

GUIDANCE FOR THE WELFARE OF BACKYARD POULTRY
MADE UNDER SECTION 13(6) OF THE ANIMAL WELFARE (GUERNSEY)
ORDINANCE, 2012

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INTRODUCTION

This document is only intended to provide general guidance on poultry welfare. Owners should ensure that they have a good knowledge of the specific feeding, environmental and any other requirements of the types of bird in their care.

GUIDANCE – IDENTIFICATION

All birds should be identifiable through the use of a leg ring and the flock registered with Farm Services. This is to enable the States Veterinary Officers and Animal Welfare Organisations to identify the birds if they were to stray. It is also essential to identify birds and flocks in case of a notifiable disease outbreak.

- Rings should be sized to fit closely, but allow free movement on the leg of an adult bird.
- Over-large rings may be caught in obstacles such as vegetation or wire and rings that are too tight may restrict blood flow to the leg.

GUIDANCE – FOOD AND WATER

Water

- Clean, fresh drinking water must be available to every bird at all times and all water containers should be refilled daily.
- Water containers should not be located in direct sunlight, nor should they be placed in positions where they are likely to become contaminated by faeces.
- Where birds are kept in an outside enclosure, water must be checked in cold weather to make sure that it has not frozen.
- Where required, water should be provided for bathing and swimming to fulfil biological and behavioural requirements. This must be cleaned regularly to avoid accumulation of detritus and overgrowth of potentially hazardous micro-organisms and their toxins.

Feed

- It is illegal to feed **catering or kitchen waste** to farmed livestock and poultry, even if they are being kept as pets.
- All birds need a balanced daily diet for full health and energy. In the case of doubt, advice on diet should be sought from an experienced aviculturist or a veterinary surgeon.
- Food should be provided in containers, except where direct feeding from the ground is the specific requirement of a particular species.

You must:

- a) feed birds a diet that keeps them healthy and is appropriate for their age
- b) use feeding equipment that minimises the risk of food contamination and competition between birds
- c) use feeding equipment that works in all weather and minimises freezing, with plans for what to do if they do freeze
- d) check feed at least once every 24 hours (unless a vet gives you different advice)
- e) avoid making sudden changes in the type or quantity of feed – you should plan any changes in the diet and introduce them gradually
- f) give your birds regular access to insoluble grit to help digestion
- g) be able to easily clean and disinfect all equipment, including bulk feed bins

You must not:

- a) place food below perches or where it is likely to be spoiled or contaminated
- b) allow stale or contaminated feed to build up – remove any immediately
- c) give anything other than feed to birds – except for disease prevention or treatments, unless scientific tests have proved it won't damage their welfare
- d) withhold feed and water to induce moulting

Feed types

- It is important that only balanced feeds from reputable sources are used and that the correct ration is fed for the age of the birds e.g. chick crumbs to 6 weeks then grower pellets to 18 weeks then layer pellets.
- The compound rations can be fed either as pellets or meal/mash. The meal can be fed dry (this may be wasteful and sticks to the beak making any water quickly foul) or as a wet mash. When mixed as a wet mash it should have enough water added so that when pressed in the hand and released it should just crumble away. Pellets and dry meal can be fed in *ad lib* feed hoppers but wet mash must always be fed freshly mixed as it goes rancid very quickly.
- If birds have access to grass they will not need extra greens but if in the winter there is not enough grass, green vegetable matter such as cabbage stalks, nettles or brussels sprouts plants are appreciated. These vegetables are also useful to call the birds over to inspect their health.
- Wheat (and a little maize in cold weather only) can be offered as a scratch feed to keep the birds active.

Feed storage

- Keep feed in a vermin-proof and weather-proof bin to keep it fresh.
- Feed bins should be easily cleaned and disinfected.
- Check the date on the bag label at purchase as freshly made feed will only last three months before the vitamin content degrades to an unacceptable level.

Grit

- Mixed grit should be available at all times.
- Flint (or insoluble) grit is needed to assist the gizzard in grinding up the food, especially hard grain.

