



Press Trip
Dutch Dairy – Innovations in emission

23-26 March, 2023
The Netherlands / Friesland

Welcome to The Netherlands, the province of Friesland (Fryslân)

ENAJ, the Dutch guild NVLJ and its organizing foundation Dutch Roots, are honoured to welcome you in the Netherlands for the press tour 'Dutch Dairy – Innovations in emission'. We hope you will have an interesting and pleasant stay.

We stay with a group of 21 participants from 13 different countries plus the organizers in the former farm house Gastopstal in Wyns. This is a small village in the countryside about 10 kilometres from the province capital Leeuwarden. The province is world renowned from the breeding of dairy cows. In Leeuwarden there is even an important statue to underline the importance of the cow. The statue is called Us Mem (which means Our Mother).

The accommodation enables us to socialize and meet each other in an informal and comfortable way. We can have talks about journalism, agriculture and many other topics. On the other hand, the catering is more or less self-serving. Pick your own beer from the fridge and prepare your own sandwich. And afterwards: make sure you bring the dishes back to the kitchen. And take into account that we share bed- and bathrooms. There is plenty of space to accommodate us all, but be aware you're not alone. Solve it smoothly.

The theme of the tour is Dutch Dairy, innovations in emission. The Dutch agriculture and the dairy sector in particular, are under heavy political and social pressure to reduce emissions of nitrogen, ammonia and CO₂. The radical interventions especially on nitrogen emissions planned by the government have led to violent farm protest. It is clear however, that farmers have to react to new challenges. During this press tour you will be presented possible innovations for dairy farms. We will also address the challenges (practical, political and societal) in an interactive discussion. You will meet farmers, scientists, policy makers and other stakeholders explaining the situation.

In this press kit you will find the programme and some background information. It will be also available on the website www.dutchroots.info.

We look forward to showing you around in Fryslân. Let's make it an unforgettable event!

*Sjoerd Hofstee
Connie and Hans Siemes
Jacqueline Wijbenga*

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Dutch Dairy – Innovations in emission

23-26 March, 2023

Leeuwarden / Friesland
The Netherlands

Accommodation:

Gast op Stal, Wyns 28, 9091BD Wyns, The Netherlands

Sneak preview of the accommodation: [Home](#) • [Gast op Stal](#) • [Bed and Breakfast in Friesland](#)

There are no single rooms, it's either double rooms or rooms with more beds.

Program

Thursday, March 23

Friday, March 24

- | | |
|---------|---|
| 7.30 h | Breakfast |
| 8.20 h | Departure Wyns |
| 8.45 h | Arrival at Dairy Campus |
| 9.00 h | Welcome by NVLJ |
| 9.10 h | Introduction to Dairy Campus and the emission challenges
Kees de Koning, director of Dairy Campus |
| 9.30 h | Insights in Nitrogen challenge – farmers perspective
Trienke Elshof, farmers union, responsible for the nitrogen dossier |
| 11.30 | Coffee break |
| 11.00 h | Science road to solutions
Ernst van den Ende, director of Animal Science Group,
part of Wageningen University & Research |
| 12.15 h | Lunch break |
| 13.30 h | Excursion at Dairy Campus
Participation of:
Kees de Koning, Bert Philipsen, Harmen van Laar en Hendrik Jan van Dooren |
| 15.30 h | Tea break |
| 16.00 h | Solutions: what are the changes for Dutch Dairy – an interactive discussion
Femke Wiersma (BBB)
Sieta van Keimpema (DDB)
Robert Baars (Van Hall Larenstein)
Theo Mulder (Mulder Agro) |
| 17.30 h | Departure to Restaurant Wannee |
| 18.00 h | Drinks and diner |
| 21.45 h | Return to the accommodation |

