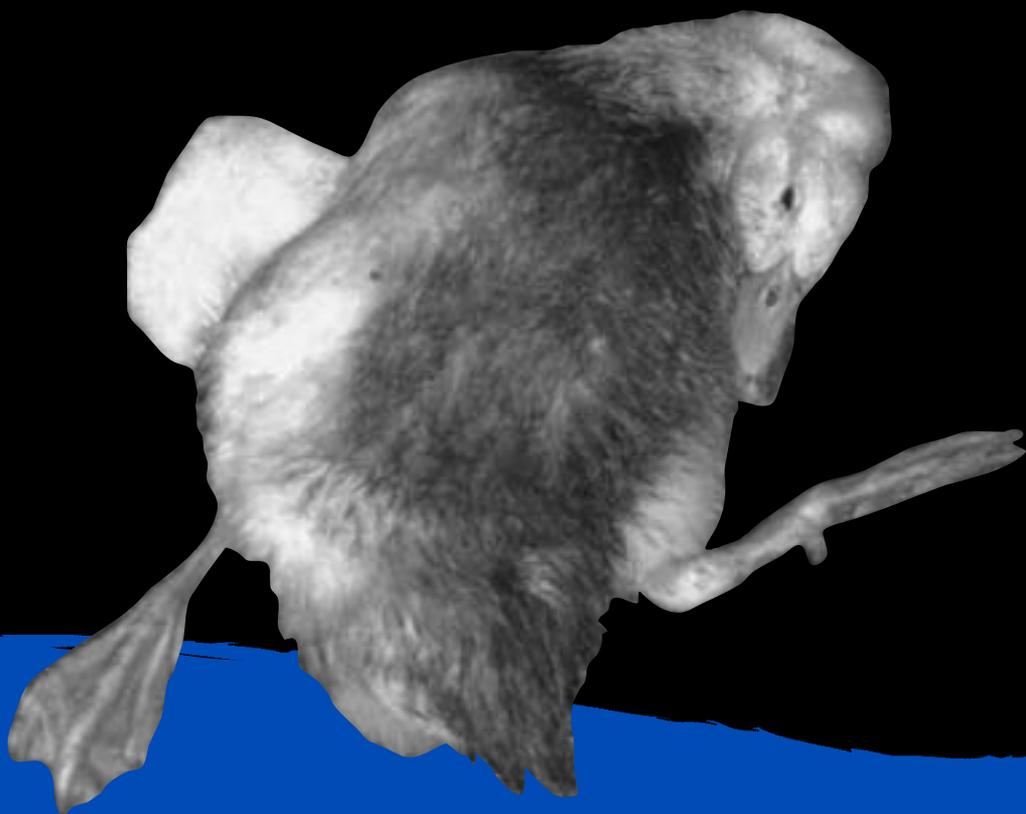


DUCKS OUT OF WATER



Viva!

A report on the duck industry
by Juliet Gellatley (Viva!) and Clare Druce (FAWN)

Addition by: Justin Kerswell (Viva!)

Ducks out of Water is a campaign by Viva!

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Ducks out of Water

A report on the UK duck industry

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Part One

Introduction

Secrecy shrouds the expanding duck industry. World production of duck meat is dominated by Cherry Valley Farms Ltd, owned by Thai venture capitalists Navis Capital Partners (Asia) Limited (which is, in turn, owned by Bangkok Ranch Public Company Limited).

Back in 1999, obtaining information on the UK duck industry was extremely difficult, with even Defra (Department for the Environment and Rural Affairs)'s predecessor, the Ministry of Agriculture Fisheries and Food (MAFF), pleading commercial confidentiality and refusing to answer basic queries about duck welfare. Today Defra is more open, and Ben Bradshaw, the Minister for Nature Conservation and Fisheries, replied in detail to a list of questions we supplied to him on the nature of duck farming in Britain today. However, what has not changed is the shocking level of ignorance and wilful neglect relating to the welfare of factory-farmed ducks on the part of the Government, suppliers and retailers.

Despite some cursory help from the Government, industry has not been co-operative in the slightest. Despite this, we have established sufficient information and undertaken detailed undercover investigations which make this report extremely disturbing. Today's duck breeding and rearing methods are as cruel and oppressive as those adopted by the post-war chicken and turkey industries. Ducks have been driven out of the fields and into intensive sheds - they have joined the ranks of the factory-farmed animal machines.

UK farmed ducks are largely derived from the wild Mallard, who naturally care for their young for up to eight weeks. Today's commercially-farmed ducklings are slaughtered before they even reach that young age - at around seven weeks.

Poultry scientists have 'perfected' selective breeding and have engineered such fast growth rates that this brief period of life offers the maximum profitability - in a species with a potential lifespan of 15 to 20 years.

Intensive sheds house up to 10,000 ducks in one 'flock' and lighting may be both dim and almost constant. Little or no night-time rest is provided. Straw, quickly sodden by faeces, must be added to frequently in order to control the high levels of ammonia and to prevent the birds from developing ulcerated feet and legs.

The lives of these essentially aquatic birds consist of pushing their way through the mass of other birds to avail themselves of pelleted food and drinking water from shallow drinking points or nipple drinkers. They can never swim. Webbed feet, evolved for swimming, and bills brilliantly designed to sieve food particles from rivers and ponds are both entirely redundant. In the pursuit of profit, the industry has overlooked just one thing - duck welfare. The ruthless exploitation of the species has been rapid and far-reaching. It is now world wide and growing, as the Asian industry readily boasts:

'Twenty five years ago, the duck market in Thailand was not developed and the ducks followed the rice harvest, as they still do in many Asian countries. Following formidable efforts by leading international breeders in conjunction with the main local producers, Thailand now has one of the most sophisticated and

advanced duck industries of the world and is looking to added value products and exports to support future growth and profitability.' (1)

At the heart of this world trade is the UK-based Cherry Valley:

'Cherry Valley, one of the world's largest integrated duck production organisations, gives its growers a commercial bird that reaches the desired 3.5 kg live weight at 49 days ... Behind this sort of Peking-type duck performance from the hybrid Super M2 bird is a 20-person R&D facility including veterinarians and geneticists. Starting in 1970, this team has changed the company's original free-range Aylesbury ducks into super meat machines, each sold 13 million times in the UK alone last year.' (2)

Types of duck

All domesticated or farmed ducks originate from the Mallard, with the exception of the Muscovy which has distinct origins in South America. Farmed ducks are therefore broadly divided into two types: the Mallard-type (*Anas Platyrhynchos*) and the Muscovy duck (*Cairina Moschata*). Muscovy/Mallard hybrids are obtained by crossing a female domestic (Mallard-type) duck with a male Muscovy. They're known as Muscovy or Barbary ducks and are used for meat and the infamously cruel production of foie gras.

Mallards

Largely aquatic, wild Mallards are omnivorous, obtaining their food from both land and water. They can fly at speeds of up to 50 mph and migratory ducks travel thousands of miles. Even the domestic Mallard is able to fly for several miles (3).

There are several breeds of ducks bred for meat which have all descended from the Mallard - for example, the Pekin, Aylesbury, Gressingham and Rouen.

The Aylesbury is a white-feathered, often yellow-beaked duck, bred over centuries in many countries for meat. It was named in the early 19th century, when large-scale duck breeding was carried out in the Vale of Aylesbury, in Buckinghamshire, UK.

The Pekin originated in China where breeding has been carried out over many centuries - and is now produced and eaten worldwide, particularly popular in the USA. The duck has creamy white feathers and the bill and legs are deep orange. The Pekin and Aylesbury are sometimes crossed (16).

Green Label Poultry, Suffolk, UK, intensively farms the Gressingham duck which is half mallard and Deben duck which is patented to the company, a 'development of the Gressingham and is quarter mallard' (18).

The wild Mallard is claimed to be the 'meatiest of ducks - high in breast meat and low in fat' (18). In order to increase the size of the Mallard, farmers use larger breeding strains. The resulting 'Mallard-type' birds are almost all factory farmed.

In intensive sheds, a duck's life is largely confined to finding feed and water points. Often these are close

together, requiring little walking. The consequent lack of exercise can cause stunted bone growth and this is frequently observed in young ducks. The size of the shed can also have a bearing as ducks are very active and tend to move through the whole area. This is, however, influenced by flock size. Traditionally, a maximum flock of 200 was advised as larger flocks were known not to perform as well as smaller ones. Flock sizes of thousands are now common (4).

Muscovies

The Muscovy originated in South America and is robust and hardy, capable of adapting to varying climates. The male is twice the size of the female, hence its use in the production of foie gras - bigger bird, bigger liver.

According to MAFF (16), the predecessor of Defra, there used to be doubt as to whether it should be classed as a duck or a goose. The Muscovy grazes like a goose and the males have no curled feathers in the tail, which distinguish the sex in other breeds of domesticated duck. There are no feathers on the face and the skin is bright red, whilst the drake has a knob on his head which gives the appearance of a crest. The feathers come in variations of black, white and blue. Neither sex has a voice and their means of communication is by hissing. It has both claws and webbed feet. The incubation period is 34-36 days, as opposed to 28 days in other breeds. If a Muscovy is mated to other breeds the offspring are sterile. A feature of this breed is that the male is twice the size of the female. (Muscovies bred with Mallard-type birds are more even in size and hardier than the pure Muscovy. They are known as Muscovy or Barbary ducks in supermarkets.)

Farmed Muscovies have retained many anti-predator responses such as freezing, alarm-calling, attempting to take off or running rapidly away from danger, and vigorously struggling if caught. Males and hybrids frequently fight, using their claws, wings and beaks (6).

Muscovy ducks are omnivorous, feeding on plants, worms, insects, fish, amphibians and reptiles. They feed by dabbling in water, foraging and up-ending. The wild birds fly, swim and walk well. According to the Council of Europe, farmed Muscovy ducks 'presently used for meat have not undergone selection to the same extent as other poultry, but heavy birds may be unable to fly, have difficulty in walking and be subject to leg disorders.' (21)

The duck hybrid called a 'mulard' is obtained by crossing a female domestic duck and a male Muscovy. It is a sterile hybrid because of the difference in chromosome sizes between the two parents (7). It is used for the production of foie gras.

Beak trimming - a terrible mutilation

The Muscovy's beak is sharp, unlike the domestic duck's, and can inflict serious injury. It is also richly innervated (supplied with nerves) and very well endowed with sensory receptors (5). Muscovies are widely farmed in Europe and by at least one UK company. Bill trimming is common outside the UK (Viva! stopped its occurrence within the UK, though it is still legal) despite research showing that life-long pain can result. It is a pain likened to that suffered by human amputees. The scientific term for this mutilation is 'partial beak amputation' - or PBA. Defra states:

'Bill trimming should be carried out only when it is clear that more suffering would be caused in the flock if it were not done.' (22)

However, poultry scientists admit the commercial basis for this mutilation:

'Because it is not yet possible to prevent bird-caused injuries reliably under farm husbandry conditions, careful trimming of beak tips and claws is still indicated ... Parent stock are being increasingly housed under intensive conditions, and injuries during their growth are becoming more and more evident.' (The fourth European symposium on poultry welfare) (8).

Further, bill trimming is still legal in the UK, Defra states that it is carried out to stop feather pulling, the causes of which are 'overcrowding, lack of water, sporadic feeding and use of pellets' - all directly due to factory farming (16). Defra recommend that an electric bill-trimmer is used for removing the bill rim only (to prevent gripping of feathers or down) and that it should be seared at the same time to stop bleeding. 'The affected ducks may suffer pain.' (16)

Rather than change the conditions under which birds are kept, to reduce aggression, the mutilation is sanctioned, despite powerful evidence that it causes birds acute pain and seriously affects their behaviour. It can lead to a reduction in the effectiveness of their pecking and reduced feedback from the beak, together with increased dozing, general inactivity and depression.

Scientists have shown that 'debeaking of ducklings is ... traumatic to the bird as the beak is innervated up to the tip. And that 'the use of outside runs considerably reduces pecking' (19). The Institute for Small Animal Research states: 'Trimming of the beak involves an operation on a sensitive region which is painful and may be assumed to cause restrictions to the function of the beak, at least until the wound has healed.' However they found that even if wounds do heal, 'there is no functional substitution for lost structures. The loss of Herbst's corpuscles and blood sinuses severely impaired the function of the beak as a probing organ.' (20)

In flocks of breeding Muscovy ducks another form of pecking can occur, directed at red regions, namely the cloaca of males and females. In addition, it is becoming 'increasingly common to observe females harassing males by nipping their penis, sometimes to the point of irreversible mutilation, before it has retracted after mating'. It is believed that this abnormal behaviour is caused by a poor environment and overcrowding (19).

Viva! victory

Since the launch of Viva!'s campaign against the factory farming of ducks in December 1999, most supermarkets have withdrawn from selling Barbary (also known as Muscovy) duck meat – because the birds are debeaked.

In May 2000, Marks & Spencer stated that it was stopping sourcing Barbary duck 'with immediate effect, due to concerns relating to animal welfare'. M&S continued that their causes of concern were the rearing practices - 'ie beak trimming, housing on wire mesh floors and low lighting levels. For this reason we have decided to stop using Barbary duck meat.' Also, directly due to Viva!'s campaign, M&S withdrew factory farmed whole duck in 2004.

In March 2000, Sainsbury's announced that they 'are no longer selling ducks from suppliers who support the act of beak cutting'.

In June 2000, Asda announced that their sales of Barbary duck meat would cease on 12 August 2000, 'leaving us with no need to de-beak under any circumstance'.

On 26 May 2000, Harrods issued a joint statement with Viva! announcing that they were 'withdrawing all factory farmed duck meat' following consultation with Viva! and information, film and photos supplied on Green Label's rearing practices.

Kerry Foods were a major supplier of debeaked Barbary ducks to supermarkets. Viva!'s campaign stopped this company from mutilating birds. Kerry Foods continue to farm Barbary ducks, which they supply to Waitrose, but do not de-beak them (see part eight).

De-beaking of Muscovy type ducks, however, is not illegal in the UK. It is likely that some companies still carry out this mutilation on Muscovy type birds destined for the restaurant market.

Wire flooring

Although wire flooring is not used in the UK, imported duck meat may be from birds reared on wire. Echoes of the battery cage industry can be heard in the claims of duck producers that wire flooring improves hygiene. As with any uneven surface, it can result in uncontrolled slipping, strains on legs and joints and leg injuries, including joint deformation (10).

In 1994, the *Journal of International Hatchery Practice* reported a visit to the Grimaud Freres company, based at La Corbiere in France. Grimaud had produced their own breed of Muscovy duck called a Canedin and were selling in excess of 35 million birds annually, including breeding stock. In 1998, the company boasted that it was selling 50,000 Muscovy-type and Pekin ducks per week in Asia (17). All ducks reared for meat were being kept on slatted floors for their 12-week lives.

Water denied

UK producers do not supply intensively-reared ducks with water for swimming. In view of the aquatic nature of all ducks and their need for water to remain healthy, water deprivation represents a serious welfare insult to them.

