

Analysis of the economic situation of organic farms in the 2022/23 accounting year

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Economic situation of organic farming

Incomes increased slightly

The income situation of organic farms improved slightly in the 2022/23 accounting year¹, compared to the previous year. In the 2022/23 accounting year the average income (profit plus paid labour costs per Annual Work Unit) is EUR 45,240. Compared to the previous year, the income rose by 6.2 percent. This is the result of the annual income analysis of the Thünen Institute of Farm Economics based on a sample of organic farms from the German Farm Accountancy Data Network (FADN).²

Methodological approach of the income analysis

- The Thünen Institute of Farm Economics analyses the economic situation of organic farms every year since the 1995/96 accounting year. The analysis is based on a sample of the German Farm Accountancy Data Network (FADN). The analysis includes organic farms that have already been converted and are managed as full-time holdings and which are classified as fieldcrops, dairy, other grazing livestock or mixed farms. The results are representative of all organic farms in Germany to a limited extent.³
- The key indicator used to assess profitability is “profit plus paid labour costs per annual work unit (AWU)”. This indicator makes it possible to compare the incomes of different legal forms of agricultural enterprises.
- The incomes of organic farms are compared with the incomes of comparable conventional farms with similar site-specific factors and resource endowments. In the accounting year 2022/23, the data from 437 organic farms were compared with the data from 1,739 conventional farms (conventional comparison group) from the German FADN.

Positive overall income trend driven by dairy and mixed farms

In the 2022/23 accounting year the average income (profit plus paid labour costs per annual work unit) of the organic farms is EUR 45,240. This corresponds to an increase of EUR 2,633 or 6.2 percent, compared to the previous year.

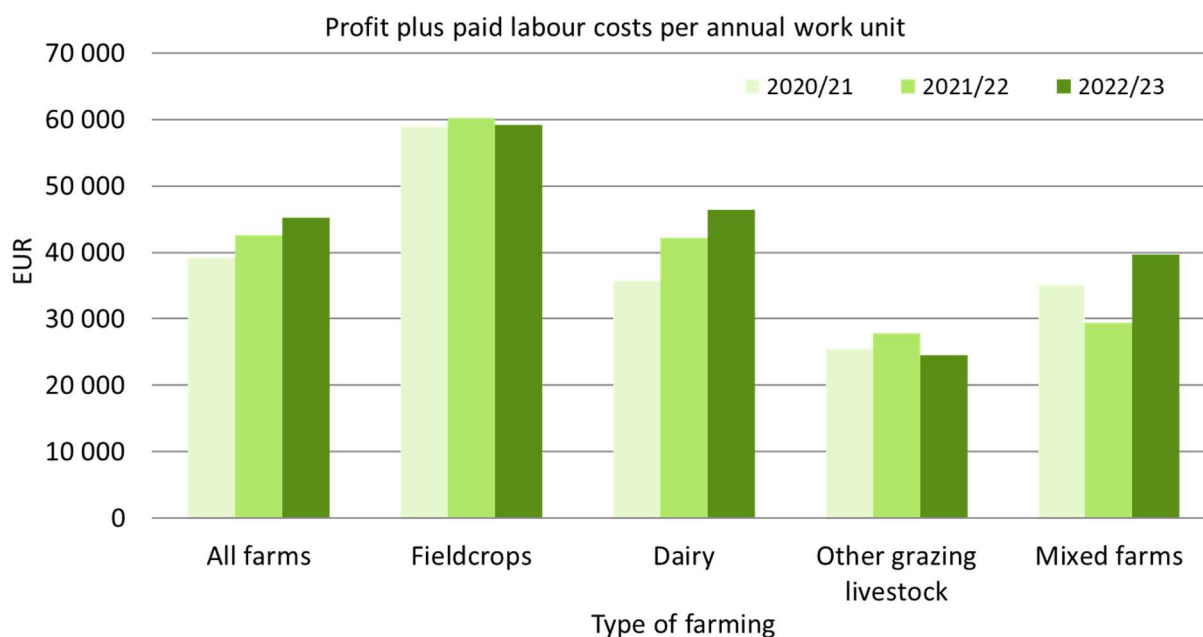
Despite a slightly reduced income, organic farms with the farm type fieldcrops – as in previous years – had the highest income among the four farm types at EUR 59,225. Other grazing livestock farms suffered losses of 11.9 percent compared to the previous year and achieved a profit plus paid labour costs per annual work unit of just EUR 24,519. The highest income growth in the 2022/23 accounting year can be observed in organic mixed farms: Their income increased by 35 percent to EUR 39,737. The income of organic dairy farms was EUR 46,388, an increase of about ten percent on the previous year (see Figure 1).

