studied. The water here is very clean and rich in nutrients, too.

And yet there have already been some concrete results at the Wierderij since the project started in July 2011. The researchers now know, for instance, that you can grow seaweed in the Netherlands all year round. In the summer you can grow sea lettuce, a weed with a long green thallus, a leaf-like organ that feels like plastic. In the winter the researchers grow brown seaweed species such as oarweed, which thrive in cold conditions. Per hectare the marine farm produces about 25 tonnes of 'dry' biomass. Brandenburg: 'This makes the yield comparable with that of crop farming on land.' Somewhat deeper under water the scientists would like to grow red seaweeds. There have been no results with this yet, but today a researcher from Zeeland applied sciences university is hanging ropes carrying a red kelp called light-foot.

The researchers came across some unexpected problems and teething troubles here too. The current state of the pontoons shows, for instance, how much the equipment suffers from the salt water, wind and waves. The metal parts have rusted away after four years and even the stainless steel is stained brown. One of the supports from which the ropes are hung even gave way under a researcher. And at the beginning of 2015 one of the ropes broke after having weathered all the storms until then without a problem. Brandenburg had estimated in advance that the ropes would last about 10 years. He is not so optimistic now. 'Five years is probably more like it.'

It is also surprising how many uninvited

guests turn up at the Wierderij. There are sea squirts and other creatures on the ropes and around the pontoons. There are also other weeds such as wakame and Japanese wireweed: species the researchers do not want and are not even allowed to grow because they are invasive and are not indigenous to the Netherlands. Researcher Willem de Visser, who swims happily in the surprisingly warm water, shows that you have to weed a marine farm too. Between the floats of the pontoon, algae grow which steal the seaweed's light. De Visser patiently scoops them out by hand.



Willem Brandenburg looks out over the Oosterschelde from 'his' marine farm.



The sea lettuce can be harvested again in two weeks.

NEW MARKET FOR DUTCH SEAWEED

In recent years researchers at the LEI have been thinking about how a market for Dutch seaweed could be created. Worldwide there is already considerable demand for seaweed, mainly from Korea, Japan and China. 'That seaweed is cheaper and it will probably remain so,' says Sander van den Burg, DLO researcher at the LEI. Only if we can produce it mechanically on a large scale in the North Sea will we be competitive pricewise. Until then Dutch seaweed will only stand out for being sustainable and local. 'In that case, you should also extract valuable minerals from it which can be added to animal feeds and cosmetics. The pharmaceutical industry can make good use of them too.'

Van den Burg also sees scope for expanding the consumer market. There is already a niche market for seaweed at high-end restaurants and for specialist food products (see box). To expand this market, consumers first need to be shown what they can do with seaweed in the kitchen. Van den Burg: 'Actually you need to get seaweed recipes into *Allerhande* [a supermarket magazine, ed.]'


Companies are unlikely to invest in seaweed until the researchers have proven that this works on a large scale too. Brandenburg is well aware of this. He wants to take a big step up from the Wierderij to a test site of one hectare and then to 100 hectares. It is important to study the side effects at each new scale. Research by De Zeeschelp foundation found that the current Wierderij had no negative effects on the surroundings. Brandenburg: 'But you can never jump to the conclusion: this is fine so we can immediately fill the whole Oosterschelde.' What is more, an experiment in the sheltered Oosterschelde does not mean cultiva-

tion is possible in the North Sea. So De Noord-zeeboerderij foundation did a trial 10 kilometres off the island of Texel. They grew a few dozen kilos of seaweed there to test the waters. The big question is whether that can now be upscaled.

All sorts of things that are taken for granted in regular agriculture still have to be developed for the sea. Harvesting, for one, is extremely labour-intensive at present. This is too costly and would eventually have to be mechanized. And there is an impressive list of criteria for a harvesting machine to meet, says Brandenburg. It needs to be sustainable, able to perform several functions, such as harvesting and drying, and suitable for several different species of seaweed. Techniques are also needed for monitoring the farm from dry land, because every boat trip makes the seaweed less sustainable and less affordable.

FUNDING

But the biggest challenge facing Brandenburg at the moment is very banal: money. Just like so many DLO departments, the seaweed research is struggling to attract new funding. In the last few years the Wierderij has been funded through two projects financed by Wageningen UR and the Ministry of Economic Affairs. 'Next year there will be a gaping hole,' says Brandenburg, 'and it is not at all clear how it should be tackled in future.' He is looking for new funding sources and is not pessimistic about this, but it can be frustrating to have to spend so much time on it. 'Sometimes you have to choose whether to do research or go looking for money. That is a dilemma.'

But Brandenburg does not intend to abandon his vision entirely. In a couple of years' time he will be retiring but he hopes to have inspired a number of young researchers by then. That is why he is trying to persuade Wageningen University to set up a minor on sustainable sea weed cultivation. When he was due to show a group of students around in June he was not feeling very well. But once he was standing in front of the group between the ponds and aquaria of the research station near Wageningen, he fired up and outlined his vision. 'You are the ones who must do it.' 



All the brown seaweed is harvested because it stops growing at summer temperatures.

**Try your hand at cooking
with seaweed**
check out zeewierwijzer.nl or
kookboerderijkrommenhoeke.nl

CULINARY SEAWEED

'Commercial seaweed' is already being grown off the Dutch coast, by the company Zeewaar, for instance. Much of that seaweed ends up on our plates, or at least those of the patrons of high-end restaurants and delicatessens. What are the culinary uses of seaweed?



BOTTLED SEAWEED

Off-license owner Eva de Boevere thought it was a pity so many restaurants served whisky with their Zeeland oysters. 'Why do we need the Scots for that?' In 2009, she and distiller Rutte from Dordrecht created a seaweed-based Dutch gin. This is made from the Japanese seaweed kombu, which has the tastiest range of flavours. Now as many as 13,000 bottles of the gin – called Zeeuwier – have been sold. In 2009 there was no commercial seaweed cultivation in the Netherlands and she sourced her product from Asia. But in future there may be a truly Zeeland gin. 'Never say never.'



SEAWEED BURGERS

'Not a meat substitute: better than meat': this is how the creators describe their Dutch Weed Burger. This soya-based burger contains 10 percent kombu, a seaweed now being grown in the Oosterschelde. There is sea lettuce and algae in the bread and sauce to go with it too. The burger can already be found in 90 restaurants and has been on offer at several music festivals. The creator Lisette Kreischer emphasizes that the burger has to be not just sustainable but healthy as well. Seaweed contains a lot of nutrients such as omega fatty acids, iron and calcium. Kreischer hope the burger will prove to be more than a hype. 'That is short-lived; the challenge now is to consolidate.'