Some duck producers in the Far East do supply water for swimming, but the degree of intensification is inevitably resulting in disease problems.

It must be concluded that duck farming on the scale now practised inevitably involves life-long suffering through an almost total frustration of natural behavioural patterns and disease.

Parent stock

Parent stock are kept in barren and often filthy conditions for a year or more. Viva!USA has filmed parent stock that were in an appalling state – dirty, dejected and many ill birds packed into sheds. In countries such as France, parent ducks may be individually caged throughout their life (see part four).

Artificial insemination

Semen to fertilise eggs is collected from caged drakes and pooled for future use. The females are inseminated three times a week, presumably being removed from their cages for this stressful procedure - the only variation in lives of utter deprivation.

Frederik Grimaud, of international duck company Grimaud Freres, is reported as saying: 'Providing swimming areas for the parents has been found to be totally unnecessary.' (11) Translated, that means the birds survive without it.

Cherry Valley does not practice artificial insemination (12) and Defra have confirmed that it is not practiced in duck breeding in the UK (25).

Size of the UK industry

Some 853 million chickens and around 21 million turkeys are slaughtered annually in the UK (13). In the UK, ducks represent a relatively minor sector of the poultry industry compared to broiler chickens, but it is growing steadily. According to the latest figures, 18 million ducks were slaughtered in the UK in 2004 (13), growing from 11 million in 1992. Defra could give no figures for the number of ducks in intensive conditions and those kept free-range. On the basis of historic Defra information and from information Viva! has gathered regarding supermarket and restaurant sales through our undercover investigations, we believe the figures are likely to be 95 per cent intensively-reared and five per cent free-range.

In the early 1990s, Cherry Valley put its annual production of day old ducklings at 10 million. This included Muscovy (Barbary) and parent stock. It now limits its production solely to Mallard-type ducks and its latest estimate is 13 million per annum (14).

The UK, and Cherry Valley in particular, is a major exporter of stock and rearing know-how. It is largely responsible for the global increase in duck meat production and Cherry Valley Farms was given the Queen's Award for Export Achievement in both 1984 and 1994. Over the past five years the company has expanded its breeding operations in the Asia/Pacific region, which accounts for 80 per cent of world duck meat production (23).

Duck meat – the low fat choice?

Incredibly, duck meat is often pushed by producers as a low-fat, healthy option for meat eaters. This despite the fact that both chicken and turkey are lower in fat than duck. Nearly half the calories of roasted duck comes from fat – and that's only if the skin and excess fat is discarded from the carcass. If this is not done

80 per cent of the calories from roast duck will be from fat!

Duck egg industry

Some breeds of ducks, particularly the Khaki Campbell (originated from the Mallard), have been bred to produce large numbers of eggs. The market for duck eggs, however, is poor in the UK. Defra state that this lack of popularity is due to their 'strong flavour and the hazard from salmonella infections' (16). As there are only a few UK flocks kept for egg production, this report concentrates on the growing trend for intensively produced duck meat.

References (part one)

1. Future developments of the duck industry in Asia Pacific. World Poultry-Elsevier, Vol. 14, No.12, 1998 p38
2. Integrated duck production for 80 countries. World Poultry- Elsevier, Vol. 14, No. 12, 1998 p41
3. The Guinness Book of World Birds (ISBN 0851 12 8912)
4. Influence of walking distances and flock size on performance of ducks. World Poultry-Elsevier, Vol 15, No.4 1999
5. Council Of Europe - Recommendation Concerning Muscovy Ducks & Hybrids of Muscovy & Domestic Ducks, Article 2d, 1999
6. Ibid, Article 2h
7. Ibid, Article 2i
8. Welfare of Waterfowl. Rauch, Pingel and Bilsing, Proceedings of Fourth European Symposium on Poultry Welfare,1993 p141
9. Behavioural Evidence for Persistent Pain Following Partial Beak Amputation in chickens. Gentle et al, Applied Animal Behaviour Science, 27, 149-157, 1990
10. As 8
11. International Hatchery Practice, Vol 8, No 7, 1994
12. Letter to FAWN from Cherry Valley's Director of Agriculture, 19 Oct. 1999
13. Slaughter statistics, 2004, Defra
14. As 2
15. Information supplied by Richard Charley, Agricultural Manager, Kerry Foods, to FAWN, 2 November 1999
16. Ducks and Geese. MAFF, Reference Book 70. 1986
17. Future for mule duck. World Poultry-Elsevier, Vol. 14, No.12, 1998
18. Hopper, P. East Anglian Daily Times. 19 October 1996
19. Raud, H. & Faure, J.M., Welfare of Ducks in Intensive Units, Rev. Sci. Tech. Off.. Int. Epiz., 13 (1), 125-129, 1994
20. Matthes, S & Marquardt, G., Histology of the Muscovy Duck's Beak with and without Trimming, Institute for Small Animal research, Dornbergstr 25-27, 3100 Celle, Germany
21. Council Of Europe - Recommendation Concerning Muscovy Ducks & Hybrids of Muscovy & Domestic Ducks, Article 2f, 1999
- 22.DEFRA, Codes of recommendations for the welfare of livestock: Ducks. 1987
- 23.Poultry World. September, 2003
- 24.McCance & Widdowson's Composition of Foods book
25. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004

Part Two

Statistics

In September 1999 we wrote to Defra's predecessor, MAFF, and requested detailed information on duck welfare. Their reply simply said: 'The duck industry is dominated by a single company and to supply some of the information which you request would result in a breach of confidentiality.' This confidentiality was based on their own interpretation of the 1947 Statistics and Trade Act (ISBN 011 803 8826). It claimed that as Cherry Valley, at the time, controlled over 80 per cent of the duck meat market it is therefore eligible to protection under the Act.

However, by 2004, things had clearly changed. We wrote to Ben Bradshaw, the Minister for Nature Conservation and Fisheries, and he replied to our following questions (his answers can be read in full in Appendix 1):

- a) What feed restrictions are practiced?
- b) Are cages used for 'elite' stock?
- c) How widespread is the use of artificial insemination?
- d) What are the main diseases suffered by intensively-reared ducks?
- e) What problems have been observed with leg weakness?
- f) What problems have arisen in slaughtering ducks?
- g) How widespread are the problems associated with wet litter?
- h) Why is there a lack of water of sufficient depth to avoid eye problems?
- i) What number of ducks are slaughtered annually in the UK and how many eggs, ducklings and breeding stock are exported?
- j) What are the average mortality rates of ducks in intensive production?
- k) How many ducks are killed in the UK each year using 'Instantaneous Mechanical Destruction'?
- l) For what reason would the above method be employed?

Whilst we welcome the Government's moves to openness and their willingness to answer our questions, we were shocked by the level of ignorance to even the most basic welfare problems and even, in some cases, clear contradictions with Defra's own findings and publications. In the later chapters we will incorporate Ben Bradshaw's responses into the appropriate section.

Down on the factory farm

A modern intensive duck unit in the UK may contain between nine and 10,000 ducks in an undivided flock (1). Almost constant lighting ensures they have no natural contrast between day and night. Cherry Valley Farms claim that 'best overall results are obtained with continuous lighting' and recommend 23 hours of light out of the 24 - the one hour without lights is solely to accustom birds to occasional darkness so they do not panic in the event of a power cut (2). The near-constant light maximises the opportunity for the overcrowded birds to feed and put on weight.

Defra's Code of Recommendations for ducks merely states that lighting should be set at levels 'which allow [the ducks] to see one another and to be seen clearly' (3). Although it is illegal to keep animals in permanent darkness

(14) the wording is so lax that lighting can be extremely dim. Also, whilst Defra's Code of Recommendations suggests that lighting in the sheds should 'follow a 24-hour rhythm and include a sufficient uninterrupted dark period, as a guideline approximately a third of the day', and asks producers to consider 'a twilight period in the dimming of lights in order to avoid disturbance or injury and allow ducks to prepare for darkness' (3), there is no legal incentive for this to happen, so it is unlikely to be implemented by most producers.

As with intensive chicken and turkey industries, fast weight gain is the aim. Cherry Valley's Super M3 reaches 3.5kgs at 47 days old and boasts increased breast meat (4). Most ducks are now slaughtered at a maximum of 56 days, by which time they have attained their most profitable growth spurt, despite the fact that they can live to 15 years and more (5).

The current increase in breast meat is due to genetic selection: '... the Cherry Valley table duckling of today not only grows 10 per cent more quickly than did its predecessor of a few years ago, but it also contains 25 per cent more breast meat.' (6)

Increased breast meat in broiler chickens and turkeys has resulted in abnormal gait and leg problems and ducks appear to be going the same way. The European Convention confirms that heavier domestic birds, in particular those selected for meat production, may be unable to fly, have difficulty in walking and be subject to leg disorders (7).

Modern duck farms have a throughput of around six cycles a year - six flocks of ducks, each slaughtered at around seven weeks of age and reared in the same building, which is cleaned at the end of each cycle. Therefore one shed or building (unit) capable of holding a flock of 10,000 ducks will produce 60,000 ducks annually.

Ducks out of water - the cruellest deprivation

In 1999 and 2004, Viva! was given 20 day-old ducklings. They were reared to maturity and we observed their behaviour, particularly in relation to water. Ducklings without the protection of their mothers' feather oils cannot swim - they become sodden and risk drowning. Consequently Viva! allowed shallow drinking points only until the ducklings' down was replaced by feathers.

Each time the drinking water was changed the ducklings expressed a marked degree of interest and excitement. Clearly, water was imprinted in their genetic make-up as being of utmost importance. Once the ducklings had grown adult feathers they were allowed on to ponds where they spent most of their time.

In 2002, Viva! was given two seven-week old ducks. When placed in water for the first time they were ecstatic! Again, from that point on they chose to spend four-fifths of their time in water. Water was fundamental to their lives - they would even dash to anyone carrying a bowl of it, jump in it, splash, play and eat their food from it.

These observations have been backed up by scientific research by Dr Johnathon Cooper of De Monfort University, funded by UFAW (Universities Federation of Animal Welfare), in which he investigated the aquatic needs of the duck. Techniques developed for the assessment of behavioural priorities in animals were used to 'ask' the ducks what was important to them. Through a series of tests, where obstacles such as distance and vertical barriers of differing heights were used, it was found that ducklings place a higher value on open water compared to nipple drinkers (13).

Denial of water limits preening (see part four) and 'comfort behaviour' and this opens the way to abnormal or stereotyped behaviour.

Despite Viva! and UFAW's research, and Clare Druce of FAWN stating in a letter to Defra that the importance of water to ducks was 'blindingly obvious', Defra have announced a three year study 'to ascertain the importance of bathing water to ducks by quantifying their motivation to gain access to water in which they can bathe' (15).

Water supply - varying standards

Water is limited solely to drinking points in all intensive duck production.

Ducks are not allowed access to water (apart from drinkers) or usually even to immerse their heads. Ducks are aquatic birds and need water. Naturally mother ducks oil the down feathers of young ducklings to protect them from water so that they can swim from day one. Ducks must have water to preen properly (see part four). At the very least, ducks should be able to immerse their heads. Defra states that if they cannot do this, 'their eyes seem to get scaly and crusty and, in extreme cases, blindness may follow' (12). Despite Defra clearly stating this in their own publication, when Ben Bradshaw, the Minister for Nature Conservation and Fisheries, replied to our question on this very subject he declared that: "We are not aware that current methods of providing water result in eye problems." (16) This seeming level of ignorance to Defra's own research is surprising. In 2004, Viva!, as part of its response to Defra's Draft Code of Recommendations for the Welfare of Ducks, submitted photographic and video evidence to illustrate the associated problems of lack of access to water for ducks that were taken during our investigation into Norfolk-based duck producer Manor Farm Ducklings in April 2004. They are typical of the conditions we find during our investigations of the intensive duck farming industry, and included an example of 'crusty eye', where a duck had become blinded when both of its eyes became 'welded' shut with dirt and grime. This is a direct result of the duck not being able to preen due to the use of nipple drinkers.

There is no UK legislation regarding the number or depth of water points. Defra's code suggests that: 'Ducks should be provided with water facilities sufficient in number and designed to allow water to cover the head and be taken up by the beak so that the duck can shake water over the body without difficulty. Where possible facilities should be provided to allow ducks to dip their heads underwater.' (8) Defra codes are not mandatory and most bell-type drinkers currently in use do not allow immersion of the ducks' heads. Increasingly, UK producers are using nipple drinkers – which were designed for chickens – to provide drinking water for ducks (see part three). Also, we have evidence of 'crusty eye' and associated problems among ducks even on intensive units where water troughs are used, where we have found the water to be filthy, shallow and stagnant.

Defra admits in the new draft code that '... access to an outside run and water for bathing can assist ducks in meeting their biological requirements'. The draft code continues: 'It is accepted that in practice this cannot be provided for most birds and that there are risks to duck



health, hygiene and safety if they are given unlimited access to open water.' So, whilst Defra recognises the spirit of the recommendations from the Council of Europe (part three), this sentence is clearly inviting intensive duck producers to ignore this sound advice – hence even removing the pretence that Defra ever expects this recommendation to be taken up by any producer. Viva! has never denied that if you put thousands of ducks in a small space of open water you will quickly face problems! It is the intensity of the farming that is at fault here – though of course, it is the ducks who pay the price.

Stocking densities

In Defra's current Draft Code of Recommendations it has suggested that stocking densities should not exceed 22kg/sqm for 'fattening' ducks. The existing Defra code requires a maximum of 28kg/sqm stocking density for housed ducks. This is a slight improvement, but it clearly does not go nearly far enough as it means that each duck will still only have access to a space not much larger than an A3 sheet of paper. Even this slight decrease in stocking density could still contravene Schedule 1, paragraph 10 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No.1870), which states that - 'Where animals are continuously or regularly confined, they shall be given the space appropriate to their physiological and ethological needs.'

The previous code published by Defra's predecessor MAFF recommended maximum stocking rates for ducklings according to their age. It also recommended different stocking rates for breeding ducks. However, the updated code makes no reference to the age of the ducks or, indeed, the difference between ducklings and breeding ducks. Despite suggesting that the ducks have space enough to perform 'normal behaviour', such as the ability to 'turn round without difficulty' and 'flap and stretch the wings', the code is so ambiguous that it leaves it almost entirely up to the producer to decide what levels they stock ducks at. In fact, the code suggests that stocking densities are only reduced if disease or environmental problems arise – inevitably after the suffering of countless birds.

As ever, these codes are not applicable by law, so this will inevitably lead to overstocking on an even greater scale.

Sadly, the RSPCA Freedom Food scheme approves factory farming. Its standards for ducks states: 'The maximum stocking density must be calculated on the weight of the birds/sqm of available floor space. This must never exceed 17kg/sqm. (10)

The standards for the Soil Association's organically-reared ducks far exceed Defra's standards, the RSPCA's and the industry norm. They demand that birds have access to a stream, pond or lake whenever weather conditions permit. The water must be well maintained and managed to prevent stagnation and risk of disease and the build-up of decaying vegetation and pollution (11).

