

Analysis of the economic situation of organic farms in the 2021/22 economic year

Heike Kuhnert and Frank Offermann



Dr. Heike Kuhnert
Dr. Frank Offermann

Thünen-Institut für Betriebswirtschaft

Johann Heinrich von Thünen-Institut
Bundesforschungsinstitut für Ländliche
Räume, Wald und Fischerei
Bundesallee 63
38116 Braunschweig

Tel.: 0531 596 5123

Fax: 0531 596 5199

E-Mail: heike.kuhnert@thuenen.de

Braunschweig, März 2023

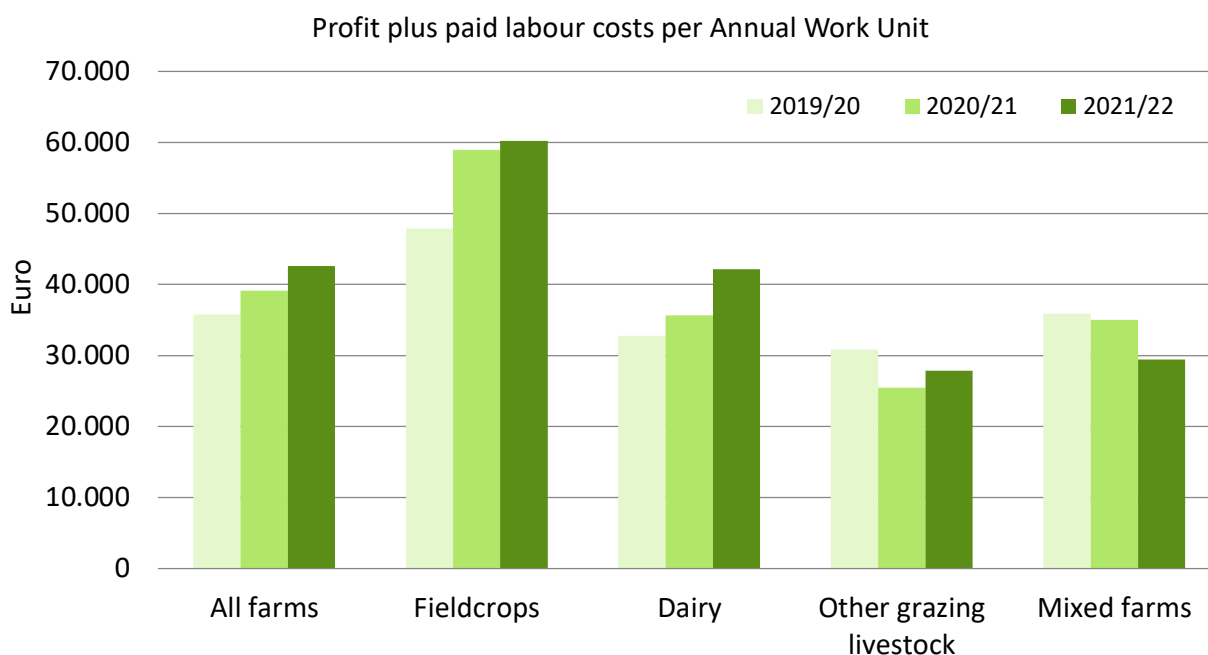
Economic situation of organic farming

Incomes increase

The income situation of organic farms improved in the 2021/22 economic year, compared to the previous year. According to an evaluation of a sample of farms from the German Farm Accountancy Data Network (FADN) the income (profit plus paid labour costs per Annual Work Unit) increased compared to the previous year.

In the economic year 2021/22, the income (profit plus costs for paid labour) per Annual Work Unit (AWU) of the organic farms in the German FADN¹ increased to an average of 42,607 €. The highest income of the organic farms of 60,207 € was achieved by cropping farms (fieldcrops), whereas farms with other grazing livestock achieved only 27,837 €. The income of the organic farms increased on average by 9 % compared to the previous year, whereby the increase of 18 % was most strongly marked for organic dairy farms. In contrast, mixed farms experienced a loss of income of 16 %. The above average income development of the dairy farms is mainly the result of increases in milk price for organic milk.

Figure 1: Income (profit plus paid labour costs per Annual Work Unit) on organic farms in the German FADN sample differentiated by farm type, economic years 2019/20 to 2021/22



Source: Thünen Institute of Farm Economics based on German FADN Data (2023).

