

# Appendix A



## MONITORING AND MANAGING POULTRY TO MINIMISE FEATHER PECKING AND CANNIBALISM

A checklist for farm managers to use when there is evidence of feather pecking or cannibalism in a flock or as a check of farm practices for managing disruptive stressors to minimise the risk of occurrence of feather pecking. Most of the items to be checked should be included in daily or other checklists used as part of the farm quality assurance program.

*Welfare codes, standards or guidelines place responsibility on the farm owner, manager and staff to minimise feather pecking and cannibalism in poultry flocks under their care.*

Place a tick as applicable in the left hand box.

<b>Monitor bird behaviour and pecking</b>	
<input type="checkbox"/>	Staff walk through the flock calmly, quietly and consistently.
<input type="checkbox"/>	During peak egg production and peak egg mass.
<input type="checkbox"/>	Following periods of disturbance from vehicles and other farm noises and events.
<input type="checkbox"/>	Following vaccination or other procedures on the flock.
<input type="checkbox"/>	If there are changes in staff tending to the flock or when visitors enter the shed.
<input type="checkbox"/>	During variable weather conditions (high temperature/humidity/wind/storms).
<input type="checkbox"/>	While eggs are being collected.
<input type="checkbox"/>	During routine cleaning and maintenance in the shed.
<input type="checkbox"/>	When the egg belt and manure belt are being run.
<input type="checkbox"/>	When wild birds, reptiles or rodents get into shed or when birds escape from cages.
<input type="checkbox"/>	When hens are moved to another cage.
<input type="checkbox"/>	When light intensity is increased or length of light period is changed.
<input type="checkbox"/>	When birds are moved from controlled light housing to uncontrolled (natural) lighting.
<input type="checkbox"/>	Following husbandry mishaps such as breaks in feed or water supply or light failure.
<b>Stocking density</b>	
<input type="checkbox"/>	Recommended stocking density is used in cages, barn sheds and free range systems.
<input type="checkbox"/>	Stocking density is reduced if pecking is a problem.
<b>Body weight</b>	
<input type="checkbox"/>	Body weight is checked regularly to meet breeder guidelines.
<input type="checkbox"/>	The flock is uniform in weight.

Place a tick as applicable in the left hand box.

<b>Diet</b>	
<input type="checkbox"/>	Diet is optimum for growth or production stage of bird and housing system.
<input type="checkbox"/>	Mash is fed to increase foraging behaviour and reduce feather pecking.
<input type="checkbox"/>	Ration changes are made gradually.
<input type="checkbox"/>	Dietary fibre is 3.5–4.0 per cent.
<b>Litter</b>	
<input type="checkbox"/>	Litter is clean, dry and friable and the appropriate depth.
<b>Enrichment</b>	
<input type="checkbox"/>	Non-cage shed floor is enriched with scratch grain, straw bales, pecking blocks, etc.
<input type="checkbox"/>	The range is enriched with windbreaks, shelterbelts, crop rotations, shade and sand baths.
<input type="checkbox"/>	Birds are introduced to enrichment devices during pullet rearing.
<b>Abrasives</b>	
<input type="checkbox"/>	An abrasive material is fixed to the base of non-chain feed troughs.
<input type="checkbox"/>	Abrasive material is fitted to non-perforated egg baffles of cages.
<input type="checkbox"/>	Claws are checked for bluntness.
<b>Parent stock</b>	
<input type="checkbox"/>	Chicks sourced from different breeder or donor flocks are reared in separate groups.
<input type="checkbox"/>	A strain with low levels of cannibalism is selected.
<input type="checkbox"/>	A strain with short claws is selected.
<b>Brooding</b>	
<input type="checkbox"/>	All birds are able to access food and water.
<input type="checkbox"/>	Drinker and feeder height is correct.
<input type="checkbox"/>	Litter material is dry at chick placement.
<input type="checkbox"/>	Vitamins and electrolytes are given in drinking water.
<b>Rearing management</b>	
<input type="checkbox"/>	Birds are housed in similar facilities from day old to end of lay.
<input type="checkbox"/>	Perches are provided during rearing.
<input type="checkbox"/>	Shed equipment runs quietly.
<input type="checkbox"/>	Recommended feeding and drinking space is available to each bird.
<input type="checkbox"/>	Sick and unthrifty birds are culled.
<b>Pullet transfer</b>	
<input type="checkbox"/>	Pullets are moved to the laying house at 15–17 weeks.
<input type="checkbox"/>	Vitamins and probiotics are provided in the drinker water three days before and after placement.
<input type="checkbox"/>	Birds are transported at night to keep them calm.
<input type="checkbox"/>	Extra feed and water is provided soon after placement.

Place a tick as applicable in the left hand box.