THE DUTCH
WEEDBURGER



SEAWEED IN YOUR KITCHEN

'Bladderwrack, knotted kelp, Irish moss, sea lettuce, nori, wakame...' Marieke Hakkesteegt can rattle off the names of 15 Dutch seaweed species just like that. She knows her stuff: she has been running cookery workshops at her farmhouse Krommenhoeke in Biggekerke for years. The participants look for seaweed in the Oosterschelde themselves, harvest it and use it to cook with. You can make tasteless tofu a lot tastier by rolling it in sea lettuce. You can also make crisps into a seaweed snack. And don't make the mistake of seeing the saltwater as a problem. 'I prefer to cook with water from the Oosterschelde,' says Hakkesteegt. 'It is a pity that you sometimes have to use tapwater. If you wash seaweed in that the taste runs right out of it.' (www.kookboerderijkrommenhoeke.nl)



WIN! A SEAWEED SPECIAL!

Resource is offering two readers a free workshop at Krommenhoeke. Let us know before 13 August what you would like to make with seaweed.

The one with the most original idea gets to put it into action.
Email Resource@wur.nl





NORTHWARD BOUND

These canoes and 2200 kilos of research equipment have now been loaded onto the Ortelius. This research ship is already on its way to Spitsbergen. On 19 August 50 researchers will go on board, including quite a few from Wageningen. They will sail from Longyearbyen to the island of Edgeøya, doing research on the way. Hans Verdaat of Imares wants to find out whether, thanks to climate change, porpoises can now be found that far north. Others will look at reindeer and the effects of pollution. There is daylight 24 hours-long on Spitsbergen in August so the researchers can work day and night. And take a break to go canoeing now and then.

© RR / Foto: Martine van den Heuvel-Greve, Imares



The secret history of a horse

Some news tickles your curiosity. And that sets you off on an investigation that gets a hold on you. This is the story of such an investigation. A story about a long-dead mare, Wageningen heritage and bygone times.

text: Roelof Kleis / **photo:** Guy Ackermans

On 1 April last year a bulletin in the newspaper De Leeuwarder Courant drew my attention. The Frisian Agricultural Museum in Eernewoude had a mare of 2000 years old. A gift from Wageningen UR, which was getting rid of it after ‘clearing out an attic’.

And no, it wasn’t an April Fools’ joke. A recent C-14 dating definitively established the great age of the ‘hynderke’ (horse in Frisian). Great news for the Frisian Agricultural Museum, which made much of it in the runup to the national museum weekend.

A gift, an attic clearance, 2000 years old? I wanted to get to the bottom of this. My quest began with museum director Henk Dijkstra. Over the phone he confirmed the origin of the skeleton. Dijkstra was tipped off in 2011 by the renowned (and now elderly) Wageningen emeritus professor of livestock Rommert Politiek. Was the museum interested in the (equally renowned) stud bull Adema’s Athlete. The stuffed head of this bull graced the wall of the canteen of Zodiac, which was moving onto campus. Management didn’t know what to do with the head, for which there was no place in the new building on campus. After years of good service, the bull was killed in 1943 and the head was kept, stuffed and given to the then livestock professor Wieger de Jong. As an honorary member of De Veetelers study association, Politiek has warm relations with Wageningen, which is why he was so well-informed about the move and the heritage dilemma. Politiek is also a welcome guest at the Agricultural Museum. So he put Dijkstra in touch with Gesina Noordewier, policy advisor at Zodiac, who was made responsible for the décor of the new building.

Noordewier responded eagerly to the interest from Eernewoude. She saw in it a solution not only for the bull’s head but also for another thorny problem. Because there was all sorts of stuff up in the attics at Zodiac, including a whole collection of skulls and bones ‘in various states of decay’. And amongst all the clutter was the hynderke. On a brass holder at the foot of the frame was a yellowing piece of paper bearing the words ‘Horse from the dwelling mounds’. Dijkstra was sold. No matter that these five words on the label were the only written documentation about the mare at that point. Neither Dijkstra nor Noordewier knew more about it than that.

An online search in the Forum library produced a few leads. On 27 March 1927, a certain Paul Cesar Labouchère got his doctorate at the then agricultural college in Wageningen for a thesis about the Belgian carthorse. In that thesis Labouchère devotes two chapters to horse skulls from collections in Wageningen and Groningen. Aha! At that time, according to Labouchère’s book, Wageningen had a collection of 32 horse skulls from Frisian and Groningen dwelling mounds. The majority of the skulls came from Ferwerd in Friesland. On page 52 of the thesis there is even a photo of a horse skeleton on a frame, which bears a striking resemblance to ‘my’ mare. The label states that this horse came from the mound at Wierhuizen, which is in Groningen province. Ferwerd is in Fries-

land. Did Labouchère make a mistake on the label, or is this a false trail?

Meanwhile, museum director Dijkstra referred me to Egge Knol, curator of the Groninger Museum. It was Knol who dated the skeleton. He was preparing his 2013 exhibition, ‘Drowned land is fertile’, about life on the dwelling mounds of the northern Dutch coast, when he heard about the latest acquisition at the Frisian Agricultural Museum. ‘That skeleton made the perfect eye-catcher in our exhibition,’ explained Knol on a lovely April day last year. But he had one problem: nothing was known about the skeleton. Curators don’t like that. So he decided to do carbon dating, and asked the Centre for Isotope Research at the University of Groningen to extract a piece of tissue from the underside of the skull. ‘Just one cubic centimeter, so that you hardly notice it.’ The result was a surprise. It showed with scientific accuracy that the horse lived between 187 before until 25 after Christ. This meant it came from the late iron age or the start of the ancient Roman era. Knol used the teeth to establish that the skeleton was that of a 23 to 25-year-old mare. Its great age and the fact that the mare

‘Suddenly there were three finds that could be the mare’

was buried and not eaten suggest that she meant a lot to her owner or fulfilled a special role, says Knol.

So, my mare is old and special. But how did she end up in Wageningen? Knol knew more. He had been delving into the history of Wageningen dwelling mound research for some time. That history started with the interest of Luitje Broekema, a teacher and later director of the National Agriculture School, the forerunner of the College of Agriculture. Broekema taught livestock among other subjects and was interested in the ancestry and development of our Dutch livestock. ‘In 1850 scientists found Neolithic settlements in the Swiss lakes, in which bones had been fantastically well preserved,’ says Knol. ‘Zoologists immediately saw the possibility of using that material to get closer to the ancestry of domestic animal breeds.’ Broekema, who was born and bred in Groningen,



Amanuensis Geurtsen poses with a horse skeleton in the ‘livestock museum’. This is almost certainly the mare from the dwelling mounds.

realized, says Knol, that there were similar locations in our country where bones from the past have been preserved in large quantities: the mounds of Groningen and Friesland. In 1908 Broekema started to collect animal bones and proceeded to publish a small series of articles about them in the journal *Cultura*. One of these, in 1909, was about the horse skulls found in the mounds. But Wageningen mound research never really got off the ground, says Knol. Broekema was overtaken by a young biology student in Groningen, who later became Professor Albert van Giffen. Van Giffen threw himself into the archaeology of the mounds and became Holland's most famous archaeologist of the 20th century. But Wageningen academics were too busy setting up the Agricultural College, of which Broekema was a founding father. In 1918 he became the first professor of Livestock.