Saturday, March 25

- 8.45 h Departure to farm 1
- 9.00 h Dairy farm: Herman Miedema, Wyns
Excursion on farm – impact of emission rules and regulations on daily routine of farming
- Also highlighting the sustainability goals of feed company Agrifirm, their policy to contribute to the UN climate goals and the way they formulate feed to assist farmers in their efforts to meet demands of society
- 10.30 h Departure to farm 2
- 11.15 h Arrival at farm 2
Dairy farm: De Deelen, Tijnje
- Presentation of Lely Sphere
Presentation of Bovaer
- 12.30 h Lunch at De Deelen, courtesy of Lely
- 13.30 h On farm excursion of the farm De Deelen, cheese producing farm
- 14.30 h Departure to farm 3
Fam. Heide, Hoornsterzwaag
- 14.45 h Excursion on farm – impact of emission rules and regulations on daily routine of farming
- Also highlighting On the way to Planet Proof, Nourishing a better planet and the role of the dairy company in the production chain that works towards a sustainable future. Reducing emissions, what in it for the farmer?
- 16.30 h Departure to accommodation
- 19.00 h Buffet dinner at the accommodation

Sunday March 26

9.00 – 11.00 h Breakfast and departure





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Emissions in the dairy chain - What's the problem?

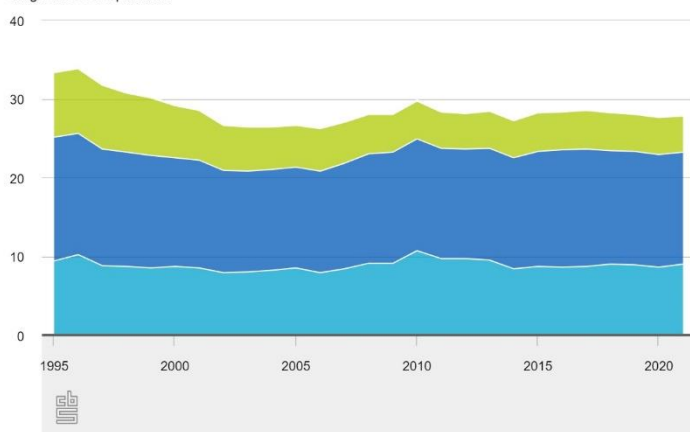
Emission of substances like nitrogen, ammonia, methane and carbon dioxide contribute to the global warming. In Europe, the European Commission set a high goal to reduce emissions. The Green Deal holds stringent measures to meet the challenge of a carbon neutral Europe. Each sector needs to contribute to this challenge, farmers included. Especially when it comes to methane and nitrogen all arrows direct towards the agricultural sector. Dairy farming is one of the sectors that is held accountable for methane and nitrogen emission. This combined with the challenge to create a more circular economy poses a huge challenge for European dairy farmers. Of course this is also true for Dutch dairy farmers. They are generally seen as modern farmers able to produce under a lot of restraints. So how are they coping with these additional challenges. How are the European goals translated to the Dutch dairy farm. What solutions are on offer in a country where dairy is one of the biggest agricultural sectors? This will be addressed in the press tour, organised by the Dutch guild NVLJ, in cooperation with the European Network of Agricultural Journalist (ENAJ) and Dutch Roots.

In short

The emission challenge is not new, but the past years the emphasis has shifted. The Netherlands has a highly intensive agricultural sector. There are about 52,000 farmers and horticulturalists in the Netherlands. Half of the country, about 2.2 million hectare is farmland. The country counts over 100 million farm animals, 1.57 million of them are dairy cows. The animal farms are responsible for quite a significant amount of emissions of greenhouse gases such as nitrogen, ammonia and carbondioxide.

3.1.1 Uitstoot broeikasgassen door de landbouw, naar gas

megaton CO2-equivalent



CO2 Methaan Lachgas

Bron: CBS, Emissieregistratie

The image on the previous page gives an impression of the greenhouse gas emissions due to agriculture. Each gas has been converted to CO₂ equivalents (Source: Central Statistics Bureau, the Netherlands).

The emissions have a negative effect on nature and climate in general. Of course, not only the agricultural sector contributes to the emission of these greenhouse gases. Looking at nitrogen and methane however, it is clear the agricultural sector contributes significantly.

