

PIGS

October 2023

Edited by Amy Quinn



Welcome to the October edition of our monthly newsletter.

The Teagasc Pig Development Department (PDD) were delighted to welcome so many producers and industry stakeholders to our 2023 Teagasc Pig Farmers' Conference earlier this month, in Cavan and Horse & Jockey. It was wonderful to see so many in attendance at both events.

Attendees were welcomed to the event in Cavan by the Director of Teagasc, Professor Frank O'Mara, who recognised the various challenges the industry is currently facing and encouraged farmers to "seize this opportunity to talk with the Pig Development Department team and share your current challenges and what we can do to help."

Our first two guest speakers were very well received with Francesc Illas and Johannes Vugts sharing their experience of the Spanish and Finnish pig sector respectively, giving people much food for thought. Our Final Guest speaker Des Rice gave

a memorable and impactful presentation on both days on human-behaviour, stress management issues and the techniques for staying calm. I know many of us in the PDD have been doing our 7-11 breathing and muscle relaxation techniques since.

We really appreciate everyone who attended the events and engaged with us, our guest speakers and each other. It all contributed to a very enjoyable event.

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Ammonia emissions from pig production

Gerard McCutcheon

We will be hearing a lot more about ammonia emissions in the future. Ammonia is not a greenhouse gas (methane, nitrous oxide and carbon dioxide) and does not contribute to a carbon footprint calculation but it is an environmental concern in its own right. The target as Member State (MS) of the EU under the National Emissions Ceiling Directive (NECD) for Ireland is to reduce the level by 5% below 2005 levels by 2030.

Agriculture accounts for 99% of ammonia emissions in Ireland. The figures are routinely compiled for each sector by the EPA. The most recent set of figures show that the pig sector contributes 4% to the total agriculture figure without taking account of the contribution coming from the use of pig manure/slurry on farms (which could be another 4%).

It is estimated that approximately 15% of the N in animal manure and 2% from chemical N is lost to the atmosphere each year as ammonia. Managing the manure and reducing the N inputs in agriculture will help reduce the ammonia emissions. In Ireland 40 million tonnes of animal manure and 300 to 400,000 tonnes of N fertiliser are used/generated each year.

Dietary crude protein levels influence both the total amount of N excreted and the proportion of

N in urine and faeces. Reducing crude protein in the diet reduces the amount of N excreted by the animal that ends up in the manure. This is an efficient way to reduce emissions and research has shown that a 1% reduction in dietary crude protein will reduce the ammonia emissions by 10%.

Covering outside storage tanks and the use of low emission slurry spreading (LESS) also reduces ammonia emissions and increases the nitrogen fertiliser value of the slurry spread. This is the reason that LESS is to be used for slurry produced by pigs since 1st January 2023 (as per Article 18(1)(b) of SI 113 of 2022).

On the research side the Teagasc PDD has just started a PhD research project on measuring ammonia emissions which will look at the ammonia emissions from finisher pigs under different feed regimes, and also look at some new technologies that may reduce ammonia emissions. This project will also look at some of the work already done in other countries such as the Netherlands to learn from their experiences. It will also monitor the ammonia emissions from the new Low Emissions (LE) house built recently in Moorepark which is now stocked with pigs.

We will keep you updated on the findings of this research work over the next few years.

Phasing out cages in the EU Livestock sector? EU-wide impact assessment commissioned by Copa-Cogeca

Edgar Garcia Manzanilla

The “[end the cage age](#)” [European citizen’s initiative](#) (ECI) launched in 2018 resulted in a communication by the European commission committing that by the end of 2023, a legislative proposal to phase out, and finally prohibit, the use of cage systems for all animals mentioned in the Initiative (laying hens, sows, calves, rabbits, pullets, layer breeders, broiler breeders, quail, ducks and geese). The Commission asked EFSA (European Food Safety Authority) to complement the existing scientific evidence to determine the conditions needed for the prohibition of cages and is currently preparing the new legislation. Such an initiative would be included as part of a much wider change in the animal welfare legislation in the EU, summarised in table 1.

