

Buying Fertile Eggs

Poor hatch rates are not a deliberate rip off

Some people are disappointed with the results they get from purchased fertile eggs. Whatever number are bought they expect almost all to hatch. There can be many reasons why the outcome was less than desired and they cannot all be attributed to the producer/seller.

The business of buying fertile eggs and having them sent to you is fraught with problems from the start. Nature never intended eggs to travel. Certainly an egg is well designed with a thick, cuticle covered shell that protects the contents from invasion from organisms or external disturbances. As well, spiral rope-like structures called chalazae are attached to the yolk and help keep it safely anchored in the dense middle layer of albumen and so cushioned from bumps and jolting.

In the wild, a hen's egg was not expected to travel more than a metre and if it did need to be moved it would be rolled carefully between beak and breast by the would-be mother to a site either safer or more private than the previous nest. So posting eggs off across one or more states, even if well packed, goes against nature's plan for this genetic treasure trove.

A Professional Activity

Breeders who sell eggs manage the fertility and nutrition of their flocks for optimum performance. They generally incubate test eggs from their flocks to monitor the activity of roosters and ensure they are collecting viable eggs. *Australasian Poultry* asked two breeders selling fertile eggs through the magazine how they managed their operation and the challenges they encountered.

Small WA Operation

Wayne from Southern River in Perth, WA, sells fertile eggs from Araucanas, Silkies, Pekins and Belgians. The stock are regularly wormed and checked for external parasites. Breeding sets usually comprise one male with up to three females with bantams and for Araucana a ratio of one to eight. Breeding stock are generally 12-18 months old. Birds have year-round access to green feed and are given a proprietary ration.

What about problems within the breeding sets? 'We're lucky, temperature doesn't seem to affect fertility here. I will



trim fluff from around the vents of Silkies and Pekins if I suspect mating is not resulting in fertile eggs. Some males seem to have favourite females, which means it's not possible to guarantee each rooster consistently mates all hens in the flock.

'To check fertility, at the beginning of the season I run eggs from all breeds through my incubator as well as setting eggs under broodies. This is repeated throughout the breeding season.'

Wayne finds a few issues crop up that makes satisfying clients difficult. 'Some buyers expect eggs to be available immediately. Of course I don't stockpile them in the hope of a sale, I believe in supplying the freshest available. Collection only begins on confirmation of an order. A few buyers insist on eggs from a specific colour despite the fact my adverts clearly state 'mixed colours only'. A real concern is when buyers request eggs 'as soon as possible' for a hen that's been broody a month or more. Not a recipe for a successful hatch. It is quite common, too, for buyers to state they have just been loaned an incubator or bought one second-hand - with no operating instructions. At times the buyer won't have even turned on the machine to check temperature and humidity. Others announce they have just purchased an incubator and order eggs before they have unpacked the unit. You simply cannot expect success under most of these circumstances.

'To maximise hatching results, I recom-

mend buyers open their parcel on arrival, but leave eggs to settle for 24 hours. Power failure causes problems for many people operating incubators. Do not open the incubator to touch the eggs or put a blanket over the machine to keep eggs warm, the developing embryos will need oxygen.

'My orders are securely packed. Each egg is wrapped in paper towel before being placed thick end up in an egg carton. The eggs are checked for movement in the carton, which is then wrapped in bubble wrap. The carton goes into a posting box with crushed paper for extra packing and buyers are given the choice of surface or airmail, standard or express postage. I've sent eggs Australia-wide and have not received reports of broken eggs. Considerable effort is put into packing my eggs.

'Have I had to replace eggs? Buyers are informed that transporting eggs across the country is at their risk. While I have gone to every effort there is nothing that one can do about jolting, vibrations and possible temperature variations within the postal system. A fertile egg is a relatively delicate living organism. If I feel a buyer has a genuine case then I will replace eggs, however, there are unscrupulous buyers who claim failure in the hope of getting another lot free. There is little sympathy for buyers who give contradictory information when queried about incubator management practices.

'I feel too many people assume the eggs they have purchased will have a 100% hatch rate regardless of their incubator or broody management practices. Too often the buyer will blame the eggs rather than acknowledge their own shortcomings', Wayne concluded.

Wayne can be contacted on email: broadcat@ozonline.com.au

Multi Breed Victorian Operation

Marg Goodwin from Baddaginnie, Vic, has been selling fertile eggs for some years and also breeds chicks for herself and to sell as day olds. 'The eggs I sell are from the same birds I collect my eggs from.' Breeds include Light and Coronation Sussex, Silver Spangled Hamburg, Welsummer, Barnevelder, Minorca, RIR, Gold Laced and Silver Laced Wyandotte, Dorking and Silkies.

'My system is to take orders and then

BEFORE YOU BUY EGGS

ring people a week before the eggs are to go out so payment can be sent. If payment is late the eggs get incubated and it throws orders out for the following week. If I have spare eggs and there is a phone order today I'll send them out tomorrow if the buyer transfers money by the internet.

I breed mainly from pullets which are bred early, that way they are laying by early New Year and so will have been laying for six months when I collect fertile eggs. Hens, by contrast, tend to lay late in the season and some people find hatchability is not always high.

"The breeding birds are fed an 18% layer ration, get a vitamin premix three times weekly, scratch grain and get green feed four times a week. Worming takes place several times a year and stock is checked for external parasites and treated if necessary.

