Organic Columbian Blacktail eggs – the Stonegate/Waitrose supply chain.

Report of an Elm Farm Research Centre Study – May 2006

A feature of UK supermarket shelves these days is the diversity of egg types they contain. Barn laid, free range, organic, woodland reared, white, brown, blue, ducks eggs, quails eggs – you name it and the supermarkets have added it as a premium egg product.

Nowhere is this premium egg choice more pronounced than at Waitrose. Its national chain of 180 stores stock no conventional, intensive, battery eggs. Alongside premium, barn-laid eggs, its key product is free-range Columbian Blacktail (CBT) eggs. A dozen medium CBT eggs (2 x half dozen boxes) cost £1.78. Alongside sit organic CBT eggs, retailing at £3.18 per dozen, medium. Waitrose egg sales currently break down to 70 per cent free range, 20 per cent organic, 8.5 per cent barn and 1.5 per cent non-hen (duck, quail etc.)

At 26.5 pence an egg, the price and the apparent scale of the Waitrose organic operation beg the questions – what am I getting for this premium price, where are all these organic eggs coming from and what checks are in place to ensure their proper "organicness"?

The sole supplier of eggs to Waitrose is Stonegate, the nation's second largest egg producer and packer. It has an annual turnover exceeding £100 million. Policing of the supply chain is delegated by Waitrose to Stonegate and the trading relationship is so close that Stonegate is now building a dedicated packing plant for Waitrose at its Lacock headquarters in Wiltshire. Waitrose is the only national supermarket chain supplying organic eggs to Soil Association (SA) standards, widely recognised as being the toughest available set of UK rules. Two years ago, SA certified suppliers were dropped by Sainsbury's.

Stonegate describes the CBT business as follows -

"This is a good example of Stonegate working with their customers at a strategic level to add value and points of difference. Columbian Blacktail is a brand developed in a joint initiative between Stonegate and Waitrose and is now used exclusively by Waitrose as the brand on their own label eggs.

Columbian Blacktail hens are vigorous, hardy, robust and thrive outdoors. They are bred and farmed in traditional manner with increased space to live and roam, in line with the expectations of Waitrose customers. It is a unique scheme in the UK, and we believe the world, in terms of delivering continually higher standards and fair returns for all parties involved."

The Columbian Blacktail hen is a cross between Rhode Island Red, Sussex and other "hardy breeds" and was first bred 15 years ago for this Stonegate/Waitrose enterprise.

Strong growth

The CBT operation comprises over 40 organic egg producing sites/farmers and 90 free range suppliers. The organic CBT market at Waitrose has, until recently, been growing at 25 per cent year on year. This has now slowed slightly to 17 per cent, compared to a growth in general egg sales nationally of about 2 per cent. It is an impressive performance and a measure of consumer hunger for wholesome, organic eggs. When demand outstrips supply, for the moment, shortfalls are made up by sourcing other non CBT organic eggs from farmer suppliers (clearly labelled) operating to Organic Farmers and Growers (OF and G) standards.

A typical Waitrose organic producer is Rachel Rivers who runs two 2000 bird units in Wiltshire. The sheds sit in large pasture fields, far exceeding the SA minimum requirement of 100 metres of outside range. The egg enterprise is part of a long established organic unit running to some 1200 acres. Until recently it had a 200 cow dairy unit, but with the realisation that two eggs were now worth more than 1 litre of milk, the cows have gone. The weekly income from 4000 laying hens is far greater than the recent dairy receipts; another shed of 2000 birds is planned.

Typical daily lay peaks at about 1850 eggs per 2000 bird unit, giving an average of 2000 dozen a week. Over the year of lay the CBT hens of Rachel Rivers are expected to give about 285 eggs each. Rachel is a star performer for Stonegate, her birds lay a high proportion of large eggs with few breakers and therefore generate a high return.

The birds are fed an 85 per cent organic ration with the aim of working towards 100 per cent organic rations when available and when required by certification. The feeders are run 9 times a day for 14 minutes.

