BY PACE FARM



CHICKEN EGG INCUBATION HANDBOOK

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GETTING STARTED

So! You'd like to hatch some adorable chicks (who can blame you) but don't know where to start? Well, you've come to the right place! This handbook will help you in your journey. You will find everything from all the equipment you will need (and additional equipment you *may* need) as well as step-by-step instructions on how to incubate, with our recommendations, and some additional resources. Ready? Let's begin!



WHAT YOU'LL NEED

FERTILE EGGS

Your eggs need to be fertile, meaning that a rooster should have fertilized them. Eggs from the grocery store won't work. We recommend getting your eggs from a local farm where roosters and hens cohabitate.

The eggs should be fresh, preferably collected the same day you plan to begin your incubation. They should go into the incubator as soon as possible to increase your odds of a successful incubation.

Start with at least a dozen eggs. A high success rate is considered over 80% but, on average, the incubation rate is about 60%, meaning around 7 of your 12 eggs will hatch. We've heard of some success stories with a 100% hatch, but from our experience, and for a first-timer, don't be disappointed if your incubation is not textbook perfect.



AN INCUBATOR

AIR CIRCULATION. From our experience, the best hatching happens in incubators with air circulation.

EGG-TURNER. While some incubators have an egg-turner build-in, it's not a critical feature of an incubator. You can turn your eggs manually.

BRANDS. Look for reputable incubator brands. A Google search can help you here, as well as customer reviews. Don't skimp on your incubator!

TEMPERATURE. The ability to hold a constant temperature is the most important feature of a good incubator. Your incubator should be set to 100°F through the entire incubation process.



ELECTRICITY

Your incubator must be **plugged in at all times!** If there's a power outage (and this HAS happened to us), you need to make sure your incubator can still run. (Tip: A simple setup of a 100ah battery and a 500w inverter can solve the problem for around 20 hours).

FLASHLIGHT (OPTIONAL)

Some like to **candle** their eggs. This means, looking at the eggs with an incubator egg light to follow the growth process.

A BROODER

Once the chicks hatch, this will be their home. **A cardboard box will do**. You can also use a cage or coop with small gaps, such as a bird or a hamster cage, just note that the area around your cage or coop might get dirty, as chicks make a mess while digging around.



A WATERER & A FEEDER

They should be big enough to serve all your chicks, low enough for them to reach and small enough to fit in your brooder.

A HEATING ELEMENT

You can either get a **heating plate** or a **heating lamp**. For newly hatched chicks, our preference is to use a heating plate. Once they grow a little and no longer fit under the heating plate, we relocate them to a large coop with a heating lamp.

BEDDING

You can use about an inch of **woodshavings** or **hay**.

FOOD

We **mill** our **chicken grains**, which we get from a local speciality farm store. Don't mill too finely (it should be granular but not floury). The amount of grains depends on how many chicks hatch. Our best recommendation is to keep your feeder full.

AND... TIME

Never underestimate this important resource! We recommend to have a calendar on hand.

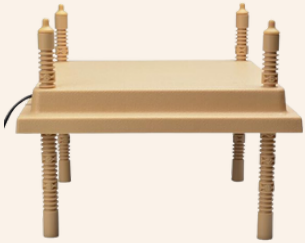


OUR EQUIPMENT



INCUBATOR

We've been using this brand for a few years and it has given us the best results so far..



HEATER

As they grow, you can raise the heating element. This one can fit up to 25 chicks under it.



FEEDER & WATERER

The exact model we have comes from a local farm animal store, but this is the closest to what we have.

OPTIONAL:



INVERTER & BATTERY

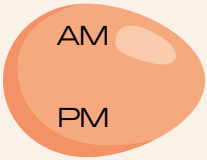
In case of a power outage, we recommend a simple battery + inverter setup.

THE INCUBATION PROCESS

The ideal time to start incubation is between February and May. Beginning too early may leave chicks vulnerable to the cold, while starting too late could mean they are too young to handle the onset of winter.

STEP 1: MARKING YOUR EGGS

For an incubator **without a turner**, mark the eggs with a pencil horizontally (on their side). For example, you can write AM on one side and PM on the other.



If you have an incubator **with a turner**, you don't need to mark your eggs. You will start your incubation with the dull side facing up (pointy side down).



STEP 2: INCUBATING YOUR EGGS

Set the temperature of your incubator to 100°F. Your incubator should be fully warmed up before placing the eggs in it.

For incubators with a turner:

Place all your eggs with the pointy side down.

For incubators without a turner:

- Once your eggs are marked, place them in the incubator, making sure that all are facing the same way (e.g. all the AMs are facing up).
- You will need to rotate your eggs at least twice a day. In the morning, flip them so that all the AMs are facing up and in the evening, flip them so that all the PMs are facing up (a new definition of over easy, eh!).
    - We recommend to repeat the process at even intervals of time. For example, you can flip your eggs at 8 AM and then again at 8 PM.



“But I’m incubating in my classroom…”

It’s not the end of the world if the gap of time in between rotations is not equal. If you’re a teacher, for example, you can rotate your eggs when you arrive in your classroom, and once again before you leave for the day. You will need to come in to rotate the eggs on the weekend. Alternatively, you can get an incubator with an egg-turner.



