

# Organic dairy farming in the Netherlands, a comparison with conventional farming in terms of structure, economy and sustainability

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# Overview

- State of play organic farming in the Netherlands
- Development in structure and economy between organic and conventional dairy farms 2015-2018 and 2019-2022
- A comparison in sustainability between organic and conventional dairy farms in farm size 2020-2022
- Conclusions and discussion



# Organic farming in the Netherlands: facts

- Our ministry of LNV: *'Action plan for growth of organic production and consumption: from 4% in total agricultural area in 2021 to 15% in 2030'*.
- 1,929 certified organic farms in 2024 (2023: +1.6%)
  - Share of 3.9% of all agricultural farms
- Total organic area (in hectare) in 2024: 84,650 ha (2023: +4% ; 3,112 ha)
  - Share of 4.7% of total agriculture area
  - Grassland with 60,950 ha most important crop (72 percent)
- 526 organic dairy farms in 2023 (3.7% of all dairy farms)
- NL is one of the countries in Europe with lowest share in total agricultural land.



## Europe: Organic shares of total agricultural land 2022

Source: FiBL-AMI survey 2024

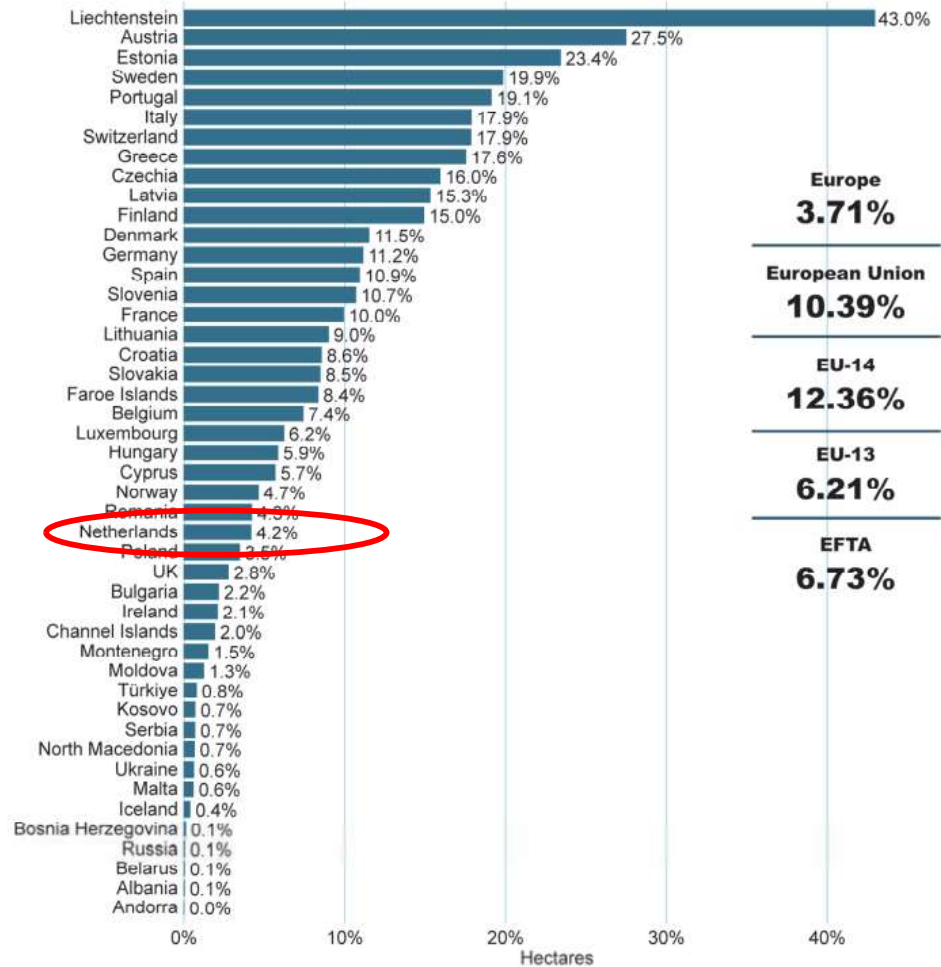


Figure 67: Europe: Organic shares of total agricultural land 2022

Source: FiBL-AMI survey 2024 based on national data sources and Eurostat. For detailed data sources, see annex, page 335.