The emissions directly and indirectly affect the state of nature areas, and contribute for example to the reduction of biodiversity due to the deposition of nitrogen. As a result, some of the nature conservation areas are in danger. In the Netherlands, 162 areas that were marked as Natura 2,000 region, are susceptible to the emissions and need stringent measures to ensure their future. European habitat legacy dictates that the government has to protect these regions.

The Dutch government tried to protect these nature areas by making specific regulations (called PAS) on farm emissions when enlarging their farms. However, this regulation didn't stand in court. The measure did not prove to contribute to an actual reduction, there was only a calculated (on paper) reduction. As a result of this court ruling nobody was able to build anything anymore, unless they held 'nitrogen emission rights'. This led to an obstruction of quite a substantial scale. In addition, some of the technological solutions developed in the past, such as emission reducing floor systems, were also not granted to be a solution to the problem. In practice they turned out to be less effective than calculated in the tests. As a result of all this, no new industry, road, house or stable was allowed without the emission rights.

The Dutch government was forced to go back to the drawing board and develop new rules and regulations on emissions, especially concerning nitrogen. At the moment, big capital intensive companies buy farms in order to acquire nitrogen rights as a way to move forward.

In the meantime government is looking at a so-called 'warm buy-out' of farmers. So farmers who want to end their farming business can voluntarily offer their farm to the government. Peek polluters will be offered a deal, in order to create emission space at a higher pace. However, the definition of a peek polluter in itself is still subject of discussion.

The government proposals led to massive protests of farmers, supported by people of the countryside. They say that the regulations tackle the farmers too hard. As a symbol of protest, the national flag was hung upside down.

So the question remains, how much room is there for farmers in The Netherlands? This question affected the recent elections for the provincial parliaments and the national House of Commons, which took place on March 15. The elections led to an astonishing victory for BBB (= farmer-citizen movement). As the present coalition doesn't hold a majority in the House of Commons, they will need support from other parties. The most likely one being BBB who can make or break a law. The party is led by Caroline van der Plas, a former agricultural journalist, but BBB is not a farmers party. The party aims to build a bridge between the country side and the city and wants to give a voice to the common citizen.

New laws that are aimed to relieve the country from the emission/nitrogen burden, will have to pass the House of Commons as well, to come into force. Time will only tell if the newly developed regulation will offer solutions for emission challenges.

In the meantime, farmers have to work with the present rules and regulations and aim for a sustainable future. Successful innovations are still an opportunity worth exploring. The agribusiness chain is offering a lot of different features that support farmers to conquer the challenges ahead.



Dutch Dairy – Innovations in emission

Program Friday March 24, 2023

The Dutch agriculture and the dairy sector in particular are under heavy political and social pressure to reduce emissions. The radical interventions planned by the government have led to violent farm protest. It is clear that the farmers have to react to the new challenges.

The Dutch Guild of Agricultural Journalists NVLJ, the Stichting Dutch Roots and ENAJ organises a press trip covering possible approaches to emission reductions that have measurable positive effects to the environment and don't strangle agriculture in the same time. The two day trip will combine practical challenges, scientific knowledge and business approaches offering solutions (on farm).

Day 1 Where science meet practice

Day 1 (March 24th) will be spend on Dairy Campus in Leeuwarden (the Netherlands). This farm is the research and training centre of Wageningen University & Research (WUR). Dairy Campus is an important intermediate between scientific research and practical application. The activities of Dairy Campus focus on developing a sustainable dairy supply chain. Director Kees de Koning will give a brief introduction to dairy campus to kick of the program of the day.

More information on Dairy Campus: [About Dairy Campus - Dairycampus](#)

Keynote speakers

The emission challenges in dairy will be addressed by Trienke Elshof-Witteveen of farmers organisation LTO Noord (national farmers organisation). Mrs. Elshof is responsible for the nitrogen portfolio and represents the farmers union in different national and regional platforms on farm emissions. She discusses the matter with policy makers and nature organisations. In these discussions her challenge is to make sure any measures that are planned, are suitable and practical for (dairy) farmers.