There was little to show for Wageningen's dwelling mound research for a couple of decades. Until doctoral

student Labouchère devoted part of his thesis to the horse skulls taken from the mounds by the avid collectors Broekema and his successor Dirk Leonard Bakker. But it really came to life in the years following Labouchère's graduation, thanks to the LEB fund. The LEB (the agricultural export bureau) was set up in 1926 and still finances agricultural research to this day. The secretary of the fund at that time was Professor Bakker, Labouchère's promotor. Up until 1945, the fund spent as much as 50,000 guilders on dwelling mound research, calculated journalist Leo Klep in his jubilee book about the fund. Under Professor Bakker's leadership, from the summer of 1928 there were further digs in the Burmania mound at Ferwerd, the village north of Leeuwarden where many of the

A glimpse of the collection from the Livestock department's farm at Duivendaal. Two horse skeletons can be seen in the background.



The 'mare of the mounds' as exhibited in the Frisian Agricultural Museum.

The horse lived between 187 before and 25 after Christ

Wageningen horse skulls that Labouchère was interested in came from. Curator Knol's guess is that the 'Wageningen' mare came from these excavations. This theory gained credibility when archivist Wim ter Beest got involved at my request. Ter Beest is a member of the Wageningen UR committee on preserving academic heritage, formed a few years ago. At that time he was working on digitalizing Wageningen UR's photo collection so as to make it available online. He is certain that he has seen photos of a collection of skeletons and bones. As he told me this, he got out a file of photos of the horse of Auzoux which had just come in. This life-sized papier maché model was recently put on display in the library. The photos were taken in the attic of the farm at Duivendaal, home to the livestock department before it moved to Zodiac on the Haarweg. This attic was where the department kept its teaching materials. One of the photos shows a man in a cloth jacket posing proudly beside the skeleton of a horse, his right arm draped loosely over the creature's bony neck. The Auzoux horse is next to the skeleton. But Ter Beest had more knowledge up his sleeve. He knew the archives of the LEB fund and thought there must be more information there about the dwelling mound research. A few months later, after getting permission to look through the dossiers, Ter Beest handed me a little bundle of papers consisting of annual reports on the mound research written in a shaky hand. Eagerly, I deciphered the handwriting.

In 1928 the LEB fund tasked recent graduate T.C.J.M. Rijssenbeek with the zoological research on the mounds. In April of that year, Rijssenbeek travelled to Ferwerd to supervise excavations at the Burmania mound, which were in full swing. Every week that summer, 2000 tonnes of fertile soil were carted off. The Burmania mound proved to be a goldmine in archaeological terms, too. 'Up to now about 100 bones a week have been found in Ferwerd, on average,' Rijssenbeek wrote to Professor Bakker in

July. The summer of 1928 produced a total of 1600 bones and bone fragments. Rijssenbeek also mentions a mare. Which is striking, because that find had taken place earlier, as Bakker reported proudly in his 1931 report on four years of dwelling mound research. According to Bakker the 'entire skeleton of a pony' was found in 1928. 'A find of very great value, since to date only one such specimen – neither as good nor as complete – is known, which is in the collection of the Biological Archaeological Cabinet at the University of Groningen.' The digs of that summer also produced another horse skull and two pig skeletons, according to Bakker.

The success of 1928 encouraged Bakker to carry on with the work of collecting. The question was who should do it now that Rijssenbeek had a real job: he became deputy livestock consultant to the government. It was decided to involve the dig superintendent, who then received 40 guilders a month to retrieve bones as well as he could and send them to Wageningen. 'This is not a failsafe system of course,' acknowledged Rijssenbeek, but he hoped it would 'prove to be a good solution under these less than satisfactory circumstances.' An early modern form of 'citizen science'.

The dig superintendent worked for Wageningen for two years until 1931, when science graduate Gerrit Gjaltsma took over the work. Reitsma was Rijssenbeek's successor. He was asked by the LEB fund to study and describe remains of farm animals found in mounds. That led to two publications in the years that followed: booklets about the sheep (1932) and the pig (1935). Further installments about the horse and the cow were planned but never came out. Reitsma moved to Ferwerd in the spring of 1931 and hit the jackpot straightaway. That very summer, according to Bakker's report, he found a second 'practically complete' horse skeleton. And to crown it all, one year later at the nearby mound at Arum, another 'largely complete' skeleton of a pony was found. Suddenly there were three candidates for the identity of the mare at the Frisian Agricultural Museum.

So which of the three is the 'Horse from the mounds'? The mare on the Duivendaal photo looks like a prime candidate for the, in Professor Bakker's view, so 'extraordinarily valuable find' by the young Rijssenbeek in the summer of 1928 in Ferwerd. The man on the photo turns out to be amanuensis W. Geurtsen, who held the post until spring 1932. The first two skeletons were found during that period. But there remain serious doubts. The frame on the photo does not match the skeleton's current frame. What is more, the mare in Friesland is missing part of the right knee joint, which has been replaced with a wooden block. On the photo with the amanuensis, that joint is whole. Nor do other photos from the attic collection at the farm at Duivendaal offer conclusive evidence on the identity of the 'Horse from the mounds'. I am probably not going to get any closer to the truth. An inventory of former collections at Duivendaal would provide answers, but it has been lost. The same goes for Reitsma's study of the horse, which was written but never

published.

When he visited Zodiac, museum director Dijkstra could not take the mare away with him straightaway. He had actually come for the impressive bull's head, which weighs over 100 kilos. So the skeleton was first moved to the campus where it stood for months in the corridor of the new Zodiac. And on 23 March 2012, Dijkstra drove once again to Wageningen with a trailer behind his car. And so the 'hynderke', well-wrapped in packing material, moved house again after 84 years. Back home to Frisian soil. ¹⁰

A GOOD CLEAR-OUT

What has happened to the Wageningen mound research material? The best of it found a home at Duivendaal, as the photo shows. The rest went into storage. But where, precisely, is not clear. As far as we know, the collection was cleared away in the spring of 1993. Roel Lauwerier, zooarchaeologist from the national Cultural Heritage service, was there. What lay there, he says, was Reitsma's collection, in the attic of a building due for demolition. The university wanted to get rid of the bones, but that was expensive. Because it was chemical waste it was going to cost 300 guilders per cubic metre. And there were 25 cubic metres of unsorted piles of bones! Most of them unwashed and some of them bearing the names of the mounds they came from. Useful pieces were selected and removed with the help of professor of Zooarchaeology Anneke Clason of the Groningen Institute for Archaeology. Clason certainly went away with 36

skulls of hornless cattle, says archivist Egge Knol of the Groninger Museum. 'I worked for Clason for a while, sorting skulls.' The rest of the material went to the Archeon historical theme park in Alphen aan de Rijn, recalls Lauwerier. 'A mediaeval street was "cobbleled" with metapodials from cattle. Everyone happy, and Wageningen was rid of its rubbish free of charge.'

