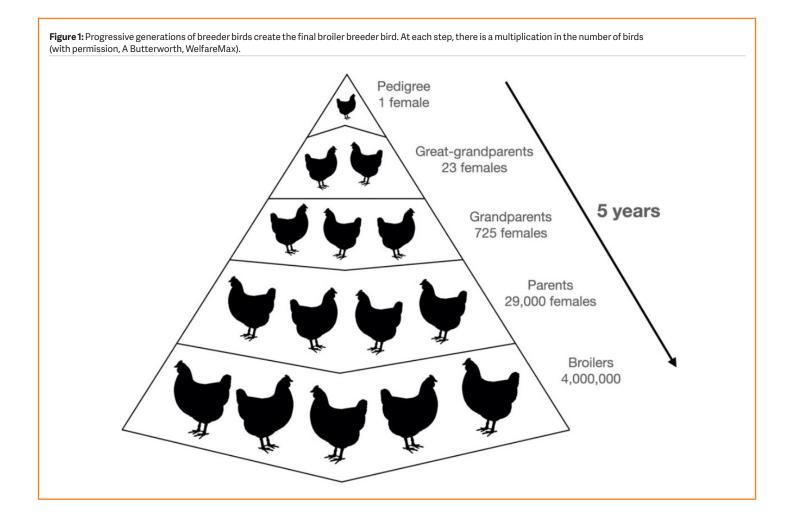
5.3 Broiler chickens Toolkit

Introduction

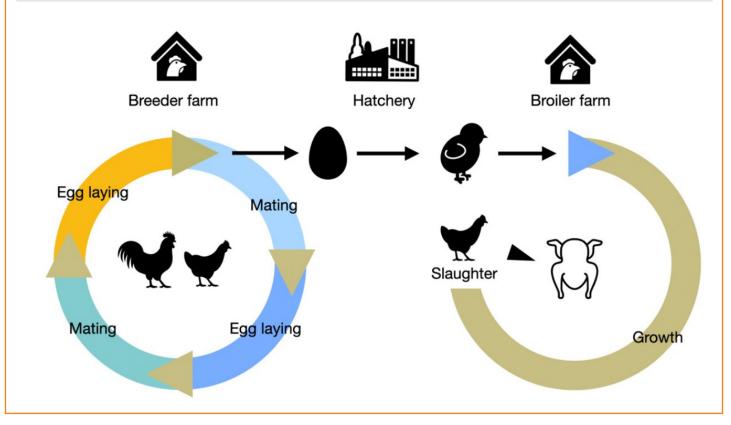
Chickens were first domesticated at least 8,000 years ago from several species of jungle fowl in southeast Asia, moving north into China and across central Asia, then into Europe. Today, the chicken is ubiquitous, being farmed in huge numbers on every continent. The FAO suggests some 60 billion meat (broiler) chickens are reared globally each year. Chickens have been increasingly bred for either laying eggs or producing meat, resulting in distinctly different-looking birds. Broiler chickens tend to be quite 'heavy' in their body shape (when compared to laying hens). Chickens can live for up to ten years, but most commercial broilers are killed at between 30 and 80 days of age (most at 30 to 40 days). The genetics of broilers is now globally dominated by a small number of breeder companies (such as Aviagen, Cobb and Hubbard) which control the genetics of the bulk of world broiler birds. Commercial broiler chicks are created by breeding cycles known as the 'breeder pyramid' (Figure 1), and the broiler farm cycle can be seen in Figure 2.

Rural birds, of various breeds, are slaughtered at any age (but usually, as soon as they are of suitable size to eat). Wild or feral chickens will form into small social groups of up to 15 individuals, with a dominant male and several hens and subordinate males. Chickens are highly motivated to forage, spending large proportions of their day scratching about and foraging, even in the presence of abundant food. Chickens will spend time preening (cleaning and grooming their feathers), and this is augmented where possible by bouts of dustbathing, on average once every two days.

Key welfare issues of broiler chickens include: high stocking density in some farming systems; skeletal and infectious conditions leading to lameness; selection for rapid growth rate (which can lead to low activity levels); poor litter or bedding conditions in some intensive and free-range housing; feet and hock skin conditions; handling, catching and transport to slaughter; effective and humane stunning, and non-stun slaughter.

