

National Pig Herd Performance Report 2022

Teagasc Pig Development Department



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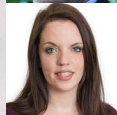
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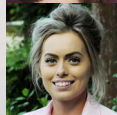
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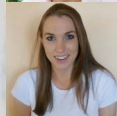
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Introduction

This report is the detailed analysis of the performance of the pig farms that participated in the Teagasc Profit Monitor (PM) recording system in 2022.

The data available and included in this analysis is from a total of 76 herds representing over 56,500 sows or 43% of the total Irish sow herd. The average herd size included in this database is 744 sows and ranged from less than 100 sows to over 2,500 sows.

The performance parameters in this report are the weighted average (*weighted by the herd size*) of the participating herds. This weighting is done to make allowance for the large range in herd size of the participating herds.

Herds participating in the PM recording system and engaging with the advisory support of the staff of the Teagasc Pig Development Department continue to demonstrate improvements in technical performance each year.

The report also includes some analysis of production costs in a number of the participating herds. An increase in participation in this aspect of the system may well provide a more accurate picture of the actual costs across the sector. There are indications that those herds that routinely record the full costs of production are the herds with the highest levels of technical efficiency. This would suggest that these herds have lower costs of production than herds which do not check their costs of production routinely.

The Teagasc Pig Development Department always welcome more herds to participate in benchmarking using the PM. Any new herds that wish to participate should contact any of the Knowledge Transfer personnel listed on the inside cover of this booklet.



Technical Performance

Table 1. Sow Productivity

	2020	2021	2022
Number of Herds	88	79	76
Average Herd Size	799	790	744
Average Maiden Gilts (%)	12.6	11.8	12.3
Litters per Sow per Year	2.31	2.27	2.24
Average Weaning Age Days	30	30	31
Empty Days per Litter	15	16	17
Number Born Alive per Litter	14.26	14.69	14.81
Number Born dead per Litter	1.06	1.12	1.13
Piglet Mortality (%)	11.1	11.1	11.1
Weaner Mortality (%)	2.76	2.72	3.33
Finisher Mortality (%)	2.67	2.60	3.00
Number of pigs produced per sow per year	27.5	28.1	27.4
Sow culling rate per annum (%)	50.2	51.0	52.2
Sow mortality per annum (%)	7.2	7.6	7.5
Feed per sow per year (tonnes)	1.34	1.34	1.38

Commentary

The number of pigs born alive per litter rose slightly this year. A major Key Performance Indicator (KPI) to measure sow performance is the number of pigs produced per sow per year. This is the number of pigs born alive minus all deaths in a year divided by the average number of sows in the herd. The calculation is adjusted to allow for an annual output if the time period is not a year.

The rise to 14.81 pigs born alive per litter even though there was a decrease in litters per sow per year (2.27 in 2021 compared to 2.24 in 2022) combined with an increase in weaner and finisher mortality has caused the number of pigs produced per sow per year to drop from 28.1 in 2021 to 27.4 in 2022.

The output of pig meat per sow per year decreased also from 2,549 kg to 2,482 kg, as a result of the decreased sow production while the live weight and dead weight of the pigs sold in 2022 was very similar to the 2021 weights at sale.



Table 2. Growing Pig Performance

	2020	2021	2022
Number of Herds	88	71	72
Average Weaning Weight (kg)	7.0	7.1	7.2
Average Live Weight at Sale (kg)	115.3	118.4	118.4
Average Dead Weight at Sale (kg)	88.2	90.7	90.6
Kill Out (%)	76.5	76.6	76.5
Daily Feed Intake (g)	1,764	1,791	1,801
Average Daily Gain (g)	735	750	736
Feed Conversion	2.40	2.39	2.45

Commentary

The average dead weight in recorded herds decreased in 2022 from 90.7 to 90.6 kg per pig sold. There was a decrease in growth rate from weaning to sale (750 to 736 g/day), and there was an increase of 0.06 in the Feed Conversion from weaning to sale compared to 2021.

The average output of pig meat per sow per year was 2,482 kg in 2022. This amount of pig meat was produced using 8,845 kg of feed. This means it took 3.56 kg of feed to produce one kg of pig meat. This figure was 3.46 kg of feed to produce one kg of pig meat in 2021 but it is better than previous years figures when you consider that it ranged between 3.66 and 3.79 in the ten years from 2001 to 2010.