# Dutch dairy farms organic and conventional, 2019-2022 (1)

	conventional	organic	sign.	Difference (%) between 2019-22 with 2015-18	
				conventional	organic
Sample size (per year)	275	34			
Number of farms in population (per year)	13,813	451			
<b>Farm setup</b>					
Dairy cows number	108	89		7	6
Utilised agricultural area per hectare	59	86	***	8	15
Livestock Units per hectare	2.4	1.4	***	-6	-9
Milk production per farm (X 1,000 kg)	971	619	***	11	12
Milkproduction per ha (X 1,000 kg)	16.5	7.2	***	3	-3
Share of milking robot	31	35		31	8
Share in age younger than 50 years with successor	62	59		-5	6
Milkproduction per cow	8,984	6,960	***	4	5
Grazing (hours per cow per year)	1,308	3,095	***	-7	3
Replacement rate of dairy cows (%)	23	22		-22	-4

\*= P<0.1, \*\*= P<0.05, \*\*\*=P<0.01

Source: Farm Accountancy Data Network.

## Dutch dairy farms organic and conventional, 2019-2022 (2)

Economic performance	conventional	organic	sign.	Difference (%) between 2019-22 with 2015-18	
				conventional	organic
Milkprice in euro /100 kg	43	53	***	19	5
Cost price in euro /100 kg	46	61	***	9	7
Critical milk price in euro /100 kg	44	59	***	6	5
Vetenarian costs per cow	116	74	***	19	24
Revenues per cow in euro	4,693	4,788	***	20	16
Paid cost including depreciation per cow in euro	3,773	3,959	***	12	18
Gross margin per cow in euro	2,520	2,646		27	10
Farm income in euro	101,059	74,407		85	14
Farm income per unpaid AWU in euro	61,808	46,430		77	3
Solvency (%)	74	76		8	4