All hens on the farm are currently from the Stonegate hatchery near Peterborough (a non-organic hatchery) located in the vicinity of the parent flocks. The day-old chicks are raised at a specialist rearer and then moved at 16 weeks of age to this laying farm.

By Spring 2007, all of Stonegate's organic CBT layers will be sourced from dedicated organic rearing units (SA certified).

As an aid to nesting and egg laying the standard light regime for the CBT organic layers is 16 hours of artificial light a day. Most CBT units are fitted with solar and wind power generators to supply electricity for the lights, feeders and egg collection machinery in a bid to be energy efficient and eco-friendly.

The sheds themselves are built on skids to enable them to be moved on to fresh ground between each batch of layers. Shed floors are made of plastic mesh to allow muck to fall away from the birds. Nest boxes are floored with the equivalent of *Astroturf* and are sloped to allow eggs to roll on to the collection belt. A typical capital investment for each shed is £57,000 with another £5,000 for the 2000 layers.

Stonegate operates a Guild of CBT producers which is run by a committee including 4 elected farmers. It holds technical meetings during the year. Producers are "policed" by numerous inspections including Stonegate, the SA and RSPCA Freedom Foods. Due to the integrated nature of the business with Stonegate it is simple to apply a computed profile of production to the age and condition of the supplying farmer to assess the likely predicted level of egg production at any one time. Such data can be used to detect any perceived under or over supply which might indicate additional egg flows from outside the CBT flock or a diversion of CBT eggs to non – Stonegate marketing, which is expressly forbidden in the contract. Due to the current undersupply of CBT eggs, Waitrose is obviously anxious to access all CBT output.

Fully traceable

Scrupulous attention to detail and record keeping is also much in evidence at Stonegate's packing headquarters at Lacock. This unit only grades and packs barn, free range and organic eggs. Different coloured egg trays indicate the type of eggs being handled on to the grading line in discrete batches.

The paper trail that accompanies the eggs from the farm includes all organic certification details, dates of lay, numbers of birds and their age along with flock number and producer number. The grader's computer produces a detailed breakdown of how the batch is graded and analyses quality elements, whilst in the final packing stage all eggs are coded on the shell with inkjet and boxes are labelled with the same information of producer and batch, best before and display dates.

The paper chain allows full traceability back to individual farms and sheds for the purposes of quality control, food safety and organic audit.

All collected data is freely available and subject to unannounced Egg Marketing Inspectorate visits along with the whole packing plant operations. As with the individual producing farms the Soil Association also inspects the Lacock plant, as does the British Egg Industry Council Lion mark inspectorate. Waitrose runs an independent audit of its egg supply operation every 18 months.

It is interesting to note that until recently all control of egg organic standards, including record reconciliation at egg packing stations such as Lacock, has been the delegated responsibility of the organic certifying bodies – such as the SA. To date organic eggs have been specifically excluded from the UK's Egg Marketing Regulations (EMRs).

New rules being brought in by the Government's chief egg marketing inspector are set to change that exclusion. Because of the latest changes to the EMRs, primarily to facilitate traceability, record keeping for all marketing terms, including organic, now falls within the jurisdiction of the EMI, says chief inspector Bruce Pattern. In recent weeks he has been notifying the industry of the change to include organic eggs in future record reconciliations to apply the same rigour of audit across all egg types.

Wider industry standards

The SA organic egg standards state that the basic maximum stocking rate for laying birds is 500 in any one housing unit. "Occasionally permission to allow up to 2000 birds is permitted, but a 100 metre ranging distance must be supplied outside and the birds are not allowed to be housed at a density of more than six hens per square meter," says the standard. To achieve such a permission from SA Certification, producers must be able to demonstrate high levels of bird welfare along with good environmental conditions inside and outside the housing and in the ranging area.