- From 4 weeks before laying commences, oyster shell or limestone grit should be provided *ad lib* to help with the formation of egg shells.

GUIDANCE – LIVING ENVIRONMENT

When introducing birds to a new environment, make sure that the birds can find feed and water.

Stocking density

- There should be plenty of space available for each bird within housing.
- Outdoor run area should be a minimum of 1.5 m² (122 x 122cm) per bird for geese/turkeys, 1 m² (100 x 100cm) per bird for chickens, 0.8 m² (90 x 90cm) per bird for bantams, 0.5 m² (70 x 70cm) per bird for true bantams and 0.3m² (55 x 55cm) per bird for quail.

Pasture management

Good pasture management must be undertaken to prevent land from churning up.

Land on which birds range for prolonged periods may become “fowl sick”, i.e. contaminated with organisms which cause or carry disease to an extent which could seriously prejudice the health of the birds on the land.

New run area must be provided before land becomes fowl sick. This is achieved by:

- moving the housing (in the case of portable units) every few days
- rotating the ranging area outside fixed buildings

If the house cannot be moved frequently, it is good practice to protect the ground immediately adjacent to it by:

- providing slatted or wire mesh platforms, covered “verandas” or “winter gardens” or areas of gravel
- moving drinking facilities every few days to avoid the immediate area becoming contaminated

Lighting

- Birds should have sufficient light for laying.
- Windows can be installed into houses to allow natural light to enter the enclosure.
- Alternatively, artificial lighting systems can be put in place.

- Provide areas of protection from direct sunlight, especially when roosting.

Housing

Accommodation should:

- offer plenty of space for each bird (see “stocking density” above)
- allow continuous access to food and water
- be draught-proof, but well ventilated – ventilation should be located near the roof to ensure there are no draughts
- offer shelter from bad weather – low broad housing will cope better in windy conditions than tall thin housing
- be free from hazards such as sharp objects
- be constructed with materials that are not hazardous to birds or which have not been painted or treated with substances that are hazardous to birds,
- limit contamination from bird droppings – place a droppings board under the perches which can be removed easily for cleaning
- keep out predators, rodents and wild animals – use 1 inch (2.5cm) square mesh over windows/ventilation areas
- minimise insect infestations
- help prevent internal and external parasite infestations (and be easy for you to treat any that do break out) – e.g. wood is sensitive to red mite infestations
- have damp-proof membranes to prevent insulation breakdown, and measures to prevent vermin easily getting to the insulation material
- be built with strong materials that allow for thorough washing and cleaning
- be easy to maintain for hygiene and air quality

Nest boxes

- Nest boxes should be located in the lowest, darkest part of the house – size for large fowl is up to 0.3 m² or 0.2 m² for bantams with one nest box per four hens.
- Communal nest boxes with no partitions can be beneficial if all the hens choose just one nest box and queue up or all pile in together which will damage eggs.
- Ensure there is outside access for egg collection.
- Litter in the nest boxes can be shavings or straw (not hay due to moulds).

Perches

- Perch design should be taken into consideration due to the possible damage to the keel (breast) bone – a perch with a larger diameter (5cm) and round edges will reduce the pressure on the bone.
- Perches should be long enough to allow all birds to roost at the same time and low to the ground to avoid bone damage – perches should allow a minimum of 20cm for large fowl and 15cm for bantams.
- Perches should be placed above nest boxes to prevent birds roosting in nest boxes.
- Perches should be kept dry and clean.

Enrichment

Environmental enrichment can significantly improve poultry welfare and productivity, it can also reduce unwanted behaviours such as feather pecking. Examples include:

- Audio enrichment e.g. radio
- String pecking devices
- Hanging objects
- Toys
- Vegetation
- Exercise – offering birds plenty of daily activity during growth will also support their bone development and reduce the likelihood of keel bone damage.

Litter

- Wood shavings are recommended. Straw may be cheaper but ensure that it is fresh, clean and not mouldy or contaminated by vermin or cats.
- Do not use hay due to harmful mould spores which will result in breathing problems.
- Litter should be used on the floor, in the nest boxes and on the droppings board.

