

PRACTICAL ALTERNATIVES TO BATTERY CAGES FOR LAYING HENS

Case studies from across the European Union

Battery cages in the European Union

In the European Union, approximately 340 million laying hens are kept in battery cages. This is approximately 90% of all laying hens in commercial production. The battery cage is a wire box with a wire floor and a height of just 40cm. The cages are stacked in tiers and lined up in rows inside huge warehouses usually without natural daylight. Each cage normally contains four hens. Each hen has a space allowance of 550cm² which is about the same size as an A4 sheet of paper.

Battery hens produce more than 250 eggs during their short, laying lifetime of one year. This heavy demand leads to liver disease, weak bones and 'layer fatigue' where their bodies become too weak to pass another egg. After one year they are classified as 'spent hens' and have little economic value. A combination of rough handling and weak bones means that over 25% of hens may have broken bones by the time they are slaughtered. For every laying hen chick that is hatched, one male chick is killed. This is because they do not have enough muscle to be reared profitably for meat and therefore have no economic value.

And yet there are alternatives

This study by Compassion in World Farming Trust has examined alternative farming practices across various countries in the EU. It shows that there are already many successful free range and organic laying hen farms in operation. The case studies indicate how the welfare of the hens can be dramatically improved. They also illustrate how this can be done viably in economic terms.

The natural behaviour of hens

Hens are directly related to the jungle fowl that are found in the Far East. They share the same diversity of behaviours that are seen in their wild ancestors.

In a natural environment, hens spend up to 50% of their time foraging for food. This means that their searching, pecking and scratching behaviours have become highly motivated. Travel between the feeding

sites involves walking considerable distances. Hens are also able to fly short distances.

Hens congregate in small groups that have a complex social organisation based on a pecking order or hierarchy. Trees are frequently used for 'roosting' and escape from predators. Prior to laying, the natural behaviour is to build a nest to lay their eggs in. They also carry out maintenance behaviours including preening, dust bathing and wing flapping.



What is wrong with battery cages?

Many of the welfare problems seen in battery cages are consequences of what the hens cannot do. The confined space and barren environment means that they are unable to carry out most of their natural patterns of behaviour.

Foraging

In battery cages, hens generally have constant access to food and so it would seem they no longer need to forage. This is not true. Given the choice, hens will peck and scratch for food that is hidden under sawdust rather than taking it all from a freely accessed trough.

The inability to forage in battery cages results in the hens re-directing their pecking behaviour towards other hens. Eventually feathers are removed and serious wounds develop. These attract pecking from other hens. What may have started as innocent foraging behaviour can soon escalate into something that resembles cannibalism. In the battery cage there is no escape.

The industry's solution to this problem is to remove part of the hen's beak. This is a painful procedure that involves cutting through bone, cartilage, and soft tissue. The tip of the beak also contains a rich nervous supply and the damaged nerves form bundles that continue to grow. Hens continue to feel pain for a long time after the operation.

Freedom of movement

Hens in battery cages are unable to move freely because of the severely cramped conditions. Normally, hens will flap their wings twice an hour and fly twice every 5 hours but they are unable to do this. Minimum cage height has been set at 40cm but 25% of normal head movements take place above this height.

The lack of freedom to exercise leads to brittle bones and weaker muscles. The incidence of broken wing bones can be 6.5% in hens from battery cages compared with 0.5% in free range hens.

The lack of bedding means that hens are unable to build a nest to lay their eggs in. They are also unable to dust-bathe, perch or preen themselves properly. Motivation for many of these behaviours shows signs of building up over time. This can cause chronic frustration.

Stockmanship

On commercial farms, one person may be in charge of 20,000 hens. Combined with the layout of the cages and poor lighting, this means that it is almost impossible for a stockperson to inspect each individual hen. Sick or injured hens can therefore go unnoticed. The growth of beaks and claws can go unchecked causing the hen to get caught or trapped in the cage. The cage structure itself can also result in feather loss, bruising and abrasions. Battery cage farms are highly dependent for provision of food, temperature control, etc. on automated systems that can fail.

Ban on battery cages

The general consensus among animal welfare experts is that battery cage production should be discontinued. This has led to the EU Directive to ban battery cages by 2012. In Sweden, a ban has been in place since 1998. Swedish producers continued to use battery cages and have attempted to block the legislation. However, they have been overtaken by the fall in demand for battery eggs as consumers have become more aware of the issues. This consumer awareness is now happening all over Europe.