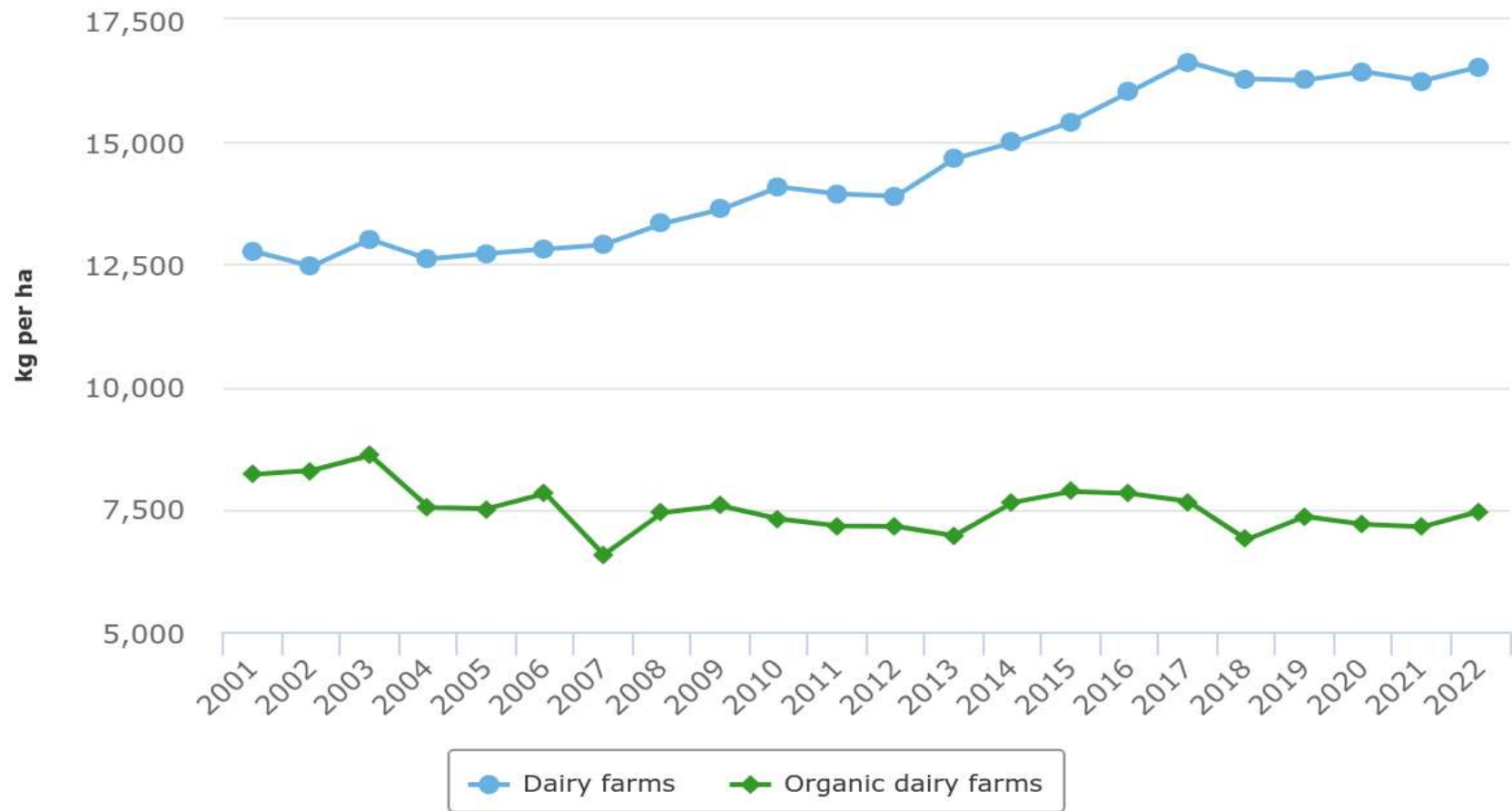
\*= P<0.1, \*\*= P<0.05, \*\*\*=P<0.01

Source: Farm Accountancy Data Network.



## Intensity of farms (kg of milk per hectare of feed surface)

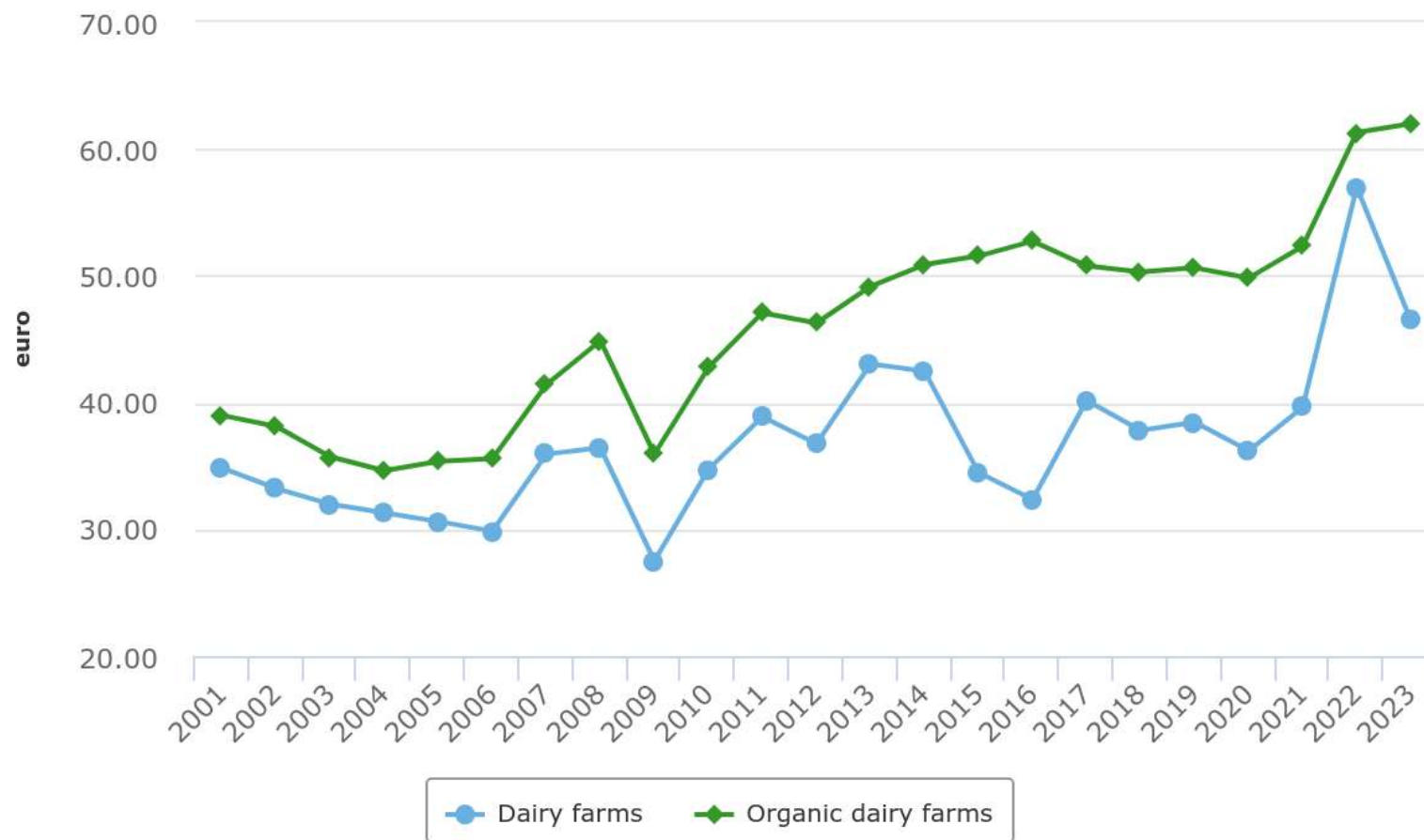
Dairy farms



Source: Bedrijveninformatienet.