¹ The accounting year in Germany depends on farm type and legal form. Most farms in the sample used 01.07.22 to 30.06.23 as the accounting year.

² For more information on the purpose, methodology and results of the German Farm Accountancy Network (FADN) of the Federal Ministry of Food and Agriculture, see [Thünen: Farm income \(thuenen.de\)](https://www.thuenen.de/en/farm-income)

³ In the German FADN, farms of the legal forms sole proprietorship and partnership companies with a standard output of EUR 50,000 or more and with at least one full-time work unit are defined as full-time farms. For more information on the annual analysis of income development in organic farming by the Thünen Institute of Farm Economics, see [Thünen: Income development in organic farming \(thuenen.de\)](https://www.thuenen.de/en/income-development-in-organic-farming)

Figure 1: Income (profit plus paid labour costs per annual work unit) on organic farms in the German FADN sample differentiated by farm type, accounting years 2020/21 to 2022/23^{a)}



^{a)} AY 2020/21: n = 492 organic farms; AY 2021/22: n = 446 organic farms; AY 2022/23: n = 437 organic farms.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics, based on German FADN Data (2024).

In the case of the organic dairy farms, the positive income trend is primarily due to higher producer prices for milk compared to the previous year. In the case of the organic mixed farms, it is noticeable that the average farm size – measured in terms of standard output and land area – has increased significantly: standard output rose by 23 percent compared to the previous year, while the amount of agricultural land increased by 25 percent. The profit per hectare of utilised agricultural area fell by an average of ten per cent in other grazing livestock farms. The average increase in revenue (+37 percent) was not sufficient to offset high cost increases.

Historic profit gap in favour of the comparable conventional farms

The average income of the comparable conventional farms with similar site-specific factors and resource endowments as the organic farms has made a real leap upwards: it has increased from EUR 39,147 in the 2021/22 accounting year to EUR 56,614 in the 2022/23 accounting year, which corresponds to an increase of 44.6 percent.

The long-term analysis shows: At EUR 11,374, the income gap between the organic and comparable conventional farms is historically high and is in favour of the conventional farms. This is only the sixth of 28 years in which the average income of the comparable conventional farms is higher than the average income of organic farms (see Figure 2).

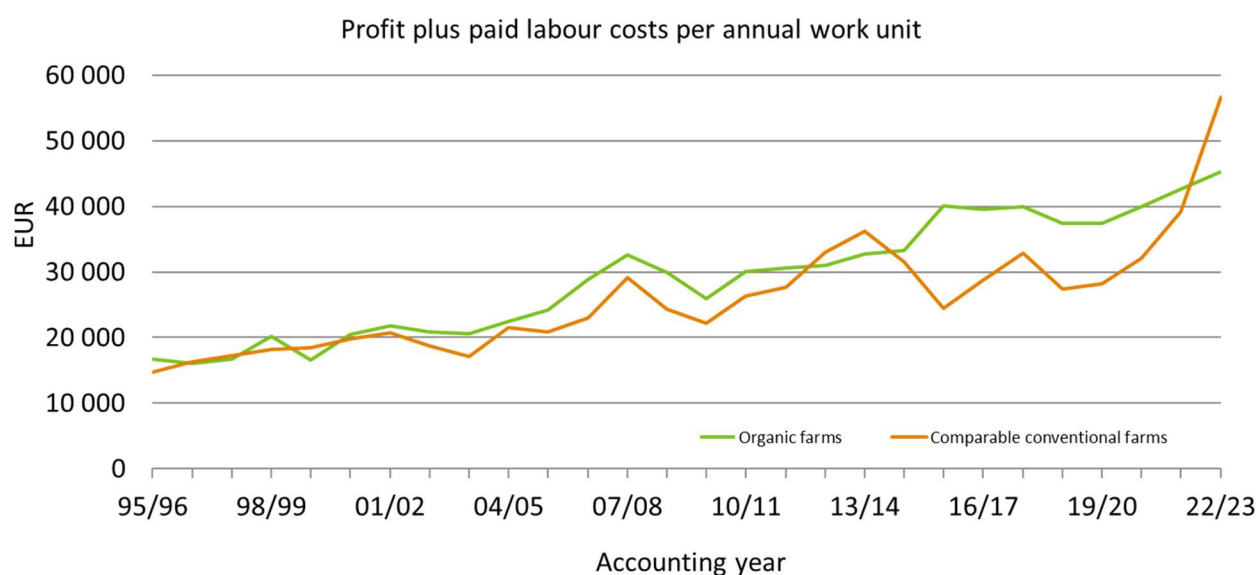
The main reason for the difference in income development is that producer prices for organically produced products increased at a significantly lower rate than for conventional products during the 2022/23 accounting year, in particular for milk and cereals. Increased prices for inputs were more than compensated for in the conventional farms in the comparison group, resulting in comparatively very strong profit increases there.