Benchmarking performance against the top performing herds helps identify areas that may require improvement on your farm.



Table 3. Weaner Performance

	2020	2021	2022
Average Weaning Weight (kg)	7.0	7.1	7.2
Average Transfer/Sale Weight (kg)	39.2	39.4	38.4
Creep Feed per Weaner (kg)	3.7	3.5	3.1
Link Feed per Weaner (kg)	9.2	9.5	8.5
Weaner Feed per Weaner (kg)	46.5	45.1	45.8
Total Feed per Weaner (kg)	59.4	58.1	57.4
Average Daily Feed Intake (g)	913	892	884
Average Daily Gain (g)	497	501	480
Feed Conversion	1.85	1.78	1.84

Commentary

On most farms in the records the weight of weaners transferred to finishing accommodation is an estimated weight rather than actual weights at transfer. For this reason there may be a certain level of inaccuracy in the weaner and finisher performance figures. The true performance is in the weaning to sale figures but the breakdown in the weaner and finisher section is useful information.

There has been a slight decrease in the total weaner feed fed to weaners compared to 2021 (58.1 kg in 2021 and 57.4kg per weaner in 2022). The transfer weight has also increased by 1 kg to 38.4 kg.

The Feed Conversion increased to 1.84 in 2022 from 1.78 in 2021. Weaner mortality rose to 3.33% in 2022 from 2.72 % in 2021.



Table 4. Finished Performance

	2020	2021	2022
Average Weaner Transfer Weight (kg)	39.2	39.4	38.4
Average Live Weight at Sale (kg)	115.3	118.4	118.4
Average Dead Weight at Sale (kg)	88.2	90.7	90.6
Kill Out (%)	76.5	76.6	76.5
Average Daily Feed Intake (g)	2,391	2,443	2,454
Average Daily Gain (g)	921	930	909
Feed Conversion	2.60	2.63	2.7

The same qualification applies to finisher performance data as weaner transfer weights are usually estimated on most Irish pig farms. Finisher growth rates decreased from 930 to 909 g/day from 2021 to 2022. There was an increase in Feed Conversion from 2.63 in 2021 to 2.70 in 2022.

Pig slaughter weights were the same on a live weight basis (118.4 kg each year) in 2021 and 2022.

Table 5. The feed fed per pig from weaning to sale in 2022

	2020	2021	2022
Creep	3.7	3.5	3.1
Link	9.2	9.5	8.5
Weaner	46.5	45.1	45.8
Finisher	198.9	207.4	214.7



Production Costs 2020

Table 6. Feed and Non-Feed Costs

	Cost per kg dead weight (c)		
	2020	2021	2022
Feed	105.4	112.3	153.6
Non-feed Costs excluding Building and Financial Costs			
Healthcare	6.6	5.9	6.1
Heat, Power, Light	4.3	7.1	9.2
Transport	1.6	1.0	2.1
Artificial Insemination	1.9	1.7	1.8
Manure	1.8	1.6	1.2
Labour / Management	15.9	13.0	12.9
Repairs	3.2	3.3	3.0
Administration	1.4	0.9	0.7
Environment	0.4	0.4	0.4
Insurance	1.5	1.4	1.5
House Rental	1.7	2.5	2.6
Contract Finishing Costs	2.5	2.3	3.0
Water	0.5	0.5	0.7
Dead Pig Disposal	0.8	0.9	1.0
Stock Depreciation	2.3	2.5	2.5
Miscellaneous	1.3	1.3	1.2
Total Non-feed Costs excluding Building and Financial Costs	43.5	41.5	44.3

Commentary

Most of the costs are quite similar to 2021. The labour / management cost dropped slightly which may reflect more farms not including the home labour costs for their farms. Heat, power and light and transport costs rose in 2022. Costs such as house rental and contract finishing costs are costs that may not occur on all farms and are excluded from the “total” figure of 44.3 cent per kg deadweight shown above.

Every farm should know their own production costs and identify if there are areas that need to be improved.