Table 1. Animal welfare legislation reform proposal

Current legislation	New proposal 3Q2023
On-Farm welfare <ul style="list-style-type: none"> • Directive 58/98 – horizontal • Directive 1999/74 – on laying hens • Directive 2007/43 – on broilers • Directive 2008/119 – on calves • Directive 2008/120 – on pigs 	A single new Regulation for everything
Welfare in transport <ul style="list-style-type: none"> • Regulation 1/2005 	A modification of the existing Regulation
Welfare at the time of killing <ul style="list-style-type: none"> • Regulation 1099/2009 	A modification of the existing Regulation
Animal Welfare Labelling <ul style="list-style-type: none"> • No legislation 	A new Regulation

However, eliminating cages is easier said than done and needs further involvement of the main actors in the change, the farmers, to avoid unexpected negative consequences for the welfare of the animals, for the viability of farms and for Europe’s food security. Thus, in 2021, the organisation representing European farmers,

COPA-COGECA, commissioned 3 research studies to better understand the socioeconomic and environmental consequences of the ban of cages on the pig and layer sectors based on the elements reflected in the Commission’s Communication. These studies were presented in 2023 and are [publicly available](#). The studies looked at the implementation of the ban of cages at 3 different times, 2025, 2035 and 2045 and divided the results between East and West EU due to clear differences. Five scenarios were described depending on the approach taken by the commission:

- **Scenario A** (immediate transition, full EU policy impact): Farmers are forced to transition by 2025.
- **Scenario B1** (transition by 2035, full EU policy impact): farmers refrain from any further advancement in transitioning before the deadline in 2035.
- **Scenario B2** (transition by 2035, partial EU policy impact): transition continues as in the years preceding 2021, driven by national legislation, financial incentives, need for investment or the increasing pressure by society, the retail sector, integrators, etc.
- **Scenario C1** (transition by 2045, full EU policy impact): farmers refrain from any further advancement in transitioning before the deadline in 2045.
- **Scenario C2** (transition by 2045, partial EU policy impact): transition continues as in the years preceding 2021 same as for B2.

A clear conclusion of the study is that implementation by 2025 would result in a massive

decrease in the domestic supply (-23.6%) accompanied by a decrease in consumption (-8.8%) and finally resulting in the need for third country net imports (+112%) for the countries in the east of the EU (figure 1 and 2). The need for imports would make the intention of the ban (i.e. improve animal welfare) a failure and would put both food security in the EU and the European pig sector at risk. Approaches considering adaptation times of 10 to 20 years would have much lower impact in the markets and reduce the need for third country imports. The best approaches are scenarios B2 and C2 where there is a progressive transition promoted by different measures.

Figure 1. Estimated changes in the net trade of pig meat (red) & eggs (yellow) with third countries depending on the year of implementation (2025, 2035) & the geographical area in the EU for scenarios A & B1.