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Figure 2: Income development (profit plus paid labour costs per annual work unit) of organic and comparable conventional farms^a of the German FADN since the 1995/96 accounting year

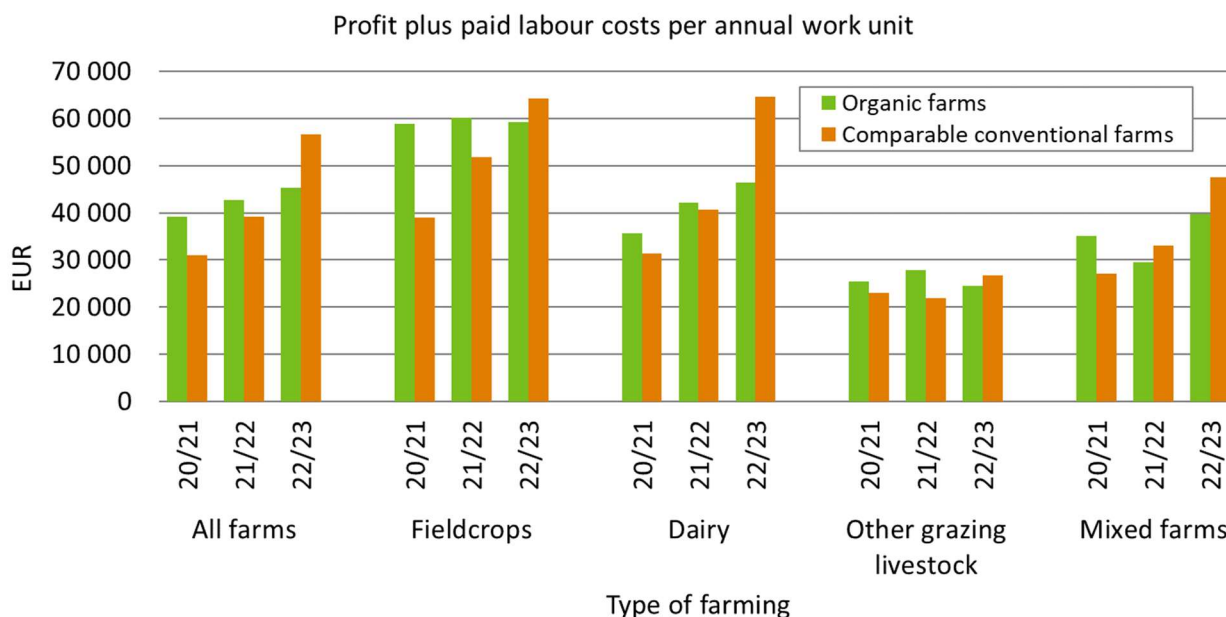


^a) Changed comparison criteria since the accounting year 2020/21.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics, based on German FADN Data (2024).

As a result, the comparative analysis of income by farm type (see Figure 3) also shows a different picture than in the two previous years: The average profits of organic farms in the 2022/23 accounting year are lower than those of the respective conventional peer group, both overall and in all farm types.

Figure 3: Income (profit plus paid labour costs per annual work unit) of organic and comparable conventional farms of the German FADN^{a)} for the accounting years 2020/22 to 2022/23



^{a)} Changed comparison criteria since the accounting year 2020/21.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics, based on German FADN Data (2024).