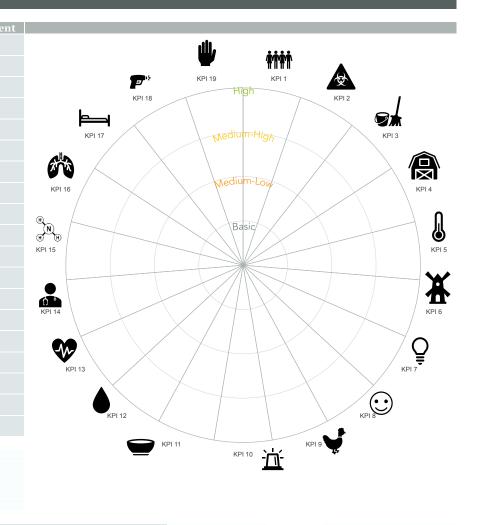








Boiler V1



	Ac	hi
KPI 1: People, training - Links to P1, P11	0	
KPI 2: Biosecurity - Links to P5, P11	0	
KPI 3: Cleaning and disinfection - Links to P5, P11	0	
KPI 4: Farm environment: physical - Links to P4, P5, P6, P9	0	
KPI 5: Farm environment: temperature - Links to P4, P9	0	
KPI 6: Farm environment: ventilation - Links to P4, P9	0	
KPI 7: Farm environment: light - Links to P6	0	
KPI 8: Farm environment: enrichments - Links to P6	0	
KPI 9: Farm environment: stocking density - Links to P4, P6	0	
KPI 10: Farm environment: emergency - Links to P7, P10, P11	0	
KPI 11: Feed - Links to P3	0	
KPI 12: Water - Links to P3	0	
KPI 13: Health, and health planning - Links to P5	0	
KPI 14: Medicines - Links to P5, P11	0	
KPI 15: Ammonia (NH3), dust, humidity - Links to P4	0	
KPI 16: Carbon dioxide (CO2), Carbon monoxide (CO) - Links to P4	0	

- KPI 17: Litter, bedding Links to P4 🔾
- KPI 18: Euthanasia Links to P5, P7 🔘
 - KPI 19: Catching Links to P11 🔘

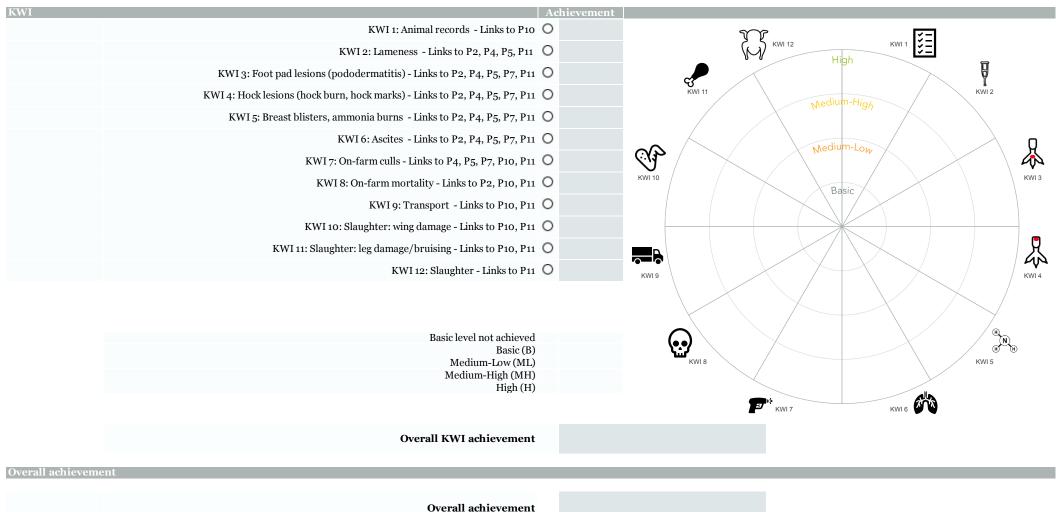
Basic level not achieved Basic (B) Medium-Low (ML) Medium-High (MH) High (H)

