

# Hatchery automation



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# Summary

Investing in hatchery automation has traditionally been used to reduce labor costs. Now we see automation used to overcome the challenge of labor shortages faced by many areas around the globe.

The use of hatchery automation is growing quickly in most hatcheries. This is not only in areas with relatively high labor costs, but hatcheries in low labor cost areas are also taking advantage of improved worker safety, hatchery hygiene, accuracy, workflow, quality, and other financial benefits that come along with automation.

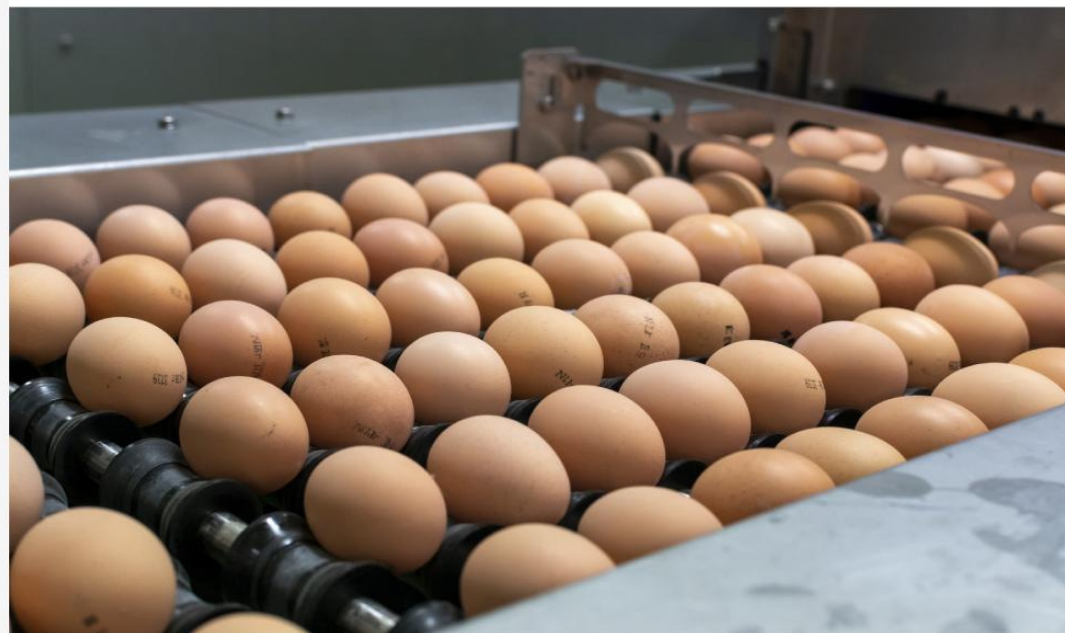


Automation is used in areas to replace jobs/tasks that are monotonous, repetitive, and fairly strenuous.



**There are many good reasons to introduce automation in the hatchery**, some of these goals are to improve the processes within the hatchery, increase production, and lower production cost. **All of these and more can be achieved through fully automated or semi automated processes** which are currently available on the market today.

In the past, hatcheries were limited in size and production mainly due to vaccinating by hand or with pneumatic vaccinators. The average employee vaccinating chicks averaged around 2400-2800 chicks/hour. This resulted in a very large hatchery labor force between 50-70+ employees, just to perform all of the required tasks, manually, within the hatchery.



In these days there was little to no automation. As automation began to be introduced in the hatcheries, these hatcheries have grown in size and production output. **This increase in size and production can be attributed to automation.**

The hourly labor force began being reduced in size within the hatchery by 30-50% while maintaining production, and in many cases with increased production. Currently most new/modern hatcheries range from fully automated to semi-automated hatcheries.

With the addition of stationary robotics in the areas of transfer, separator/pull room, and chick processing have been able to automate tasks that were very repetitive, and strenuous from the employees, improving the working conditions within the hatchery.

Other forms of automation such as in the egg room, for example, eggs are transferred from small paper/pulp/plastic trays to setter trays. Cautious handling of the eggs, to avoid hairline cracks and to make sure that the eggs are placed point-end down, is essential for good hatch results.



**A properly designed and maintained system will achieve greater accuracy and consistency than trayng eggs manually. Careful handling during egg transfer is also critical to the success of any hatchery.**



Egg handling practices are even more critical at this point because the eggshells are more fragile, due to calcium absorption by the embryo for bone development. The automated candling, egg removal, and *in ovo*-vaccination systems save considerable labor, improves animal welfare, and more importantly delivers better results.

In the chick processing room, there are a *wide variety of automation options* available from stackers/destackers, inline conveyor systems, chick separator, chick counters, boxing systems, sexing tables, vaccination tables and spraying systems to name a few.



**Hatchery hygiene is another area aided by automation.** A wide range of automatic washing equipment is available for cleaning setter trays/flats, hatcher baskets, chick boxes and racks/trolleys.

There are also systems available for dealing with hatchery waste, such as vacuum waste lines, and macerators.

**Hatchery automation systems are becoming an integral part of the modern-day hatchery.** It is becoming even more critical to have a great preventative maintenance program, well trained staff and maintenance personnel along with the ample spare parts on hand to repair any automation breakdowns that may occur.

*Without these in place how will these large modern-day hatcheries process all the eggs/chicks?*

# Thank you!

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