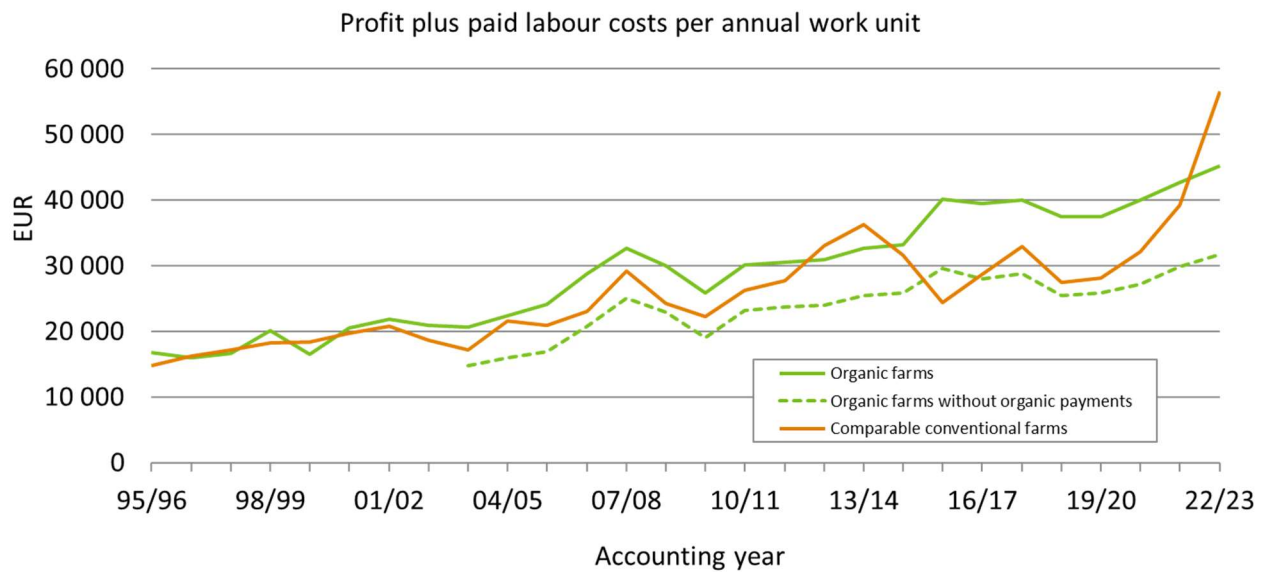
Importance of area-based support payments for organic farming for the farm income

In Germany, organic farming has been supported by area-based support payments since 1989 in West Germany and since 1991 in East Germany. The area-based payments are intended to compensate for the income disadvantage of organic farming. In particular, the phase of conversion to organic farming is a time-consuming and risky period for farm managers, which usually entails yield losses – for example, through changes in crop rotation and the abandonment of common inputs such as mineral nitrogen fertilizers or pesticides that are not permitted in organic farming. The accounting success of organic farms depends, among other things, on whether and to what extent lower natural yields can be (over)compensated for by higher producer prices.

The share of the area-based support payments for organic farming in the income of organic farms averaged 29.8 percent in the 2022/23 accounting year (absolute = EUR 13,473). The support payments for organic farming are therefore very important for the profitability of the organic farms in the German FADN (see Figure 4). With one exception in accounting year 2015/16, the profits of the organic farms without the area-based support payments for organic farming were below the profits of the conventional comparison group.

More information about area-based support payments for organic farming in Germany and the EU see [Thünen: Area-based support payments for organic farming \(thuenen.de\)](https://www.thuenen.de/en/area-based-support-payments-for-organic-farming).

Figure 4: Income development (profit plus paid labour costs per annual work unit) of organic farms with and without area based payments for organic farming and comparable conventional farms^a of the German FADN since the 1995/96 accounting year