Overall KPI achievement













People, training -	Links to P1, P11	Observed	l? C	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	All people responsible for the care of animals should have received appropriate training by others with appropriate experience, who can demonstrate sufficient knowledge of animal behaviour, general signs of diseases, and indicators of poor animal welfare.	0			0		
	People handling animals are trained in handling techniques, emergency killing procedures and biosecurity.	0					
Medium-Low (ML)	Routine procedures should not cause injury, panic, lasting fear or avoidable pain or distress, and where painful procedures cannot be avoided, they should be carried out by competent and trained people.	0			0		
Medium-High (MH)	An animal welfare contact person or co-ordinator, responsible for animal welfare aspects within the farm or company, is identified.	0			0		
	The animal welfare contact person has received training in animal welfare aspects.	0					
High (H)	People in the company are supported to have higher-level training, or achieve professional qualifications (locally applicable professional qualifications) in animal care and animal welfare.	0			0		

KPI Broiler 2

Biosecurity - Linl	rs to P5, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Chicken houses have surfaces that allow for effective cleaning.	0		0		
Dusic (D)	The farm operates a clear period at the end of each flock to allow for effective cleaning.	0		~		
	A biosecurity programme/plan (see World Vet, Resource 10) is in place.	0				
	Access to houses is limited to essential farm employees only.	0				
Medium-Low (ML)	All farm visitors adhere to strict biosecurity requirements specific to the farm being visited.	0		0		
	Facilities (including feed and litter storage areas) are constructed to limit the entry of	0				
	pathogens, pests and animals that could transmit diseases to birds.	~				
	If vehicles are brought on-site, they are sprayed (wheels as a minimum) at the gateway.	0				
Medium-High (MH)	The biosecurity programme includes a risk assessment (which may be based on hazard analysis	~		0		
	and critical control point (HACCP) training) of the primary pathogens and parasites that are	0		~		
	likely to pose a risk to the flock.					
	Hand washing and sanitisation is available on entry to each house.	0				
	All on-site staff and visitors shower and are provided with a full complement of protective	0		-		
High (H)	clothing.			0		
	Feed silos are located at the perimeter of the site so that feed vehicles do not need to enter the	0				
	site.					



KPI Broiler 3 Cleaning and disinfection - Links to P5, P11 Comment on observation Achieved level? Progress Evidence/comment **Observed?** The houses effectively protect the chickens from contact with other animals, insects, rodents, 0 invasive wildlife or wild bird species. Vermin are controlled through the use of bait stations, traps and other appropriate and Ο Basic(B) 0 effective measures, and only approved pest control substances or chemicals permitted by law are used. The accommodation, pens and equipment are constructed to ensure they can be thoroughly 0 cleaned and disinfected. 0 Written cleaning and disinfection protocols are implemented. A list of permitted disinfectants and detergents used on the farm, and their safety data sheets, is 0 Ο Medium-Low (ML) available. 0 Internal house equipment, water tanks and silos are cleaned during house cleaning. O The areas around the buildings are kept clear of debris and non-essential equipment. Cleanable concrete or stone areas for loading are present around the poultry house (note: in 0 hot climates it may not be ideal to concrete all surrounding areas as this can reflect heat). Ο Medium-High (MH) Vegetation is kept short and is well managed so as not to offer shelter to wild birds or rodents. 0 A microbiological testing programme for house hygiene is in place for a targeted sample of 0 company farms each year, and there is a policy for feeding results back to the farm and the Ο High (H) cleaning teams. The most humane effective baiting method is adopted, and pest control baits are only accessible

KPI Broiler 4

to the targeted species.