[Trienke Elshof - Witteveen \(ltonoord.nl\)](#) (Dutch)

[Over LTO - LTO](#) (Dutch only)

Ernst van den Ende, head of the Animal Science Group of Wageningen University & Research, will highlight the emission research that is coordinated by the agricultural university. This research has a broader scope than just the animal and its role in the emission challenge. The Animal Science Group holds a lot of departments that focus on the emission reduction in animal husbandry, and also addresses the animal in the circular economy. By bringing this expertise together the Animal Science Group contributes to finding answers for the emission challenge both in developed and under-developed countries.

Van den Ende has been in charge of the Animal Science Group since January 1st, 2022. Before that he was head of the Plant Science Group.

[dr.ir. JE \(Ernst\) van den Ende - WUR](#)

[Research & Results - WUR](#)

Dairy Campus tour

The tour over the premisses of Dairy Campus will focus on the solutions for emission challenges, but also offers an opportunity to see some of the other innovations that are subject of research by WUR. Kees de Koning, director of Dairy Campus, will guide us over the premisses. Furthermore, some of the researchers themselves will be available to explain about specific research that is done at the Dairy Campus. The researchers are:

Bert Philipsen, specialist in animal nutrition, [ing. AP \(Bert\) Philipsen - WUR](#), more about livestock research: [Wageningen Livestock Research - WUR](#)

Hendrik Jan van Dooren, specialist in emissions and manure valorisation, [ir. HJC \(Hendrik Jan\) van Dooren - WUR](#); more about livestock research: [Wageningen Livestock Research - WUR](#)

Harmen van Laar, specialist in animal nutrition, [dr.ir. H \(Harmen\) van Laar - WUR](#); more about the animal nutrition group: [Animal Nutrition Group - WUR](#)

Interactive discussion: Solutions: what are the changes and/or chances for Dutch Dairy

Discussion leader: Sjoerd Hofstee, agricultural journalist, specialised in the dairy sector, moderator and more

Participants:

- Politics: Femke Wiersma, representative of the political party Boer-burger-beweging (BBB, farmer-citizen-movement), candidate for the provincial board of Fryslân;
- Dairy farming: Sieta van Keimpema, representative of the Dutch Dairymen Board (former board member of the European Dairy Board);
- Science: Robert Baars, lector at Van Hall Larenstein University, area of expertise: climate smart dairy value chains;
- Agribusiness: Theo Mulder, owner of feed company Mulder Agro and chairperson of Symphony of Soils, a movement emphasizing the importance of healthy soil and promoting ways to improve soil fertility.

Timeline of the program of Friday, March 24

8.45 h	Arrival at Dairy Campus
9.00 h	Welcome by NVLJ
9.10 h	Introduction to Dairy Campus and the emission challenges Kees de Koning, director of Dairy Campus
9.30 h	Insights in Nitrogen challenge – farmers perspective Trienke Elshof, farmers union, responsible for the nitrogen dossier
11.30	Coffee break
11.00 h	Science's road to solutions Ernst van den Ende, director of Animal Science Group, part of Wageningen University & Research
12.15 h	Lunch break
13.30 h	Excursion at Dairy Campus Participation of scientific researchers of Wageningen University & Research: Kees de Koning, Bert Philipsen, Harmen van Laar en Hendrik Jan van Dooren
15.30 h	Tea break
16.00 h	Solutions: what are the changes for Dutch Dairy – an interactive discussion Femke Wiersma (BBB) Sieta van Keimpema (DDB) Robert Baars (Van Hall Larenstein) Theo Mulder (Mulder Agro)
17.30 h	Departure to Restaurant Wannee
18.00 h	Drinks and diner at Restaurant Wannee The restaurant is part of the Hotelschool NHL Stenden
21.45 h	Return to the accommodation

The Friday program is supported by:



And dinner is sponsored by:





Dutch Dairy – Innovations in emission

Program Saturday March 25, 2023

Dairy farming is an important agricultural sector in the province of Fryslân. The Netherlands has a bovine herd of 3,8 million animals (CBS, 2022). This number includes 1,57 million dairy cows and 982.000 dairy calves. The province of Fryslân has a total of 296.808 dairy cows (animals older than 2 years, CBS). They are distributed over 2372 dairy farms in the province.