But Lauwerier is sure that he didn't see any complete skeletons at that time. It is likely that the collection was moved with everything else to Zodiac on the Haarweg. This is the stuff Noordewier came across in the attic when she was getting ready for the move onto campus. Part of this collection was still in use for teaching purposes. A small collection of pigs' skulls is on display in two cabinets in the new Zodiac on campus. The mare went to Friesland and livestock students have taken other bits and pieces as souvenirs, says Noordewier.



Group photo of the livestock department of yore, with (from left) Professors Bakker, Douma, Bosma, Zander and Reitsma.

MORE TEACHING BY DLO STAFF?

There is a shortage of teachers at the university, while DLO has staff to spare and these researchers have specialized knowledge to contribute. So why not get more DLO staff into the classroom? This idea has been kicked around in several places in the past few months. More collaboration would be good for One Wageningen too. But is it possible to involve researchers in teaching? And is it a good idea?

text: Yvonne de Hilster / **illustration:** Henk van Ruitenbeek

Frans van Alebeek



DLO, works at Applied Plant Research

'I have been a process coach for an ACT group and I sometimes give guest lectures at CAH Vilentum in Dronten and Almere. The contact with students is enjoyable and inspiring. They are eager for knowledge and they ask questions I wouldn't ask anymore, which keeps you on your toes. But you can't just transfer from a DLO job into teaching just like that. You need teaching skills and knowledge about formulating learning objectives and making lesson plans. I am qualified to teach Biology at High School level, but I am always a partner as well as a teacher. Besides training, you need an affinity with education. **It is not just a solution for DLOers who don't have enough hours and projects.**'

Tiny van Boekel



Director of the Education Institute

'Making use of DLOers in education is valuable if their expertise contributes to the learning objectives and can help cater for rising student numbers. But in practice it's still a bit tricky. **Firstly you need to find a way of getting DLOers to get the basic teaching qualification** (BKO), just as university lecturers do. Secondly, the teaching budget is not geared to DLO's higher

hourly rates. Thirdly, university lecturers are on tenure track and they do a combination of teaching and research. If a DLOer's research is recognized by a graduate school, then he or she could focus on teaching for a chair group and do research at DLO as well. A lot depends on the kind of research: confidential DLO research is sensitive and the research is also required to expand the boundaries of science. Given the One Wageningen credo, I would expect the Executive Board to tackle this problem.'

Maria Forlenza



WU, works at Cell Biology and Immunology, nominated for Teacher of the Year Award 2015

'Teaching is not the same as giving a presentation. With a presentation you aim to impress and you can afford to 'lose' some of your audience. In teaching you need to draw in as many students as possible, build up slowly from one level to the next, and check whether students can still follow your story. I also try, each year, to motivate students who aren't very keen. **Whether DLOers can teach depends on the person.** I know DLOers who are great teachers. But not everyone has it in them. Secondly, it depends on a person's expertise: For some subjects it can be a good idea to ask a DLO expert in. And thirdly, a course with EDUsupport can often help, with learning the Wageningen teaching style too.'



And lastly, there are different forms of learning of course. Perhaps a DLOer has most to contribute to problem-centred learning and more applied activities.'

Coen Ritsema



WU, professor of Soil Physics and Land Management, at DLO until 2012

'I understand that there are DLOers who would like to be seconded to the university because their institutes are not doing too well and the market is shrinking. I can see the

case for arguing that dual appointments strengthen the relationship between DLO and the university and the passing on of both fundamental and applied knowledge. Alterra has been working in mixed teams for years. They have just been separated out again, but you can reinforce each other through collaboration. And I gather many chair groups could use an extra teacher. Because the government funding from the ministry is not enough, you can only do that if you have enough external funding. **Someone who can bring in indirect and contract funding is one step ahead.** Whether that is a DLOer or someone from outside doesn't really matter. What mat-

ters in the end is the quality of the individual. And of course you need a teaching qualification to go into teaching.'

Ine van der Fels



DLO, works at RIKILT

'I think it's a good development that DLO colleagues at the university lecture and contribute to developing course material. You can bring in examples from the field and I notice that students value the link with professional practice. I myself have been working a few hours a week at Business Economics for a year and a half now. They hire me for teaching and research. I am now giving three two-hour lectures on Food Safety Economics. I also give guest lectures on topics such as the safety of insects. **I enjoy teaching because it makes a change from the rest of my work.** When I prepare lectures I also see more coherence between the projects I work on for clients. Because I didn't have any teaching experience, I took an internal course early this year, and learned more about ways of bringing more variety into lectures.'

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Going into green education



The green vocational training (MBO) sector is not a world that is often familiar to people at the university. But there are opportunities there for Wageningen students of Forest & Nature Management, or Plant or Animal Sciences. Such as training to teach on an animal care programme.

text: Ton van den Born / **illustration:** Eva van Schijndel / **photo:** Sven Menschel

Food, Recreation, Design, Crop farming, Flowers, Nature, Animal, Environment. These are key words for green 'MBO' post-secondary (16+) vocational training colleges. Many of these colleges – and there are about 60 of them in the Netherlands – have tractors, kitchens, a collection of animals and a garden. There is a lot going on in and around such a college, but the students do a crucial part of their learning on the job. These are doers, say their teachers. Outdoor types who love being out in nature and want to

work with plants or animals.

Four Bachelor's students who are going to follow the education minor in the Education and Competence Studies (ECS) chair group, will be starting teaching practice in one of these green MBO schools in September. Four others are still thinking about it. This is new, because until now almost all the students on the education minor thought in terms of teaching in secondary schools. This includes the 25 students who are now taking the minor and will qualify to teach the lower secondary classes of the more academ-

ic streams, HAVO and VWO.

To teach in an MBO college, a different, less theoretical qualification suffices. The focus here is on vocational learning, explains Piety Runhaar, who coordinates the education minor. 'As a teacher you are not just dealing with theory but also with hands-on practice and with career guidance for the students.'

She thinks it is not very well-known that Wageningen students can teach on these programmes. A project has now been started with Helicon, a green vocational training institution

with both MBO and VMBO (pre-vocational secondary) schools in Brabant and Gelderland. The organization, whose president Ab Groen worked at Wageningen UR until two years ago, posed the question how they could get more Wageningen alumni on their staff. 'We've been in touch about this since September 2014,' says Guido Voets, human resources manager at Helicon. 'We hear that many students who initially set their sights on scientific research, become interested in education. It the idea of teaching for a few years appeals to them.'


IN THE PICTURE

Helicon hopes that the baggage Wageningen students bring with them can raise the standard of the education at the college. 'We expect more depth of content,' says Voets. 'In recent years a lot of attention was paid in MBO to the standard of language and arithmetic, but that pushed the subject matter into the background a bit.'