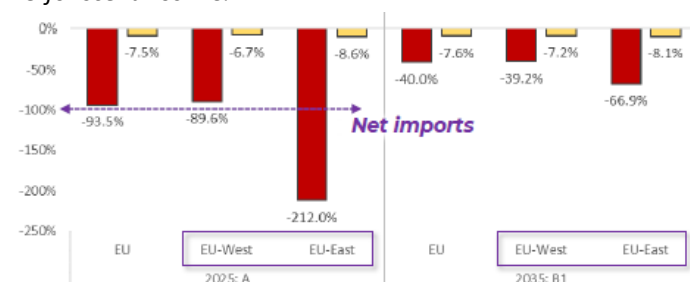
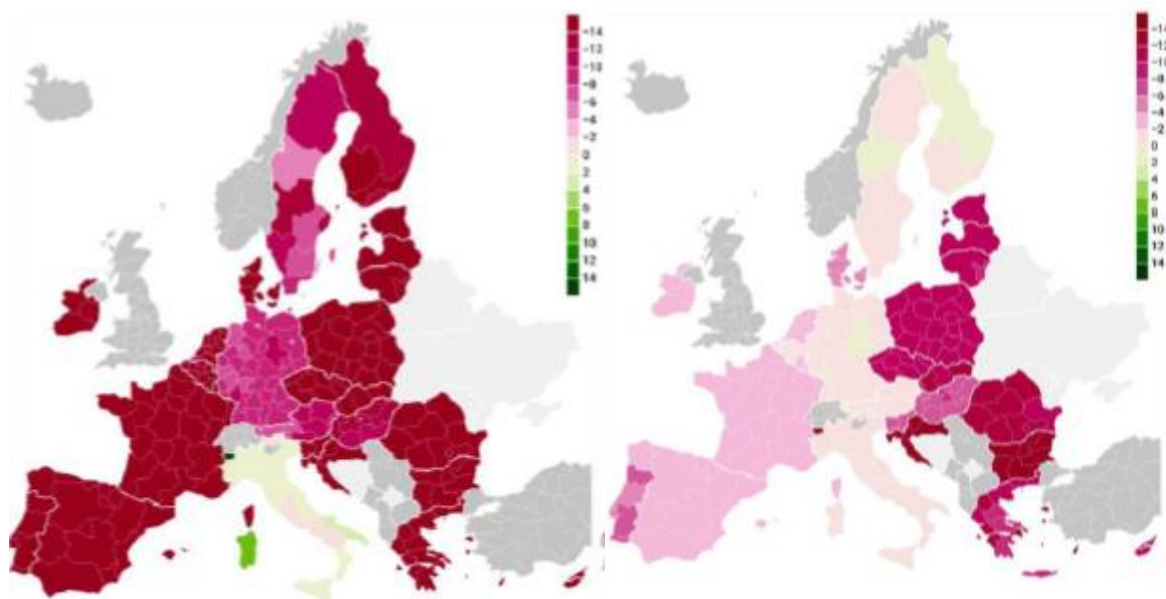


Figure 2. Changes in pork meat production of individual EU Member States due to the ban on cages implemented in 2025 (first map, scenario A) or 2035 (second map, scenario B2).



Other than the market effects based on timing of the implementation, the report also looked at the different options for adaptation of the facilities within farms. The studies considered a sample of farms and the opinion expressed by the farmers.

The studied scenarios for this were:

- **Baseline: CRATES:** current situation at fixed prices and production parameters as of 2021.
- **Scenario S1conf:** All farms stay in production and move to free farrowing systems with temporary confinement (pen size 5.5m²).
- **Scenario S2no-conf:** All farms stay in production and move to free farrowing systems with NO confinement (pen size min. 7m²).
- **Scenario S3exit:** Farmers decide between the following options: 1) switch to free farrowing system with temporary confinement, 2) switch to free farrowing system with no confinement, 3) switch to production of fatteners only, 4) exit pig production.

- **Scenario S4modified:** Some farmers declaring exit from production in the previous scenario might have expressed such opinions because of frustration. Thus, in this scenario, opinions from scenario S3 are modified and the number of 'exits' was reduced depending on size of the farm, age of the farmer and availability of a successor.
- **Scenario S5capri:** Farm exits and number of sows based on the assumption that all farmers are forced to transition by 2025 due to the policy change.

The results of this part of the study show that the ban of cages, in all cases, causes a drastic reduction of the number of sows, by at least 20% (figure 3), and increases cost per piglet by at least 30% (figure 4). The scenario that excludes confinement, and requires bigger pens, reduces the number of sows by 35%, the number of piglets by almost 40% and increases the cost per piglet by 50%. Finally, a very important factor to consider here is the effect of the legislation on farmer morale and the possibility of a high number of farmers leaving the pig sector and weakening the structure of rural communities.