Table 7. Building and Financial Costs

	Cost per kg dead weight (c)		
	2020	2021	2022
Building Depreciation	4.7	4.7	4.6
Interest	1.3	1.2	1.4
Building and Financial	6.0	5.9	6.0

Commentary

Too few farms include data on their interest payments and building depreciation to obtain a reliable indication of these costs. Each farm should know their building depreciation and interest costs from their annual financial accounts. These are a real cost and more farms should include them in their input data if they are serious about knowing their total production cost.

The building depreciation cost is quite low based on the cost of new pig buildings. The low building depreciation may reflect a lack of capital investment in many pig farms over the last decade.

Table 8. Total Cost of Production

	Cost per kg dead weight (c)		
	2020	2021	2022
Feed	105.4	112.3	153.6
Non-feed Costs excluding Building and Financial Costs	43.5	41.5	44.3
Building and Financial Costs	6.0	5.9	6.0
Total	154.9	159.7	203.9

Commentary

The average price paid per kg was 182 c/kg deadweight. Therefore in 2022 the price paid did not cover the production cost. The Russian invasion into Ukraine at the end of February caused feed and energy costs to spiral. This caused significant losses on pig farms in Ireland and throughout Europe in 2022 and early 2023.

Production costs need to be unit specific to be useful for comparison with these “average” figures.



Top 25% of Herds

Table 9. Top 25% of herds selected on the basis of the Number of Pigs produced per sow per year

	Top 25% 2022	Average 2022
Number of Herds	18	76
Average Herd Size	659	744
No. pigs produced per sow per year	30.3	27.4
Litters per sow per year	2.30	2.24
Average weaning age (days)	30	31
Empty days per litter	14	17
No. born alive per litter	15.31	14.81
No. born dead per litter	0.99	1.13
Piglet Mortality (%)	9.3	11.1
Weaner Mortality (%)	2.55	3.33
Finisher Mortality (%)	2.48	3.00
Sow Culling Rate (%)	53.2	52.2
Sow Mortality (%)	6.6	7.5
Feed per sow per year (tonnes)	1.42	1.38

Commentary

The herds in the top quartile of herds selected on the number of pigs produced per sow per year produced 2.9 more pigs per sow per year than the average herds. This greatly increases the profitability of these farms if they can manage their costs of production well.

The extra pigs produced on these Top 25% of herds is achieved by a higher born alive per litter, a higher number of litters per sow per year and a lower mortality percentage at all stages of production. This may suggest better management of pig health on these farms.



Table 10. Top 25% of herds selected on Feed Conversion Weaning to Sale

	Top 25% 2022	Average 2022
Number of Herds	18	72
Average Herd Size	635	763
Average weaning weight (kg)	7.3	7.2
Average live weight at sale (kg)	113.7	118.4
Average dead weight at sale (kg)	86.8	90.6
Kill out (%)	76.4	76.5
Average daily feed intake (g)	1,681	1,791
Average daily gain (g)	737	736
Feed conversion	2.28	2.45
Feed per pig weaning to sale (kg)		
Creep	3.7	3.1
Link	9.2	9.2
Weaner	47.1	45.8
Finisher	182.6	214.7
Total	242.6	272.1



Commentary

The figures above show that the Top 25% of herds selected on the basis of Feed Conversion from weaning to sale used 29.5 kg of feed per pig less than the feed used on the average herds.

The sale weight of pigs on the Top 25% performing herds was 4.7 kg live weight and 3.8 kg dead weight lighter than the weights achieved on the average herds. By using less feed the Top 25% saved €13.28 per pig sold (*based on a finisher feed cost of €450/ tonne and a calculation of 29.5 kg by 45 c/kg*). Their pig had a 3.8 kg lighter carcass weight so their pigs were valued at €6.92 less than the average finishers sold at 90.6 kg dead weight (*based on 3.8 kg by €1.82/kg*). Therefore the net benefit for the Top 25% is €6.36 per pig sold in feed savings which is a reduced feed cost of just over seven cent per kg.