References (part two)

1. Planning application (approved) from C.S.Buchanan Ltd., Green Label Poultry. Application no. C99/0433
2. Cherry Valley, Super M2 Commercial Growing Manual
3. Defra, Codes of recommendations for the welfare of livestock: Ducks. Consultation document. 2004
4. Cherry Valley Super M3 information
5. RSPB. 'Phone conversation with FAWN, October 1999
6. Cherry Valley promotional leaflet, date unknown
7. European Convention for the Protection of Animals Kept for Farming Purposes, Domestic Ducks, Article 3, June 1999
8. As 3
9. Ibid
10. Freedom Food Standards for Ducks, 1999, FW13
11. Soil Association, Standards for Organic Food and Farming, Revision 14, 2002 / 2003
12. Ducks and Geese. MAFF. HMSO. 1986
13. A duck out of water ... , Vet Nurse Times, March 1999
14. Schedule 1, paragraphs 14-16 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I.2000 No. 1870)
15. Letter to Viva! from Alison Maydom, On Farm Animal Welfare, Defra, 7 June 2004
16. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004
17. Defra Slaughter Statistics, 2003

Part Three

The legal position

The intensive farming of ducks is not outlawed but nor has its legality been put to the test in a court of law. The keeping of aquatic birds without access to water other than for drinking could constitute cruelty because of the gross deprivation involved.

On 19 June 1978, the UK ratified the Council of Europe Convention for the Protection of Animals Kept for Farming Purposes.

Over two decades later in June 1999, the Council of Europe's Standing Committee of the European Convention for the Protection of Animals Kept for Farming Purposes adopted new recommendations concerning domestic ducks (*Anas Platyrnchos*) and Muscovy ducks (*Cairina Moschata*) and hybrids of Muscovy and domestic ducks (*Anas Platyrnchos*).

If a member state of the Council of Europe signs a convention this represents a solemn acknowledgement of the convention but does not bind the state to carrying out all aspects of it. But once that member state ratifies the convention, it agrees to be bound by it. Having ratified it, the state does have the right later to declare that it cannot - or no longer wishes to - implement the recommendations but this has never happened (1).

The Council of Europe's Standing Committee of the European Convention for the Protection of Animals Kept for Farming Purposes Concerning Ducks, adopted June 1999

There is a clear distinction between the meaning of the words 'should' and 'shall' in the Convention. Provisions containing the words 'should' are simply guidelines whereas 'shall' implies that the provisions must be applied (2).

Under Article 3 (Biological Characteristics of the Domestic Duck), it states: '...all breeds retain many biological characteristics of their wild ancestors.' (Article 3a)

'Under wild conditions, the mallard is largely aquatic.' (Article 3b)

'Important elements of bathing are the immersion of the head and wings, and shaking water from these over the body.' (Article 3e)

According to the Convention, ducks shall fulfil essential biological requirements!

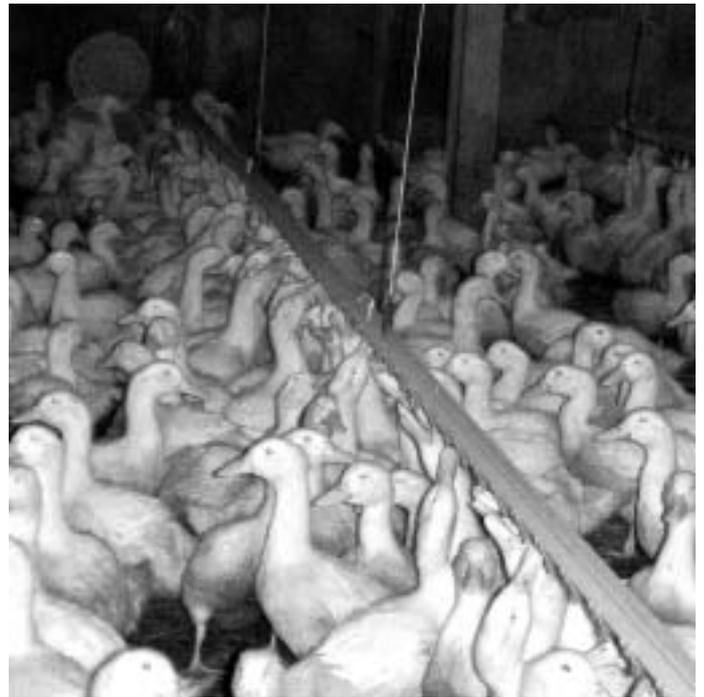
'The design, construction and maintenance of enclosures, buildings and equipment for ducks shall be such that they allow the fulfilment of essential biological requirements of ducks, in particular in respect of water, and the maintenance of good health...' (Article 11, 1)

Having stated its case so clearly, the Convention then invites confusion by adding:

'The ducks should be able to dip their heads under water.' (Article 11,2)

It is our belief that the first paragraph of Article 11 must take precedence over a later paragraph which is less explicit in content. The Convention states clearly that ducks are largely aquatic and retain many biological characteristics of their wild ancestors.

It is now accepted that keeping laying hens in battery cages is cruel, so cruel that the barren battery cage is to be replaced in the EU from 2012 (from 1 January 2003, no new barren battery cage systems may be brought into use) with 'enriched' cages including a slightly increased space allowance, claw shortening device, perch, nest boxes and litter for scratching and pecking (7). It is appalling that cages have not been banned altogether.



Scientists have provided ample evidence to show that the laying hen has lost none of her instincts and has consequently suffered gross deprivation. Dr Marion Stamp Dawkins, of Oxford University's Department of Zoology, has described the battery hen as retaining 'ancestral memory' (6).

Ducks are no less richly endowed with their own ancestral memory. Water, central to the duck's swimming and feeding habits, must rank as a prime 'memory'. Proof of this is the ability and keenness of ducks to revert to a largely aquatic lifestyle when given the opportunity.

Intensive duck farming worldwide denies ducks all access to water, with the exception of shallow troughs or so-called bell drinkers - which may be no deeper than 3½ cm.

In some countries, including the UK and USA, nipple drinkers are often used. They dispense water drop by drop and are popular because they help to reduce the problem of sodden litter - a major headache for intensive duck producers. Wet litter leads to disease and ulcerated feet and hocks. However, in a letter to Viva!, Defra stated that '... there are no particular problems associated with wet litter' (11). Once again, seemingly ignoring an already accepted fact. In the UK, fresh litter - usually straw - is spread daily on top of existing litter in an attempt to keep the flooring dry. Ducks are known for splashing around any available water and for producing wet droppings. Both characteristics are fine in their natural environment but can cause environmental problems in overcrowded sheds.

The nipple drinker is gaining popularity in the UK amongst duck producers, despite obvious animal welfare concerns, in an effort to reduce ammonia emissions. This is as a result of the UK Poultry Industry IPPC Compliance (UPIC): Quantifying Building Design and Operating Factors for Reducing Aerial Emissions, which came about due to the implementation of the 1996 European Directive on Integrated Pollution Prevention and Control (IPPC) (8).

UK/EU law

Part 11 of Schedule 4 in the Welfare of Livestock Regulations 1994 states (under Additional conditions for intensive systems) that livestock shall be thoroughly inspected by a stock-keeper not less than once a day to

check that they are in a state of well-being. Cherry Valley Farms boasts that a saving on labour is an important economic advantage of its system, enabling 85,000 birds to be looked after by just one person in some units (3).

It is impossible to inspect such a vast number of birds 'thoroughly' and sick ducks will inevitably be neglected and some will be left to die. The numbers of animals in today's units have become too great for any realistic hope of individual attention. Cherry Valley's boasts encourage practices which, we believe, could and should be deemed illegal. No company that farms thousands of birds per shed can 'thoroughly inspect' each animal daily! Viva! found ill, filthy, dejected, dying and dead birds in all of its investigations of the UK's major suppliers of duck meat (see part eight).

1999/2000 welfare regulations

The only EU legislation specifically relating to ducks is covered by the requirements of the EU Directive. This Directive which is known as The Welfare of Farmed Animals Regulations 1999 - has replaced the Welfare of Livestock Regulations 1994. In Schedule 3 (Regulation 5 Additional Conditions Under Which Poultry (Other Than Laying Hens Kept In Battery Cages) Must Be Kept) it dictates that: 'Where any poultry (other than laying hens kept in battery cages) are kept in a building, they shall be kept on, or have access at all times to, well-maintained litter or to a well-drained area for resting.' It came into force on 31 December 1999 (4).

The Welfare of Farmed Animals (England) Regulations 2000 has adopted this additional condition, and this provides scant protection for ducks in the UK. It came into force on 14 August 2000 (9).

UK code of recommendations

The codes are not law – but recommendations. In 2004, Defra published its draft code for public consultation (10). The final code will be published in 2006.

The preface of the code announces: '[It] is intended to encourage all those who care for farm animals to adopt the highest standards of husbandry.' It continues that, 'The welfare of ducks is considered within a framework, elaborated by the Farm Animal Welfare Council, and known as the 'Five Freedoms'.

However, these are merely guidelines with no legal backing whatsoever. In fact, the new code highlights what are supposed to be legal requirements that are applicable by law, and differentiates them from what are merely recommendations – helpfully highlighting which ones can be flouted without fear of prosecution by producers (10)!

References (part three)

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| 1. Letter to FAWN from Directorate of Legal Affairs for Council of Europe, 20 September 1999 | 6. Stamp Dawkins, M. Through Our Eyes Only - the Search for Animal Consciousness. WH Freeman Spektrum, p153, 1993 | 9. The Welfare of Farmed Animals (England) Regulations 2000 |
| 2. As above | 7. The Welfare of Farmed Animals (England) (Amendment) Regulations 2002 | 10. Defra, Codes of recommendations for the welfare of livestock: Ducks. Consultation document. 2004 |
| 3. Cherry Valley promotional booklet, The World of Cherry Valley | 8. UK Poultry Industry IPPC Compliance (UPIC): Quantifying Building Design and Operating Factors for Reducing Aerial Emissions.
http://www.sri.bbsrc.ac.uk/science/eeg/ukpoultry.htm | 11. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004 |
| 4. MAFF letter to FAWN, 23 September 1999 | | |
| 5. As 4 | | |

Part Four

Breeding ducks

All too often, parent and grandparent generations of poultry are left out of the welfare debate. Yet it is the parent stock of breeders and the valuable, 'elite' grandparent stock which can suffer the greatest deprivations. Certainly, their misery is more prolonged than that of the ducklings they never see.

Hidden away, in their hi-tec world of genetic selection for quicker and ever more profitable growth, these birds live for at least a year; the elite stock for longer. In a letter to us from Ben Bradshaw, the Minister for Animal Welfare, confirmed that the elite stock are often caged. He told us that: "Elite breeding ducks are individually penned for a short period with free access to feed and drinking water and visual and social contact with other ducks." (7) However, Defra's Code of Recommendations do not offer any guidance on how access to feed and drinking water and visual and social contact with other ducks should be achieved. The code also suggests that ducks should not be kept in individual cages unless they are injured or suffering from disease, the only exception are breeding birds. The code, however, whilst it suggests that these cages '... must allow for the needs of the bird to be met and periods of confinement should be kept to a minimum', no specific guidelines on what an acceptable size for the cage would be, or exactly how long birds are allowed to be caged, will inevitably lead to wildly differing standards amongst producers.

Amount of living space

Previous to this current updating, Ministry code recommended five ducks per sqm on slatted, perforated or metal mesh floors and three ducks per sqm on solid, littered floors. Again, this figure included areas occupied by feeding and watering equipment and nest boxes. Where floors are mainly solid, any slatted, perforated or metal area can also be included in the total. Clearly, the figures of five and three ducks per sqm were significantly less 'generous' once nesting boxes, drinkers and other structures that impinge on space are taken into account. However, the new Code of Recommendations only makes a suggestion for the maximum stocking density for fattening ducks and ignores breeding stock entirely, meaning that they are liable to suffer the same overcrowded conditions of ducks raised for meat when not confined to cages.

Cherry Valley does not cage its breeding ducks, but says they start at about two birds per sqm. Experience has shown, they claim, that giving ducks much more room than this leads to increased movement around the house, nervous birds and messing of the litter (1).

Life expectancy

Parent stock are kept for just over a year while the 'elite' breeders - those who maintain the genetic line - are retained for longer.

Litter management

In day-old to death housing, buildings are set on 3ft high dwarf walls constructed from pre-cast concrete sections. The 3ft height allows for the build-up of litter (2). The litter is constantly added to for the life of the birds - around one year. Ideally, fresh straw should be added daily to prevent the ducks from living on wet litter. However, the condition of litter in duck breeding units may be poor and high in ammonia content.

Behavioural patterns

Sadly, breeding ducks are able to fulfil few of their natural behavioural patterns. No water for swimming is supplied in typical UK duck farms. Throughout their relatively long lives, they can never swim or carry out the many other activities to which water is essential and for which they have evolved over millions of years. In most systems, they may not even be able to immerse their heads in water.

Food and drink

There are various systems for providing drinking water. Cherry Valley recommends - and it is only a recommendation - troughs which allow a bird to wet its whole head. They also approve 'bell' drinkers, which provide a water depth of just 5-7.5cms (2-3ins), which must make head immersion impossible.

Cherry Valley states that its breeding ducks are allowed 90 per cent of what they would eat if they were fed ad lib (3). This amounts to food restriction and it is done to prevent over-fatness leading to egg peritonitis, a major cause of mortality in female breeders. Although the birds are provided with almost all the food they require, it is the same dry, monotonous diet for their entire lives.

Farmed ducks are fed wheat-based pellets, rendering the duck's capacity to sieve particles of food through its bill, and its instinct to forage for food, redundant. Ducks naturally feed on seeds, plants, insects and worms on land and planktonic organisms from water. The dry diet they are provided is totally unnatural to the species.

Sexual patterns

Under natural conditions, ducks live in large flocks for several months of the year, forming into pairs during the breeding season. Both sexes act out elaborate courtship behaviour.

In modern farming systems, the males (drakes) and females (ducks) are kept at a ratio of approximately one male to five females. Light patterns in breeding sheds mimic spring and summertime, with artificial lighting for 17 hours out of 24, disrupting the birds' natural mating patterns. Consequently, mating occurs throughout the year. This unnatural reproduction rate leads to diseases of the female reproductive organs.

Breeding units may contain hundreds or even thousands of birds. A planning application to Suffolk Coastal District Council by Green Label Foods indicated that each of three proposed breeding units would house 3,000 ducks (application no. C99/0341- refused).

Preening

Preening is an important behavioural pattern in all birds and in ducks involves immersion in water. The European Convention acknowledges that they spend considerable time performing complex preening behaviours. Feeding is followed by bathing, after which they carry out a variety of shaking movements to remove the water from their bodies. Cleaning movements then remove foreign bodies and an elaborate sequence is carried out to distribute oil on the feathers from the uropygial gland above the tail. This is necessary for waterproofing and heat regulation. Preening is often followed by sleeping for a short period - and the sequence of feeding, preening and sleeping may be repeated a number of times during the day. Important elements of bathing are the immersion of the head and wings in water and shaking water over the body (4).