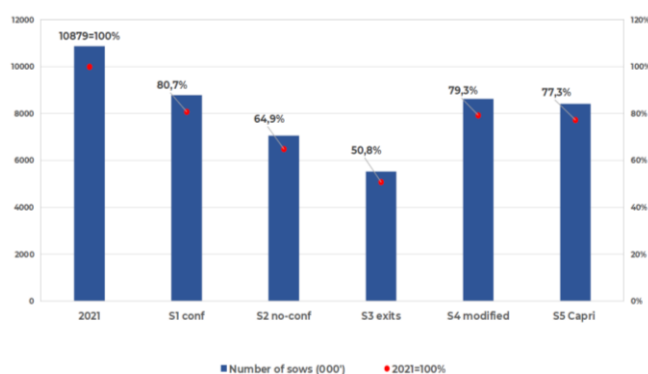


Figure 3. Number of sows (thousand sows and percentage of the baseline) in each studied scenario.

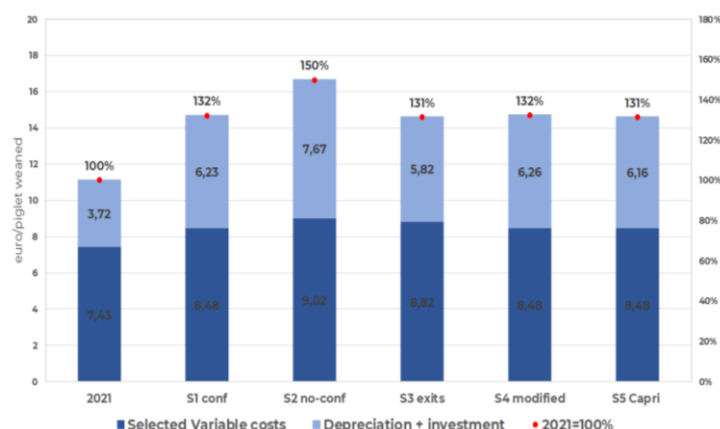


Figure 4. Difference in total selected costs (variable + depreciation) per piglet weaned (euros/piglet) for EU-27 in each studied scenario.

Whatever the outcome is from the EU commission, it will be very significant for the pig sector. It will increase costs related to the farrowing period, reduce the EU sow population and favour the concentration of production with the exit of small scale farmers and those with no successors. Still, the ban of cages is only a limited part of the overall welfare and environmental legislation that pig farmers will be facing in the coming years. Based on these studies, COPA-COGECA have requested a gradual implementation of measures, substantial financial support, harmonisation of standards in all EU countries and consistency with other policies, a common framework on animal health and welfare with a One-Health approach and protection measures for the rural economies.

Hopefully these requests will be taken into account in the coming months.

Certificates awarded for Level 5 Pig Component Award Course

Eighteen students recently completed a “Level 5 Pig Component Award Course” with the PDD team. The course was held in the Teagasc Portlaoise Education Centre over the last two years. Here students completed 6 modules relating to pig husbandry, welfare, nutrition, management and work practice, equipping them with the knowledge and skillset they need to work in the pig industry.

Many of the students were awarded their certificates at the recent Teagasc Pig Farmers Conference in both locations. We would like to wish them well in their future endeavours in the pig industry.



Data analysis workshop

On the 13th of September, members of the Pig Development Department attended a workshop in ADA (Animal Data Analysis), a company in Spain specialised in pig and poultry data capture and analysis. During the visit they learned about the electronic biosecurity system for trucks and farm staff, Biorisk and the electronic feeders GESTAL as possible technologies of interest for Irish farmers.

Biosecure project meeting

On the 14-15th of September, several members of Teagasc attended the meeting for the EU project Biosecure. Biosecure is comparing the levels of biosecurity in the different countries in the EU, is reviewing current best practice and is developing new approaches to reduce infectious diseases transmission between EU farms and countries.



333 – Farm managers meeting

On the 20th - 21st of September, Edgar Garcia Manzanilla attended the 333 Experience for Farm Managers with more than 200 farm managers registered and discussing challenges and tools for the daily work in farms. The initiative promoted by 333 is the first of its kind in Spain and was very well received. The initiative may be adapted in future for other countries like Ireland as part of a collaboration project including Teagasc and 333 among other organisations, Project WellFarmers.