Even though the province is well known for its dairy sector, Fryslân also holds some unique nature conservation areas. The most famous being the Waddensea (recognised by UNESCO as world heritage). Besides this large see area, there are also other nature conservation areas in the province, which have been marked as special due to some of the unique characteristics or habitats. Some of these area are highlighted as Natura2000 areas, which means they hold a special protection regime. More and more farmers meet nature in their daily practice. Some of them react to the challenge and alter their way of farming to a more nature inclusive practice. Others prefer looking for technological solutions to meet the demands of policy makers, nature, consumers and the supply chain. During todays excursion you will meet three dairy farmers. Each of them responding to the every challenges of changing policies, societal demands and the common agricultural policy in the framework of the Green Deal in a different way.

Timeline of the program of Saturday, March 25

8.45 h	Departure to farm 1
9.00 h	Dairy farm: Herman Miedema, Wyns Excursion on farm – impact of emission rules and regulations on daily routine of farming Also highlighting the sustainability goals of feed company Agrifirm, their policy to contribute to the UN climate goals and the way they formulate feed to assist farmers in their efforts to meet demands of society
10.30 h	Departure to farm 2
11.15 h	Arrival at farm 2 Dairy farm: De Deelen, Tijnje, owned by Sietse en Hendrika de Jong

Presentation of Lely Sphere, an emission reduction solution developed by Lely. The Lely Sphere has been tested recently for its ammonia reduction capacities. Research shows the system is able to reduce ammonia emissions with 77 percent.

Presentation of Bovaer, a feed solution by DSM. Bovaer is an additive. When enclosed in the dairy feed, the additive reduces the emission of methane by 30 percent. The feed solution has been officially recognised a contribution to reduce methane emissions. In the Netherlands the additive is included in the dairy feed produced by Agrifirm.

12.30 h Lunch at De Deelen, courtesy of Lely

13.30 h On farm excursion of the farm De Deelen, cheese producing farm

14.30 h Departure to farm 3
Fam. Heide, Hoornsterzwaag

14.45 h Excursion on farm – impact of emission rules and regulations on daily routine of farming

Also highlighting On the way to Planet Proof, Nourishing a better planet and the role of the dairy company Friesland Campina in the production chain that works towards a sustainable future. Reducing emissions, what in it for the farmer?

16.30 h Departure to accommodation

19.00 h Buffet dinner at the accommodation

The program of Saturday March 25th, is sponsored by:





Dutch Dairy – Innovations in emission

Herman and Jehannes Miedema, dairy farmer in Wyns (the Netherlands)

Farm name: Mts. HJ Miedema & JH Miedema

Location: Wyns 10A, 9091 BC Wyns

About the farmer(s)

Herman Miedema (58) farms together with his oldest son Jehannes (28). Together with his wife Herman has three more children: son Jillert Jan (27), daughter Tineke (24) and son Sjouke (21).

Herman is fulltime farmer, his son Jehannes has a job and works in the dairy trade. He farms in the weekends. Besides Herman and Jehannes, the farm makes use of a so-called milkers pool for the afternoon milking. This offers another 25 hours of labour for the farm per week.

The work in the field is mostly done by contract workers. An exception to this is the distribution of artificial fertilizer, weeding and the grass distribution after mowing. For the feeding of the dairy cows and the dry cows, the Miedema's also rely on contract workers.