Intensively-kept breeders have no opportunity to preen effectively. It would be mistaken to assume that the lack of water for swimming has bred-out the instinct to preen. Given the correct conditions, ducks quickly revert to natural behaviour and keep pristinely clean, unlike the often heavily-soiled ducks in factory farms.

Parenting

The fulfilment of maternal instincts is denied to today's commercial breeding ducks. Observation of mother ducks with their young suggests a strong bond. In the wild, the female Mallard usually looks after her ducklings for about two months (5). Of course, in commercial meat-producing units, the ducklings are usually killed before this age.

Under natural conditions, maternal care for the young until feather growth is achieved and is necessary for the survival of the species. Oils from the mother's feathers are vital for waterproofing the duckling's down in the first three or four weeks of life.

Commercial duck producers remove eggs on a daily basis, transferring them to incubators for hatching. The breeding female continues to produce eggs - which are removed as fast as they are laid. Through genetic selection, a modern, breeding female is **induced to lay up to 270 eggs in her 66 week life** (6). She never hatches or tends for a single duckling. A female wild Mallard lays a clutch of eight to 10 eggs twice, or sometimes three times, a year. **Her total egg output is a maximum of 30 a year**, all of which she will attempt to hatch and rear.

References (part four)

1. Richard Bird, Director of Cherry Valley's International Division, reported in Poultry World, Vol. 14, No.12, 1998

2. Seven-Tier 'Pyramid' Duck Breeding System, Poultry International, November 1992

3. Letter to FAWN from Cherry Valley's Director of Agriculture, 19 October 1999

4. European Convention for the Protection of Animals Kept for Farming Purposes, Domestic Ducks, Article 3e

5. Information supplied by Wildfowl & Wetlands Trust, letter dated 3 November 1999

6. World Poultry, Vol 14, No.12, 1998, p41

7. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004

Part Five

Duck exports

In a letter to Viva!, Ben Bradshaw MP told us that approximately 5,500 ducks and geese are exported for breeding purposes annually (8).

Cherry Valley is a global exporter, selling its livestock and expertise to over 80 countries on five continents. It claims it is developing the agricultural infrastructure of the third world. Day-old parent stock is air-freighted in specially designed containers, to ensure the birds arrive in peak condition at the customer's farm, less than 24 hours after hatching (1). The Pekin duck you eat in Hong Kong may turn out to be from Lincolnshire, they say (2). And the sales patter continues: 'The unique bank of knowledge built up by Cherry Valley is an important part of the complete package deal available to overseas companies.' (3)

No research has been carried out on the export of live ducklings but it seems likely they suffer the same problems of dehydration as chicks. The term 'day-old' can be misleading as birds, even from the same batch of eggs, do not all hatch at the same moment and some may be considerably older than others. The need for water, followed later by the need for food, increases with age. The older the bird, the more likely it is to suffer from dehydration and/or starvation.

Scientists from Bristol University's Department of Meat Animal Science reported on the mortality associated with newly-hatched chicks going without food and water for up to 48 hours. They concluded: 'This work has demonstrated that large losses in weight may occur while chicks are in transit for periods of time which are likely to be common in commercial practice.' Their research indicated that some chicks suffer serious weight loss and are prone to dying immediately after placement in the sheds (4).

One reason for a high percentage of 'day-olds' dying on arrival was explained in an article published in *World Poultry* which stressed: 'The condition of the chicks on arrival can be ascertained before placing as severely dehydrated chicks will often seek water and rush to the drinkers, leading to drowning.' (5)

There is no reason to believe that conditions are any better for ducklings than they are for chicks and there has to be great concern that serious problems exist with the transport of ducklings. The reason for there being so little research into duck welfare is that the market is small compared to massive broiler chicken sales.

Export data relating to eggs are not broken down by species and, consequently, it is not possible to provide a figure of the number of duck eggs exported from the UK annually (8).

Varying farm standards

Cherry Valley progeny have permeated even overseas rural communities and are now sold in markets in Asia (6), which now accounts for 80 per cent of world duck meat production (7). One quarter of the 1.3 billion ducks sold in China in 2002 were Cherry Valley ducks. At just one farm at Shanghai, 80 kilometres east of Beijing, 10,000 pure-bred Cherry Valley ducks are hatched every day – all descendants of stock imported from

Britain. Each breeding duck produces as many as 185 ducklings to be sold to local farmers and used to produce generations of meat ducks (9).

We do not believe it is a case of 'British good, foreign bad' but standards are likely to be even lower in some markets than those in the UK and this clearly puts welfare at risk.

There are real concerns over the standards of both housing and feed. A report into international duck farming methods by Robert Borrill, a Nuffield Scholar and holder of the Young Nuffield Award, confirms this. It was published in *Poultry World*, July 1996, and won him a double first. The following quotes are all taken from it.

'There are plenty of leaking roofs and rancid feed, creating high disease in China.'

'Pellets are gaining ground throughout the Far East, but still too much dry, dusty mash and high wastage levels.'

'Housing (in China) ranges from basic overnight accommodation to intensive day-old to death houses with mesh flooring.'

'...virtually 100 per cent nipple drinkers in US where they cannot believe the UK still uses bell drinkers, with all the problems of spilt water, wet litter.'

'Since artificial insemination arrived, hatching rates have more than doubled from 40 per cent to 85 per cent.'

In the Far East, ducks are sometimes integrated with fish farming, the fish consuming duck droppings, but problems are inherent in the system.

'Stock the ducks at 1,500 to the hectare and the pond will produce 10 tonnes of fish a year with no supplementary feeding ... Consumers don't seem to complain about the flavour of the fish, but the industry is concerned about the prevalence of duck viral hepatitis which has closed some multi-age sites.'

'Cash to quit: duck farmers in Hong Kong are being offered money to get out [of duck farming] in a move to curb pollution. On Long Island, USA, duck farms have been blamed for a brown tide of untreated sewage hitting beaches.'

On welfare, Borrill wrote that everyone wanted to know about Defra's welfare code for ducks and other livestock and said that neither Asia nor the USA had seen anything like it. In China he was asked: 'Why should ducks have rights when we humans have so few?' Welfare groups were unknown almost everywhere except for Hong Kong, where the one international organisation was campaigning against the binding of ducks' legs before being marketed.

Often, the practice of artificial insemination involves caging parent stock for ease of identification.

As with other forms of factory farming, there is no solution to welfare problems other than providing conditions that the animals really need. Ducks need water but keeping large numbers of them in static water,

as can happen in the Far East, often leads to serious disease outbreaks. On the other hand, depriving them of water is clearly cruel.

References (part five)

1. Cherry Valley, 30 Years Evolution and Revolution
2. The Independent, 21 March 1992
3. Cherry Valley Farms, World leaders in ducks
4. Responses of Newly Hatched Chicks to Inanition, Warris. P.D et al. Veterinary Record, 18 January 1992
5. Losses due to Dehydrated Broiler Chicks, Qureshi, Dr A A. World Poultry, Vol 7, No. 4, 1991
6. Cherry Valley, 30,000 Sales Outlets
7. Poultry World, September 2003
8. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004
9. Well-bred British ducks push locals off the table, Damien Mc Ellroy, The Sunday Telegraph, June 11 2002

Part Six

Slaughter

Catching

The Council of Europe demands that: 'Where possible, birds shall be encouraged to walk and handling reduced to a minimum.' (2) And: 'Birds shall not be carried hanging head downwards or by the legs alone. Their weight shall be supported by a hand placed under their body and an arm around the body to keep the wings in the closed position. Heavy birds shall be carried individually and put into containers/crates one by one. Transport crates with large openings shall be used.' (3)

The Defra code offers the following advice on catching: 'It may be necessary to catch older ducks by the neck but they should not be carried significant distances held by the neck once caught nor should they be carried with more than two birds in each hand. Once caught their weight should be supported either by taking the weight of the bird by a hand placed under its body, or by holding the bird with a hand on either side of its body with the wings in the closed position.' (1) This wording is too ambiguous; if the catcher is carrying two birds how can he carry a bird 'with a hand on either side of its body with the wings in the closed position'? Sadly, the likelihood is that birds will be carried by their necks whatever the distance.

The code continues: 'Birds should not be carried hanging head downwards or by the legs alone.' (18) However, the code does suggest that 'lighter birds below 3.3kg maybe lifted by their legs for placing in the container/crate' (18). This surely means that, despite the code saying that any bird that is unable to stand on both legs should not be transported (and should be killed on farm) (19), many birds will suffer pain.

Also, if ducks should not be held by the legs and carried upside down, it begs the question of why it is permissible to hang them in shackles for slaughter - a process known to be capable of causing pain and damage. Defra could offer no explanation for the discrepancy.

Yet another scenario is presented by the RSPCA's Freedom Food standards: 'Ducks must not be carried hanging head downwards or by the legs alone. Ducks may be caught by their necks, with no more than two birds in each hand. Birds weighing more than 4kg must be carried individually. Their body weight must be supported and they must be put into containers/crates one at a time.' (4)

Catching Muscovy ducks is likely to present particular welfare problems since they struggle wildly when frightened (5). None of the existing codes or standards make any reference to Muscovies.

Freedom Food's recommendation that two birds may be carried in each hand also gives great cause for concern and appears impractical as well as compromising welfare. When the catcher arrives at the crates or modules, in which the birds will travel to slaughter, both his hands will be full. Clearly, the temptation will be to sling the birds straight into the crates, just as so frequently happens to broiler chickens. The alternative is to put one 'handful' down while dealing with the other! The birds are unlikely to wait patiently for their turn to be crated.

Levels of suffering

There are 15 UK slaughterhouses licensed to kill ducks. The Meat Hygiene Service (MHS) is responsible for policing, and previously would not release a list of addresses, deeming such information 'commercially sensitive'. This decision has now been relaxed and below is a table listing their details: (21)

Licence No	Name	Town	County
4046	Atwell's Ltd	Redditch	Worcestershire
4534	Marsh. T (Orchard Lea Poultry)	Nr Preston	Lancashire
4539	Hasham & Sons	Birmingham	West Midlands
4559	Taj & Co	Birmingham	West Midlands
4574	Johnson & Swarbrick	Preston	Lancashire
4765	Kosher Poultry Ltd	Manchester	Greater Manchester
5004	A E Button & Sons (Kerry Foods)	Diss	Norfolk
5023	Leonard Ames (Amphill) Hill	Amphill	Bedfordshire
5029	Shingfield, E F & Son	Norwich	Norfolk
5036	MFD Foods Ltd T/A Manor Farm Ducklings	Thetford	Norfolk
5069	Green Label Poultry	Woodbridge	Suffolk
5482	W E Botterhill & Son	Grantham	Lincolnshire
8013	Creedy Carver Chicken	Crediton	Devon
8019	Spurtham Farm Abattoir	Honiton	Devon
8353	Humza Poultry	Gloucester	Gloucestershire

Although statistics are available for the different stunning methods used to kill chickens and turkeys, ducks are not included, despite the known welfare problems that duck slaughter presents. The MHS simply states: 'In all cases these animals (the 'minority species') were slaughtered by an approved method.' (6)

Methods of killing

According to Defra, before slaughter the birds should be starved for at least six hours so that their intestines will be empty. 'Although starvation for much over six hours results in some loss in carcass weight, in practice this is unavoidable where substantial numbers are involved.'

Killing can be either by dislocation of the neck or by stunning and 'sticking'.

Dislocation

Dislocation of the neck can be a quick method of killing provided it is properly done. However, Defra state that as a duck's neck is rather long, 'this is not always easy' - and if not done properly results in great stress and pain. This is only recommended for small numbers of ducks, and accounts for approximately 10 per cent of birds slaughtered (15) (17).

Sticking

Defra state that this method is necessary if the birds are to be sold as 'oven-ready' (15). The birds should first be stunned, which may be achieved with an electric stunning knife or, on a large scale, by their heads passing

through an electrically-charged waterbath. Then the brain is pierced via the roof of the palate and the jugular vein severed (usually manually). Before plucking, the birds must be bled out and for this purpose specially shaped cones, often mounted on a circular stand, are sometimes used. Bleeding time will usually be in excess of two minutes (17).

Captive bolt

The latest amendment to WASK (Welfare of Animals at Slaughter) regulations have allowed a captive bolt gun (a pneumatic or cartridge operated percussive device intended to produce immediate death) to be used on ducks, for the purpose of disease control (16).

Electrical stunning

In the 'processing plant' the live, fully conscious duckling is hung upside down on a conveyor (a clarification of the law stipulates that this must not be any longer than two minutes, which came into force on 6 January 2005) (16). The bird's head is supposed to be immersed in an electrically-charged water bath in order to render the animal unconscious before it is knifed and bleeds to death. But how effective is this method of stunning?

In fact, little attention has ever been paid to ducks' suffering at slaughter. Research at Bristol University's Department of Meat Animal Science found that ducks were less susceptible to a ventricular fibrillation (stopping of the heartbeat) than either chickens or turkeys. They also established that a stunning current of 250mA was necessary to induce a ventricular fibrillation in 99 per cent of the birds (7).

Despite this, many ducks may be subjected to an attempted stun by a current as low as 51mA (17) before being bled to death. Few, if any, will be killed outright by a stun as low as this and many will either fail to lose consciousness or regain it before reaching the knife (the wait can be as long as 21-25 seconds) (17).

According to UK law on slaughter, stunning means any process which causes an immediate loss of consciousness that lasts until death (8).

There is no differentiation between ducks and other poultry in the regulations, although the requirement for special treatment is clear. Defra's codes recommend a stun current of 'at least 105mA' applies only to broiler chickens and says: 'Where other species of poultry are being stunned ... the manufacturer's instructions with regard to voltage and current should be used as a guide when setting the stunner.' (9)

In 2002, Defra published a draft code of practice for the welfare of poultry at slaughter, which does make specific reference to ducks. It recommends a minimum electrical current stun of 130mA (19). However, this code has not yet been ratified; a phone conversation with Defra confirmed that they are hoping for this to happen in early 2006 – over three years since the draft code was originally published. Defra were unable to explain why it had taken so long (20). Again, as with any recommendations, the figure of 130mA is merely a suggestion and not enforceable by law (and is liable to change before the code is ratified).

Even if this seems to be an improvement, Defra have appeared to ignore scientific evidence as Bristol scientists have deemed the much higher current of 150mA as an acceptable minimum current for the slaughter of ducks

(10). Bearing in mind the ignorance surrounding duck slaughter and consistent problems with electrical stunning, the manufacturer's instructions may be of little help.

Although the majority of ducks are stunned via an electric water bath, some are stunned via hand-held equipment (17).

Gas stunning

Researchers at Bristol's Division of Food Animal Science suggest that killing ducks with gas could alleviate some of the welfare problems encountered in conventional electrical stunning. It would omit the shackling stage, allowing the ducks to remain in their transport crates until dead (11). However, gas stunning has its own welfare problems and can cause extreme breathlessness and panic. EU law states carbon dioxide must be avoided 'as ducks are not as susceptible to carbon dioxide as other birds' (14) and using it would cause great distress. The Meat Hygiene Service's Animal Welfare Report 2001 shows that, among the slaughterhouses that took part, no ducks were slaughtered in this way in the UK.