## Factory price, euro per 100 kg of milk (excluding VAT)

Dairy farms



Source: Bedrijveninformatienet.



# Family farm income per unpaid a.w.u.

Dairy farms



Source: Bedrijveninformatienet.

# Sustainability indicators

## ■ **Animal health and welfare**

- Somatic cell count
- Replacement rate dairy cows
- Use of antibiotics

## ■ **Climate and energy**

- Energy use
- Greenhouse gas emissions (cradle-to-farm-gate)

Still work in progress

## ■ **Environment**

- Nitrogen farm surplus
- Environmental load use of pesticides
- Phosphate excretion

## ■ **Biodiversity and grazing**

- Nature management number of forms
- Grazing (hours per cow per year)

# Dutch dairy farms organic and conventional by farmsize 2020-2022

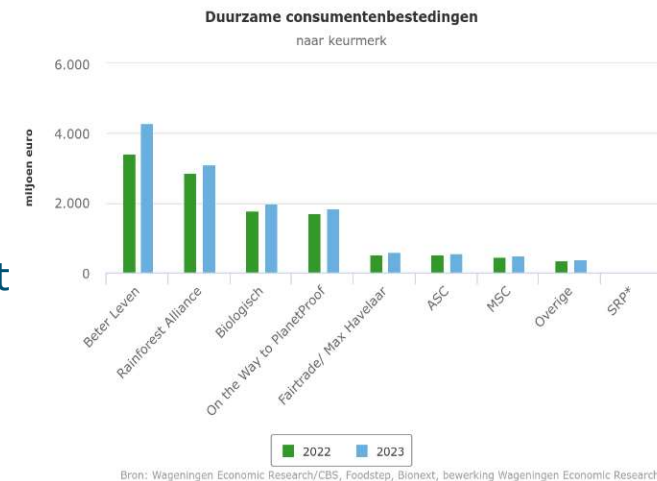
Indicator	Entity	small organic	small conventional	small signif.*	large organic	large conventional	large signif.*
<b>Animal health and welfare</b>							
Somatic cell count	per_1000ml	239	181	**	259	184	**
Replacement rate dairy cows	%	21.5	22.7		19.2	21.0	*
Use of antibiotics	ADD_dairy_cows	0.2	2.0	**	0.6	2.2	**
<b>Climate and energy</b>							
Energy use	per_100 kg_milk_in_MJ	66	58	*	67	56	**
Greenhouse gas emissions (cradle-to-farm-gate)	Kg_CO2_eq_dairy_per_kg_milk	1.29	1.39	**	1.24	1.32	**
<b>Environment</b>							
Farm surplus	Nitrogen_surplus_in_kg_per_ha	24	139	**	27	140	**
Environmental load use of pesticides soil	Pts_env_Load_soil_ha	0	48	**	0	48	**
Environmental load use of pesticides groundwater	Pts_env_Load_groundwater_ha	0	45	**	0	58	*
Environmental load use of pesticides surface water	Pts_env_Load_surface_water_ha	0	66	**	0	90	**
Phosphate excretion	in_kilogram_per_1,000 kg_milk	7.0	5.6	**	6.3	4.7	**
Ammonia emission total	Kg_per_ha	29.2	53.6	**	25.0	62.5	**
<b>Biodiversity and grazing</b>							
Number of forms of nature management	Forms_nature_management	2.4	1.2	**	3.1	1.1	**
Grazing (hours per cow per year)	Grazing_hours_dairy_cows_per_year	3,470	1,573	**	2,648	906	**

\*= p<0.05, \*\*= P<0.01

Source: Farm Accountancy Data Network.

# Concluding remarks and discussion

- Organic dairy farmers have a different farm structure, a higher milkprice and cost price and a average higher score in sustainability.
- A share of 15% organic area in agriculture in 2030 will be a big challenge! Growth in supply should come from growth in consumer demand.
- Organic farming is not the only way in producing sustainable. More labels, initiatives in sustainable food producing in the Netherlands.
- More interest from Dutch policy and companies (f.e. banks) in target management as an instrument to achieve and reward sustainability goals (KPI's). An opportunity for FSDN!
- A comparison between organic dairy farming with other EU-countries with FSDN data.



# Thanks for your attention

For further questions:

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