<b>Prelay hens in cages</b>	
<input type="checkbox"/>	Laying house temperature is the same as the rearing shed at time of transfer.
<input type="checkbox"/>	Light intensity is increased for seven days after placement.
<input type="checkbox"/>	Pullets are fed a pre-lay diet until first egg is laid.
<b>Prelay hens in barn and free range</b>	
<input type="checkbox"/>	Birds are not disturbed when first placed.
<input type="checkbox"/>	Lights are left on for 24 hours after placement.
<b>Layer hens in cages</b>	
<input type="checkbox"/>	Monitor feed intake, body weight, egg weight and egg numbers throughout lay.
<input type="checkbox"/>	Pullets are not stimulated with light until breeder target body weight is achieved.
<input type="checkbox"/>	Monitor feather cover throughout lay.
<input type="checkbox"/>	Maintain correct stocking density.
<input type="checkbox"/>	Ambient temperature in layer shed is 18–27°C
<input type="checkbox"/>	Provide adequate ventilation at all times.
<input type="checkbox"/>	Old fluorescent tubes are replaced as the light pattern emitted during flickering becomes asymmetrical with age and is likely to induce feather pecking.
<input type="checkbox"/>	Keep light intensity at 5 lux with a minimum of 0.5 lux at feeder level in controlled environment sheds.
<b>Layer hens in non-cage facilities</b>	
<input type="checkbox"/>	Provide sufficient substrate to enable birds to carry out regular comfort behaviours (resting, sleeping, preening, scratching and dust bathing).
<input type="checkbox"/>	Monitor body weight and uniformity by weighing birds regularly.
<input type="checkbox"/>	There is even light intensity in shed.
<input type="checkbox"/>	Birds are socialised by stock attendants walking through the shed at least four times daily soon after placement.
<input type="checkbox"/>	When pecking is a problem stocking density is reduced.
<input type="checkbox"/>	Strains of layer hens are suited to non-cage housing.
<input type="checkbox"/>	Laying facilities match rearing facilities.
<input type="checkbox"/>	Floor eggs are picked up regularly and consistently.
<input type="checkbox"/>	Birds are protected against climate extremes.
<input type="checkbox"/>	Non-cage birds are regularly treated for internal parasites.
<input type="checkbox"/>	Birds are protected against disease using an appropriate health and vaccination program.
<b>Range management</b>	
<input type="checkbox"/>	Birds have easy access to and from the range.
<input type="checkbox"/>	Pullets are introduced to the verandah or range at 18–20 weeks (five per cent production) or after peak egg mass.
<input type="checkbox"/>	Pullets introduced to the verandah are given access to the range one week later.

Place a tick as applicable in the left hand box.

<b>Lighting</b>	
<input type="checkbox"/>	Pullets for free range egg production are reared with exposure to natural light.
<input type="checkbox"/>	Low light intensity (3–5 lux) is used from three weeks to transfer in controlled environment sheds.
<input type="checkbox"/>	Controlled environment shed is light proofed to avoid outside light leaking in.
<input type="checkbox"/>	Sunlight does not illuminate the floor and nest boxes in naturally ventilated housing.
<input type="checkbox"/>	Sudden increases in light intensity and photo period (or day length) are avoided.
<input type="checkbox"/>	Abrupt shifts in light intensity between shed, verandah and range are reduced.
<input type="checkbox"/>	In naturally ventilated sheds light intensity is 10–15 lux from four to six weeks of age through to 14 weeks and increased to daylight levels that the birds will experience in the shed during lay.
<b>Nest boxes</b>	
<input type="checkbox"/>	Hens can freely access nest boxes.
<input type="checkbox"/>	The entrance to the nest is well lit.
<input type="checkbox"/>	The interior of nest boxes is darkened.
<input type="checkbox"/>	Individual nest boxes or nesting areas are not overcrowded.
<b>Bird health</b>	
<input type="checkbox"/>	Unthrifty, small, odd coloured and pariah birds are culled.
<input type="checkbox"/>	Dead birds are removed daily.
<input type="checkbox"/>	Flock is treated for internal parasites and ectoparasites.
<input type="checkbox"/>	Birds treated for wounds are separated from the flock.
<input type="checkbox"/>	Predators, rodents and flies are controlled and wild bird entry into sheds is prevented.
<input type="checkbox"/>	Birds with vent trauma or wounds from cannibalism are treated or culled.
<b>Daily health and welfare checks</b>	
<input type="checkbox"/>	Bird behaviour is normal (stance, flightiness, sounds).
<input type="checkbox"/>	Mortality is normal.
<input type="checkbox"/>	There is no overcrowding.
<input type="checkbox"/>	Bird stress is minimised.
<input type="checkbox"/>	Feed and water is available to all birds and consumption is normal.
<input type="checkbox"/>	Litter is dry and friable and there are no wet patches in the litter.
<input type="checkbox"/>	Ventilation is adequate at all times.
<input type="checkbox"/>	There is no smell of ammonia.
<input type="checkbox"/>	There is no excessive dust.
<input type="checkbox"/>	Ventilation and shed temperature are ideal.
<input type="checkbox"/>	Light is uniform throughout the shed.
<input type="checkbox"/>	Alarm systems are working.
<input type="checkbox"/>	Cooling and heating systems are working.

Farmers and breeder managers are also encouraged to undertake the following as they may contribute to reducing feather pecking and cannibalism.

- Train staff in poultry husbandry skills.
- Handle birds calmly and gently when crated, carried or held.
- Check fibre, protein, mineral, vitamins and trace elements in diet.
- Use a phase feeding program based on rate of lay.
- Use high energy diets for free range birds.
- Remove poisonous plants from the range.
- Moulting birds using a high fibre diet.
- Provide hard grit and shell grit where required.
- Check there is no evidence of birds refusing feed.
- Position feeders, drinkers and nest boxes appropriately and correctly.
- Prevent muddy conditions on the range.
- Check beak and claw abrasives regularly.
- Pre-warm brooding shed before chickens arrive.
- Provide additional feed and water at placement of chickens.
- Acclimatise birds to all shed noises, equipment and activities.
- Provide ramps to allow birds to access shed from outside runs where pop-holes are high.
- Provide ramps for young birds to move from litter to slats.
- Monitor shed temperature, water and feed consumption.
- Check accuracy of time clocks.
- Check feather condition regularly.
- Prevent access to runs during inclement weather.
- Keep noise levels to a minimum.



Photo 4028mdk09.