Stunner failings

As stated above, for an effective stun it is imperative that a bird's head is immersed in an electrically-charged waterbath. However, ducks are known to 'swan neck' - raising their heads when entering the waterbath so avoiding full immersion. The Bristol researchers believe that if only the crop and bill are immersed, it will be less effective in disturbing brain function than if the whole head had been immersed. They concluded that incomplete immersion is generally less effective at stunning than whole head immersion (12). Further, the Scientific Veterinary Committee of the EU state that they are concerned about the effectiveness of waterbath stunning, because ducks in particular may not be immersed in the waterbath at all (13). Ben Bradshaw, in his letter to Viva! in response to our questions about the UK duck industry, declared that: "There are no particular problems in slaughtering ducks." Once again, the Government body supposedly setup to oversee the welfare of farmed animals in the UK shows staggering ignorance.

Any ducks not rendered unconscious by the stun, or who regain consciousness, will be fully conscious during the process of having their throats cut and bleeding to death. With the exception of so-called ritual (or religious) slaughter, this is illegal.

Religious slaughter of ducks

The Meat Hygiene Service's Animal Welfare Report 2001 shows that ducks were amongst animals slaughtered without prestunning via Kosher and Halal methods. Despite the relatively small numbers involved, this still raises serious welfare concerns (17).

Instantaneous Mechanical Destruction: a hidden horror

It is believed that around 30 million male 'day old' chicks are killed in the UK every year. Being the wrong sex to lay eggs and too 'skinny' to be raised for meat, they are deemed unnecessary by the industry and are killed either by being gassed or thrown alive into huge electric mincers: a process known as IMD (Instantaneous Mechanical Destruction).

Whilst the figures will undoubtedly be lower for ducklings, IMD is an approved method for the disposal of what Defra refer to as duckling 'hatchery waste': unwanted birds provided they are less than 72 hours old, unhatched eggs and embryos. However, the figure of live ducklings killed this way remains unknown, as Defra does not collect any data relating to it (22).

WASK regulations make no provision for ducklings over 72 hours old, and they would be slaughtered by one of the other methods detailed in this chapter.

In a letter to Viva!, Defra stated: '[IMD is a] ... method used for the destruction of surplus male ducklings by a breeder unit. Where movement restrictions imposed as part of measures to control a disease outbreak mean that a producer could not move ducklings from another unit to be finished, this device would be used. Unhealthy ducklings could also be euthanised via this route.' (22)

The Humane Slaughter Association (HSA) insists that IMD '... is a humane and effective disposal method for day-old chicks when used, managed correctly' (23). However, they admit that the ability of a IMD machine to cause immediate death is greatly dependent on the working parts operating correctly. IMD takes place on the hatchery site. Hatcheries do not need to be licensed as slaughterhouses do.

In something of an understatement, the HSA admit that the process of throwing live, downy-feathered yellow ducklings into a mechanical macerator is 'aesthetically unpleasant', which probably explains why suppliers fight so hard to keep footage of it happening from the view of the general public.

Plucking

Ducks are plucked soon after killing. For moderate numbers or where the ducks are to be sold uneviscerated 'dry plucking combined with wax finishing' is recommended by Defra (15).

Dry plucking machine

The birds are stripped of feathers by machine, finishing being carried out by hand. Duck feathers used for pillows, quilts, cushions and decorations are almost all from the intensive duck meat industry and obtained from the carcass immediately the bird is killed.

The tail and large wing feathers are taken out first by hand and kept separately. The machine operation takes one to two minutes. The remaining stubs are removed by hand. The down that clings to the flesh is difficult to remove. It may be singed off; or for large numbers of carcasses 'wax finishing' is used.

Wax finishing

Hot paraffin wax is held in tanks at a temperature of 60 degrees centigrade. After immersion in the wax for about five seconds the carcasses are removed and either sprayed with cold water or immersed in a cold water tank. The hardened wax is stripped off by hand or by using a rubber-fingered drum plucking machine.

Wet plucking

Most ducks are now sold eviscerated and frozen. Some of the large intensive duck producers such as Cherry

Valley and Green Label have deep-freeze facilities and eviscerating lines on their farms and carry out the whole production processes from brooding to packing.

The birds are first supposed to be electrically stunned and then pass a revolving knife at the beginning of a conveyor line. This cuts the neck and the blood drains into a trough as the ducks pass along the line. After passing through a scalding tank at 60 degrees centigrade, the dead animals are moved to a rubber-fingered plucking machine, through a hot wax dip, then a cold dip to set the wax followed by removal of the wax and down. Following evisceration they are cooled in either slush ice or a spin chiller. After draining, the carcasses are weighed and placed in plastic bags. The giblets are usually wrapped in plastic film and stuffed inside the body cavity (15). Their past and suffering forgotten?

References (part six)

1. Defra, Codes of recommendations for the welfare of livestock: Ducks. Consultation document. 2004, para 103
2. Council of Europe, Recommendations Concerning Domestic Ducks, Article 19, 6
3. Ibid
4. Freedom Food, Welfare Standards for Ducks, Transport (Depopulation), T9
5. Council of Europe, Recommendations Concerning Muscovy Ducks, Article 2(h)
6. Meat Hygiene Service, Animal Welfare Survey Report, 1997/9, p14
7. Effect of Stunning Current on downgrading in Ducks, Gregory N. G. and Wilkins, I. J. British Poultry Science, 1990, 31, 429-431
8. The Welfare of Animals (Slaughter or Killing) Regulations 1995, Part 1, 2
9. MAFF Code, The Welfare of Poultry at Slaughter, para 30
10. Effect of Incomplete Immersion of the Head in Waterbath Stunners on the Effectiveness of Electrical Stunning in Ducks, Gregory N. G. and Wotton S. B. Veterinary Science, 1992, 53, pp. 269-270
11. As 10
12. As 10
13. Scientific Veterinary Committee Animal Welfare Section. 1996. Report on the Slaughter and Killing of Animals. Directorate-General for Agriculture; European Commission
14. Council of Europe, Recommendations Concerning Domestic Ducks, Article 24, 2c
15. MAFF, Ducks and Geese, HMSO, 1986
16. The Welfare of Animals (Slaughter or Killing) (Amendment) (England) Regulations 2003
17. Meat Hygiene Services Animal Welfare Report 2001 (detailed data)
18. Defra, Codes of recommendations for the welfare of livestock: Ducks. Consultation document. 2004, para 104
19. The Welfare of Poultry At Slaughter (Draft), Code of Practice 2002, para 41
20. Phone conversation with Alison Pinto, Defra's Animal Welfare Division, 11 March 2005
21. Slaughterhouses in the UK Licensed Under the Poultry Meat, Farmed Game Meat and Rabbit Meat (Hygiene and Inspection) Regulations 1995, As Amended ('Poultry Meat') (last updated 24/02/2005), Foods Standards Agency, <http://www.food.gov.uk/foodindustry/meat/meatplant/sprems/meatpremlcence>
22. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004
23. Instantaneous Mechanical Destruction, Humane Slaughter Association, No.9

Part Seven

Disease patterns

Ducks, we are told, suffer fewer of the 'standard' diseases than either chickens or turkeys - Marek's disease, infectious bursal disease (Gumboro), infectious bronchitis, fatty liver and kidney syndrome and rhino-tracheitis. Between them, these and other conditions account for a mortality of six per cent in intensive chicken and turkey houses, even under optimum conditions.

The duck industry portrays ducks as being tough and healthy. Cherry Valley boasts a 'livability of 95 per cent at 47 days of age' (1). This, however, indicates an expected five per cent mortality - not far short of the average figure for other types of poultry.

Five per cent mortality equates to 500 duck deaths in a flock of 10,000 birds before the age of 47 days. If this figure is rolled out to the 18 million ducks slaughtered in the UK in 2004, this would indicate that, annually, just under one million birds die before reaching 47 days. Undoubtedly, Cherry Valley's figure assumes 'best practice'. Companies worldwide will fall far short of this. A spokesman for Cherry Valley recently claimed below three per cent mortality based on the company's own flocks where husbandry may be better than the norm.

Five per cent? Three per cent? Sometimes a lot higher? The question remains - if ducks are relatively disease-resistant, why are they dying in such numbers? The very term 'infectious disease' points to the vulnerability of birds forced to live together in their thousands, without the benefit of fresh air and space around them.



UK diseases

The following are the most common causes of death amongst UK ducks from infectious diseases.

Duck virus enteritis (duck plague). A highly infectious disease caused by the herpes virus, it can cause mortality of up to 90 per cent. Ducks of all ages can be affected and vaccination is often used to control existing outbreaks rather than as a preventative measure.

Duck virus hepatitis (DVH). An acute and highly infectious disease with death following within hours of its onset. A live vaccine is available but vaccines are not magic bullets. Antec International admits that although vaccination plays an important role in the control of some of these conditions, disease frequently still occurs (2).

E. coli septicaemia. Potentially fatal, treatment involves dosing with a broad-spectrum antibiotic. It commonly attacks young animals, especially those kept under intensive and therefore stressful conditions.

Streptococcal septicaemia. Infection of the blood caused by the streptococcus bacteria.

Pasteurellosis. A common secondary invader following respiratory viral infections in poultry, including ducks. It can also cause fowl cholera and septicaemia in ducks.

Salmonellosis. Disease caused by infection with bacteria of the Salmonella type. Often attributable to stress. Can be spread via feed and water contaminated by faeces.

Aspergillosis. Invasion or colonisation of body tissues by a fungus, especially affecting the respiratory tract. It is often caused by mouldy litter - a constant potential problem because of damp litter in duck units.

Egg peritonitis. The main cause of death in laying birds - female breeders. It is probably linked to the unnaturally high output of eggs, achieved through decades of genetic selection. Post-mortem examination may reveal yolk debris, yolk caseous material or milky fluid in the abdominal cavity, together with inflammation and distortion of the ovaries as well as an offensive smelling mass of caseous material. Alternatively the oviduct may be obstructed by a core of inflammatory debris which may sometimes result in rupture of the oviduct wall. A whole or partly formed egg may be impacted in the oviduct and almost invariably, E. coli can be isolated from it (3).

Plantar pododermatitis. An ulceration of dead skin tissue under the foot caused by contact with damp litter and resulting in pain and lameness.

Starvation and injury

If the above diseases are not rampant and account for only a small part the three or five per cent mortality, as producers claim, death must be from starvation or injury, possibly as a result of aggression. Also, breeding heavy birds causes suffering and sometimes starvation through difficulty in walking. The Council of Europe, in its Recommendations Concerning Domestic Ducks, states that 'Mallards fly, swim and walk efficiently but the heavier domestic birds, in particular those selected for meat production, may be unable to fly, have difficulty

in walking and be subject to leg disorders' (4). Incredibly, in a letter to Viva!, Ben Bradshaw put forward Defra's official position that there were "... no problems observed with leg weakness in ducks." (8) This shows an alarming ignorance on Defra's part – be it willful or otherwise.

Also, in crowded conditions, ducks get knocked over by other birds and are often unable to right themselves. Even when put back on their feet it takes some time for them to reorientate themselves and they need to be watched for a while to make sure the same thing doesn't happen again. In the packed conditions of a shed containing up to 10,000 birds, it is likely that stranded ducks go unnoticed. They may be trodden underfoot by other ducks and die from injury or starvation. Cannibalism may follow, either before or after death. Cannibalism is caused by stress.

Antibiotics

There are currently four antibiotics currently authorised for use in ducks in the UK. These are Amoxinsol 100, Amoxinsol 50, Amoxinsol Proportioner and Aurofac 100 Granular (7).

Amoxinsol (containing amoxicillin) for the treatment of *Streptococcus bovis*, *Pasteurella anatipestifer* and *E. coli*.

Aurofac100 (containing Aureomycin chlortetracycline hydrochloride) for the treatment of respiratory and systemic infections.

A spokesperson for a leading drug company gave his opinion that ducks suffer from respiratory and other diseases but knew of no precise data on the percentage of antibiotics given to the duck sector of the poultry industry. Such figures are unlikely to be collated anywhere. In light of two major reports on antibiotic resistance in farm animals (Soil Association's *The Use and Misuse of Antibiotics in UK Agriculture* and the House of Lords Science and Technology reports), this is an unacceptable situation.

The Veterinary Medicines Directorate, an Executive Agency of Defra, holds no information separating ducks from other species in its figures for annual total usage of antibiotics (7).

Global diseases

Large numbers of intensively-reared ducks have been exported worldwide from the UK. *World Poultry Misset* (No. 7 Vol 13, 1997) provides a list of poultry diseases which can occur anywhere in the world. Those affecting ducks are in addition to those described above and include the following.

Adenovirus - associated with many diseases including respiratory disease and viral arthritis.

Amyloidosis - associated with infected lesions on the feet and amongst adults in heavier strains of commercial ducks.

Ascites - More often associated with chickens, it made its first appearance in birds kept at a high altitude. It is mostly caused by increased oxygen demand resulting from too-rapid growth in combination with restricted blood flow through the small capillaries in lungs of birds selected for 'meatiness' (5).

Avian influenza - Believed to be spread by close contact. Results in respiratory distress and depression. The recent outbreak of the deadly H5N1 strain in Asia has been linked to ducks, which often do not show outward

symptoms of infection. A notifiable disease.

Avian malaria - Similar to the human form of the disease.

Avian salmonellosis

Avian staphylococcus - Associated with a wide variety of diseases including arthritis and tenosynovitis.

Bacterial synovitis - An infection of the joints, tendons and surrounding tissues resulting in lameness.

Fowl Pest (Newcastle disease) - Ducks show few signs of infection even with virulent strains of fowl cholera but the disease can spread via ventilation apertures into the environment. Vaccines have little effect in overcrowded conditions where management is poor and may even produce the disease. It is a notifiable disease.

Keratoconjunctivitis (Ammonia blindness) - It is caused by ammonia in concentrations of 170ppm or more (6). Poorly managed, damp litter in badly ventilated housing can be instrumental in triggering this extremely painful disease, which can result in haemorrhages of the conjunctiva and corneal ulcers. Damp litter is a major problem in duck units and some countries tackle it by allowing only nipple drinkers or by keeping ducks on wire flooring.

Yolk sac infection (Omphalitis) - Often the result of poor conditions in hatcheries, it can cause 100 per cent mortality in the worst outbreaks by infecting most organs.

Perosis - Slipped tendon - a leg deformity in ducklings, causing lameness.

Tibial dyschondroplasia - A skeletal deformity associated with rapid growth and mineral imbalances.

Cloacitis (Vent gleet) - An infection of the cloaca in breeding ducks and drakes - occurs particularly 'under dirty conditions of husbandry' (6). Scarring can damage the vent, making egg laying and even defecating impossible.

Visceral gout - Caused by renal failure, it results in swelling and ulceration of the joints.

Starve out - This results when young or injured birds fail to recognise or reach food and water points.