Cleaning

- Weekly cleaning is best and litter should be replaced in all areas.
- Disinfectants, such as Virkon or F10 are not toxic to the birds and will destroy many if not all of bacteria, virus and fungus harmful to poultry.

Biosecurity

Practicing good biosecurity reduces the chance of your poultry or your yard being exposed to diseases which can be spread by people, animals, equipment, or vehicles.

The following steps are important in keeping your poultry healthy and having good biosecurity practices:

- Isolate your birds from visitors and other birds.
- Prevent disease spread by cleaning shoes, tools, equipment, vehicles etc.
- Avoid sharing tools and equipment with friends/neighbours.
- Watch for early signs to prevent the spread of disease.
- Report unusual signs of disease or unexpected deaths.

GUIDANCE – HEALTH

Monitoring Health

Birds should be observed at least daily to determine whether they are:

- a) eating and drinking normally,
- b) defecating normally,
- c) expressing usual behaviour,
- d) able to move about freely and have a normal posture, and
- e) have a normal rate and depth of respiration.

Injuries and Illness

Signs that indicate a health problem include:

- a) discharge from the nostrils, eyes or beak,
- b) excess loss of, or spoiled or misshapen feathers,
- c) loss of appetite and weight loss,
- d) soiled vents,
- e) enlargements or swellings,
- f) vomiting or regurgitation,
- g) dull or closed eyes,
- h) lameness, wounded or swollen feet, uneven, raised, crusty, thickened scales on the legs,

- i) lumps and wounds,
- j) overgrown beak or nails, and
- k) stains or scabs around the eyes or nostrils.

This list is not exhaustive.

Sick or injured birds should be isolated from any other birds for observation and treatment and veterinary advice must be obtained promptly if a bird appears to be ill or in pain and the cause is not clear, or if initial first aid treatment is not effective.

Any suspicion of **notifiable disease** (avian influenza or Newcastle disease) must be reported to the States Veterinary Officers immediately.

Respiratory disease

This is one of the most common clinical presentations in small and backyard poultry flocks. Respiratory diseases are often multifactorial and may be caused by non-infectious (eg. dust, ammonia) and/or infectious causes.

Infectious causes:

- Viruses: infectious laryngotracheitis (ILT) virus, infectious bronchitis virus (IBV), Mycoplasmas (particularly *Mycoplasma gallisepticum*).
- Bacteria: *Pasteurella multocida* (Fowl Cholera), *Avibacterium paragallinarum* (Infectious Coryza) and *E.coli*.
- Co-infections with different respiratory pathogens are not uncommon and disease severity can also be influenced by environmental and stress factors.
- Fungal infection (aspergillosis) can cause respiratory infections particularly in young chicks (brooder pneumonia) associated with inhalation of fungal spores, usually from damp feed or bedding.

Loss of condition and wasting

These are also common presentations in small flocks. Amongst the causes are egg peritonitis, parasitic disease and neoplasia. Neoplasms, include those with an infectious cause such as Marek's disease, as well as sporadic, non-infectious tumours which are common in older birds.

Marek's disease

- A common disease of chickens and occasionally seen in turkeys.
- The causative herpesvirus is widespread in birds and is principally spread in feather dust.
- Vaccination is used to control the disease in commercial flocks.
- The disease may present as the classical form, with paralysis of the legs and/or wings and the acute form with multiple lymphoid tumours which cause loss of condition and death.
- The Ocular form causes a greying of the eye and/or a change in the shape of the iris.

Endoparasites (internal parasites)

- Cause enteritis and ill-thrift.
- Internal parasites in chickens include nematode worms such as *Ascaridia galli*, which can cause ill-thrift, enteritis or intestinal impaction.
- *Heterakis gallinarum* (caecal worm) has an important role in the transmission of blackhead and *Capillaria* spp. (hairworms) which cause loss of condition.
- Cestodes and Trematodes can also occur.

