

Hatchery maintenance program



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Summary

This short course on hatchery maintenance should provide you with information to help you understand the role hatchery maintenance plays in the hatchery.



A good hatchery preventative maintenance program is an essential part of optimizing hatchery performance by reducing the risk of unexpected equipment failure, optimizing equipment operation and performance that will impact hatchability, chick quality, and chick performance out in the field.

Preventative maintenance ensures that proper calibration, routine maintenance, and equipment checks are carried out regularly. This is accomplished using regularly scheduled tasks, check lists and good record keeping.

Hatchery maintenance programs not only include the incubation equipment, but also all additional equipment as well as the physical structure of the hatchery.

In this course we will investigate the major causes of equipment failures, the types of maintenance programs, the tools to develop a preventative program, how to set up a preventative program and some practical advice.

Some of the major causes of equipment failures in the hatchery include not reading the operations manual, improper cleaning of the equipment or the use of improper chemicals that can damage the equipment.

Water in the electronics is never a good thing and *must be avoided at all costs*. Abuse of the equipment, and not utilizing protective covers as required, all contribute to potential damage to the equipment.

Ignoring the warning signs such as sight, sounds, smells, and performance will contribute to performance issues of the equipment. Lack of staff and maintenance personnel training on the equipment, lack of proper spare parts, not replacing worn parts as recommended are other contributing factor to equipment failures.

There are two main types of maintenance programs currently in most hatcheries.



They are reactive maintenance and preventative maintenance:



- ▶ A **reactive maintenance** program is one of the *most commonly used approaches to hatchery maintenance*. It performs maintenance as a reaction to a breakdown or problem. It waits until the equipment stops working properly before repairs begin. **This approach lowers the life expectancy of the equipment and its parts. This approach leads to long term unplanned equipment problems**, which may result in significant financial impact to the business. When the equipment is broken down it will have a negative impact on the performance of the equipment, probable damage to embryonic development, day-old quality and overall hatchery performance.



- ▶ A **preventative maintenance** program is one where *maintenance is performed on a regularly scheduled basis to prevent equipment breakdown*. It provides flexibility of scheduling preventative maintenance when it is most convenient and efficient. A preventative maintenance program maintains the consistency of the machine/equipment operation. **It improves the life expectancy of the equipment and its parts. It optimizes equipment operation and therefore optimizes performance**. The many benefits of a preventative maintenance program include:

- ▶ Improves the efficiency of machines/ equipment.
- ▶ Equipment and parts last longer.
- ▶ Lower utility usage.
- ▶ Improved chick quality.
- ▶ Fewer unexpected breakdowns.
- ▶ Improved labor savings.
- ▶ It is predictable and therefore makes maintenance budgeting and planning easier.
- ▶ Provides piece of mind that the equipment in the hatchery is properly maintained and functioning as designed for a worry-free hatchery.



Let us take a look at **what is needed to develop a preventative maintenance program.**

- ▶ First, **need to have operation manuals for all equipment at the hatchery.**
- ▶ Second, **we need proper spare parts in the correct quantity as to perform any necessary maintenance.** This information should be found in the operation manuals along with preventative maintenance schedules and troubleshooting guides.
- ▶ Next, **spare part management is the foundation for reliable hatchery operation** and is critical for success.

To go from a reactive to a preventative maintenance program first and foremost needs 100 percent commitment from maintenance staff to management.

Then, begin a preventative maintenance program with the one or two pieces of equipment requiring most of the maintenance attention. **Use the operations manuals for the equipment to build a good PM program.**

Once these pieces of equipment are on a PM program and functioning properly work on the next one or two items and repeat the process. Eventually, once you have addressed all the equipment in the hatchery you will have developed a great PM program.



The key areas to focus on in the hatchery for a preventative maintenance program are setters, hatchers, HVAC systems, controls, processing equipment, physical structure and components of the hatchery, and calibrations.



Any hatchery, regardless of size, whether old or new is only as good as its routine and preventative maintenance programs. **Preventative maintenance provides piece of mind that the equipment is properly maintained and functioning as designed, for a worry-free hatchery.**



Thank you!

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