Consumer preferences

About 9% of hens in the EU are already kept in alternative systems. In the UK, about 24% of hens are kept in free range systems and sales of free range eggs in the UK have doubled since the mid-nineties. One major UK supermarket sells only free range eggs, both in shell and as egg ingredient in its whole range of processed foods and ready-made meals. Another sells only non-cage eggs in shell and has set a target date of December 2004 to eliminate all cage egg ingredient from its entire sales volume of processed foods and ready-made meals.

In addition, a major retailer in The Netherlands has banned all cage eggs and all major supermarkets and wholesalers are due to follow this lead after 2004, due to pressure from animal welfare groups. In Germany, all conventional cages will be banned from 2007 and existing 'enriched' cages from 2012. Cages have been banned by law in Austria, and in Sweden the use of cages is being phased out. A major supermarket chain in South Africa has also banned the sale of cage eggs.

This data shows that the market for alternatives will grow. To satisfy and meet consumer demands, it is important that alternative laying hen farms should be economically viable and suitable for local climate and conditions across Europe. CIWF Trust decided to publish the details of a variety of successful farms in different EU countries. These provide the hens with good welfare and the farmers with good economic returns. Farms like these point the way to a better future for all.

The way forward

CIWF Trust believes that there are many opportunities to improve the way in which laying hens are farmed. Although there is an EU Directive to ban battery cages by 2012, there is little legislation to address minimum standards of hen welfare. It is high time that this was changed. Standards should address the following key issues:

- Use of appropriate breeds. Breeds that do not suffer from diseases already mentioned, brought about by high levels of production. Breeds that are more adapted to free range conditions. Breeds that are less susceptible to feather pecking.
- The banning of beak trimming that causes both acute and chronic pain.
- Outdoor runs that allow the hens to perform their natural behaviour. Outdoor runs should provide overhead cover such as trees to promote free-ranging behaviour.
- Provision of perches, nesting material and suitable substrates for foraging and comfort.
- Lower stocking densities to promote natural behaviour and reduce feather pecking.



SWEDEN

The farm	Henri Larsén, Springså Sâleri, Vâsierås
Type of farm	Ecologic (organic)
Breed	Hyline
Group size (total flock size)	1,000 (10,000 total)
Stocking density (a) in shed (b) in outdoor range	(a) 7 hens per m ² (b) 10m ² per hen
Eggs laid	20kg per hen
Beak trimmed	No
Age at slaughter	80 weeks
Food	122g per day
Mortality	5-6%
Price to farmer (2003)	17kr per kg (1.9 euros per kg)
Buyer	Svenska Lant Ägg
Cost to consumer (2003)	45-47kr per kg (4.9-5.1 euros per kg)

The outdoor paddocks were planted with clover and wild plants were allowed to colonize the area. The paddocks were rested during the winter. The farmer had planted more trees around the perimeter of the paddocks to help encourage more hens to come out of the sheds. The hens were not particularly fond of strong sunlight and made good use of the shade provided by the verandas. There were no major problems with feather pecking and the farmer felt that

the 8 cockerels in each group helped to keep the hens calm. There had not been any health problems with the flock. Sometimes there were problems with predation from foxes, badgers, and hawks from a nearby falconry. The farmer was Vice President of Svenska Ägg and was in favour of adopting the use of 'winter gardens', a roofed, semi-outdoor area between the shed and the paddock.



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- 1 hens using verandas for shade
- 2 paddocks with clover and wild plants
- 3 white hens show less feather pecking
- 4 cockerels keep hens calm
- 5 ranging hen



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SPAIN

The farm	Pere Maspons Arús, Can Maspons, Barcelona
Type of farm	Ecologic (organic)
Breed	ISA brown
Group size (total flock size)	800 (3,200 total)
Stocking density (a) in shed (b) in outdoor range	(a) 6 hens per m ² (b) 8m ² per hen
Eggs laid	250 per hen
Beak trimmed	No
Age at slaughter	60-75 weeks
Food	125g
Mortality	15%
Price to farmer (2003)	2.3 euros per 12
Buyer	Local food stores
Cost to consumer (2003)	3.4-3.6 euros per 12

All the nest boxes contained straw bedding and the farmer collected the eggs by hand. The sheds were also bedded with straw. The outdoor paddocks contained many mature trees including those bearing fruit such as fig and orange. There were also areas with herbs, tall grass and dense shrub. The hens were seen to use the full extent of their range and spent a lot of time foraging before returning voluntarily to their

sheds at night. The diet had to be 100% ecologic in Spain and this had the advantage of reducing imports from countries with less strict rules. The farmer grew and mixed his own food that the hens could eat from both inside and outside the sheds. He also packed his own eggs and was expanding his enterprise to include an ecologic shop and conference facilities for students and other ecologic producers.