Coccidiosis

- A protozoan disease associated with enteritis, ill-thrift and mortality especially in young birds (usually no more than a few weeks of age).

Ectoparasites (external parasites)

- Red mite (*Dermanyssus gallinae*) and northern fowl mite (*Liponyssus sylvarium*) infestations cause lethargy, egg drop, pale wattles due to anaemia (especially red mite), and can cause death.
- Burrowing mites (Cnemidocoptes) can cause feather loss (depluming itch mite) or excessive scalliness of the skin (scaly leg mite).
- Other common ectoparasites include yellow body louse (*Menacanthus stramineus*).

Egg peritonitis and other *E. coli* infections

- Egg peritonitis (salpingitis and peritonitis) is one of the most common causes of death of adult hens in small and backyard chicken flocks
- It usually arises from ascending *E.coli* infection via the cloaca.

- Other manifestations of *E. coli* infection include colisepticaemia (affecting multiple body systems), pneumonia and airsacculitis (which may be secondary to viral or mycoplasma infections or non-infectious stress factors) and yolk sac infection (omphalitis or mushy chick disease) in young chicks.

Other diseases

Blackhead (histomonosis)

- Protozoal disease caused by *Histomonas meleagridis*
- Affects turkeys and sometimes chickens, peafowl and other birds.
- Clinical signs in turkeys include sulphur yellow droppings and mortality, but the signs in chickens are usually less severe.
- *H. meleagridis* is transmitted by the caecal worm *Heterakis gallinarum* and also by earthworms, enabling prolonged survival in the environment.
- Because of the susceptibility of turkeys to infection it is inadvisable for turkeys and chickens to have direct or indirect contact.

Duck Virus Enteritis (or Duck Plague)

- A contagious herpesvirus disease of adult waterfowl, characterised by a marked seasonality (commonly April-July) and exposure to wild/feral waterfowl, which may be carriers.
- Muscovy and Indian runner ducks are particularly susceptible but the disease can also occur in other duck species and in swans.
- The clinical signs include ataxia, inappetence, watery, bloodstained diarrhoea and mortality.

Preventative therapy

Parasite control

- Treatment for internal parasites can be put in food or water but dosing of individual birds is the most efficient and effective treatment method.
- Individual dosing should be performed by experienced handlers.
- External parasites should be eradicated by applying an appropriate insecticide to birds, cages and nest boxes, and may include dusting, spraying, oral medication, or contact insecticides on perches.

- It is important to have a year-round parasite control program rather than treating birds after they are affected or losses are incurred.

Care of claws

- If your chickens are kept outside and have plenty of space to scratch at things then it is unlikely that you will ever have to trim their claws
- Perches and cage floors should not be coated with sandpaper as this may lead to footpad abrasions.
- If necessary, overgrown toenails should be trimmed carefully to avoid haemorrhage.

Care of beak

- A bird should be provided with a means to keep its beak in good health and condition. This can be achieved by providing:
 - a) hard foods such as nuts seeds and pellets in their diet,
 - b) chews, toys or cuttlefish bones, and
 - c) a conditioning perch that will allow it to rub its beak to keep it clean.

Beak trimming should only be performed by a veterinary surgeon, as it is possible to damage the underlying tissue if too much grinding is carried out.

Dubbing is the procedure of removing the comb, wattles and sometimes earlobes of poultry. Dubbing is an inhumane procedure and is not permitted in Guernsey.

Handling

- Unlike animals such as cats and dogs, most birds are not domesticated and must be tamed and this will take care and may take some time. However not all species like handling and these should only be handled when necessary.
- Birds have very fragile skeletons and delicate respiratory systems. Squeezing them too much can cause broken bones, organ damage, and many other severe injuries.
- A bird should not be held by a single wing or leg as this may cause serious injury.

Euthanasia

Manual cervical dislocation is not an acceptable method of routine euthanasia for poultry.

The following methods are suitable for the killing of adult poultry:

- a. Percussive stun/kill using captive-bolt administered by a proficient technician or slaughterman.