Farm environmen	it: physical - Links to P4, P5, P6, P9	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Floors, surfaces, fittings, equipment and other facilities in and around the shed are designed, constructed, operated and maintained to minimise the risk of smothering, injury, trapping, or disease, and are free from rough edges and sharp protrusions.	0		0		
	Housing is constructed to minimise fire risk, and firefighting equipment is available.	0				
	Broiler chickens are not kept in cage systems.	0				
Medium-Low (ML)	Birds are protected from predators, vermin, and excessive noise.	0		0		
Medium-Low (ML)	Birds are protected from adverse weather.	0		0		
Medium-High (MH)	The house environment provides improved opportunity for behaviours.	0		0		
IIi ah (II)	Where automatic systems are in place, they do not replace human care and observation, unless their safe and reliable use in maintaining animal welfare has been demonstrated.	0		0		
High (H)	Outdoor range is provided.	0		\mathbf{O}		



arm environmen	t: temperature - Links to P4, P9	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
asic (B)	Where present, heating and cooling systems are capable of producing enough heat or cooling to ensure birds do not get too hot or too cold.	0		0		
edium-Low (ML)	Where present, automatic equipment for temperature control is fitted with alarms that warn immediately of equipment failure.	0		0		
culum-Low (ML)	Heating or cooling systems essential for bird health and welfare are checked daily for proper operation.	0		Ŭ		
dium-High (MH)	Records of daily maximum and minimum shed temperatures (at bird height) are kept on file and available for review.	0		0		
euluin-riigii (Mrr)	House temperatures are controlled to maintain the temperature range recommended by the	0		0		
	breeder or veterinarian.					
igh (H) KPI Broil	Houses are equipped with means of controlling relative humidity.	0		0		
KPI Broil	Houses are equipped with means of controlling relative humidity.		Comment on observation	• Achieved level?	Progress	Evidence/comment
KPI Broil	Houses are equipped with means of controlling relative humidity. er 6	0	Comment on observation	Achieved level?	Progress	Evidence/comment
KPI Broil	Houses are equipped with means of controlling relative humidity. er 6 t: ventilation - Links to P4, P9 Where present, equipment for ventilation supports the birds in both extreme hot and cold	Observed?	Comment on observation		Progress	Evidence/comment
KPI Broil rm environmen sic (B)	Houses are equipped with means of controlling relative humidity. ler 6 t: ventilation - Links to P4, P9 Where present, equipment for ventilation supports the birds in both extreme hot and cold weather, manages air exchange, air quality and dust, and bird comfort. Where present, automatic equipment for ventilation is fitted with alarms that warn immediately of equipment failure. Automatic equipment for ventilation has a back-up power supply that is tested weekly. Ventilation systems essential for bird health and welfare are checked daily for proper	Observed? O O O	Comment on observation		Progress	Evidence/comment
KPI Broil rm environmen sic (B) edium-Low (ML)	Houses are equipped with means of controlling relative humidity. ler 6 t: ventilation - Links to P4, P9 Where present, equipment for ventilation supports the birds in both extreme hot and cold weather, manages air exchange, air quality and dust, and bird comfort. Where present, automatic equipment for ventilation is fitted with alarms that warn immediately of equipment failure. Automatic equipment for ventilation has a back-up power supply that is tested weekly. Ventilation systems essential for bird health and welfare are checked daily for proper operation.	Observed?	Comment on observation	0	Progress	Evidence/comment
Arm environmen asic (B) edium-Low (ML)	Houses are equipped with means of controlling relative humidity. ler 6 t: ventilation - Links to P4, P9 Where present, equipment for ventilation supports the birds in both extreme hot and cold weather, manages air exchange, air quality and dust, and bird comfort. Where present, automatic equipment for ventilation is fitted with alarms that warn immediately of equipment failure. Automatic equipment for ventilation has a back-up power supply that is tested weekly. Ventilation systems essential for bird health and welfare are checked daily for proper	Observed? O O O	Comment on observation		Progress	Evidence/commen