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- 1 farmer collects eggs by hand
- 2 straw bedding in sheds
- 3 fruit bearing trees
- 4 paddock with grasses and herbs
- 5 hens using full extent of paddock



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FRANCE

The farm	Michel Suzanne, Ormes et Ville, Nancy
Type of farm	Ecologic (organic)
Breed	Shaver
Group size (total flock size)	1,000
Stocking density (a) in shed (b) in outdoor range	(a) 7 hens per m ² (b) 10m ² per hen
Eggs laid	0.7 eggs per hen per day
Beak trimmed	Light trim
Age at slaughter	17 months
Food	130g per day
Mortality	3-5%
Price to farmer (2003)	Farmer guaranteed 6.5 euros per hen per year
Buyer	Cocorette label in major supermarkets
Cost to consumer (2003)	2.25 euros per 6

The paddock was beginning to look a bit bare because of the time of year but there were several mature trees. On the day of the visit, most of the hens were inside the shed because of the rain. The farmer estimated that more than 90% of the hens regularly ventured outside. The shed was well bedded with deep straw and the hens had ample room to move around, feed and perch. All the nest boxes were also

bedded with straw. This farm was contracted to the company Cocorette that guaranteed a set price to each producer. This was based on the number of hens kept by the farmer each year. The farmer was therefore more interested in keeping the hens alive and healthy, rather than pushing all out for production.



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- 1 ample space inside shed
- 2 few hens rarely go outside
- 3 straw lined nest boxes
- 4 outside in the rain
- 5 mature trees in paddock

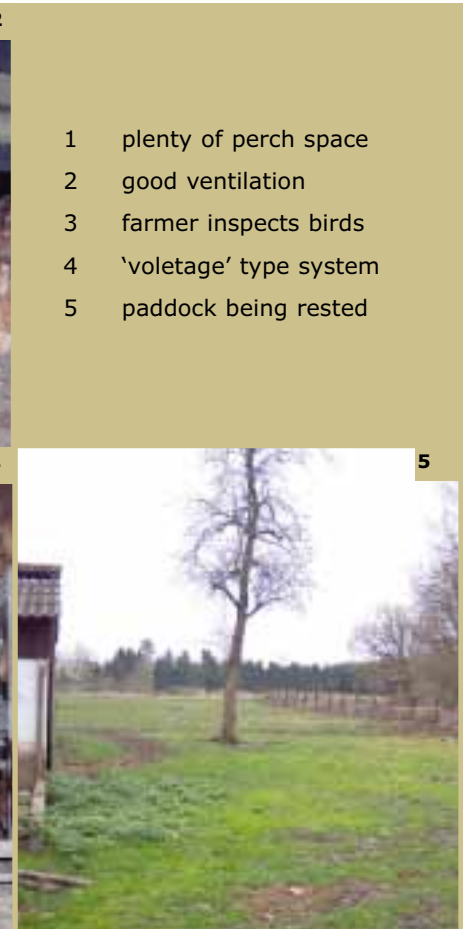


BELGIUM

The farm	Jos Maes, Boldehof, Bolderberg-Zolder
Type of farm	Ecologic (organic)
Breed	Bovans Goldline
Group size (total flock size)	4,800
Stocking density (a) in shed (b) in outdoor range	(a) 6 hens per m ² (b) 10m ² per hen
Eggs laid	0.87 eggs per hen per day
Beak trimmed	Light trim
Age at slaughter	78 weeks
Food	130-135g per day
Mortality	3-4%
Price to farmer (2003)	0.125 euros per egg
Buyer	Supermarkets
Cost to consumer (2003)	0.25 euros per egg

The hens all looked fit and healthy which was not surprising as the farmer was also a veterinarian. Levels of fear were very low and several hens were seen to use the farmer as a perch! They were obviously used to him as he inspected the hens at least 3 times a day. The well-designed shed ensured that the hens were kept warm whilst having enough ventilation to keep the air fresh. The 'voletage' type system meant that the hens had plenty of space for moving around and perching. The farmer planned to

build a semi-outdoor area between the shed and the paddock. This was so the hens would have extra space to use during the cold and wet winter months when the paddocks were being rested. The farmer also ran an ecologic co-operative on his other farm that had a shop and employed people with various social difficulties.