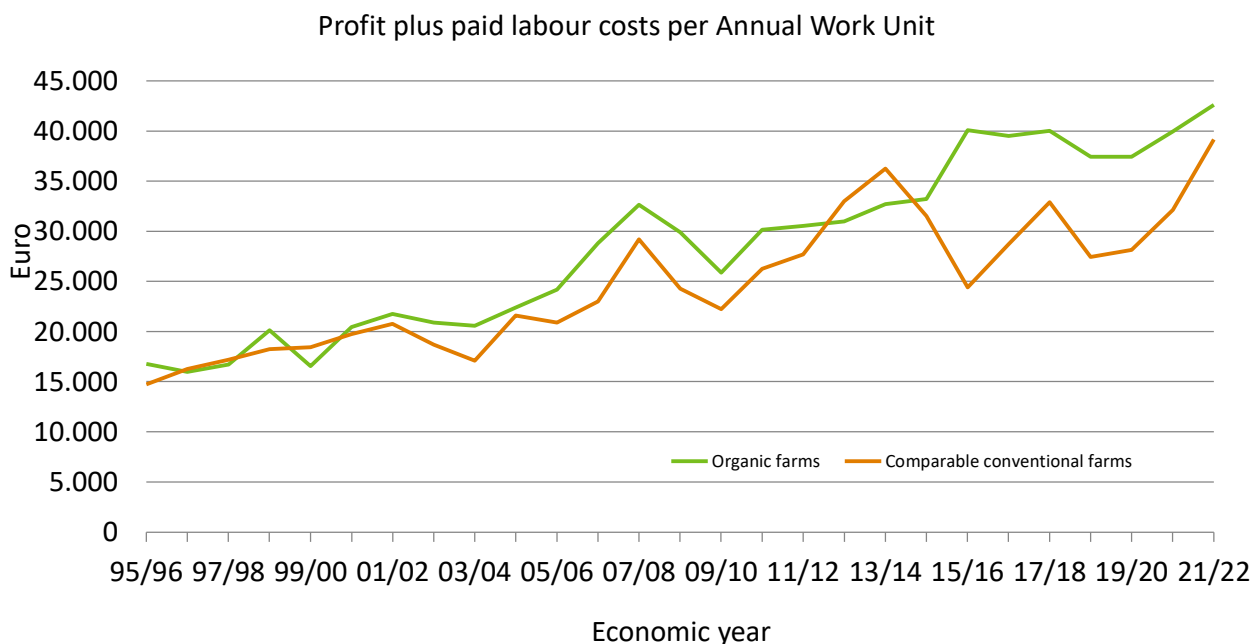
¹ The analysis of the economic situation of organic farms is based on an evaluation of the farm accounts from the German Farm Accountancy Data Network (German FADN). This includes only a limited not-representative sample of organic farms in Germany. The evaluation of the data for the economic year 2021/22 included 567 organic farms, which are classified as fieldcrops (n = 109), dairy (n = 230), other grazing livestock (n = 134) and mixed farms (n = 94).

Continued overall positive difference in farm income in favour of organic farms

The difference in farm income between organic and comparable conventional farms² averaged € 3,460 in the 2021/22 economic year and is thus significantly smaller than in previous years. While the organic farms included in the comparison achieved an average income (profit plus paid labour costs per AWU) of € 42,607, the income of the comparable conventional farms with similar location and resource endowment was € 39,147. In the economic year 2021/22, the relative excellence of organic farming was particularly pronounced among farms with other grazing livestock with a profit difference of almost + 22 % and among the organic cropping farms with about + 14 % (see Figure 2 and Table 1).

The main reason for the different profit development of organic farms compared to the conventional group is that the producer prices for organic products recorded a significantly lower increase in 2021/2022 than for conventional goods, especially for milk and cereals. Increased input prices were more than compensated for in the conventionally managed farms of the comparison group, which led to comparatively stronger profit increases compared to the organic farms (see Table 2).