The education minor is a first step for ECS to-

wards arousing some enthusiasm for green MBO education among students. Runhaar: 'We have been thinking about how to create a link with green vocational education at the Master's stage too. By setting up an ACT assignment at Helicon, for instance.' ACT stands for Academic Consultancy Training: a course in which Wageningen Master's students carry out an assignment for a client outside the university, working in multidisciplinary groups.

Runhaar sees the training of Wageningen students to teach in green vocational education as supplementary to the work of Stoas Vilentum. This higher education institution, located on the edge of the Wageningen campus, has been training teachers for the green vocational colleges for 35 years. In her view this could be an ideal mix for a green vocational education college: the teaching skills of Stoas graduates and the academic knowledge of Wageningen alumni.

'Either way, MBO is another world,' concludes Runhaar. 'But that world needs to be more in the picture in Wageningen.' 

THE EDUCATION MINOR

More than 50 years ago (in 1964), a department of Pedagogy & Didactics was established at Wageningen University, offering a teacher training programme for secondary education. Up until the early 1980s, students could qualify for teaching through this programme. In 1983 the government asked universities to concentrate their curricula more and the teacher training programme was stopped. Later the Education and Competence Studies (ECS) chair group started an orientation programme which included theory and teaching practice. Twenty students from various Bachelor's programmes took part in this programme each year. They could go on to a teacher training course afterwards to qualify as teachers. The education minor was launched in 2009. The ministry of OCW, fearing a teacher shortage, wanted students to be able to get a fast-track teaching qualification. The minor has been running twice a year since 2011-2012. Many of the students have set their sights on going into teaching and for others it is a way of finding out whether teaching is a good option for them. Students can qualify to teach biology, geography, physics, chemistry and economics to lower secondary school classes. Students may qualify to teach the subjects related to their degree: students of Soil, Water & Atmosphere can teach physics, for instance. Students with degrees in unrelated subjects can follow a programme to bring their knowledge up to scratch after the minor. This option is rarely taken, but the education minor qualifies them to teach at a green college too. ECS expects this to lead to a growth in the numbers taking the minor – which appear to be stabilizing at the moment. Students of Forest and Nature Management, for example, or Plant and Animal Sciences, can easily teach related subjects at a vocational college after completing the minor. 'We haven't studied all the colleges, because you have to start somewhere,' says Piety Runhaar. 'But I expect there would be opportunities in green colleges after the minor for Bachelor's students of, say, Food Technology, who can't go straight into teaching chemistry in secondary schools.'

SANNE VAN DEN BRINK (20) Animal Sciences

'I've been to the college in Velp twice and I liked it very much. It is a small school on a friendly scale, with small classes. This makes the teaching more personal and you can devote more energy to the students. I think that contributes significantly to their development. They don't have a lot of animals at the school, but they encounter them in the companies they go to for internships. I expect to learn a lot. I expressly opted for a vocational college because there is more of a link with my field. I could teach biology in a secondary school too, but my main interest is in animals. I don't have very firm ideas about the future but if I enjoy it during these six months, I might go into teaching.'



LARA OLDE BOLHAAR (20) Animal Sciences

'When I was still at primary school I visited a green vocational secondary school and spent a day there. I was very enthusiastic about the school, where you could do flower arranging and look after animals. It was great, but I realized the level wasn't right for me. I know a bit about green MBO from my sister, a friend doing animal care and a fellow intern at an organic pig farm. I think it must be difficult to teach at a vocational college but the practical nature of it appeals to me. I don't know yet whether I will really go into teaching, but I think teaching skills can be useful anyway. In September I'm going to the Helicon college in Velp. I'm looking forward to that.'



BLUE (1)

Many alcoholics have blue eyes, researchers at the University of Vermont have discovered. The genes for alcohol addiction and eye colour turn out to be on the same chromosome. It is not clear what the significance of that is, say scientists. But it does make you look around you with new eyes. Keep a lookout in the pub next time.

SMELL

No two noses are alike. Our sense of smell is unique, research by the Weizmann Institute of Science has shown. Every nose has about 6 million odour receptors, divided into 400 different types. No wonder no two people have precisely the same sense of smell. It opens up possibilities for identification with a kind of nose fingerprint. Tell me what you can smell and I'll tell you who you are.

GULP

The hermaphrodite flatworm *Macrostomum hystrix* inseminates itself through its head, Swiss zoologists at the University of Basel have discovered. The penis and vagina of the worm are physically separated so the self-injection has to be done 'from outside'. The worm does this by injecting into its head with its penis. A kind of DIY blowjob.

**BLUE (2)**

A drop or two makes you more attractive, suggests research at the University of Bristol. The scientists got students to respond to photos of people who were sober, had had a little to drink, or were drunk. The result? People find you more attractive when you've have 2.5 glasses. Something to do with colour in your cheeks, being relaxed, that kind of thing... One reservation: the sample size was 40 people. Call that science?

Student societies anticipating growth

In recent months, Cantil, the clubhouse of student society KSV Franciscus, has been renovated to provide space for more members and visiting party-goers. The hall on the ground floor has more than doubled in size. To accommodate this expansion, some kitchen space has been sacrificed. 'The 50-year-old kitchen was originally built to serve as an open refectory. As the subsidy for that facility has been withdrawn, we can manage with a much more compact kitchen,' explains Marco Vogelzang of

KSV Franciscus.

The litmus test of the new hall is set to take place on Friday 14 August during the AID. The rapper Ronnie Flex will be performing. 'As a rule, the main act at an open party performs in the pub room on the first floor. Now the ground floor is so large that the performance can be held there,' reports Vogelzang.

Similarly, the other student societies are taking steps to accommodate more members and party-goers. Last year Ceres replaced the

floor in its clubhouse, joined two rooms to create one larger one and installed a circular bar. 'This has created much more space at the bar without the loss of any floor space,' tells the new president Jeffrey van den Born.

For the time being, SSR-W does not expect to outgrow its premises, but over the past year it has revamped the garden, says chairperson Jorrit Timmers. 'The outdoor bar has been modernized and the surrounding terrace has been extended.' **KG**

AID in the race for the Netherlands' greenest intro week

The AID board wants to organize the country's most sustainable introduction week here in Wageningen. The competition with other student cities is intense. 'Last year we won third prize, I believe,' says Koen van Bezu, chair of the AID board. 'Green' Wageningen University should be able to improve on that.

For three years in a row the university has already received the SustainaBul – the prize for the most sustainable higher education institution – from the national sustainability network Students for Tomorrow. Now the time is ripe to bring home the award for the most sustainable introduction week. 'Among other things, we'll be using the Green Man,' says AID board member Lauren Huisman. Dressed in a green Morphsuit, this Green Man will be giving AID participants green tips, for example that it is better to drink tap water than bottled water. And at lunch time he may turn up near the waste bins to point out to AID participants that they must separate their rubbish.

An important weapon in the battle for the most sustainable introduction is a special AID app. This app is new and includes the AID events programme, assignments that AID participants must do at cer-



Two years ago AID participants were already busy separating rubbish.

tain AID activities and a discount voucher for a bottle of wine. Thanks to the app, the information pack given out at the start of the week will contain considerably less paper.