- 1 plenty of perch space
- 2 good ventilation
- 3 farmer inspects birds
- 4 'voletage' type system
- 5 paddock being rested



SWEDEN

The farm	Sören Rabb, Alsbo 5, Krylbo
Type of farm	Free range
Breed	LSL Leghorn (white)
Group size (total flock size)	1,250 (11,000 total)
Stocking density (a) in shed (b) in outdoor run	(a) 7-9 hens per m ² (b) 8x16m per group
Eggs laid	22-22.5kg per hen
Beak trimmed	No (not allowed in Sweden)
Age at slaughter	80 weeks
Food	124g per day
Mortality	2-3%
Price to farmer (2003)	10.3-10.8kr per kg (1.1-1.2 euros per kg)
Buyer	Two major supermarkets
Cost to consumer (2003)	20-28kr per kg (2.2-3.0 euros per kg)

In Sweden, nearly all egg producers are using white breeds of laying hen that have far fewer problems with feather pecking. On this farm, 8 cockerels lived with each group and this also helped keep the hens calm. The 'winter gardens' provided a safe and secure run that enabled perching and dust bathing. One third of the floor space in the sheds was covered with wood shavings that were replaced after every flock. Animal proteins (i.e. animal remains) and synthetic proteins were not permitted in the diet and so the farmer mixed

his own food from crops grown on the farm to which extra nutrients were added. He sometimes gave the hens an extra vitamin ration for a few days, particularly when it was hot. The farmer also ran an egg packing operation that collected from over 125,000 hens, all of which were free range.



- 1 'winter gardens'
- 2 white hens used in Sweden
- 3 inside the shed
- 4 perching behaviour
- 5 foraging behaviour





SPAIN

The farm	Teresa Semba Codina, El Pusol St. Quintí, Barcelona
Type of farm	Ecologic (organic)
Breed	ISA brown
Group size (total flock size)	400 and 600 (1000)
Stocking density (a) in shed (b) in outdoor range	(a) 6 hens per m ² (b) 8m ² per hen
Eggs laid	650-700 per day
Beak trimmed	No, but some stock arrived trimmed
Age at slaughter	19 months
Food	120g
Mortality	Highly varied 2-20%
Price to farmer (2003)	2.0-2.3 euros per 12
Buyer	Distributor and natural food stores (better price)
Cost to consumer (2003)	3.4-3.6 euros per 12

The farm lay in a valley just south of the Pyrenees and had a high rainfall but good drainage. The farmer collected the eggs herself from nest boxes that were lined with sawdust which keeps the eggs cleaner than boxes lined with straw. Nearly all the hens used the extensive paddocks that contained mature oak trees that were used for perching. The dry soil was excellent for dust bathing and several hollows used for this purpose can be seen around the shed. The paddocks

supported a range of natural flora and fauna including earthworms which, judging by the hen's behaviour, were obviously prized possessions. There were some problems with suppliers, including the breeders. However, the farmer said there was a lot of positive feedback from both local producers and inhabitants and she intended to expand. The farm also cultivated ecologic cereal, some of which was used to feed the hens.



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- 1 free draining soil
- 2 inside the shed
- 3 sawdust lined nest boxes
- 4 dust bathing hollow
- 5 mature trees for overhead cover



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The farm	Giles Greenhough, Coombe Mill Farm, Cornwall
Type of farm	Organic
Breed	Columbian Blacktail
Group size (total flock size)	1,700 (6,800 total)
Stocking density (a) in shed (b) in outdoor range	(a) 5.7 hens per m ² (b) 10m ² per hen
Eggs laid	260-270 per hen
Beak trimmed	No
Age at slaughter	72 weeks
Food	103g over whole life
Mortality	1.5%
Price to farmer (2003)	1.7 euros per 12
Buyer	Waitrose supermarkets
Cost to consumer (2003)	2.2 euros per 12