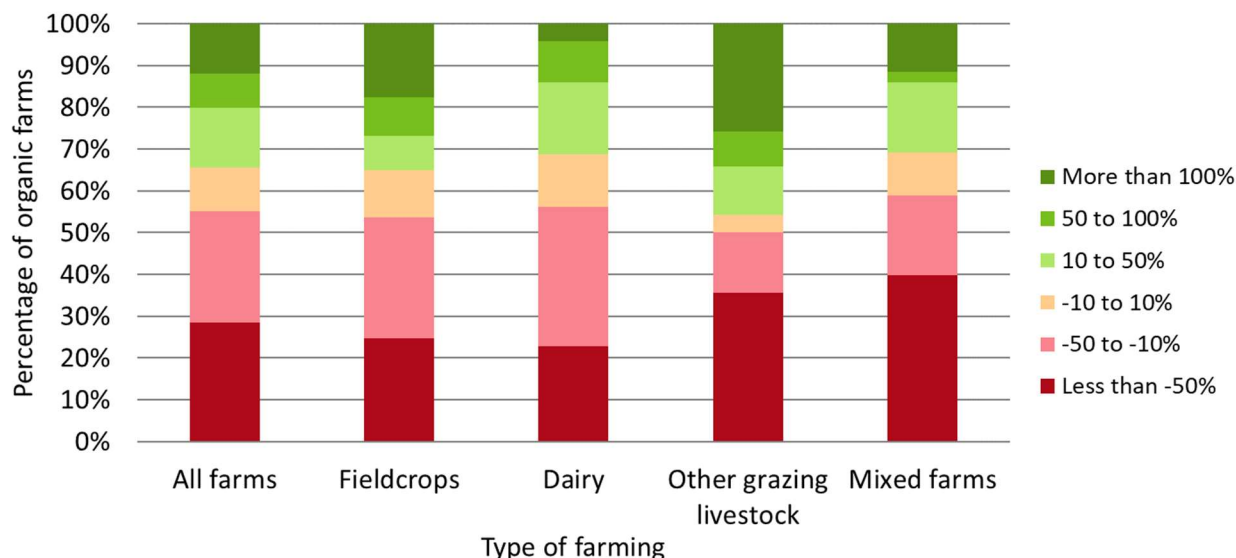
^a) Changed comparison criteria since the accounting year 2020/21.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics, based on German FADN Data (2024).

Large company-specific differences in relative performance

One result of the analysis that has remained constant for years is that there are large farm-specific differences in success between the organic farms of the German FADN (see Figure 5). In the accounting year 2022/23, a total of just under 12 percent of organic farms achieved a profit at least twice as high as their conventional peers (greater than 100 per cent); in the previous year, this proportion was significantly higher at 22 percent. The proportion of relatively less successful organic farms with a profit that was at most half as high (less than -50 per cent) was 18 percent in the accounting year 2021/22; it increased to 28 percent in the accounting year 2022/23.

Figure 5: Income difference of organic farms compared to conventional farms^{a), b)} differentiated by farm type in the 2022/23 accounting year



^{a)} Changed comparison criteria since the accounting year 2020/21. ^{b)} Total number of farms included in the sample in the accounting year 2022/23: 437 organic farms and 1.739 comparable conventional farms.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics, based on German FADN Data (2024).

Conclusions

According to the evaluation of the German FADN sample, the economic situation of organic farms changed only slightly in recent years. This year's result of the income comparison between organic farms and comparable conventional farms is exceptional over time: Due to a very favourable income situation in accounting year 2022/23, the average income in the conventional comparison group is significantly higher than that of organic farms in all farm types, especially for dairy and arable farms.

A continuous result of the income comparisons is: There are considerable differences in performance between organic farms overall and also within the different farm types. The way in which farms are managed and the resulting performance is central for entrepreneurial success, irrespective of the type of farming. The importance of achievable producer prices for the profitability of farms is particularly evident in the results of the 2022/23 accounting year.

Reference

Kuhnert H, Offermann F (2024) Analysis of the economic situation of organic farms in the 2022/23 accounting year. Braunschweig: Thünen Institute of Farm Economics. Download [Thünen: Analysis of the economic situation of organic farming \(thuenen.de\)](https://www.thuenen.de/en/analysis-of-the-economic-situation-of-organic-farming)

Table 1: Selected key figures of organic and comparable conventional farms of the German FADN differentiated by farm type in the 2022/23 accounting year^{a), b), c)}