Another useful app is the WURpp, which will be relaunched during the AID. This app enables Wageningen students to win prizes

by completing assignments. For each assignment they are awarded points that they can use to win bags, a party tent or a bicycle. The new improved app is more user friendly, has a Hall of Fame containing the best submissions and provides a ranking, so that students can compete with one another. **KG/LvdN**

EPISODE 54 - MORTIERSTRAAT 14B <<

Text
Rob
Ramaker

The story so far: For their holiday the Mortierstraat are making a tour of their parental homes. After a couple of visits Filippo is sick of constantly being seen as the foreigner

Home sweet home

Filippo looked on in fascination as everyone attacked the kale *stamppot*. This was the last stop on their tour of all their parental homes and they were at the table in Willem-Jan's parents' house. They had insisted on making *stamppot*. Midsummer or not, frozen kale or not, Willem-Jan's mother could stand it no longer, she declared dramatically, that Filippo had never tasted *stamppot*. So now the Italian stared in amazement at people around him busy making little hollows for the gravy in their mountains of mash. A cuckoo clock ticked away in the background. 'This is actually not bad at all,' he said politely after the first mouthful, causing Willem-Jan's mother to glow with pride. 'You are such a positive group,' she said. 'We can see why it's such plain sailing for Willem-Jan.' Encouraging nods all around the table. Dutiful son had briefed them to keep mum about how he was doing academically. 'Willem-Jan was always a keen student at secondary school too.' Derk only managed to suppress an attack of the giggles by choking spectacularly on his *stamppot*. As Vera thumped his back, Bianca quickly changed the subject. 'I'm so happy that we get to see so many parts of Holland this summer. First Brabant, then Rotterdam, Salland and now the Achterhoek.'



ILLUSTRATIONS: KIM PETERSE

'Yes, I think it's a fantastic idea,' nodded Willem-Jan's mother, pointing at Filippo. 'That way he gets to see a bit of the country.' Filippo's expression was a bit less polite now.

At about 11 o'clock they piled into the minibus, yawning like mad.

'Let me drive,' offered Filippo, 'I feel totally awake, guys.' As the kilometres went by, they nodded off one by one.

First Bianca, then Derk and lastly Willem-Jan after chatting with Filippo for a while. Nobody noticed him leaving the motorway and changing direction. A little while later, Willem-Jan woke up. Disoriented, he rubbed his stiff neck. Shouldn't they be home by now? he thought. He looked out confusedly, seeing yellow signs flashing past. For one long astonished minute he stared out of the window.

'We are in Germany,' he stated, jolting the others awake.

'Why?'

'We are going to my home now,' said Filippo with a grin. 'To Italia.'

Resource follows events at Mortierstraat 14B

Help required with campus garden

Wageningen Campus is getting a garden. Students and staff can help with laying and planting it out. The garden will be located at the campus entrance near the Dijkgraaf block of flats and will be called The Field.

The project came out of the idea of an edible academic garden (EAT), explains Blair van Pelt. She submitted plans for an edible garden in the middle of the campus three

years ago. Now she has been appointed project leader for the start-up phase. Whether a vegetable garden is included depends on the initiatives submitted by campus users, explains Van Pelt. 'It is a multifunctional field intended for education, demonstrations, experiments and training.'

The gardening starts on Friday 14 August. 'Everyone is welcome to come and help with sowing indige-

nous flowers,' says Van Pelt. 'The field has been a building site for a year so the soil has been disturbed. That is why the middle bit has already been sown and now we are going to do the edges.' In 2016 about 100 apple trees will be planted, with many different varieties. 'There is space for other projects too. What they will be depends on what people want. Groups eager to get to work in The Field can send

me their proposals,' says Van Pelt.

The budget for The Field is limited to finding for sowing flowers and laying paths. 'Eventually I would really like to see the university making material available for working in the garden as well. But that is not my first concern. The main thing now is that The Field is officially opened, that people know about it and want to help with it, and that it becomes a beautiful garden.' **KG**

>> PARTIES

The best parties according to Wageningen Uitgaans Promotie. Check www.wageningenup.nl for all parties.



WAGENINGEN CENTRE - AID: IDEALIS STREET THEATRE FESTIVAL

Saturday 15 August from 20:00 to 23:30

Crowds fill Wageningen city centre during the

annual AID street theatre festival. You'll find something happening wherever you look. Young and old, students and non-students, everyone is entertained. Some acts start at set times and draw a crowd. So if you want to get a seat, you will need to arrive on time.

CERES - POOL PARTY

Saturday 15 August from 23:00 to 06:00

Only during the AID can you experience this water spectacle. And believe us, you don't want to miss it. Bring nothing but your student ID card and money for tokens because by the end of the evening you are bound to be wet and grubby. You might want to bring a towel and shirt in a plastic bag. At least then you can put on something dry before cycling home.

SSR-W - RAISE YOUR VOICE

Monday 17 August from 23:00 to 05:00

Be sure to drop in on the silent disco at this party. It's a really fun and unusual experience. Not that going wild to the tacky hits we all love at the après-ski party isn't great fun too. Snow machines and Apfeln liqueur specials provide the winter-sport ambiance.

CAMPUS - AID FESTIVAL

Wednesday 19 August from 17:00 to 23:45

Even without an AID wristband you can join the final AID festivities. Admission's not bad either: just 5 euros. Tickets are already on sale. The closing party with Gregor Salto and Carl Tricks will be preceded by a festival starting at 17:00 during which Wageningen's restaurant owners will be selling food. Bands will be providing the music. ③

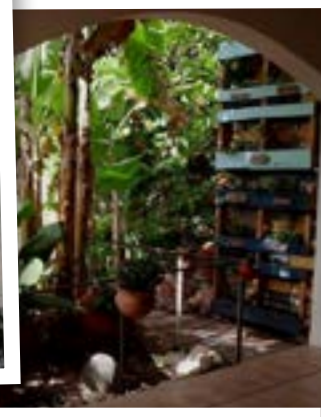
>> THE WORKS

'NO ORGANIC SEED TO BE FOUND'

Who? Lorenzo Locci, Master's student Organic Agriculture
What? Internship, Curacao Edible School Garden(s) project
Where? Curacao

'The idea of creating an edible garden came from a small group of enthusiastic volunteers, most of whom were retired people. Some 25 percent of the children and teenagers on Curacao are overweight and they wanted to do something about that. Inspired by Michelle Obama, who created an edible garden for the White House, they came up with the idea of creating gardens like this at schools on Curacao. In order to teach the children something about agriculture and healthy food and to help them change their eating habits. My job was to work out the agricultural, financial and management aspects of the project. There wasn't any kind of proper, formal organization as you would have in an NGO, university or company. Often we held our meetings at people's homes, which meant in their beautiful, tropical gardens.