On this farm, both group size and stocking density were reduced slightly to overcome earlier problems with feather pecking. As can be seen from the pictures, the Columbian Blacktail hens were all in full glorious feather. The pictures were taken in December and the paddocks were still in good condition. This was despite the fact that the hens can be seen free-ranging over the whole area carrying out their natural behaviours of pecking and scratching. The farmer was

confident that all the hens left the shed, though 10% of the weaker individuals stayed in a bit longer in the morning to get uninterrupted access to the feeders. The paddocks contained several mature trees, straw bales and outdoor perches made from pallets. Inside the sheds, one third of the floor area was covered in deep straw. Despite this, most eggs were laid in the nest boxes.



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- 1 low stocking density
- 2 paddock condition in December
- 3 straw bedded run in shed
- 4 some hens stay in longer to feed
- 5 Columbian Blacktails in full glorious feather



FRANCE

The farm	Cotel Laurent, Rue Carnot, Maizieres, Nancy
Type of farm	Free range
Breed	Shaver
Group size (total flock size)	1,400
Stocking density (a) in shed (b) in outdoor range	(a) 7 hens per m ² (b) 10m ² per hen
Eggs laid	0.7 eggs per hen per day
Beak trimmed	Light trim
Age at slaughter	17 months
Food	130g per day
Mortality	3-5%
Price to farmer (2003)	Farmer guaranteed 6.5 euros per hen per year
Buyer	Cocorette label in major supermarkets
Cost to consumer (2003)	2.25 euros per 6

This farm was also contracted to Cocorette who produced 140 million ecologic and free range eggs per year and had seen a 20% growth in production. Their label also included the term 'farm eggs' which, in France, indicated that the eggs were laid in straw nest boxes and were collected by hand. The company were carrying out production trials with some of the older breeds such as Shaver and Coucou that were less

productive but more adapted to free range conditions. Even on the cold and drizzly November day that we visited, nearly all the hens were outside. They ranged extensively in their paddock showing very little fear. Although there were several mature trees and a few thickets, most of the hens were in the open on the grassy paddocks.



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- 1 ample access from sheds
- 2 perching is an important natural behaviour for hens
- 3 outside in the drizzle
- 4 trees and thickets
- 5 free-ranging with little fear