	Unit	All farms		Cropping		Dairy		Other grazing livestock		Mixed	
		Organic farms	Comparable conventionell farms	Organic farms	Comparable conventionell farms	Organic farms	Comparable conventionell farms	Organic farms	Comparable conventionell farms	Organic farms	Comparable conventionell farms
Farms	Number	437	1,739	97	618	192	754	70	144	78	223
Agricultural Area (UAA)	ha	135	132	206	200	97	94	85	83	187	187
of which cropland	ha	81	91	170	184	41	51	16	17	127	142
of which permant grassland	ha	54	41	36	15	55	43	69	66	59	44
Agricultural workers	AWU	1.7	1.6	0.9	1	2.7	2.5	1.6	1.8	1.5	1.4
Farm business output	€/ha UAA	1,945	2,792	1,191	1,863	3,380	4,472	982	1,466	1,550	2,479
of which crop production	€/ha UAA	456	915	919	1,588	136	475	53	155	395	865
of which livestock production	€/ha UAA	1,261	1,536	114	49	2,941	3,632	719	1,125	917	1,083
Other income	€/ha UAA	751	515	655	431	851	546	778	694	743	519
of wich support payments and subsidies	€/ha UAA	604	393	550	334	671	406	649	550	575	391
of wich decoupled basic payment	€/ha UAA	170	172	164	171	174	173	178	173	169	170
of wich agri environment payments	€/ha UAA	263	50	259	31	270	35	273	149	254	56
Variable costs	€/ha UAA	896	1,339	599	874	1,344	1,919	434	763	921	1,470
of which for crop production	€/ha UAA	136	408	198	557	124	346	33	116	107	405
of which for livestock production	€/ha UAA	386	529	78	29	727	1.024	172	370	464	643
Labour costs	€/ha UAA	251	231	149	139	392	329	124	152	263	265
Depriciation	€/ha UAA	363	332	243	243	596	489	285	281	262	278
Other farm costs	€/ha UAA	625	665	446	522	932	937	578	596	499	546
Farm labour income (profit plus paid labour costs)	€/AWU	45,240	56,614	59,225	64,338	46,389	64,542	24,519	26,714	39,737	47,519
Farm net income (profit plus taxes ^{d)})	€/farm	69,472	92,856	80,772	101,005	83,649	118,655	21,779	27,282	63,325	78,065

a) Changed comparison criteria since the accounting year 2020/21.

b) Not extrapolated average values without horticultural, permanent crop and granivore farms.

c) Conventional comparison groups are formed of conventionally managed individual farms that have similar location and resource endowments as the organic farms.

d) Trade income tax, corporate income tax, capital gains tax.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics based on German FADN Data (2024).

Table 2: Selected key figures of organic and comparable conventional farms of the German FADN, accounting years 2020/21 to 2022/23^{a), b), c)}

	Unit	Organic farms				Comparable conventionell farms			
		Economic year			%-change 2022/23	Economic year			%-change 2022/23
		2020/21	2021/22	2022/23	cf. previous year	2020/21	2021/22	2022/23	cf. previous year
Farms	Number	492	446	437	-2	2,140	1,862	1,739	-7
Agricultural Area (UAA)	ha	127	125	135	8	124	122	132	9
of which cropland	ha	73	74	81	9	80	80	91	14
of which permant grassland	ha	54	51	54	5	44	42	41	-2
Agricultural workers	AWU	2.4	2.3	2.3	0	2.0	2.0	2.2	10
Farm business output	€/ha UAA	1,846	1,940	1,946	0,3	1,908	2,226	2,792	25
of which crop production	€/ha UAA	462	520	456	-12	566	679	915	35
of which livestock production	€/ha UAA	1,164	1,175	1,261	7	1,101	1,295	1,536	19
Other income	€/ha UAA	760	740	751	1	516	540	515	-5
of which support payments and subsidies	€/ha UAA	625	613	604	-2	402	428	393	-8
of wich decoupled basic payment	€/ha UAA	175	175	170	-3	174	175	172	-2
of wich agri environment payments	€/ha UAA	262	263	263	0	46	52	50	-3
Variable costs	€/ha UAA	811	875	896	2	976	1,142	1,339	17
of which for crop production	€/ha UAA	132	156	136	-13	256	329	408	24
of which for livestock production	€/ha UAA	364	348	386	11	430	468	529	13
Labour costs	€/ha UAA	251	251	251	0	187	192	231	20
Depriciation	€/ha UAA	354	354	363	3	294	310	332	7
Other farm costs	€/ha UAA	662	645	625	-3	574	619	665	7
Farm labour income (profit plus paid labour costs)	€/AWU	39,096	42,607	45,240	6	30,901	39,147	56,614	45
Farm net income (profit plus taxes ^{d)})	€/farm	60,564	65,861	69,472	5	40,124	56,490	92,856	64

a) Changed comparison criteria since the accounting year 2020/21.

b) Not extrapolated average values without horticultural, permanent crop and granivore farms.

c) Conventional comparison groups are formed of conventionally managed individual farms that have similar location and resource endowments as the organic farms.

d) Trade income tax, corporate income tax, capital gains tax.

Source: Kuhnert and Offermann, Thünen Institute of Farm Economics based on German FADN Data (2024).



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