

Productivity, egg quality & excellent health status

The French breeding company ISA has a long standing reputation in the table egg sector with birds such as the ISA Brown and ISA White. Their breeding operations are focused on Brittany in northern France but their breeding activities are really truly global with activity in all parts of the world.

The ISA stock is renowned for its productivity, the quality of its eggs and its exceptional health status.

ISA's breeding flocks are free of salmonella, mycoplasma and leucosis as a consequence of high veterinary involvement, good biosecurity and a high intensity monitoring programme.

Maximum number of eggs

When it comes to a bird like the ISA Brown the goal is the production of the maximum number possible of saleable eggs and the combination of productivity and egg quality results in a good profit for the farmer when market conditions are reasonable. Flock productivity is directly related to bird liveability because the more birds that are alive, the greater is the total number of eggs laid.

In addition to liveability another important attribute of the ISA Brown that contributes to its high egg production is persistency of lay as this helps to bolster

Productivity!



ISA Brown layers on M. Moisen's farm in Brittany.

the performance of a flock in the second half of lay.

Historically, breeders put a heavy emphasis in their selection programmes on age at point of lay and the maturity of the bird at this point coupled to performance at peak. Nowadays, ISA are placing more emphasis on persistency which, in genetic terms, means increasing the number of eggs in each clutch.

Genetic improvement

In practical terms this means 10 weeks of production over 95% and 25 weeks at over 90%. Genetically the breed is now improving by 2.5 eggs per year per hen housed and, since this is being achieved without adversely affecting egg weight, real year on year improvements in total egg mass are occurring.

For example, in 1990 egg mass figures of 15.5kg per hen housed were being achieved and today that figure is virtually 20kg. Interestingly, a consequence of all of this is the tradition of providing a feed that is less nutrient dense in late lay is changing in that the age at which the birds start to receive the less nutrient dense feed is increasing.

To see an ISA Brown laying flock, International Poultry Production recently visited France and went to Brittany to look at the farm of M. Moisen who is the third generation of his family to farm chickens. Currently he has some 150,000 layers and 180,000 pullets. The pullet figure is higher because he also

produces point of lay stock for other farmers in the area.

So why was the ISA Brown chosen? The reasons are that the bird cost at the time of first egg is low, egg quality is good and the ISA Brown is a persistent layer. In addition, the size of the eggs it produces is right for the French marketplace.

When it comes to rearing the pullets these are started off in a special starter building for their first five weeks and are then moved into traditional rearing accommodation. At 15 to 17 weeks of age the pullets are moved into cages in the laying accommodation. Two of the 50,000 bird houses were remodelled in 2000 with new cages that will comply with current and future EU legislative requirements. These cages can be further modified in 2012 if expected changes to the rules on cages become a reality.

Long term investment

The investment in 2000 amounted to a million Euros and was seen very much as a long term investment. The cages came from the German company Meller and provide 550cm² per layer.

Initially this farm marketed the eggs it produced to local outlets and supermarkets but in 1996 it went on to a contract to supply all its eggs on a fixed price contract that was indexed to feed cost with an egg wholesaler. This removed price fluctuations and the worry that

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came each year when supermarket contracts had to be renegotiated.

This annual negotiation was not fair to the farmer because it invariably occurred in mid lay and some years the negotiations did not go very well.

Two to three years ago egg prices in France were not very good and the contract protected the farmer; today prices are good and the farm gets a fair price.

In recent times M. Moisen has only had ISA Brown birds with the exception of one test flock that he had of another breed.

This flock performed well but was not as good as the ISA Brown flocks when it

came to persistency and performance late in lay. The ISA Brown was consistent and especially so when it came to egg size and egg quality.

French connection

In the French marketplace the goal is to maximise the number of saleable eggs produced. French egg prices reflect egg size which falls into one of three categories – less than 63g, which command a poor price, 63-65g and greater than 65g. Fortunately the ISA Brown produces no eggs in the smallest of these three commercial categories. A factor in this is

the good and uniform weight the ISA Brown achieves in its point of lay pullets. If body weight is not achieved the birds do not deliver on egg mass.

Egg quality is adversely impacted by hot weather and to counter this the new houses have a spray system that is now switched on on hot days to reduce internal house temperature.

Health is important because there are several diseases of the chicken that can affect egg production and/or egg quality.

Thus, the vaccination programme and the correct vaccination of the birds is very important.

The day old pullets receive infectious bronchitis and Marek's disease vaccine in the hatchery and at two weeks they receive a dose of New-castle disease vaccine and a second dose of infectious bronchitis vaccine.

Further doses are given at four to five weeks of age and at nine weeks of age the pullets receive La sota Newcastle disease vaccine and at 10 weeks they receive a variant infectious bronchitis (IB 4-91).

In addition the birds are vaccinated against avian pneumovirus infection, infectious laryngotracheitis and Gumboro disease.

Prior to point of lay a bivalent inactivated vaccine is given.

No salmonella vaccines

Salmonella control is by sanitary control and no salmonella vaccines are given. The salmonella status is confirmed by testing the flock at day old on placement, at three weeks of age and before transfer into the laying accommodation

The egg handling system.



Note the feed trough depth which give the bird easy access to its feed.

at 15 weeks of age. The flocks are then screened three times in lay and at any time the authorities can come to do an unannounced spot test.

Health problems in Brittany, with the exception of infectious bronchitis, are a rarity and anticoccidials are not used in the flocks on the farm we visited.

Infectious bronchitis problems are typified by small egg drops and a loss of eggshell and albumen quality.

The farm is very much a family farm with one worker for all the pullets. The farmer and one other look after the layers and the farmer's wife looks after all the administrative tasks. When a heavy work load occurs, for example at vaccination, contractors are utilised.



Emphasis on automation

One interesting aspect of the French labour law is that workers have the right to only work on two Sundays in any month.

Farmers in France, as in many European countries, find it is difficult to source really good workers and so emphasis is placed on equipment and automation so that staff can focus their energies where they are really needed.

The end of lay value for the layers is minimal, about 15 Euro cents per kilogram but this price can fluctuate from zero to 25-30 Euro cents.

This being the case the farmer can not rely on the depletion value of his flock as a significant income source and so the attributes of the ISA Brown in terms of egg numbers and egg mass are very important. ■