Farm environmer	it: light - Links to P6	Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
	Light levels are at the legal base requirement.	0			
Basic (B)	If no legal requirement exists, then adequate levels of light are provided for carers to observe animals, and for the animals to carry out daytime behaviours.	0		0	
	Dark rest periods are provided.	0			
Madium Law (ML)	Natural or artificial light (of an intensity of at least 20 lux) is available in all buildings, illuminating at least 80% of the useable area, for a minimum of 8 hours daily.	0		0	
Medium-Low (ML)	Lighting follows a 24-hour rhythm and includes periods of darkness lasting at least 6 hours in total, with an uninterrupted period of darkness of at least 4 hours.	0		Ŭ	
	Dawn/dusk is either provided naturally, or the light level at dawn/dusk is gradually raised and lowered (typically over a 10-minute period) via an automatic system.	0		0	
	Natural light is provided.	0			
High (H)	Lighting meets the requirements of the Better Chicken Commitment (50 lux minimum, including natural light) in Resource 10.	0		0	



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Farm environmen	t: enrichments - Links to P6	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment			
Basic (B)	The producer is aware that birds can use enrichments when they are provided, and this can affect animal welfare.	0		0					
	At least one pecking object is provided as environmental enrichment for every 1,000 birds based on shed placement number.	0				_			
Medium-Low (ML)	Enrichment is provided to all birds ≥ 7 days of age.	0		0					
	Environmental enrichment must be maintained, replaced or changed as necessary to ensure birds have continuous access.	0							
	Perches or platforms are provided at a minimum length of 2.7m per 1,000 birds based on shed placement number.	0							
Medium-High (MH)	Perches or platforms are evenly distributed throughout the shed, and provide a flat surface positioned at a height that allows birds at all ages to perch.	0		0					
	If multiple height perches are used, the ramps are at a shallow angle (<15% or less) to allow good access.	0							
High (H)	An enriched, complex environment is provided to encourage foraging, dustbathing, perching and other natural behaviours.	0		0					

KPI Broiler 9

Farm environmen	nt: stocking density - Links to P4, P6	Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
	Where stocking density is legislated, the legal specification is followed.	0			
Basic (B)	All birds have sufficient space to walk, turn around, preen, sit undisturbed, flap, stretch wings,	0		0	
	dust bathe and access feed and water without undue competition.	Ŭ.,			
Medium-Low (ML)	Stocking density is not above 38kg/m2 (see Red Tractor Broiler and Poussin Standards in	0		0	
	Resource 10).	č		č	
Medium-High (MH)	Stocking density is not above 33kg/m2 (EU permitted lower tier 2007/43 EC).	0		0	
	Stocking density meets the requirements of the Better Chicken Commitment or Red Tractor				
High (H)	Chicken Standards: Indoor Enhanced Welfare Version 1 (2020) of 30kg/m2 or less (see	0		0	
	Resource 10).				

KPI Broiler

Farm environmen	t: emergency - Links to P7, P10, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Written plans are in place to deal with emergencies such as fire, power failure, flooding, accidental injuries, freezing, failure of water and feed supply, or chemical or effluent spillage. The plan is periodically tested, and implementable in the event of an emergency.	0		0		
Medium-Low (ML)	Contacts and emergency phone numbers, and contact numbers in cases where the emergency can affect human health, are available at each site.	0		0		
	If generators are used for back-up power, they are tested under conditions of load at least once per flock.	0				
Medium-High (MH)	The emergency plan includes approved methods of humane killing and mass depopulation, with each method having an SOP containing: instructions for implementation; equipment requirements; training; safety; biosecurity; and environmental aspects.	0		0		
	The methods proposed are consistent with national law.	0				
High (H)	Plans are developed in consultation with a poultry veterinarian and are updated annually, to cover circumstances such as animals infected with a potentially zoonotic or notifiable disease.	0		•		



2	KPI	Broil	er	11

Feed - Links to P3		Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The feed is of a quantity and quality to maintain normal health and productivity, to prevent prolonged hunger or malnutrition, and is suited to the animals' age and needs.	0		0		
	Feeders meet manufacturers' recommendations, good poultry husbandry practices and local regulatory requirements, and provide adequate access for all birds.	0		0		
Medium-Low (ML)	Feed and watering systems are height-adjustable, making them easily accessible by all birds as they grow.	0		0		
	All feeding and drinking systems are checked daily for proper operation. In the event of a supply failure, the farms can provide feed within 24 hours.	8		U C		
	As previous requirement.	ŏ		0		
High (H)	Food is presented in a way that provides interest and occupation for animals (for example, scatterfed, or from a foraging device).	0		•		