The agricultural sector on Curacao is not as developed as it is in the Netherlands. Conventional agriculture accounts for most of the farming activity. Some people are trying to take a more sustainable approach, but there is little expertise available. For example, we wanted to use organic seeds and crop protection agents but they turned out to be unavailable. At times this made the project rather challenging, but the team had great dedication. So much so that a plan has now been completed. The next step is to raise funds for the implementation.



The people of Curacao are very relaxed, they do everything at a leisurely pace. I noticed that their society is also very multiethnic. This is reflected in the Curacaoans' language skills. Most people speak no fewer than four languages: Dutch, English, Spanish and Papiamentu. A tip for future interns: don't go and live in a student house. During the ten days that I lived in one, armed robbers entered it three times! I went to live with a local person. Not only is that safer, but you feel more integrated. For the rest, wild animals are everywhere to be seen, from iguanas to humming birds. The beach was just round the corner. One day I was sitting there gazing out to sea when I suddenly saw dolphins leaping out of the water at great speed. That is a moment I will never forget.' ③ JB



PHOTO: THINK4PHOTO / SHUTTERSTOCK.COM

MEANWHILE IN... <<

Meanwhile... in Nepal

In the news: Nepal was hit by a devastating earthquake in April 2015. There was a national action day in The Netherlands to raise funds for Nepal, and Nepalese students and PhD candidates in Wageningen also organized various fundraising events. How is the situation now?

Commentary by Mary Shrestha, Master's student of International Development Studies and blogger for Resource.

'Immediately after that first big earthquake there were a lot of NGOs that raised money for Nepal. We, the Nepalese Student Society Wageningen, did so as well. We chose to donate that money to the Prime Minister's Earthquake Relief Fund. I think that was a good decision. During the initial relief campaign many organizations were going into Nepal to help. It was not so coordinated. Now the government has taken control. Every organization that wants to do recovery work, has to go via the government. That is working quite well, I think.

'There are still many aftershocks in Nepal. But people are getting used to it. Every shock with a magnitude under 5 on the Richter scale is shrugged off as if it was just a little tremble. People have become really resilient.

'The rainy season has interrupted the recovery process. It is impossible to build houses at the moment, so 40,000 people are still living in tents. My grandmother's house was among those destroyed and she is renting a place temporarily. After the rainy season, she will build a new house with the help of the family. All the people who lost their homes have received a grant of around €1800 from the government for constructing temporary houses. And the banks are also providing them with soft loans.

'When the earthquake hit, I was in Vienna for my thesis. I haven't been home since. But my time in Wageningen is almost over. I am flying back to Nepal soon.' **KG**

in memoriam

Diny van Aalderen



Our colleague Diny van Aalderen passed away on 26 July, due to breast cancer. Diny

was a great colleague, friendly and hard-working. She worked for many years in the media department of the Library, where her responsibilities included ordering journals and books as well as filing theses and Wageningen reports in the Wageningen UR library system. For the past year Diny mainly worked on the library catalogue. This is something Diny had wanted for a long time, and she tackled the job with great enthusiasm.

Diny was 61 when she died. She was diagnosed with breast cancer three years ago but the treatment seemed to be working. The cancer came back again last summer, however. She coped bravely with her illness and fought like a lioness.

We were very fond of Diny, who was a positive person and an example to us all. She was unequalled in her combination of passionate enthusiasm in both work and leisure pursuits, and a down-to-earth capacity to keep things in perspective. She had a love of learning and was always developing new interests, and she knew a lot about Wageningen UR. She went for quality, not only in her work but also in her relationships with colleagues.

To the last, Diny remained involved and took an interest what was going on in the workplace and her colleagues' lives. We are deeply saddened to lose Diny, and our thoughts and sympathies are with her husband Henk, her children and grandchildren as they face the loss of this very special lady.

*Hubert Krekels
Librarian*

Henk Croon



We were very sorry to receive the sad news that our colleague Henk Croon died of cancer on 31 July.

Henk was a good, team-spirited and highly committed colleague. He had worked in the legal department at the then agricultural college in Wageningen since 1976 before being appointed head of the Personnel sector at Animal Production in 1990. In the years that followed he was the face of personnel and organizational matters in the Animal Sciences department at Wageningen UR. Henk knew the department and all those who worked there like the back of his hand, and was very committed.

Henk will be sorely missed. He was warmly appreciated for his tremendous knowledge and his pleasant manner by all his HR colleagues and by department staff at all levels. Henk was only 64 years old. He fell ill at the beginning of 2013, but the treatment seemed to work. Sadly in 2015 it became clear that this was not the case. The way Henk dealt with his terrible illness deserves our admiration and respect.

In recent years Henk and his wife made some very nice trips together and he used his 'senior' days to have more time with his grandchildren, of whom he was very proud. But if it was busy in the office, he could often be found at Zodiac even on those days.

We are very sad that Henk is no longer with us. Our thoughts are with his wife, children and grandchildren; we wish them strength in coming to terms with the loss of a special person.

*Ineke de Weerd, head HR ASG,
On behalf of the directors of ASG*

in memoriam

Jean Pierre Manzi



We received the devastating news that Jean Pierre Manzi, one of our Environmental Sciences

Master students, passed away last Saturday, August 8th 2015.

Jean Pierre started his master studies in September 2014, being provided with an NFP grant. He chose to major in Environmental Technology. Jean Pierre seemed to do well until he started to experience personal problems in the spring of 2015. He decided to return to his home country Rwanda to take a rest and to recover. As things seemed to go much better lately, he decided to come back to Wageningen midst of July to prepare for his only re-exam. Unfortunately, he did not make this. He met his untimely death before he could achieve his dreams in Wageningen.

We will remember Jean Pierre as a kind and talented student, and we offer our condolences to his family and friends, in Rwanda as well as in the Netherlands.

A book of condolences is available in Forum, ground floor, next to the side entrance. A farewell ceremony is scheduled on Friday August 14 in Gaia 1 + 2, starting at 17.00 hrs.

Marjo Lexmond, study advisor

Classifieds

Wanted: A Project Assistant for the Right to a Liveable Environment Programme

OtherWise's programme 'Right to a Liveable Environment' promotes people's fundamental human right to live and generate sustainable livelihoods in a healthy, ecologically balanced and socially just environment. Within this programme we organise lectures, discussions,

movie screenings and debates. Otherwise is looking for a project assistant who is enthusiastic about organizing these events, finding new and current topics and innovative ways of presenting them. It is a great opportunity to develop your research, organisation and presentation skills and interests, network with other organisations, gain experience in working for a small organisation and be a part of our team! Deadline application: 6th September.

WWW.ST-OTHERWISE.ORG

Green Alley Award 2015

Are you a green start-up or eco-entrepreneur with a brilliant idea in the green and circular economy sector? Then apply now for the award 2015 and become one of Europe's leading sustainable start-ups! All you need to do is to prepare a pitch deck introducing your business idea. The Green Alley Award is Europe's first start-up competition focused on the circular economy. In association with our partners Seedmatch, ERP UK and Bethnal Green Ventures, Green Alley is looking for great green ideas, new services, products and technologies that can turn waste into a resource. In return we offer strategic support, networking opportunities and financing to boost your business across Europe. Deadline for applications: 15th September.