Rickets - A nutritional disorder caused by lack of certain minerals, vitamins and trace elements.

Diseases of intensification

Birds have always suffered from a range of diseases and wild birds are implicated in the spread of some of the most serious threats such as Newcastle disease. However, many of the conditions listed above are the result of intensive farming methods.

The increasing popularity of duck meat both here and abroad will inevitably cause an escalation in the incidence of these diseases, guaranteeing large-scale suffering amongst the duck population. Recent, disastrous outbreaks of Avian Flu – both in Asia and Europe – have prompted fears of an inevitable pandemic. The World Health Organisation insists that free-range poultry are being infected by wild birds, who carry the virus but are not affected by it. The United Nations Food and Agriculture Organisation has placed the blame for the impending outbreak on livestock markets, poor biosecurity and the trade in live poultry and dismisses the charge that wild birds are responsible for its spread. The World Health Organisation, however, insists the answer is to put all poultry into factory farms – ignoring their past advice to end to all intensive farming. Which, if done, will also further accelerate the reckless over-use of antibiotics which is already a major human health problem.

Though killed while still, in effect, baby birds, modern ducklings will still have had time to endure much pain and discomfort before reaching the slaughterhouse. It is likely that their entire life, no matter how short, will be one of acute stress and perhaps disease and severe pain.

References (part seven)

1. Cherry Valley, Super SQM information booklet
2. Antec International, Poultry Disease Control Programme
3. Poultry Diseases, Ed. F.T.W. Jordan, Bailliere Tindall, 1990, p39
4. Council of Europe, Recommendation Concerning Domestic Ducks, 1999, Article 3(d)
5. As 3
6. Cook, JKA et al., Diseases of Ducks, Poultry Diseases, 1996
7. Email to Viva! from Dr Kay Goodyear, Defra's Veterinary Medicines Directorate, 2005
8. Letter to Viva! from Ben Bradshaw MP, Minister for Nature Conservation and Fisheries, 26 July 2004

Part Eight

Duck suppliers

Major supermarkets stocking duck meat (May 2005)

Note: Cherry Valley, Manor Farm Ducklings and Green Label produce meat from Mallard-type ducks; Kerry Foods produce meat from Mallard-type and Muscovy-type (also known as Barbary) ducks

Also, many supermarkets source duck meat from more than one supplier.

Asda	A E Button & Sons (Kerry Foods)
Co-op	A E Button & Sons (Kerry Foods)
Farmfoods	Cherry Valley
Iceland	Manor Farm Ducklings and Green Label
Marks & Spencer	Manor Farm Ducklings
Morrisons	A E Button & Sons (Kerry Foods)
Safeway	A E Button & Sons (Kerry Foods)
Sainsbury's	A E Button & Sons (Kerry Foods) and Green Label
Somerfield	A E Button & Sons (Kerry Foods)
Tesco	A E Button & Sons (Kerry Foods)
Waitrose	A E Button & Sons (Kerry Foods) & Cherry Valley
Harrods	Sell free-range ducks (sourced from both the UK and France), was not willing to name supplier.

MFD Foods t/a Manor Farm Ducklings

Viva!'s investigation:

Viva! filmed at two Manor Farm Ducklings units in 2003, 2004 and 2005 where ducks are reared for meat:

1) Cherry Dene Farm, Bergh Apton, Norfolk, UK – Manor Farm Ducklings

The footage of Mallard type ducks shows:

- A dead bird in the shed
- A shed full of thousands of ducklings with yellow down, about one week old
- A duckling lying disabled on its back, unable to right itself
- A duckling trapped behind machinery with a carcass
- Ducklings having difficulty walking and in evident distress

Five weeks later at Cherry Dene Farm, the ducks are about six and a half weeks old. Their yellow down has been replaced by white feathers, and their high pitch cheep has changed to a quack. These ducks would typically face slaughter in less than a week.

Producers of duck meat

Mr MS Edmundson

Managing Director

Cherry Valley Farms Ltd

Cuxwold Rd, Rothwell

Market Rasen, Lincs LN7 6BP

Tel: 01472 371271

Fax: 01472 362422

E: international@cherryvalley.co.uk

W: www.cherryvalley.co.uk

Turnover: £39 million

Turnover: £18 million

Mr Hugh Friel

Managing Director

A.E. Button & Sons Ltd

(Kerry Foods)

Thorpe Lee Manor, Thorpe Lee Rd

Egham TW20 8HY

Tel: 01784 430777

Fax: 01784 438189

Turnover: £65 million

Mr John Woodhouse

Managing Director

MFD Foods Ltd. T/A Manor Farm

Ducklings

Swaffham Road, Ickburgh

Thetford, Norfolk IP26 5HX

Tel: 01842 878236

Fax: 01842 878399

E: sales@manorfarmducklings.co.uk

Turnover £17 million

Mr Geoffrey Maurice Buchanan

Managing Director

Green Label Foods

Loomswood Farm, Debach

Woodbridge, Suffolk IP13 6JW

Tel: 01473 735456

Fax: 01473 738887

E: sales@greenlabel.co.uk

Mr C Patmore

Telmara Farms Ltd

Henham Rd, Debden Green

Saffron Waldon, Essex CB11 3LZ

Tel: 01371 830658

Turnover: £636,782



Thousands of birds are crammed into this shed. Their only access to water is through their bell drinkers. Viva!'s footage shows:

- Dead birds lying amongst the flock
- Ducks with filthy feathers and scaly eyes
- Ducks dragging themselves along by their wings
- Birds with featherless and sore backs

2) Firs Farm (D. Buck site), Hempnall, Norfolk, UK – Manor Farm Ducklings

The footage shows:

- Thousands of birds crammed into a shed
- Dead birds littered throughout the shed, some with evident signs of decomposition; those that were collected have been left piled up and not disposed of properly
- Ducks displaying abnormal behavior, such as 'head wobbling', and in evident distress
- Ducks dragging themselves along by their wings, unable to support their weight
- A duck with a open sore on its rump
- A duck unable to balance, which collapses on to the floor
- Empty packets of antibiotics left on the shed floor and not disposed of properly
- Many ducks with filthy feathers and scaly eyes

At this farm the ducks were forced to fight for every drop of water from the nipple drinkers – their only contact with water. The ducks needed to stretch to get at the drinkers, meaning that many lame and injured birds would have been unable to reach them. The floor was wet with slurry and had evidently not been covered with fresh straw for many days.

We filmed at this site over three nights and then returned there four months later, conditions had not improved.

Manor Farm Ducklings: The Company

Manor Farm Ducklings, who are based at Ickburgh near Thetford, in Norfolk, is a business that describes itself as 'one of Europe's largest producers of white Pekin ducklings' (8), and currently have a 25 per cent UK market share (16). They are also involved in geese rearing.

Manor Farm Ducklings has been in business for 50 years and currently employs over 150 people at its farms, processing plant and main office headquarters. They have an annual turnover in excess of £18 million (9). The company went into receivership in June 2004 following Viva!'s successful campaign (see Viva!'s Campaign), but was rescued from bankruptcy by 'new financial backing' (17).

The company supplies whole duck and duck portions to a number of the main supermarkets, recently Marks & Spencer and Iceland. They also supply NISA, Makro and Pennine Foods, as well as other domestic retailers via food processors. They began exporting in 1995 and now export over 20 per cent of their production abroad to countries such as to Denmark, France, Germany, Hong Kong and the Netherlands (10). General Manager Tony Helsby said: "The export market is becoming increasingly significant to our overall business and, because of our location in Norfolk, we are ideally positioned to take advantage of the opportunities overseas, particularly in Europe." (11)

Managing Director John Woodhouse said in 2005: "MFD Foods is taking a fresh new look at the market for duck. We are supplying precisely what the retail and food service sectors demand, whether it's stripped or sliced duck for wraps for the 'light meal' market or 'ready-to-serve' whole duck or duck meals for the 'quick meal' market – it really is the definitive range." (17)

Manor Farm have begun rearing ducks to new weights of around 3.0kg to supposedly meet demand from the UK restaurant sector - particularly the Chinese market - for larger sized whole ducks and duckling portions.

While the standard weight of ducks sold in the UK supermarkets is currently 2.4kg, the intensively reared ducklings from Manor Farm Ducklings are grown to produce whole duck weights of between 3.6kg to 3.8kg in 49 days. Sales of 2.8kg, 3.0kg and 3.2kg weight ducks are reported to be increasing at the fastest rate (12).

The company claims to rear some of its ducklings outside, and has recently introduced its own brand 'Breckland Free Range Duckling'. However, the majority of its ducks are still reared in traditional intensive sheds. The company has its own farms, but it also sources from independent 'duck growers' which are 'subject to inspection and stringent controls'.

The millions of table ducklings reared each year at Manor Farm Ducklings are processed in the company's factory processing plant in Thetford.

Viva!'s campaign:

In 2004, Viva! won a major victory when Marks & Spencer announced they would clear their shelves of factory-farmed whole duck after we exposed the conditions at Manor Farm Ducklings.

Kerry Foods

Viva!'s investigation:

Viva! filmed at Kerry Foods units in 1999, 2002, 2003, 2004 and 2005, where ducks are reared for meat:

A E Button & Sons, Ellingham site, Attleborough, Norfolk, UK - Kerry Foods

The footage shows:

- Several ducks lying, disabled, on their back, left to die
- Ducks crammed into a shed in their thousands
- A dead bird
- Ducks with filthy feathers
- A duck with a painfully damaged leg walking with great difficulty
- A duck dragging itself along the ground by its wings

Birds are denied all that is natural - no open space, no contact with mother; no natural food, no searching through vegetation, no flying, no pond or river, no dabbling, diving, playing - no sheer pleasure from being in water, no rain or wind; no freedom.

Kerry Foods: The Company

Kerry Foods is the consumer food division of the Kerry Group. The company started in Co. Kerry, Ireland 32 years ago and is now headquartered in Tralee, Ireland. The Group employs 20,000 people throughout its operations across Europe, North America, South America, Australia, New Zealand and Asia Pacific.

Kerry Foods supplies over 10,000 food and food ingredients products to customers in more than 140 countries worldwide. The Group has manufacturing facilities in 19 different countries and international sales offices in 20 countries.

Launched as a public company in 1986, Kerry Group plc has a current market capitalisation of €3.4billion. Its group turnover exceeds €4 billion.

Kerry Groups website boasts: 'In ingredient markets Kerry has grown to become one of the largest and most technologically advanced manufacturers of speciality ingredients in the world.'

Considering the terribly sad state of the birds in both turkey and duck units owned by Kerry Foods that Viva! has filmed, it is laughable that the Kerry Group further states it has 'a commitment to excellence and total quality' (18). And that 'a pre-requisite for the production of superior quality food and ingredients is the assurance of high quality raw materials produced from efficient, natural, 'environmentally friendly' farming systems' (18).

Currently the Kerry Foods division spans six categories: savoury, pig meat, dairy, poultry, home baking and convenience/snack products.

The Kerry Group has a history of acquiring other companies and assimilating them. In 1990 they took over AE Button & Sons, of Diss, Norfolk, who were already an established duck farming business, and continue to use this name on all own-label products. AE Button & Sons currently employs 481 people and in 2002 had an annual turnover in excess of £64 million. The company also has a subsidiary, Ark Foods Limited (Ark Foods Ltd, Hemingford Ho/Walcot Rd, Diss, IP22 4DH tel. 01379 87071), which is a poultry wholesaler.

In 1992 Kerry Foods also assimilated the Irish firm, Buxted Duckling.

'Free-range' and Barbary ducks

Whilst AE Button & Sons (Kerry Foods) continue to factory-farm millions of ducks every year they have also expanded into 'free-range' duck farming. Since the early 1990s they have supplied Waitrose with 'free-range' Pekin duckling. Waitrose claims that: "The ducks have unlimited daytime access to open pasture. Access may sometimes be limited if the birds' welfare is thought to be at risk, but only under harsh weather conditions and only then at the stockman's discretion." (20) Waitrose also claims that the ducks are stocked at a maximum density of five birds per sqm, with a maximum flock size of 4500 birds. By anybody's standards, this is still clearly intensive farming.

However, Waitrose are rather less forthright about their ducks' access to water for swimming: "More recently, we have been conducting trials in which the ducks have been given access to water for swimming. However, these trials are still in their early stages, and it is currently too early to draw any conclusions regarding the

potential benefits or problems that this may bring.” (20) In other words, these ducks may have access to open pasture – so to qualify as being ‘free-range’ – but one of their fundamental biological needs is still being cruelly frustrated: they do not have access to water for swimming.

Waitrose also stock ‘Button Norfolk Farms Barbary Ducks – and have done so since 1998. These Barbary ducks are not ‘free-range’, they do not have access to the outside nor do they have access to water for swimming – in other words, they are factory-farmed. Most supermarkets stopped selling Barbary ducks in light of Viva!’s successful campaign to end the painful process of de-beaking, Waitrose, however, continued. They claim that: “[the Barbary ducks] ... environment had been adapted to limit displays of aggressive behaviour” (20), and so made de-beaking ‘unnecessary’. When further pressed on what this actually meant, Waitrose merely responded that “aggression is controlled by light” (21). Of course, it is difficult to ascertain exactly what they mean by this but it is common practice for some producers to keep poultry at very low light intensities to discourage activity and maximise growth rate. Research has shown that this results in inactivity, which causes increases in lameness and skin diseases and, at very low levels, the development of eye abnormalities. If AE Button & Sons (Kerry Foods) are using this method to control the aggression in their Barbary ducks (something which is naturally exacerbated by birds being crammed together in great numbers) then it would be grave cause for concern.

Viva!’s campaign:

Viva! stopped Kerry Foods debeaking ducks in 2000 as part of its ongoing campaign against the factory farming of ducks. We filmed at a unit in Suffolk that showed filthy, injured, bleeding, dying ducks in a packed shed in 1999 (shown on GMTV). Hillside also filmed ducks at Grange Farm, Redgrave, UK in 2001 - again showing ducks that are blind, filthy, have difficulty walking (shown on Anglia TV). In 2005, Viva! supporters held demonstrations outside over 200 Co-op stores highlighting the conditions their undercover footage found.

Green Label

Viva! filmed at a Green Label units in 1999 and 2004, where ducks are reared for meat:

Viva!’s investigation:

Maple Lodge Farm, Witnesham, nr Tuddenham, Suffolk, UK – Green Label

The footage shows:

- Duckling lying, disabled, on her back
- Ducks crammed into a shed in their thousands
- A duck with an open wound on its wing
- Ducks with filthy feathers and crusty eyes
- A duck that is so heavy its legs are splayed apart, making it difficult to walk

Viva! has still photographs of bins full of dead ducklings outside Maple Lodge farm.

Green Label: The Company

Green Label is a family business with four partners, Maurice and Miriam Buchanan and their two sons, who began duck production in April 1989. All units are based in Suffolk, UK, and they currently employ 127 staff.

They previously farmed broiler chickens but now only intensively rear ducks (ironically 'Green Label' is supposed to imply the animals are kept in less intensive conditions).