Economic pressures on Soil Association certified producers appear to have forced this 500 bird maximum to become a de facto 2000 bird maximum, with the regular (routine) granting of such permissions. It is the view, however, of EFRC that well designed and managed 2000 bird organic layer systems are welfare friendly. The most important outcome must be the good health and welfare of the hens.

The Soil Association 500 bird maximum appears to have been superseded through the development of commercial best practice and therefore needs to be clearly updated to state the "new" 2000 maximum in its published organic egg standards.

Under SA rules organic layers must be fed with a minimum of 85 per cent of their feed grown to SA organic standards. The ambition is to get to 100 per cent as soon as possible. The practice of de-beaking (beak trimming) is absolutely prohibited in the SA standards as is the routine use of antibiotics.

It is clear that committed Waitrose/Stonegate producers such as Rachel Rivers do adhere closely to the SA standards as interpreted for this large-scale operation.

Elsewhere, other UK organic certifiers allow larger organic flocks. The Defra organic branch confirms that based on UKROFS/ACOS standards, Organic Food Federation (OFF) and OF and G certified flocks contain between 6,000 and 12,000 birds – greater numbers than some "conventional" flocks and at great variance to common consumer perceptions of organic egg production. Such large flocks will continue to be allowed in the UK until at least 2010.

In 2003 the Soil Association published a study of organic farming and animal welfare – *Batteries not included*. Its key conclusions for organic egg production were a need "to limit and phase out current derogations given for the sourcing of non-organic day-old chicks and larger flock sizes".

Batteries not included stated that "the larger the flocks, the greater the pressure on available pasture, the greater the likelihood of a parasite build-up and the greater the likelihood of bullying. When flocks are large, some birds never venture outdoors and the more aggressive birds control the use of pop holes and chicken runs."

When *Batteries not included* was written the ambition was that by January 1st 2004 organic standards would stipulate that poultry farmers must acquire their stock from organic rearers or rear the birds themselves. Two years further on and this standard has yet to be fully implemented.

Two tier organic?

Also in 2003, a technical manager for Stonegate rival Deans Foods Ltd, Lorna Aucott, carried out a Nuffield Farming Study on *The feasibility and future of organic egg production*. She calculated that at the time there were 1 million organic layers in the UK, the vast majority certified by OFF and G.

She observed supermarket domination of organic sales with an 82 per cent share of organic egg sales. Thus she summised –"the emphasis for egg companies has been to develop production units that are economically viable, meeting the organic standards but at the same time fulfilling the volume and value aspirations of the supermarkets…..a two tier organic system is developing; those supplying to supermarkets with commercial constraints versus the purist supplying direct to niche outlets." Waitrose and Stonegate assert that their organic egg supply chain represents a unique third approach (tier), sitting between mass supermarket supply and the niche outlets of farm shops etc.

Lorna Aucott also identified a push from retailers for a much greater proportion of larger eggs to be delivered from organic flocks – "because this is what the organic consumer wants to buy". This presents a particular challenge in meeting the higher health and welfare expectations of the organic system whilst at the same time pushing layers to produce large eggs for market. [Waitrose's 'whole carcase' philosophy has enabled the introduction of a Medium 12 pack, thereby utilising the majority of the eggs laid.]

After studying organic egg production in Germany, Austria and New Zealand her report also concluded that layer systems do not fit easily with organic ideals and the notion of integrated systems. In the UK we have dedicated poultry units and a monoculture. "In all my travels I have seen only one fully integrated organic egg unit where the laying hens are an important part of the organic rotation – and that was in New Zealand."

The UK organic egg sector is a contentious area; it generated heated debate at the SA's annual conference in January 2006 in London, with calls for an end for derogations regarding flock size, organic feed, organic pullets and with allegations of routine de-beaking in some flocks.

Stonegate and Waitrose deserve credit for their commitment to poultry welfare and quality egg supply. Between them they do currently represent the best supply system of organic eggs for UK supermarkets. They freely admit there is continuing work required to develop and enhance the standards further and they are working with all stakeholder groups to achieve this.

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