“Oh no, I missed a rotation!”

Don’t panic. Rotate your egg in a way that they are placed between the two markings and on the next turn, continue as normal (e.g. if in the evening they’re all supposed to be PM, rotate them to be at the PM position).

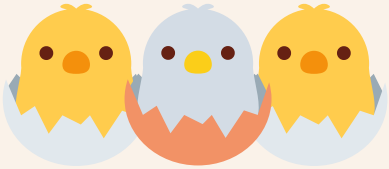
STEP 3: COOLING THE EGGS

DAY 10. Turn off the incubator and let it cool down for 1 hour. When the hour is up, turn the incubator back on and proceed as usual, rotating your eggs twice per day (if using an incubator without a turner). The incubator should be closed while the cooling process is happening. It doesn't matter at which point during the day you do the cooldown.

DAY 18. Once again, turn off the incubator for 1 hour. Once the hour is up, turn the incubator back on. Just like on Day 10, the incubator should be closed while the cooling process is happening. At this point in the incubation process, stop rotating the eggs. For incubators with a turner, remove the turner from the incubator.

DAY 20. Add 1 cup of boiled water cooled to 100°F (or chlorine-free water) into a designated area in your incubator. If there's no designated area, pour the water into the bottom tray, beneath your eggs, making sure to avoid the water touching the eggs.





STEP 4: HATCHING

Day 21. This is when the magic begins to happen! On this day, you will witness the miracle of life as the eggs begin to hatch and little chicks appear. It will be VERY tempting to open the incubator to take a peek, but you'll need to resist the urge for two more days.

Wait two days after the first chicks hatch before opening the incubator, just to make sure that all possible chicks have hatched, and that those who did are drying. In the meantime, set up their home (next step).





STEP 5: SETTING UP THE BROODER

While waiting for all your chicks to hatch, it's time to set up their home! Grab your brooder, place the woodchips/hay evenly in it, then set up your heating element, fill the waterer with water and feeder with grains and place them inside.



STEP 6: YOU DID IT!

You have (hopefully) successfully hatched your first chicks! You can now open the incubator, pick up a few chicks and say hello. Be gentle when handling chicks, don't squeeze too tight. Take a few moments to celebrate. You've earned it.



STEP 7: REHOMING YOUR CHICKS

It's now time to move the babies to their home. Gently, take one at a time and place it in your brooder. Observe them for a little while to make sure they know how to hide under the heater, and can access their food and water. Replenish the water and food as need, and check occasionally that the heater is warm by placing your hand under it.



When your chicks are 2-3 weeks old, you can relocate them to an outdoor coop with a heating lamp. Make sure your coop is fully meshed to avoid your little ones becoming snacks for your local predators.

CHECKLIST

EQUIPMENT

- ☐ Eggs
- ☐ Incubator
- ☐ Heating plate
- ☐ Feeder
- ☐ Waterer
- ☐ Woodchips/hay
- ☐ Coop or box
- ☐ Food (milled grains)
- ☐ Pencil (to mark your eggs)

Optional:

- ☐ Egg light
- ☐ Battery
- ☐ Inverter

INCUBATION

- ☐ Heat your incubator to 100F
- ☐ Mark your eggs
- ☐ Place your eggs in the incubator
- ☐ Rotate your eggs twice daily
- ☐ Cool down on day 10 and day 18
- ☐ Stop rotating after day 18
- ☐ Add 1 cup of water on day 20
- ☐ Wait for 2 days after the first hatch
- ☐ Setup your brooder
- ☐ Relocate your chicks
- ☐ Celebrate



ADDITIONAL RESOURCES



WHERE WE SHOP

Meunerie Deux-Montagnes for all of our grain needs

Canadian Tire for various equipment needs (e.g. battery, inverter)

Amazon (links to products in the “Our Equipment” section)

VIDEOS

Newly hatched chicks

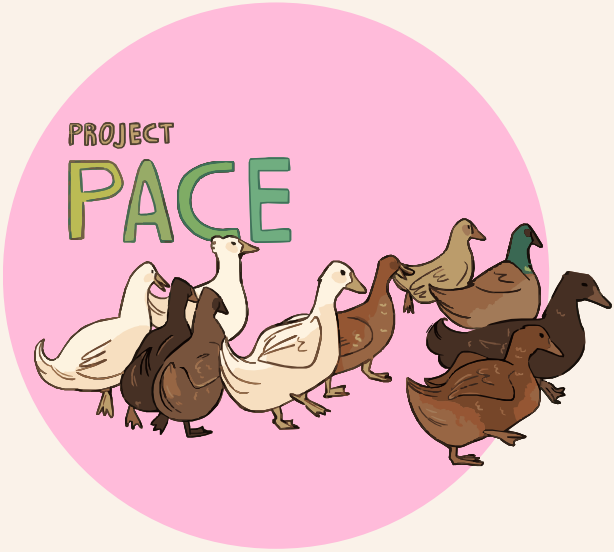
Just a bunch of baby chicks

ARTICLES

More on the dry incubation method

What happens once the chicks hatch

Why we incubate



PROJECT PACE.CA

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ile-bizard, qc
h9e 1k3 canada

Questions? Send us an
email: info@projectpace.ca