About the farm

	ha
Number of ha	100
Owned	55
Lease	45
Size of home plot	40

Cultivated crops	
Grass	82
Corn/maize	18

Number of animals	200
Dairy cows	175
Dry cows	25
Young stock	80

Milking system DeLaval 2 x 16 rapid exit, 1 milker = 100 cows/hour

Feed supplier Agrifirm

Emission control measures

Test with precursor green flag floor	2004-2008
Construction stable dairy cows with green flag floor	2009
Adding water to manure	
Outdoor grazing: 180 days, 8 h per day	

Main challenge for the future

- Qualified personnel
- Revenue model without derogation
- Increase sales to control milk cost
- Financing growth
- Finance takeover in the long term

Additional information:

Should you need additional information on the farm of Herman Miedema, you can reach out to him via:

Email: hermanmiedema64@hotmail.com or via his mobile phone: +31-(0)6-30506381

Send us your stories:

Don't forget to send Herman a link of your report about the visit to his farm and please also send it to: jacquelinewijbenga@live.nl. We will make sure our sponsors and the Dutch Roots platform will also receive your report.

The program of Saturday March 25th, is sponsored by:



Dutch Dairy – Innovations in emission

Sietse en Hendrika de Jong, dairy farmer in Tijnje (the Netherlands)

Farm name: De Deelen

Location: Warrewei 43, 8406 AD Tijnje

About the farmer(s)

Sietse en Hendrika de Jong run a dairy farm in Tijnje. They have farmed here from 1976 onwards. Together they have two children: son Bauke and daughter Sytske. Sietse is in charge of the farm, his wife Hendrika is running the cheese production part of the family business. Her cheeses are well known in the province of Fryslân. The brand name Riperkrite tsiis. These farm cheeses are also distributed via some large supermarket chains.

The farm name refers to a nature conservation area in the vicinity of the farm.

Sustainability is an important driver in the choices the family makes for their farm. This also means they are open to applying technology that contributes to the sustainability goal. 'Modern technology helps us to farm in a smart and environmental friendly way and to please our cows. Because happy cows make great cheeses.'

On farm technology:

Lely Calm	automatic drinking system for calves
Juno	assembles the feed and makes sure it stays close to the feeding gate
Lely Astronaut	milking robot
Discovery	floor cleaner
Water beds	comfort for ruminating cows
Luna	brush

Special feature:

Daughter Sytske makes vlogs about her life on the farm, to tell people large and small about her life on the farm.

Additional information:

Should you need additional information on the farm of Sietse and Hendrika de Jong, you can reach out to him via:

Email: info@kaasboerderijdedeelen.nl or via phone: +31-(0)566-631349

Send us your stories:

Don't forget to send Sietse a link of your report about the visit to his farm and please also send it to: jacquelinewijbenga@live.nl. We will make sure our sponsors and the Dutch Roots platform will also receive your report.

The program of Saturday March 25th, is sponsored by:





Dutch Dairy – Innovations in emission

Jelle Heida en André Kleistra, dairy farmers in Hoornsterzwaag (the Netherlands)

Farm name: Mts. Heida

Location: Miedwei 2, 8412 CB Hoornsterzwaag



About the farmer(s)

Jelle Heida farms together with his companion André Kleistra. Both men are 47 years of age. Not known yet if there is going to be a successor for the farm.

About the farm

	ha
Number of ha	180
Owned	160
Lease	20
Size of home plot	3
Cultivated crops	
Grass	151
Corn/maize	26

Number of animals	430
Dairy cows	395
Dry cows	35
Young stock	220

Milking system Rotation DeLaval, capacity 180 cows/hour

Feed supplier Agrifirm

Emission control measures

 Fermenter

 Nitrogen stripper

Main challenge for the future:

- Becoming circular

Additional information:

Should you need additional information on the farm of Jelle Heida en Andre Kleistra, you can reach out to them via:

Email: jjheida@hotmail.com or via his mobile phone: +31-(0)6-29082244.

Send us your stories:

Don't forget to send Jelle a link of your report about the visit to his farm and please also send it to: jacquelinewijbenga@live.nl. We will make sure our sponsors and the Dutch Roots platform will also receive your report.

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The Netherlands / Friesland

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