Water - Links to F	23	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	Water is of a quantity and quality to maintain normal health, and to prevent dehydration. Drinkers meets both manufacturers' recommendations and local regulatory requirements, and	0		~		
Basic (B)	provide adequate access for all birds. Drinking systems essential for bird health and welfare are checked for proper operation daily.	0		0		
Medium-Low (ML)	A water meter is fitted in every house to monitor daily water consumption.	0		0		
Mediiim-High (MH)	In the event of a power failure, the farm can provide water within 12 hours. Water should be tested annually to ensure potability to FAO standards (see FAO 2016 in Resource 10).	0		0		
	The emergency supply of water has sufficient capacity to supply the site for 24 hours at maximum demand (such as in the last few days of the crop).	0		0		

KPI Broiler 13

Health, and healt	h planning - Links to P5	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	A procedure is in place to deal with an outbreak of notifiable disease, such as Avian Influenza or Newcastle Disease.	0		0		
Medium-Low (ML)	Infectious, parasitic and metabolic diseases, injury, and conditions causing distress, are prevented and controlled through good management, good animal care, biosecurity, vaccination and genetic selection.	0		0		
	The farming system does not depend on prolonged or routine use of pharmaceuticals.	0				
Medium-High (MH)	A H&W plan is in place (Resource 6).	0		0		
High (H)	The H&W plan is reviewed annually and authorised by the company veterinarian.	0		0		



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K	FΤ	Br	011	er	14

Medicines - Links	to De Daa	Obcomrod 2	Comment on observation	A abiarrad larral?	Duoguoga	Evidence / commont
Medicines - Links	Any drugs or other agents used to treat animals must be compliant with all local guidelines and	Observed?	comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Hormones and antibiotics are not used as growth promoters.	0		0		
	Preventive (prophylactic) use of antimicrobials is not permitted. An antimicrobial reduction programme is in place (see World Vet, Resource 10).	0				
Medium-Low (ML)	Antimicrobial reduction programme is in place (see world vet, Resource 10). Antimicrobials and other medicines are used responsibly to protect both human and animal health.	0				
	Vaccines and medicines are stored securely and in the recommended conditions (label instructions).	0		0		
	Medicine use is recorded (Resource 5).	0				
	The company has access to a veterinarian experienced in poultry care.	0				
	Any antimicrobial classified as being of 'high' or 'medium' importance for human medicine, defined as Highest Priority Critically Important Antimicrobials (HPCIA), is not permitted for use in broiler chickens, unless under veterinary advice.	0				
ledium-High (MH)	Persons using medicines have relevant experience and training.	0		0		
High (H)	An antimicrobial stewardship plan is in place, and is complied with (see OIE example in Resource 10).	0		0		
	The plan is reviewed on an annual basis, and is linked to existing regional or national antimicrobial stewardship schemes.	0		\sim		

^(H)N KPI Broiler 15

Ammonia (NH3),	dust, humidity - Links to P4	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware that high ammonia levels can be harmful to the birds and to humans working in the farm.	0		0		
Medium-Low (ML)	Ammonia is tested at the end of the flock cycle, or if levels appear to be rising. Ammonia is below <25ppm when measured at bird head height.	0		0		
	The cause of high ammonia is rectified.	0				
	If dust levels are recognised to be causing negative impacts on bird health and welfare, steps are	0		-		
Medium-High (MH)	taken to reduce dust (from feed, litter and ventilation).			0		
	House humidity at bird level is measured and recorded.	0				
High (H)	The target for NH3 levels is <10ppm.	0		0		

KPI Broile

	Carbon dioxide (C	O2), Carbon monoxide (CO) - Links to P4	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	Basic (B)	The farmer is aware of the animal, and human, health and safety concerns regarding carbon monoxide (highly toxic to humans and animals).	0		0		
	Medium-Low (ML)	The farmer is aware of the concerns regarding high levels of carbon dioxide (which is an indicator of poor ventilation).	0		0		
	Medium-High (MH)	A periodic CO2 testing programme is in place throughout the flock cycle. The target for CO2 levels is <3,000ppm	0		0		
High (H)	A testing programme is in place for carbon monoxide produced by heating equipment, if used.	0		0			
		CO <50ppm in the first 3 days of the flock (when heating is usually at a maximum).	0				