Figure 2: Income development (profit plus paid labour costs per Annual Work Unit) of organic and comparable conventional farms of the German FADN since the 1995/96 economic year^{a)}

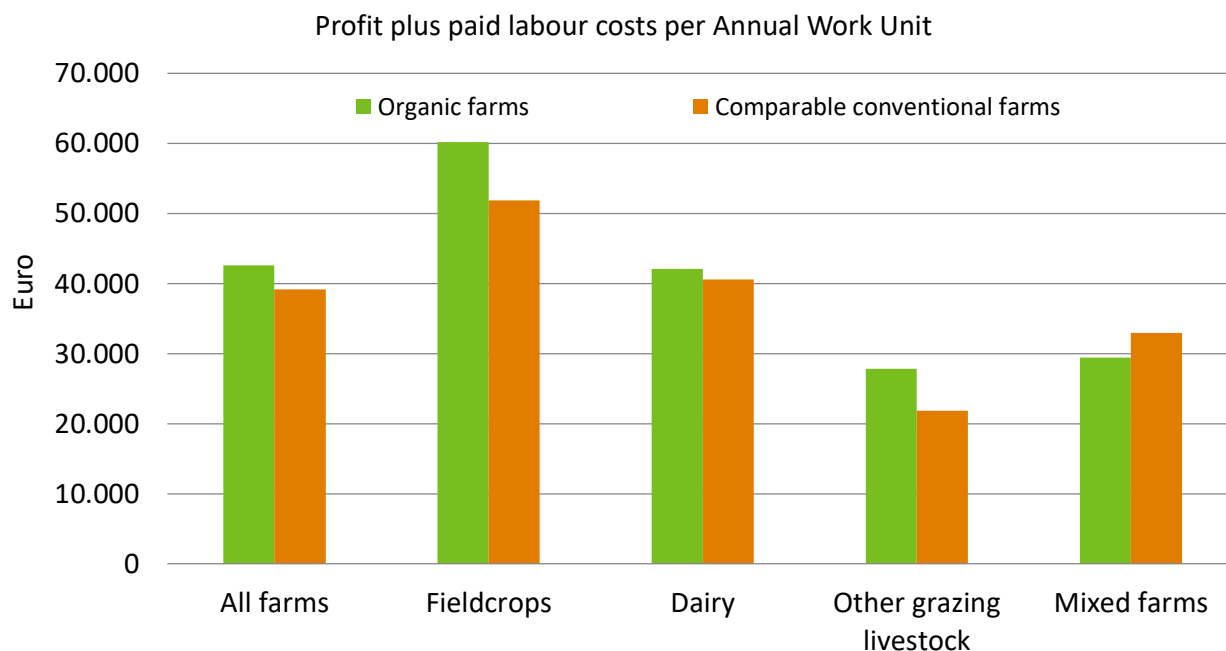


^{a)} Changed comparison criteria since the economic year 2020/21. Total number of farms included in the sample in the year 2021/22: 446 organic farms and 1.862 comparable conventional farms.

Source: Thünen Institute of Farm Economics based on German FADN Data (2023).

² In order to take the structural differences between organic and conventional agriculture into account, the organic farms are compared with conventional farms with similar location and resource endowment. In the economic year 2021/22, 446 organic farms (out of the 567 organic farms in the dataset) and 1.862 conventional farms could be used for this comparison.