Top 10% of Herds

Table 11. Top 10% of herds selected on the basis of the Number of Pigs produced per sow per year

	Top 10% 2022	Average 2022
Number of Herds	10	76
Average Herd Size	582	744
No. pigs produced per sow per year	31.4	27.4
Litters per sow per year	2.33	2.24
Average weaning age (days)	30	31
Empty days per litter	12	17
No. born alive per litter	15.54	14.81
No. born dead per litter	0.96	1.13
Piglet Mortality (%)	9	11.1
Weaner Mortality (%)	2.59	3.33
Finisher Mortality (%)	2.27	3
Sow Culling Rate (%)	51.5	52.2
Sow Mortality (%)	6.5	7.5
Feed per sow per year (tonnes)	1.38	1.38



Commentary

The Top 10% of recorded herds selected on the basis of Number of Pigs Produced per sow per year produced four more pigs per sow than the average for all recorded herds.

These top performing herds had:

- A higher number of litters per sow per year
- Higher number of pigs born alive per litter: 0.73
- Lower mortality levels in piglets, weaners and finishers: 3.57 %



Table 12. Top 10% of herds selected on the basis of Feed Conversion Weaning to Sale

	Top 10% 2022	Average 2022
Number of Herds	10	72
Average Herd Size	542	763
Average weaning weight (kg)	7.1	7.1
Average live weight at sale (kg)	113.1	118.4
Average dead weight at sale (kg)	86.5	90.6
Kill out (%)	76.4	76.5
Average daily feed intake (g)	1683	1801
Average daily gain (g)	751	736
Feed Conversion	2.25	2.45
Feed per pig weaning to sale (kg)		
Creep	3.7	3.1
Link	6.8	8.5
Weaner	46	45.8
Finisher	182.2	214.7
Total	238.7	272.1



Commentary

The Top 10 % of recorded herds selected on the basis of Feed Conversion from weaning to sale had slaughter weights that were 5.3 kg lighter than the average sale weights for all herds. This gave the Top 10% of herds a 4.1 kg lighter carcass weight. The Top 10% achieved a much better Feed Conversion from weaning to sale – better by 0.21 (i.e. 2.45 minus 2.24).

The Top 10% of farms used 32.4 kg of feed less than the amount of feed required per pig on the average farms. If we allow a feed cost of €420/tonne (assuming the saving was made in the finisher feed) – this equates to a saving on feed of €13.52. The value of the lower dead weight is €7.46 (4.1 kg by €1.82 per kg). The net saving is €6.06 per pig sold for the Top 10%. These farms showed a better growth rate than the average herds also of 15 gram per day from weaning to sale.



Trends in Pig Herd Performance

Table 13. Pig Meat Produced per Sow per Year

	2017	2018	2019	2020	2021	2022
No. pigs produced per sow per year	27.01	26.9	26.8	27.5	28.1	27.4
Average slaughter weight (kg)	84.6	86.2	86.7	88.2	90.7	90.6
Pig meat produced per sow per year (kg)	2,285	2,319	2,324	2,426	2,549	2,482

Commentary

The quantity of pig meat produced per sow per year has increased by 9% since 2017 due to a combination of increased number of pigs produced per sow per year and increased carcase weights.



Table 14. Growing Pig Performance

	2017	2018	2019	2020	2021	2022
Average Daily Gain (g)	708	717	724	735	750	736
Feed Conversion	2.44	2.43	2.44	2.40	2.39	2.45
Live weight at sale (kg)	110.8	112.6	113.5	115.3	118.4	118.4

Commentary

Since 2017 growth rates from weaning to sale have increased by 4%. The Feed Conversion has remained quite constant even though the live weight at sale increased by 7%. There still is room for further improvement in these figures.

Bench marking performance

Feed normally represents about 70% of production costs as reported in the Teagasc PM recorded herds. Feed costs per tonne fluctuate in line with feed ingredients which will affect the feed cost per kg from year to year. The feed costs each year are monitored separately in the Teagasc Monthly Feed and Pig Price Monitor. This helps validate the feed cost figures in the Profit Monitor (PM) on an on-going basis.

It is critical that each farm monitors its own production costs. These costs are essential to the overall management of any pig farm business. Every farm can and should benchmark their herd performance and production costs on the PM system. This allows each farm compare their performance figures with the figures shown in this booklet.

Talk to your Teagasc Advisor today on accessing the PM to view and benchmark your own records.

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