In the last 10 years the Buchanans have invested over £3 million in their intensive duck business. They rear, kill and package ducks for Sainsbury's, Iceland and Booths, as well as UK hotels and restaurants. In 2004 they moved into producing a line of seven 'convenience' foods for Sainsbury's, under their 'Taste the Difference' range (19). Sales exceeded 1 million processed birds in 1996 (up from about 29,000 in 1989). The company currently kill around 2.5 million ducks a year (15).

The centre of the company's operations is at Loomswood Farm, on the former Debach Airfield, Suffolk where the ducks are slaughtered, processed and packed. Green Label is the sole UK producer of the Gressingham duck which is half mallard and the Deben duck which is patented to the company, a 'development of the Gressingham and is quarter mallard' (7).

The ducklings kept for meat are in sheds - thousands to a building. They are denied practically all that is natural - from contact with their mother; to water (other than for drinking) - no splashing, diving or dabbling for these birds. Green Label take this concept a step further, proud that they have added an enzyme into the feed with the aim of reducing the amount of water each duck needs to drink. This is to reduce water spillage which can cause ammonia emissions in intensive units (5).

Green Label Sites

Green Label have an elite breeding farm - here grandparent stock breed and their offspring go to parent stock farms. They have four parent (or breeding) stock farms where ducks produce eggs. The eggs are removed from the parent ducks and taken to a hatchery. Here, after 28 days, the ducklings hatch, and at one-day old are moved to rearing units to be fattened for meat with a high protein dry feed. As with all intensive units, the ducklings never see their parents.

Some of the existing Green Label sites in Suffolk are at:

- Maple Lodge (aka Maple Tree) Farm, Witnesham, nr Tuddenham - rearing unit for meat birds (120,000 sq ft site), hatchery and 63 acres of arable land
- Loomswood farm, Debach - rearing, slaughter and processing plant (the site is 300 acres, the farm takes up three acres)
- Hadleigh, under contract to Jeremy Thorby - breeding unit
- Gosbeck - rent a breeder site
- Northfield Farm (adjacent to Loomswood, Debach) - rearing ducks for meat (80,000 sq ft site)
- Akenham, nr Henley - rent breeding farm for egg production and rearing of pre-breeder ducklings
- Thorp Hall - 130 acres arable

Granted permission for sites in 1999 for:

- Elmswell, nr Stowmarket - rearing 9500 ducks for meat
- Hillbrow Farm, Clopton Rd, Tuddenham - rearing 46,500 ducks for meat in four buildings, each 102m x 24m and 6.75m high. (Max. of 11625 ducks per shed) (6).

Refused permission for site in 1999:

Viva! and local groups protested about the application for a duck farm at Thorp Hall, off the B1078 at Wickham Market. The proposal was refused permission on grounds that the buildings and use of site would intrude into the landscape and be detrimental to the 'visual amenity and quiet enjoyment of this attractive countryside environment' which is bounded by four public footpaths.

The Buchanans say their landmarks are:

- 1981 - purchase of 1130 acres at Thorp Hall, nr Wickham Market
- 1983 - additional 12,000 sq ft shed built
- 1984 - purchase of 120,000 sq ft of poultry housing and 63 acres arable land at Maple Tree Farm, Tuddenham
- 1986 - 80,000 sq ft site at Northfield Farm, next to Loomswood, and setting up of Maurice Buchanan Poultry Ltd
- 1987 - Loomswood Farm extended by further two sheds
- 1989 - Began duck production under Green Label Poultry name
- 1989-1996 - Processing plant built, given EU licence in 1991
- 1990 - Hatchery built at Maple Farm
- 1992 - Breeding flock at Hadleigh, under contract to Jeremy Thorby
- 1993 - New duck shed at Northfield Farm of 20,000 sq ft
- 1994 - Renting of breeding farm at Akenham, nr Henley, for egg production and rearing of pre-breeder ducklings
- 1996 - Two more 20,000 sq ft sheds added to Northfield Farm

They state that there is little waste with ducks and by-products include liver for pate and hearts and carcasses for pet food. Items for export include feet and tongues to China and gizzards to France.

Miriam Buchanan said to the East Anglian Daily Times: "When you go into a shed, they are all alert. Chickens will not react in the same way. The ducklings perk up and look at you, they are definitely more inquisitive. We like eating them as well." (7)

Cherry Valley

World Poultry magazine states that 'within two decades Cherry Valley has expanded from simple free-range duck production in Lincolnshire, East England to a world-wide breeding, feeding and processing giant'. It is now selling millions of birds a year (1), and has an annual turnover in excess of £39 million a year (14). Navis Capital Partners (Asia) Limited in Malaysia acquired Cherry Valley Farms Limited, the world's leading Pekin duck breeder, from The Nickerson Group Rothwell Limited in 2003. Navis also owns the controlling shares in the Bangkok Ranch Public Company Limited of Thailand (an integrated duck processor company). The combined company will be the biggest integrated duck producer outside China.

Cherry Valley rears, kills, processes and markets duck meat as fresh or frozen oven ready birds or in a range of duckling based foods; they also sell birds to other companies worldwide. Ducks from Cherry Valley reach 3.5kg liveweight in 49 days, when they are slaughtered. It claims a death rate of five per cent (3) and four per cent (1). At five per cent, this would mean that almost a million of the 18 million ducklings sold in the UK per year, die before they even reach seven weeks (see part seven).

The UK's sales are small compared to other countries'. It is reckoned that in China, 40 million table ducks per year come from Cherry Valley's breeding stock.

Cherry Valley's breeding department works on 13 pure lines of ducks; genetically manipulating them to, for example, 'improve feed conversion for more lean meat' so that different countries can be provided with ducks with different characteristics (1).

Richard Bird, director of Cherry Valley International Division, says: "The Cherry Valley duck is now sold and eaten in just about every country in the world...[we have] an efficient feed-converter...20 per cent of the eviscerated carcass is now breast." (1)

In a promotional booklet, Cherry Valley boast that they are the 'world's largest breeders and producers of ducks'.

The eggs are hatched in nine isolated breeding farms and then taken to the Cherry Valley hatchery near Rothwell, one of the biggest duck hatcheries in the world.

According to Cherry Valley literature: 'The eggs spend ten days in the incubators before being candled to identify and reject those that are infertile and so ensure efficient utilisation of the machines. Efficiency is the keynote of the whole hatching operation at Cherry Valley.

'The enormous investment in genetic and environmental research at Cherry Valley has involved more experiments during the past ten years than in the rest of the world put together and enabled the company to develop an enterprise which is both the biggest and most intensive of its kind anywhere..... Both breeding and fattening stock are housed in modern controlled environment buildings that allow production to continue efficiently throughout the year. An important economic advantage of the Cherry Valley system is the saving in labour requirement which enables as many as 85,000 birds to be looked after by only one person on some units.'

Cherry Valley boasts 'genetic ingenuity' - 'the direct result of a scientifically-designed genetic selection programme' which has meant 'the output of ducklings per female has been boosted by more than 100 per cent during the past five years, while the quantity of feed required to produce each day-old has been more than halved. Moreover, the Cherry Valley table duckling of today not only grows ten per cent more quickly than did its predecessor of a few years ago, but it also contains 25 per cent more breast meat' (2).

The company developed a duck labelled CV2000, and nicknamed it 'Superduck' because the female produces up to 275 eggs in a single cycle of 52 weeks. 'Egg size is exceptionally large and can average over 75 grams. The commercial female has a target weight at point of lay (20 weeks) of 1.75 kgs' (2).

The company has also developed the 'genetically improved' Super M3, which Cherry Valley boasts is 'the most efficient Pekin duck in the world'. Each female breeder is capable of producing over 241 commercial day-olds. These commercial ducks are genetically bred to grow fast - 3.5 kgs in 47 days, with little food - less than 2.28 kgs of feed per kg of liveweight. The company has even given this type of duck its own tagline: 'The SM3 - quality and performance.'

The millions of table ducklings reared each year at Cherry Valley are processed in the company's factory. Purpose built in 1977, the factory 'efficiently prepares duckling for the table'.

'A fleet of refrigerated vehicles deliver the oven ducks to over 25,000 outlets including leading supermarket chains, freezer centres, butchers and caterers.' (2)

In addition to its UK-based operations, Cherry Valley sell Pekin duck breeding stock to China; have an office in Singapore to profit from the major duckling markets of the Far East, and in EU countries such as West Germany and Denmark, Cherry Valley has become a major brand in the duckling market (2).

Telmara Farms Ltd

Telmara farm currently produces 130,000 ducks per year (4). Ducks are killed and processed on farm and whole birds and portions supplied to wholesale and catering markets.

Ducks are reared at Telmara Farm and two other locations, both in Great Dunmow, Essex. The first is a rented site and houses 4500 ducks. At the second site 1500 ducks are reared in a pole barn from October to May. Telmara Farm gained planning permission in 1999 to build two intensive duck units off Henham Rd, Debden Green, Essex. When completed, duck production at the other two sites will cease.

The two new units will be 45.7m x 18.3 m (150 ft x 60 ft) giving a floor area of 836 sqm each. Each building will house 3000 ducks; meaning 6000 ducks on site at any one time.

Telmara Farm brings in day-old ducklings. 'There will be a mixture of slower and faster maturing strains.... The ducklings will initially be kept confined within rings on bedding consisting of wood shavings..... When the ducklings are a suitable age, the rings will be removed and straw put down (on a concrete floor). The ducks will then be reared to 49 days when a proportion will be removed for processing at a live weight of about 3.5 kg. The remainder of the ducks will be reared to a maximum of 56 days and a live weight of about 3.8 kg' (4) There will be five to five and a half cycles a year.

After the removal of ducks the 90 tonnes of dirty litter is removed (per batch) and used as agricultural fertiliser. The whole site is washed and disinfected and the cycle starts again. The owner estimates that around 200 ducklings will die in each batch of 6000, before slaughter.

As usual, the ducks have no access to water, except in bell drinkers.

The rescued ducks

Two farmed ducklings which were given to Viva! exhibit entirely different behaviour to intensively reared birds, when given the opportunity to fulfil their instincts. Footage shows both week-old ducklings spending most of their time dabbling their beaks in a water bowl - every few seconds going back to it.

Within a couple of weeks, the ducks, now named Jake and Jasmine, were moved outside during the day. Their

yellow down barely covered their stubby wings and they cheeped constantly. Their first day outside was one of pure joy for them. Jake climbed straight into the washing-up bowl of water and bathed, splashed and drank to his heart's content. Jasmine paced around the bowl before climbing in with him.

They soon started to explore the garden with most attention on the overgrown parts, rooting through the grass for grubs. After a couple of weeks, they were introduced to a giant-size paddling pool with a ramp. They had never swum before and they treated it with some trepidation – but not for long! Footage shows they now love water. They rush around in the pool; diving; playing; shaking their tail and wings - it is an essential and clearly pleasurable part of their lives. (They have now been moved to a sanctuary with ponds.)

The Chinese sector – the overlooked trade in duck meat

Whilst duck is increasingly promoted in UK supermarkets there remains a huge trade in duck meat products in Chinese, and increasingly Pan Asian, restaurants.

Studies have shown that three out of five people in Britain say that Chinese is their favourite food (22). It is worth around £700 million a year in sales in the UK alone (23), with 109 million Chinese meals served here yearly (25).

Chinese restaurants are especially popular in the UK. The first opened in London in 1908, by 2002 there were 3215 (a figure that increases to 4875 when counting those that also operate as a takeaway) (24), nearly half of these are located in London and the South East. The most popular dish in British Chinese restaurants is 'Crispy Duck' (24), whilst a survey for the BBC2 series, 'The Nation's Favourite Food', claimed that 'Crispy Duck' came only third behind Fish and Chips and Pizza, in the UK's top five takeaways (in front of Chicken Tikka Masala and Sweet and Sour Chicken) (26).

Because of its perceived 'exotic' nature, most consumers of duck meat products in restaurants and take-aways are even more removed from the reality of modern duck meat production than many consumers in supermarkets. Whilst some duck for the restaurant trade is imported from abroad most of it comes from the same factory farms that supply the main supermarkets in the UK. At the forefront of this wholesale trade to Chinese Restaurants in the UK is intensive duck producer, Cherry Valley (see pages 44 to 46) which claims that more than half the company's production is marketed to the Chinese restaurant trade. The company boasts in one of its press releases:

'Cherry Valley, with over 40 years experience, is the leading brand of duckling in the Chinese catering sector. The company has a long standing reputation for quality and consistency among Chinese wholesalers, distributors and chefs throughout the UK based on understanding the needs of the Chinese caterer.

'With unrivalled catering experience and a highly skilled team of development technologists and consultant chefs Cherry Valley continues to develop and launch innovative duckling products throughout the branded and independent restaurant sector.

'The product portfolio from Cherry Valley includes: Gold Standard A Grade Duckling, Honey Roast Half

Lincolnshire Duckling, Frozen Raw Duck Breast Fillet, Steamed Duckling Breast Fillet & Orange Sauce, Sliced Meats, Chinese Boneless Roast Duck, Whole Peking Roasted Duck and Peking Duck Starter Kits.' (30)

Silver Hill Foods, based in Emyvale, Co. Monaghan, is Ireland's largest intensive duckling producer. They also claim to be the:

'... favoured brand of duckling among the Chinese communities of Ireland, United Kingdom and throughout Europe.' (32)

Also, MFD Foods (previously Manor Farm Ducklings) admit that the bulk of their business is now with the wholesalers and not with retailers (38).

Most of the other major duck producers also aim a good proportion of their products squarely at the wholesale and restaurant markets.

Fat food

Like most meat-based 'fast food' it is not only a disaster for animals, but also for our health. Whilst many traditional Chinese meals are low in fat, the 'Crispy Duck' we are likely to be served in the UK is a bastardised version of the 'real' thing – concocted merely to appeal to the British palate (25). While in China duck is traditionally cooked by grilling and baking over charcoal, the common practice in British restaurants is to deep fry the duck meat (28), and, as it is usually served with its skin – often the fattiest part – intact, its calorie content skyrockets and cholesterol content goes through the roof (29). Crispy Chinese style duck contains around one-quarter fat by weight, with up to a third of that fat being the harmful, saturated kind (31) which raises blood cholesterol increasing the risk of heart disease and stroke. Incredibly, Chinese style duck has the same fat value (weight for weight) as a deep fried Mars Bar (35, 36)! And a typical serving of it can pack in as many as 400 calories in just two filled pancakes (27).

Mock duck – an alternative

But perhaps equally concerning is its high animal protein content. A wealth of research links animal protein to increased risk of osteoporosis, kidney damage, heart disease and increased production of a hormone called insulin-like growth factor (IGF-1) – which is thought to boost the growth of cancer cells (33, 34). However, there is a much healthier alternative. Many Chinese supermarkets sell 'mock duck' (along with many other varieties of mock meats), which contains no animal protein, is much lower in fat, weight-for-weight (only 4.1g compared with the 24.2g typically found in crispy duck) – and is free of cholesterol. Mock duck is usually made from wheat gluten (called seitan in the States), which, whilst not suitable for people who are gluten intolerant, is a high-quality protein providing B vitamins and iron (37). It is believed to have originated from China and is also often used as part of the cuisines of other East and Southeast Asian nations, as it is a versatile and nutritious meat substitute. Also, many Chinese restaurants have good vegetarian menus offering healthier vegetable and pulse based options.