Litter, bedding - I	Links to P4	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Litter provision is at the legal base requirement.	0		0		
Dasic (D)	Where no legal definition exists, some new litter material is provided for each flock cycle.	0		0		
	The floor of poultry houses is completely covered in litter to a minimum average depth of	0				
	50mm/2 inches.	\sim				
Medium-Low (ML)	Litter is maintained to be dry and friable (crumbly or easily broken up) across the majority of	0		0		
. ,	the poultry house.			\sim		
	Birds have continuous access to litter (unless, for chicks ≤ 7 days old in sheds where chick paper	0				
	is used).	\sim				
Medium-High (MH)	Litter is maintained and poor litter is replaced when required.	0		0		
Medium-Ingir (MIII)	where litter beetles are present, they are controlled.	0		<u> </u>		
	Litter is of quality sufficient to encourage dust bathing and foraging.	0				
High (H)	Litter quality is measured and recorded using a recognised litter scoring scale.	0		0		
-	When litter score falls below targets set by the company, steps are taken to improve the litter	0		0		
	quality during the flock cycle.					

🖅 🐂 KPI Broiler 18

Euthanasia - Link	s to P5, P7	Observed?	Comment on observation	Achieved level?	Progress Evidence/con	nment
	Animals are euthanased by adopting local-legally approved methods.	0				
Basic (B)	Sick or distressed animals are isolated and treated promptly, or euthanased humanely without	0		0		
	delay, if treatment is not feasible or recovery is unlikely. People responsible for euthanasia have received appropriate training.	0		-		
	Any equipment used for euthanasia is maintained in good working order, and records	0		-		
Medium-Low (ML)	documenting maintenance are kept.	0		0		
Medium-High (MH)	A written policy for euthanasia is produced by working with a veterinarian, and is based on recognised best international practice.	0		0		
				<u> </u>		
	Gas killing used in emergency or disease control situations has approval from the appropriate	0		0		
	local government agency.	~				



KPI Broil	ler 19					
Catching - Links t	o P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	Catching is carried out by trained people.	0				
Basic (B)	Animals which are sick, weak, injured, or known to be diseased, are not transported. They are humanely euthanased on-site.	0		0		
	Picking up, suspending or carrying birds by a leg, wing or tail is prohibited. No more than 3 birds are held in each hand during catching.	0				
	Catching is scheduled to minimise the time to slaughter, as well as to minimise climatic stress during catching, transport and holding.	0				
Medium-Low (ML)	Water withdrawal does not exceed 1 hour prior to the start of catch for that house.	0		0		
	Maximum feed withdrawal time is 12 hours (feeders are empty/raised, to the scheduled time of slaughter).	0		0		
	Lairages protect the birds from adverse weather and high temperatures.	0				
	Animals are handled using low-stress methods, equipment, and facilities that calm animal movement.	0				
Medium-High (MH)	If mechanical catchers are used, they are designed, operated and maintained to minimise injury, stress and fear to the birds.	0		0		
	Birds are slaughtered as close as possible to the farm of origin, and as soon as possible after arrival.	0				
High (H)	Birds are handled singly, in an upright position, held by both legs and with the torso supported.	0		0		

Animal records -	Links to P10	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Records are kept of:	0				
	Number of birds placed, and date placed	0		0		
	Live weight (if birds are weighed)	0				
	Records are kept of:	0				
Medium-Low (ML)	Daily mortality	0		0		
	House temperature (max/min, measured at bird height)	0				
Medium-High (MH)	Records are kept of daily culls (with reason, if known)	0		0		
High (H)	Records are kept of staff observation/checking times within the poultry house.	0		0		