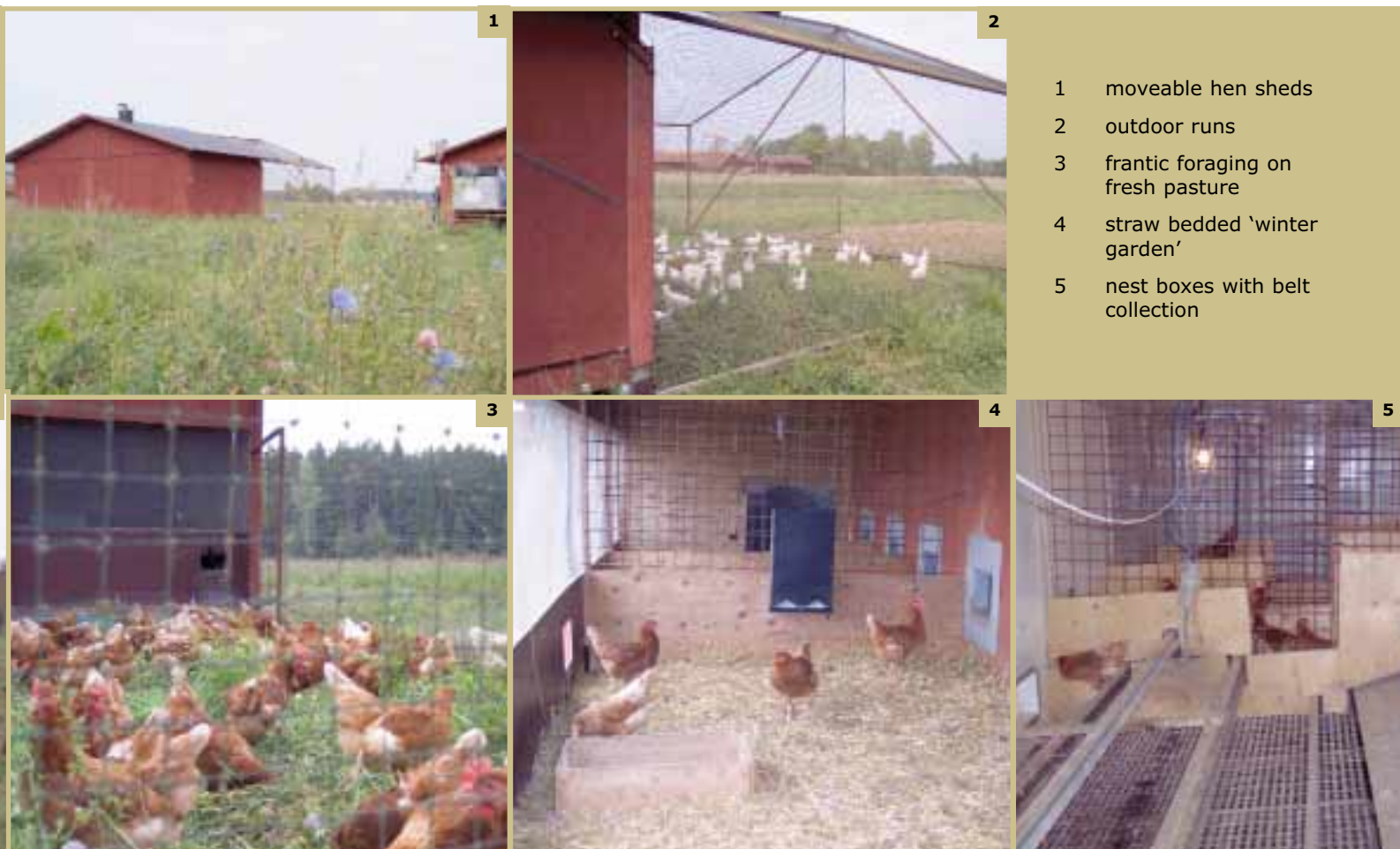


SWEDEN

The farm	Kjell-Sjelin, Hånsta Östergärde, Vattholma
Type of farm	Ecologic (organic)
Breed	LSL Leghorn (white)/Swedish hybrid
Group size (total)	40-200 (1100 total)
Stocking density (a) in shed (b) in outdoor run	(a) 5 hens per m ² (b) 10m ² per hen
Eggs laid	0.7 eggs per day per hen
Beak trimmed	No (not allowed in Sweden)
Age at slaughter	2 years with rest period
Food	Ad libitum
Mortality	4-5%
Price to farmer (2003)	22 kr per kg (2.4 euros per kg)
Buyer	Local food stores
Cost to consumer (2003)	45-47kr per kg (4.9-5.1 euros per kg)

The farmer designed his own moveable hen sheds that held up to 200 hens. The indoor area contained nest boxes with an automated belt collection system and a perching area over a slatted floor. One third of the floor area was covered with straw litter that was changed every 3 weeks. The 'winter garden' could be completely enclosed and used by the hens all year round. The outdoor runs were also accessible for most of the year. Every week, the entire structure was

moved onto fresh pasture that was rich in clover and many other wild species of plant. Once moved, activity was frantic as the hens rushed around foraging on the fresh plants and insects. After one week, the pasture was almost all gone. All the hens were seen to use the outdoor runs. The farmer also kept ecologic pigs, cattle, sheep and bees.



- 1 moveable hen sheds
- 2 outdoor runs
- 3 frantic foraging on fresh pasture
- 4 straw bedded 'winter garden'
- 5 nest boxes with belt collection

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CIWF Trust cooperates with organisations and individuals in many countries. Our current key issues include animal sentience and an assessment of the impact of the World Trade Organisation on farm animal welfare globally. A complete list of our available materials and downloadable versions can be found at www.ciwf.org.

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The Soil Association and Compassion in World Farming Trust share the same concerns about intensive livestock production, and in particular about battery cages. High animal welfare standards are fundamental to the philosophy and the practice of organic farming. Organically reared chickens must have plenty of space, space to run, to scratch and dust, to spread their wings, to enjoy the open air and the sun on their backs, and generally to behave naturally. Organic standards guarantee all this and more for all organic eggs, and prohibit the cruel practices highlighted in this report. This is why CIWF Trust rightly says that organic eggs are the welfare-friendly alternative to battery eggs.

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