WWW.GREEN-ALLEY-AWARD.COM

Humanimal – Innovation Challenge launched

Innovative scientists, businesses, entrepreneurs and students in the Life Sciences & Health sector have a chance of winning €50,000 to enable them to turn an innovative idea into an implementable product or service. The Netherlands is in a strong position in the global Life Science & Health sector. Biomedical research in Dutch teaching hospitals and Dutch universities has a strong reputation. However, the knowledge that is present does not automatically appear on the market in the form of an implementable product or service. To stimulate the translation of knowledge into market in-

novations, HUMANIMAL – One Health is running an innovation competition. Small-scale or large-scale, fully worked-out or still on the drawing board – all innovative ideas can compete for the prize. Deadline for submissions: 31 August.

WWW.HUMANIMAL.NL

agenda

Friday 14 August, 16.00-18.00 SEED 'THE FIELD'

Always wanted to bring more colour to Wageningen Campus? This is your chance to make a difference! Come and join OtherWise in sowing seeds in 'The Field'. The Field is located at the western entrance of the campus and will provide innovative space for informative projects related to the knowledge fields of Wageningen UR, and the mission of Wageningen Campus: 'Gateway to smart food in a green world'. Here, students, employees or partners of Wageningen UR, and companies located on Wageningen Campus, can realise small-scale ground-bound projects that provide interactive education opportunities and demonstrate what's going on inside all those buildings. Come and help us make a start! Seeds, tools and drinks will be provided.

Meeting point: 16.00 hrs at the new bus stop, western entrance of the campus (Akkermaalsbos)
More info: blair.vanpelt@wur.nl

Friday 14 to Sunday 16 August, from 16.00

FROM MOLENSTRAAT TO MOLEN BEACH

Prolong that holiday feeling by enjoying three days at the beach. The Molenstraat will be covered in a nice layer of sand for these days. Organizers Café Loburg, Heerenstraat Theater and Risorante Sa Lolla are laying on three atmospheric days when guests can sit with their feet in the sand in festive surroundings. Live music from different regions every day, and snacks and cocktails. Kids can build sandcastles or go to the cinema at 16.00 at a special price (€ 6,50 per child).

WWW.HEERENSTRAATTHEATER.NL

Saturday 15 August, 20.00-23.00

IDEALIS STREET THEATRE

The market square, the Raadhuisplein, the Salverdaplein, the Hoogstraat and part of the Vijzelstraat will form the backdrop to the Idealis Street Theatre Festival, a non-stop programme of entertaining performing arts. Street artists from home and abroad will lay on a musical, acrobatic and comic show. It will be one big spectacle and everyone is welcome. The festival forms part of the introduction week for new students.

Sunday 23 August

KNNV: BIRD-WATCHING EXCURSION NATUURGEBIED TIENGEMETEN, PROVINCE OF SOUTH HOLLAND

Tiengemeten is a beautiful bird island managed by Natuurmonumenten, full of swallows and waders at this time of year. We'll be going for a long walk around the island. To catch the 10 o'clock boat we leave from the Olympia-plein (the west side) in Wageningen at 8.30. Back at 18.00. The ferry costs 4 euros for Natuurmonumenten members, 5 for non-members. To sign up: wimhaver@hotmail.com / 06-1648 4728

Wednesday 23 September

SYMPOSIUM "DE VEETELERS"

From 'simple farmer' to 'agricultural entrepreneur'. The livestock sector is changing fast. The symposium 'Spotlight on Livestock: agricultural business in a changing context' paints a picture of current developments in livestock and discusses the way forward from the point of view of the livestock farmer, the business world, government and science.

REGISTRATION AND INFORMATION:

WWW.NZVNET.NL

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

BLOG

In the battle to become Resource's regular blogger, students and staff members sent in trial blogs over the summer. Below is a translation of the most-read blog. All the other blogs, in both Dutch and English, can be read on Resource-online.nl.

IN HOT PANTS IN THE CLASSROOM

By Carina Nieuwenweg, BSc student of Molecular Life Sciences

I wind my fellow students up several times a week when I talk about school, class and classmates. It's not that I'm deliberately being denigrating; I just find school and class easier to say than u-ni-ver-si-ty and lec-tures.

But it seems this is somehow heretical. Students start to huff and puff if I affectionately call them classmates. After all, our high school diplomas weren't just dished up with the cornflakes. We worked hard for them, and they are a real achievement. Clearly the next step after high school is quite a thing. Something to be proud of. We've grown out of school, say the unwritten rules. OK, I get that. Sort of.

But what I really don't get, what leaves me totally baffled, is the way the same classmates (or fellow students, as you wish) in whose eyes I brazenly offend their academic dignity when I talk about 'going to class' do not hesitate to parade around the university in extremely short shorts, flip-flops (or bare feet, also totally hot, apparently) and cropped tops and sweaters. Outfits I would consider more in place at a Going-to-Ibiza party. So how seriously are you taking the university then? There are enough other outfits in almost every style that are suitable for hot weather, but which don't allow everybody to enjoy the sight of your cellulitis.

Sorry, but it still seems weird to me to be corrected for my school vocabulary by someone in short hipster pants. But then, even if she is very nearly walking around in her underwear, she is doing so at university and not at school!

I have to admit that this strange phenomenon intrigues me. I have a theory about it. Might it not be the case that all students feel they have grown out of school by now? That they now amount to something in society, but that what they really want most is for the university not quite to be the big bad world yet. That there is one last staging post before things get really serious. Before the way you dress really has consequences. ®



colophon

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

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>>TYPICAL DUTCH




ILLUSTRATION: HENK VAN RUITENBEEK

Rich country, poor hygiene

I already knew that the Netherlands is a rich, well-organized country with a clean environment. But I am very surprised to see that people here do not worry at all about the quality and safety of their food.

It took me nearly six months to get used to taking bread and cheese for lunch. I do it now, but I eat my sandwiches from the plastic bag, not out of my hands. My Dutch colleagues, however, don't worry about eating from their hands. They even put their sandwiches on the wooden lunch tables outside, which are exposed to the air and wind. I think the tables are dirty, but the Dutch seem to have a different take on this. I have even seen them picking up the breadcrumbs from the table and putting them into their mouths. This left me speechless.

It also amazes me how people here 'clean' an apple by rubbing it on their clothes. In China, we usually wash and peel apples before eating them. And some fruits, like grapes and cherries, we even soak for around ten minutes in water to which we add wheat flour or salt. We are worried about the pesticides. I wonder whether Dutch people think that a bit of rubbing will get rid of the pesticides.  **Huicui Lu, PhD candidate in the Forest Ecology and Forest Management Group**

People here 'clean' an apple by rubbing it on their clothes. Do they think a bit of rubbing will get rid of pesticides?

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