



Q1 2024

**IN-OVO SEXING MARKET
PENETRATION REPORT**

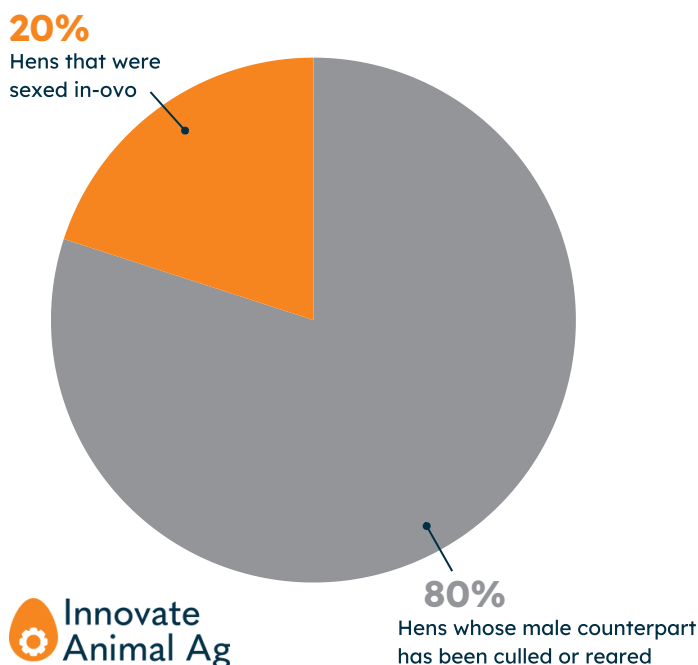
In-Ovo Sexing Hits 20% Market Penetration in EU

Original research conducted by Innovate Animal Ag shows that at the end of Q1 2024, approximately 20% of the European Union's flock of 389 million commercial laying hens (around 78.4 million hens) had been sexed with in-ovo sexing technology.

At the end of Q3 2023, our first [In-Ovo Sexing Market Penetration Report](#)

established that after less than five years in the market, in-ovo sexing had reached a 15% market penetration in the European Union. In the 6 months since that publication, the market share has increased by five percentage points, which amounts to 22 million more hens.

EU Market Penetration of In-Ovo Sexing, April 2024



Discussion

Innovate Animal Ag estimated the EU market penetration of in-ovo sexing by combining self-reported production data provided privately by in-ovo sexing companies, along with other publicly available information. Given that there are some areas of uncertainty, our estimate spanned a range of 69.8 and 87.0 million hens produced using in-ovo sexing technology, implying a market penetration of in-ovo sexing technology of 18 - 22.4%. This marks a significant increase from 6 months ago, when the market share was found to be just under 15%.

There is reason to believe that the market penetration will continue to quickly rise in

the coming months. Six new machines – Orbem machines at [Hendrix Bad Bentheim](#), [Pluriton](#), [Lohmann Dorum](#), and [Ter Heerdt](#) hatcheries and new Respeggt circuits at [A.C Weiss](#) and [Lohmann Ankum](#) hatcheries – were recently announced, each of which has the capability of producing millions of hens per year. However, given that it takes some for a machine to begin operation, many of these will have either not started producing, or will only have produced a small number of hens.

Better scale and improved techniques have also [driven the price of the technology lower](#), which will further drive adoption. Since 2020, the average production cost of in-ovo sexing has decreased by over 22%, to less than 1 cent per table egg. At the same time, we've seen adoption in [markets without bans on culling](#) as well as [an announcement](#) from a US producer that they will adopt the technology in 2025.

Methodology

The purpose of this study was to identify the percentage of commercial laying hens that were sexed in-ovo out of the total EU flock as of March 31, 2024. Innovate Animal Ag asked each of the in-ovo sexing companies (AAT, In Ovo, Nectra, Orbem, PlantEgg, and Respeggt) with commercialized technology how many in-ovo sexed hens were produced between November 1, 2022 and March 31, 2024 using their technology. These dates were selected because a commercial laying hen typically lives for [18 months](#) in the EU.

Data provided from the companies was aggregated and anonymized in order to mitigate any competitive sensitivity from publicly sharing data. Over 90% of the estimate was generated using this self-reported data, but some companies were not able to share exact figures. In these cases, we created an estimate based on public information like social media postings, KAT data, and hatchery production estimates.

Some companies were only able to provide the number of hatching eggs their machines processed, and in these cases we assumed a hatching egg to pullet ratio of 2.4 to 2.8, based on [a study](#) by one in-ovo sexing technology provider. We also assumed an annual mortality rate of 5%, or around 6.9% for the 18 month assumed lifespan. Finally, since we were focused only on the EU, we estimated the small number of hens produced in Norway and subtracted this from the total estimate.

About Innovate Animal Ag

Innovate Animal Ag is a 501(c)3 nonprofit think tank that promotes technology as a practical way to improve animal health and welfare while also restoring consumer trust in animal agriculture. We conduct research on cutting-edge technologies that can improve animal health and welfare, then publish high-quality, science-backed resources to demystify the technologies for business leaders and policymakers. We then work directly with the companies developing and implementing these technologies to ensure they are rewarded for the important work they do.



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