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 economic year 2021/22



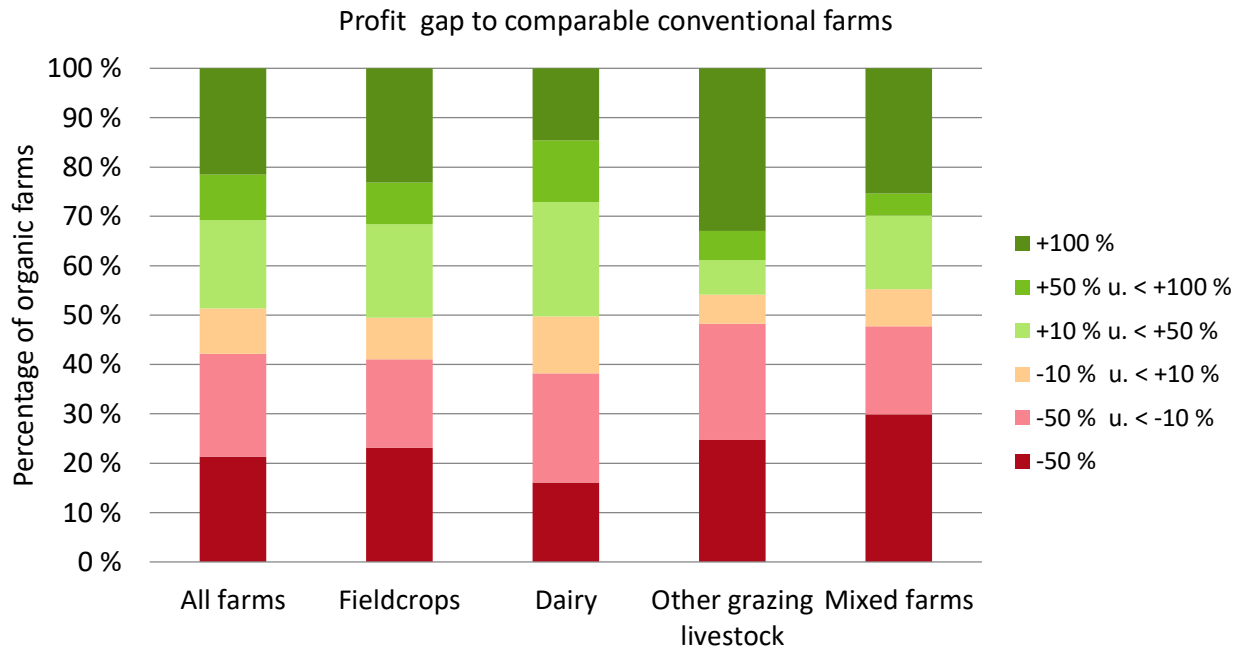
^{a)} Changed comparison criteria since the economic year 2020/21. Total number of farms included in the sample in the year 2021/22: 446 organic farms and 1.862 comparable conventional farms.

Source: Thünen Institute of Farm Economics based on German FADN Data (2023).

Large company-specific differences in relative performance

It is remarkable how large the farm-specific differences in performance are within the 446 organic farms included in the comparison (see Figure 4): almost 22 % of the organic farms achieved at least twice the income of their conventional counterparts in 2021/22. The proportion of relatively less successful organic farms with an income of no more than half of conventional profit was 21 % in the last economic year. The proportion of particularly successful organic farms in relative terms in this economic year was most marked among farms with other grazing livestock, whereas in the previous year the share was highest among cropping farms. Also, these trends reflect the already mentioned changes in farm-gate prices as a result of the start of Russian war with Ukraine in February 2022.

Figure 4: Income difference of organic farms compared to conventional farms^{a)} differentiated by farm type in the 2020/21 economic year



^{a)} Changed comparison criteria since the economic year 2020/21. Total number of farms included in the sample in the year 2021/22: 446 organic farms and 1.862 comparable conventional farms.

Source: Thünen Institute of Farm Economics based on German FADN Data (2023).

Conclusions

According to the evaluation of the German FADN sample, the economic situation of organic farms changed only slightly in recent years. As in previous years, organic farms show on average a positive difference in income compared to comparable conventional farms on similar locations and with similar resource endowments, although this is significantly lower in the 2021/22 than in previous economic years.

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.

Table 1: Selected key figures of organic and comparable conventional farms of the German FADN differentiated by farm type in the 2020/21 economic year^{a), b), c)}