I'm in a frosty area and this seems to cause fertility problems, the females go off the lay and the males just want to perch. The shedding helps with protection on very cold mornings. With so many birds the occasional one does escape, only the heavy breeds are allowed to free range because they're not flighty (fences are six foot). If a bird is found in the wrong yard a wing is clipped and they are kept out of the breeding pen for 14 days. On occasions the females give young cockerels a hard time refusing to crouch or staying up on the nest box, and this will cause a drop in fertility.

I like to set eggs every 10-14 days, candling on the eighth day. I also keep records for reference, for example, pen B, 26 eggs set, 23 candled, 3 clears. Through the records kept when I post out orders if I discover a problem at candling I can contact anyone who may have received eggs from the particular breed or pen. I

- Have you tried the incubator by running at least one group of eggs through?
- Was the temperature the machine was run at the recommended one for the brand and model of incubator and also for the species being set? Hen eggs can cope with a variation of half a degree but you should aim to have the temperature spot on. (Note, always check temp, when the light switches off).
- Was humidity correct? Aim at around 82% humidity and then lift if needed. Expect an incubated egg to lose around 15% of its weight by day 18 if humidity is correct. To check,

weigh eggs before setting, and then on day 18.

• Did you open the door during days 18-21 during the trial hatch? This is a no-no as it immediately lowers humidity at a very critical time.

• What is ventilation like in the room you run your incubator? You will know more cooling and airflow is needed if the incubator temperature rose during days 19-21.

• Did you record the temperatures at least twice daily (morning and night) during the trial incubation so you have benchmark figures to refer to in subsequent hatchings?

find my records are a help if there is dissatisfaction with a buyer's hatch, they help pinpoint where the problem may lie.'

Marg says she finds some requests from buyers challenging, an occasional one being that the dozen eggs be made up of ten pullets and two cockerels! 'I get disappointed when someone orders eggs then passes them over to another person to incubate. I suggest they ask for all the non-hatched eggs back. If the ordered eggs are posted on, it's two journeys in the post and this is expecting a lot of the eggs, it is just not how fertile eggs should be handled.

'I also find there will be excessive demand for one or two particular breeds. Unfortunately people have to be patient and get in the queue. This year Barnevelders and Silver Laced Wyandottes have been in big demand. If someone orders three dozen I may have to cut it back

to two dozen in an effort to get orders out before it's too late in the season. Last year the requests were for Dorking and Silver Spangled Hamburgs, possibly due to the success of my birds at the Canberra National. You always get people asking for eggs out of winning birds, but I don't have separate pens for pairs or trios, I run around eight females per male, so they get the same eggs I get. Genetics is only half a bird's success, the rest is getting chicks out early and feeding them really well. You 'make' a bird in the period from day old to point-of-lay and then it's a matter of maintaining the quality.

'A lot of my time is spent helping the buyers. Many buy a new incubator and immediately want eggs to try it out; I suggest they run some crossbreeds or eggs from their flock through first before spending money. It normally takes three to four hatchings to get familiar with the



Last season Marg found she was inundated with requests for Silver Grey Dorking eggs.

The Silver Spangled Hamburgs were also keenly sought, making orders hard to fill during the breeding season.

running of an incubator, the same applies when you start incubating each year. The machine just sits for six or eight months so it is essential that at least a trial run is done first. From buyers' comments they find temperature and humidity hard to get right. It is difficult for them as they get mixed advice from friends or the internet, then when the eggs don't hatch they decide it is the supplier's fault. The beginners' lack of knowledge makes it hard to

see exactly what is wrong with the site the incubator is in, say a tin shed, or why running the machine too low will result in a poor hatch.

'Tips I offer include egg management like allowing eggs to rest and settle for a few hours after unpacking and before setting in a machine or under a broody. I also encourage people to place orders whether it is with me or someone else. Purebred breeders run tight operations and don't have large numbers of layers to get eggs from as in a commercial operation.

Fertile eggs are packed in an egg container and surrounded by rice hulls in a sturdy shoebox. This normally fits into, 3kg express postbag. Orders of two to three dozen will fit into the 5kg express postbag. Larger numbers go in a box with plenty of cushioning along top, bottom and sides, and between each dozen. The box is likely to go down a conveyer belt and get dropped into a crate with the likelihood of other boxes landing on top, so it must be tough.

'With regard to replacing eggs, my records are informative as to the performance of the birds, but fertility can change within five or six days if a cold snap occurs. I can usually ascertain whether the results of a bad hatch are due to my bird's fertility or if it's a problem at the other end. I'm aware that keeping eggs cool is

an issue and I don't like sending orders out after the end of October for this reason, in the end it is a case of buyer beware if people insist', Marg said.

Marg Goodwin can be contacted on phone (03) 5763 2446.

Help in Back Copies

As there does not appear to be an up-to-date book on incubation on the market, previously published articles in AP may prove useful. Consider some of the articles listed below.

- ABC of Incubation - Vol 2: No 2.
- Development of Chick Embryo - Vol 2: No 1.
- Artificial (incubator) Incubation - Vol 3: No 3.
- Natural (broody hen) Incubation - Vol 3: No 2.
- Incubators and Power Failures - Vol 5: No 6.
- Factors Affecting Incubation Success - Vol 6: No 2.
- Hatching Troubleshooting - Vol 8: No 3.
- Temperature and Embryonic Development - Vol 14: No 3.
- Incubation Pros and Cons - Vol 14: No 3.
- Modern Incubation - Vol 18: No 3.
- Incubators: Cleanliness and Fertile Eggs - Vol 19: No 6.
- Incubators: Optimal Siting, Cleaning, Management - Vol 19: No 5. *

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