- b. Anaesthetics overdose administered by a veterinary surgeon.

GUIDANCE – BEHAVIOUR

Companionship

- Poultry are very social animals, and are best kept in small groups.
- Within any group, a hierarchy or ‘pecking order’ will develop. This isn’t a problem, unless one bird is persistently being bullied by the others.
- Adding new birds to an established group can be problematic as this can upset the balance
- If you have to separate a bird because it is poorly or being bullied by others– keep it within sight of the main flock, otherwise it may be bullied even more when reintroduced to the group.
- If birds are kept in isolation they are likely to suffer social deprivation and may develop significant behavioural disturbances.

Socialisation

- Not all birds like to be handled, but those that can become accustomed to it, can develop a bond with an owner and benefit from that relationship. Regular interaction with people can help to keep a bird entertained, prevent boredom and the development of behavioural problems.
- Incompatible species of birds should not be housed together.

Boredom and Frustration

- Birds are intelligent and benefit from mental stimulation in order to thrive in captivity.
- See “Enrichment” in the Living Environment section above.

Stress

Signs of stress in birds include:

- a) feather pecking,
- b) screaming or excessive vocalising,
- c) biting,
- d) destructive behaviours,
- e) self-mutilation,

- f) apathy,
- g) chronic egg laying, and
- h) toe pecking

This list is not exhaustive.

GUIDANCE - BREEDING

- Breeding of birds should be planned and owners should be aware of what is required and ensure that there is a home or a market for the offspring.
- If an owner does not wish to breed birds, they should be kept in single sex groups.

Selection of Breeding Stock

- Only birds that are adult, well developed, that are in good health and condition and with a favourable temperament should be used for breeding.
- A breeding flock consists of one cock and several (6-10) hens.

Care of Breeding Birds

- A separate breeding pen, consisting of a coup and run, should be built or purchased for the breeding flock to live in.
- Birds should be introduced with care to ensure that there are no signs of aggression.
- You mustn't use any breeding procedures (either natural or artificial) that may cause suffering or injury to birds.
- Purchasing strong saddles for females to wear during mating can prevent injury to their backs and sides by the males.

Breeding birds should be provided with nesting material and some species require a nesting box which should be large enough for a nest and large enough to allow an adult bird to move around freely and to accommodate a clutch of eggs and growing chicks

Hens should be monitored for egg binding (an egg stuck in the oviduct that cannot be expelled). An avian vet must be consulted immediately if it is suspected that a bird may be egg bound.

Signs of egg binding are:

- a) heavy panting,
- b) paralyzed legs,
- c) swelling in the vent area, and

- d) part of the intestine coming out of the vent.

Care of Eggs and Young

- Eggs should not be handled unless it is essential to do so. Eggs must be handled with clean hands to avoid bacterial contamination.
- When the young hatch, the nest should be checked regularly to ensure that the smaller chicks (those that hatch last) are not trampled by larger chicks and to ensure that they are also being fed. In the case of some species, young can be fostered if there are problems.
- When the young start to grow feathers, the nest box should be cleaned and then cleaned regularly to prevent an accumulation of soiled nesting material.

GUIDANCE - TRANSPORTATION

- Birds that are transported should be in good health and sick or injured birds should only be transported to a veterinary surgeon for the purpose of treatment or diagnosis.
- Birds should be transported in a cage or strong container that should not be too large but should be spacious enough for them to move around. Cages should be darkened (such as covered with a dark cloth during transport) with care taken not to obstruct ventilation.
- Cages or containers should not be packed in a vehicle in a manner which compromises ventilation, should not be placed in direct sunlight or next to the vehicle's heater and should not be carried in the boot of a saloon car.
- Food should be provided during transport, especially for small or young birds. Water should also be provided in a non-spill container or fixed water container using cotton wool soaked in water. The floor of a cage or container should provide a secure footing for the birds.
- Birds should not be left unattended in a vehicle in hot weather unless the environment within the vehicle is maintained below 24°C air temperature in the shade.