	Unit	All farms		Cropping		Dairy		Other grazing livestock		Mixed	
		Organic	Comparable conventionell farms	Organic	Comparable conventionell farms	Organic	Comparable conventionell farms	Organic	Comparable conventionell farms	Organic	Comparable conventionell farms
Farms	Number	446	1.862	95	642	199	786	85	166	67	268
Agricultural Area (UAA)	ha	125	122	197	194	96	92	96	91	149	146
of which cropland	ha	74	80	171	176	44	50	16	17	101	112
of which permant grassland	ha	51	42	25	16	52	42	80	75	48	34
Agricultural workers	AWU	2,3	2,0	2,5	1,9	2,5	2,3	1,3	1,5	2,6	1,9
Farm business output	€/ha UAA	1.940	2.226	1.547	1.530	3.066	3.444	716	1.289	1.525	1.986
of which crop production	€/ha UAA	520	679	1.197	1.294	139	328	56	122	355	624
of which lievstock production	€/ha UAA	1.175	1.295	137	40	2.630	2.769	532	984	865	1.130
Other income	€/ha UAA	740	540	664	445	833	587	693	635	742	558
of which support payments and subsidies	€/ha UAA	613	428	574	345	659	441	592	542	616	468
of wich decoupled basic payment	€/ha UAA	175	175	173	175	176	175	179	176	176	172
of wich agrienvironmet payments	€/ha UAA	263	52	267	31	269	31	249	136	257	65
Variable costs	€/ha UAA	875	1.142	689	730	1.280	1.654	362	782	869	1.238
of which for crop production	€/ha UAA	156	329	261	480	122	287	36	110	122	297
of which for livestock production	€/ha UAA	348	468	82	16	675	838	123	440	404	646
Labour costs	€/ha UAA	251	192	238	128	343	311	85	116	232	149
Depriciation	€/ha UAA	354	310	250	233	548	438	212	249	293	262
Other farm costs	€/ha UAA	645	619	524	490	904	832	410	480	570	573
Farm labour income (profit + paid labour costs)	€/AWU	42.607	39.147	60.207	51.888	42.133	40.574	27.837	21.837	29.424	32.967
Farm net income (profit + taxes ^{d)})	€/farm	65.861	56.490	101.762	76.086	73.388	66.457	27.180	22.279	41.675	42.501

a) Changed comparison criteria since the economic 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: Thünen Institute of Farm Economics based on German FADN Data (2023).

Table 2: Selected key figures of organic and comparable conventional farms of the German FADN, economic years 2019/20 to 2021/22^{a), b), c)}

	Unit	Organic farms				Comparable conventionell farms			
		Economic year			%-change 2021/22	Economic year			%-change 2021/22
		2019/20	2020/21	2021/22	cf. previous year	2019/20	2020/21	2021/22	cf. previous year
Farms	Number	485	492	446	-9	2.071	2.140	1.862	-13
Agricultural Area (UAA)	ha	124	127	125	-2	119	124	122	-2
of which cropland	ha	70	73	74	1	75	80	80	0
of which permant grassland	ha	54	54	51	-6	44	44	42	-5
Agricultural workers	AWU	1,9	1,9	1,8	-5	1,7	1,7	1,7	0
Farm business output	€/ha UAA	1.838	1.846	1.940	5	1.911	1.908	2.226	17
of which crop production	€/ha UAA	487	462	520	13	558	566	679	20
of which lievstock production	€/ha UAA	1.129	1.164	1.175	1	1.098	1.101	1.295	18
Other income	€/ha UAA	772	760	740	-3	518	516	540	5
of which support payments and subsidies	€/ha UAA	638	625	613	-2	407	402	428	6
of wich decoupled basic payment	€/ha UAA	179	175	175	0	177	174	175	1
of wich agrienvironmet payments	€/ha UAA	260	262	263	0	52	46	52	13
Variable costs	€/ha UAA	821	811	875	8	1.016	976	1.142	17
of which for crop production	€/ha UAA	132	132	156	18	260	256	329	29
of which for livestock production	€/ha UAA	365	364	348	-4	444	430	468	9
Labour costs	€/ha UAA	251	251	251	0	175	187	192	3
Depriciation	€/ha UAA	345	354	354	0	285	294	310	5
Other farm costs	€/ha UAA	640	662	645	-3	571	574	619	8
Farm labour income (profit + paid labour costs)	€/AWU	37.444	39.096	42.607	9	28.139	30.901	39.147	27
Farm net income (profit + taxes ^{d)})	€/farm	58.555	60.564	65.861	9	37.270	40.124	56.490	41

a) Changed comparison criteria since the economic 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: Thünen Institute of Farm Economics based on German FADN Data (2023).

Reference

Kuhnert H, Offermann F (2023) Analyse der wirtschaftlichen Lage ökologisch wirtschaftender Betriebe im Wirtschaftsjahr 2021/22 [Analysis of the economic situation of organic farms in the economic year 2021/22]. Braunschweig: Thünen-Institut für Betriebswirtschaft. 10p. Download: www.thuenen.de



THÜNEN

Johann Heinrich von Thünen-Institut
Institut für Betriebswirtschaft
Bundesallee 63
38116 Braunschweig

bw@thuenen.de
www.thuenen.de