References (part eight)

1. Dunn, N. Integrated Duck Production for 80 Countries. *World Poultry* - Elsevier, 14:12, 1998
2. Cherry Valley Farms, Promotional booklet, undated
3. Cherry Valley Super M2 Information, Cherry Valley Farms Ltd, undated
4. Application by Mr C Patmore, Telmara Farm, for site off Henham Rd, Debden Green to Uttlesford District Council for erection of two duck houses made on 19/3/99
5. Planning application for Thorp Hall, Wickham Market: C99/0341 to Suffolk Coastal District Council, considered 6 July 1999
6. Planning application for Hillbrow farm, Clopton Rd, Tuddenham, Suffolk: Application C99/0463 to Suffolk Coastal District Council, considered 1999
7. Hopper, P. *East Anglian Daily Times*. 19 October 1996
8. Advertisement Feature, *Norwich Advertiser*. 5 March 2004
9. Manor Farm Ducklings (names Paul Ruthven as first financial director) (Brief Article), *Eurofood*, 30 August 2001
10. Food and Drink from Britain: Buyer's Guide. <http://www.ffbbuyersguide.com/Record.asp?ID=15949> 7, Accessed June 2004
11. News update 2001. Manor Farm Ducklings website
12. Ducks are Getting Bigger, *Meat & Poultry News*, 13 February 2004
13. Cherry Valley Farms, web site. <http://www.cherryvalley.co.uk>
14. Food and Drink from Britain: Buyer's Guide. <http://www.ffbbuyersguide.com/Record.asp?ID=1503>
15. Green Label Foods Step Up Production. Green Label press release. 2001
16. MFD Look For Bigger Market Share With New MD. 3 February 2005 <http://www.readymealsinfo.com/recruitment/results.asp?txtContent=7056>
17. Ducks re-launch. 7 January 2005 http://www.foodmanufacture.co.uk/news/fullstory.php/aid/928/Ducks_re-launch.html
18. www.kerrygroup.com
19. It's No Spring Chicken, Green Label Press Release, 2004
20. Email from Brett Greaves, Waitrose Customer Services, April 02 2004
21. Email from Debbie Gale, Waitrose Customer Services, March 27 2004
22. <http://www.prnewswire.co.uk/cgi/news/release?id=15891>
23. http://enjoyment.independent.co.uk/food_and_drink/news/article124574.ece
24. <http://www.menu2menu.com/orfacts.html>
25. <http://observer.guardian.co.uk/foodmonthly/story/0,9950,834742,00.html>
26. <http://statistics.defra.gov.uk/esg/reports/afq/afqbrief.pdf>
27. http://www.weightlossresources.co.uk/diet/eating_out/chinese_food.htm
28. http://www.bbc.co.uk/worldservice/specials/177_food/page4.shtml
29. <http://www.femalefirst.co.uk/travel/2612004.htm>
30. <http://www.cherryvalley.co.uk/docs/food/CPDPres.htm>
31. McCance and Widdowson's *The Composition of Foods* (Sixth Summary Edition) Food Standards Agency. 2002
32. <http://www.silverhillfoodslife-env.com/index.asp>
33. Campbell T. C. and Campbell T. M. II. *The China Study: The Most Comprehensive Study of Nutrition Ever Conducted and the Startling Implications for Diet, Weight Loss and Long-Term Health*. Dallas, Texas, USA: BenBella Books. 2004
34. Walsh Steven PhD. *Plant Base Nutrition and Health*. Vegan Society. 2003
35. McCance and Widdowson's *The Composition of Foods* (Sixth Summary Edition) Food Standards Agency. 2002 (comparison of 100g servings)
36. http://food.asia1.com.sg/desserts/des_20050918_001.shtml
37. Barnard Neal, M.D. *Breaking the Food Seduction*. New York, USA: St. Martin's Griffin. 2003
38. Email from Manor Farm Ducklings, November 28 2005



Part Nine

Global resources

'In the UK, 39 per cent of our wheat, 51 per cent of our barley, and 75 per cent of our total agricultural land is used to feed animals.' (1a)

'Worldwide, one-third of grain production is used for animal feed.' (1b)

The United Nations, the Worldwatch Institute (5) and even veterinarians writing for the European meat industry (6) have all recently issued extremely serious warnings about the impact of livestock production on the global environment and world food supplies. Of the six major environmental catastrophes identified by the UN, four are entirely due to the production of animal protein, while this factor plays a major part in the other two.

Against this background, Cherry Valley's boasts about its duck production are nothing more than myths - and dangerous ones at that.

The company says it is confident that the duck plays its part in combating world hunger: '...they can make a valuable contribution to alleviating the world's shortage of protein - the rapid growth of Cherry Valley ducklings can allow an annual output, given good husbandry and nutrition, approaching 100 kilograms of valuable protein per sqm of floor space...The duck can also play its part in helping to conserve the world's diminishing resources, for virtually everything from the feathers to the feet can be turned into profit. The liver, the tongue and even the feet all find a ready market, while the world demand for feathers is increasing so rapidly that the net return from this by-product is alone sufficient to pay the labour costs of a processing plant. So nothing about a Cherry Valley duckling is unsaleable - not even the quack.' (The World of Cherry Valley.)

Globally, and especially in third world countries, meat production has a negative effect on world hunger. Factory, or intensive, farming is the worst culprit since it encourages escalating meat consumption among those who can afford it at the expense of those who cannot - the poor. Furthermore, it provides minimal employment.

In most parts of the world, animal protein was traditionally eaten only in modest quantities. Since the discovery of antibiotics and the subsequent birth of factory farming and its relentless promotion by Western companies, the consumption of meat of all kinds has risen dramatically. Lester Brown, as President of the Worldwatch Institute, pointed out that two kilograms of additional grain are needed for each kilogram of poultry. He added that the growing trend towards a Western lifestyle is putting unbearable strains on China's natural resources (2).

The same argument applies across the world. It is only the more affluent who can afford meat products. The need to feed ever-increasing numbers of animals reduces the amount of life-sustaining grains and other plant proteins for direct human consumption while driving up the price. Alongside this, the problem of pollution gets ever worse.

Livestock production is a major contributor to most of the world's environmental problems, including acid rain. Ammonia gas from manure and slurry combine with oxides of sulphur and nitrogen in the atmosphere, produced by burning fossil fuels, to produce sulphuric and nitric acid. These acidify the ground or rivers and can dissolve out metals, particularly aluminium, from the soil, washing them into rivers where they poison fish. Meanwhile, plants are damaged by being deprived of the metal ions in the soil that they need for growth (3).

Water is consumed in unnatural quantities by intensively-kept animals, since temperatures in the units are often artificially high. Fodder grown on irrigated land also demands large quantities as do meat processing plants. Effluent from poultry farms and processing plants is frequently discharged into rivers, adding to the burden of pollution.

Factory farming methods promote disease in the stock, necessitating the reckless overuse of antibiotics to counteract disease. This in turn endangers public health, when harmful bacteria become resistant to life-saving drugs (4). Often meat from intensive farming methods is contaminated with pathogens that cause food poisoning in humans, for example salmonella, listeria, campylobacter and E. coli.

Cherry Valley's boast that every bit of the duck is used cannot disguise the fact that the intensive duck industry is no different from other similar industries, greedily using up food and water resources needed by human populations. Intensive duck farming causes serious levels of pollution, while forcing billions of living creatures into lives of man-made deprivation.

References (part nine)

1a) MAFF, Agriculture in the United Kingdom 1999 & 1998. HMSO, London

1b) Haan C. de, Steinfeld H. and Blackburn H., Livestock and the Environment, Finding a Balance, Annex 2 . A study coordinated by the Food and Agriculture organisation, the US Agency for International Development and the World Bank, European Commission, 1996. From Factory Farming & the Environment, A Report For Compassion in World Farming Trust (ISBN 1 900156 11 3 , October 1999)

2. Brown, Lester. Who will Feed China? Worldwatch Environmental Alert Series p47

3. Factory Farming & the Environment, A Report for Compassion in World Farming Trust (ISBN 1 900156 11 3, October 1999)

4. FAWN/NSAFF The Drugs Don't Work, 1998

5. Will we still eat meat? Article by Ed Ayres, editorial director World Watch Institute, Time magazine, Nov. 1999

6. Skjerve E., Ewald S., Skovgaard N., The European Meat Industry in the 1990's, Meat Production and the Environment. Eceamst 1991, Audet Tijdschriften B.V.

Part Ten

Viva! campaign - Ducks Out of Water

During our long-running campaign to highlight the suffering of factory farmed ducks Viva! investigators have visited almost all the major producers in Britain. In one unit, where we filmed this year, we saw thousands of adorable, yellow fluffy ducklings – but without their mothers to protect them, to teach them how to swim, what to eat, how to preen. In these places no one cares.

Viva! has reinvigorated its national campaign to expose how ducks are reared for meat. Almost all duck meat comes from factory-farmed birds. Our footage shows they are crammed into huge sheds on concrete and given dry pelleted food. These are largely aquatic animals – they are meant to eat, swim, dive, clean and play in water – and yet they never see it, except in their drinkers.

Viva! Victory

Their beak has a rich supply of nerves and is very sensitive. And yet in factory farms, to stop birds pulling at each other's feathers, the end of their beak was cut off with a hot blade. This process causes extreme pain. **Throughout 2000, Viva! vigorously campaigned to end debeaking – and won!** We focused our campaign on the six supermarket chains that sold meat from debeaked birds – and one by one they agreed to stop debeaking ducks. In addition, Harrods withdrew all its factory farmed duck meat due to 'Viva!'s well researched campaign'.

The campaign today

In 2004, Viva! won a major victory when Marks & Spencer announced they would clear their shelves of factory-farmed whole duck after we exposed the conditions at their supplier.

However, the campaign continues. Viva!'s aim to end the factory farming for ducks is more urgent now than it ever has been. In the UK, in 2004, 18 million ducks were slaughtered – nearly all of them raised in intensive units. Yet most people still do not know that ducks are factory farmed.

Viva! has had meetings with nearly all the major supermarket chains, including Marks & Spencer, the Co-op, Sainsbury's and Asda, to discuss their plans for improving the welfare of ducks raised for meat in the UK.

In 2005, Viva! exposed the conditions at the duck meat suppliers of the Co-op, and with over 200 regional demos demanded that this store – which prides itself on its ethics – clears its shelves of factory-farmed duck meat.

Duck farming must be stopped. No one has exposed the horrors of duck farming or slaughter before Viva!'s campaign – and we will continue to do so.



Appendix 1

In June 2004, Viva! wrote to Ben Bradshaw, the Minister for Nature Conservation and Fisheries, with specific questions about the UK duck industry. The questions follow (in bold) with his answers:

a) What feed restrictions are practiced?

It is usual to control the feed provided to young breeders during the rearing period. No feed controls are applied to ducks raised for meat.

b) Are cages used for 'elite' stock?

Elite breeding ducks are individually penned for a short period with free access to feed and drinking water and visual and social contact with other ducks.

c) How widespread is the use of artificial insemination?

Artificial insemination is not practiced in duck breeding in the UK.

d) What are the main diseases suffered by intensively-reared ducks?

Indoor reared ducks are not prone to any particular diseases. By keeping ducks inside it is possible to exercise a high level of bio-security thus protecting the birds from contact with the serious diseases that affect wild populations of duck and can be transmitted to farmed ducks, ie Duck Viral Hepatitis, Duck Viral Enteritis, Pasteurella Multocida and Avian Influenza.

e) What problems have been observed with leg weakness?

There are no problems observed with leg weakness in ducks.

f) What problems have arisen in slaughtering ducks?

There are no particular problems in slaughtering ducks. If waterbath stunning is used, care must be taken to ensure that the duck's head is immersed to get a proper stun. It is the plant operator's responsibility to ensure this is carried out properly.

The whole process is overseen by the Official Veterinary Surgeon (OVS) employed by the Meat Hygiene Service (MHS). There is a legal requirement to have a licenced back-up slaughterman present in all slaughterhouses. In addition, companies employ Welfare Officers to provide in-company monitoring and management of the live bird part of the process.

In March 2004 the MHS published a report that confirmed that there is a good standard of animal welfare in UK slaughterhouses. Recently, the Government issued an amendment to The Welfare of Animals (Slaughter or Killing) Regulations 1995 (as amended) (WASK). The amendment permits the wider use of the new percussive device producing immediate death, to include its use when killing poultry in emergencies, and will reduce the maximum time ducks may be hung before being stunned from three minutes to two minutes.

g) How widespread are the problems associated with wet litter?

There are no particular problems associated with wet litter.

Keeping ducks dry and clean by the daily addition of new straw is a key element of good husbandry.

The physical condition of all ducks is checked throughout the day on the farm. In addition, all ducks are checked by both Official Veterinary Surgeon and by the Company Welfare Officer, where designated, at the processing plants.

h) Why is there a lack of water of sufficient depth to avoid eye problems?

We are not aware that current methods of providing water result in eye problems.

i) What number of ducks are slaughtered annually in the UK and how many eggs, ducklings and breeding stock are exported?

The UK authorities gather data relating to ducks and geese together. Approximately 20 million ducks and geese are slaughtered annually. The UK exports approximately 5500 ducks and geese for breeding purposes annually. Export data relating to eggs are not broken down by species, and, consequently, it is not possible to provide a figure of the number of duck eggs exported from the UK annually.

j) What are the average mortality rates of ducks in intensive production?

Average mortality rates two to five per cent, with the majority occurring in the first 14 days, ie day-olds that never start to grow after hatching.

In the wild, the rate of mortality in juvenile ducks is more than 90 per cent.

k) How many ducks are killed in the UK each year using 'Instantaneous Mechanical Destruction'?

Only methods of killing which have been assessed as humane are permitted to be used for the disposal of ducklings. WASK regulations allow for ducklings to be disposed by Instantaneous Mechanical Destruction, provided that they are less than 72 hours old. It is a legal requirement that the capacity of the Instantaneous Mechanical Destruction is such that every duckling is killed immediately. No data is available relating to the number of ducklings killed by this method annually in the UK. No ducks are killed by this method, as there is no provision in WASK for adult ducks, or for ducklings of over 72 hours of age, to be killed by Instantaneous Mechanical Destruction.

l) For what reason would the above method be employed?

Instantaneous Mechanical Destruction can be used to dispose of hatchery waste: unhatched eggs, embryos and ducklings under 72 hours of age. The method is used for destruction of surplus male ducklings by a breeder unit. Where movement restrictions imposed as part of measures to control a disease outbreak mean that a producer could not move ducklings from a hatchery to another unit to be finished, this device would be used. Unhealthy ducklings could also be euthanised via this route.

Viva!

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