KWI Broiler 2

Lameness - Links	to P2, P4, P5, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware of lameness as a welfare issue.	0		0		
Medium-Low (ML)	Procedures are in place to ensure broilers with leg issues (as scored using methods in Resource 1) are humanely culled to prevent suffering.	0		0		
	All culls due to leg problems are recorded on the daily mortality and cull record.	0				
Medium-High (MH)	Scoring scales (gait scoring) for walking ability are used to assess the leg health of the flock (see Resource 1).	\mathbf{O}		0		
	The incidence of lameness is reduced by use of breeds with high robustness and leg health (such as slower-growing strains or breeds), and by providing appropriate nutrition.	0		0		
High (H)	To monitor bird leg health and the birds' ability to access feed and water, gait scoring is performed once per flock, no earlier than seven days before slaughter.	0		0		
	Lameness in any category above score >3 is <1% of flock.	0		0		
	The company sets high targets, measures performance and reports on lameness outcomes.	0				



KWI Broiler 3								
Foot pad lesions (pododermatitis) - Links to P2, P4, P5, P7, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment		
Basic (B)	The farmer is aware of foot pad marks/pododermatitis as a welfare issue.	0		0				
Medium-Low (ML)	The incidence of pododermatitis is evaluated at the slaughter plant using pictures and descriptions such as in Resource 1.	0		0				
	If pododermatitis is detected at the slaughter plant, the farmer is informed.	0						
Medium-High (MH)	If the incidence of pododermatitis is higher than established targets, measures are taken to improve litter quality on-farm, and to reduce incidence in subsequent flocks.	0		0				
	Foot pad lesions in any category above 0 is <10% of flock.	0						
High (H)	The company sets high targets, measures performance and reports on foot pad lesion outcomes.	0		0				

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Hock lesions (hoc	k burn, hock marks) - Links to P2, P4, P5, P7, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware of hock burn and hock marks as a welfare issue.	0	(C		
	The incidence of hock lesions is evaluated at the slaughter plant using pictures and descriptions	0		_		
Medium-Low (ML)	such as in Resource 1.	0	(D.		
	If hock marks are detected at the slaughter plant, the farmer is informed.	0				
Modium High (MH)	If the incidence of hock lesions is higher than established targets, measures are taken to improve litter quality on-farm, and to reduce incidence in subsequent flocks.	0	(`		
Medium-mgn (MIII)		\sim				
	Hock lesions in any category is <10% of flock.	0		_		
High (H)	The company sets high targets, measures performance and reports on hock lesion outcomes.	0	C)		

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Breast blisters, an	nmonia burns - Links to P2, P4, P5, P7, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
,	The farmer is aware of breast blisters as a welfare issue (breast blisters are much less common than feet or hock lesions, but 'outbreaks' can occur).			0	11051000	
Medium-Low (ML)	Breast blisters are assessed at the processing plant. If breast blisters are detected at the slaughter plant, the farmer is informed.	0		0		
Medium-High (MH)	If the incidence of breast blisters is higher than established targets, measures are taken to improve litter quality and to reduce incidence in subsequent flocks.	0		0		
High (H)	Breast blister is <0.5% of flock.	0		0		

at the

Ascites - Links to	P2, P4, P5, P7, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware of ascites as a welfare issue.	0		0		
Medium-Low (ML)	Ascites and respiratory disease are assessed as a percentage at the processing plant.	0		0		
Medium-High (MH)	If the incidence of ascites / respiratory disease is higher than established targets, measures are taken to improve house conditions and disease status, and to reduce the incidence in subsequent flocks.	0		0		
	The incidence of ascites is reduced by genetic selection and by providing appropriate nutrition.	0				
High (H)	The company sets high targets, measures performance and reports on ascites and respiratory disease outcomes.	0		0		



On-farm culls - Lin	ıks to P4, P5, P7, P10, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	Only mortality (not cull) data collected. Mortality is defined as 'found dead', whereas cull is defined as 'actively, humanely killed for health or welfare reason'.	0		0		
	Daily cull number is collected and recorded.	0		0		
Medium-High (MH)	Cull data is analysed, and the cause of adverse trends is investigated and acted upon. Suggested thresholds for investigation are total cull $> 1.5\%$.	0		0		
	The company has a written plan in place to respond to sudden increases in culling.	0				
High (H)	The plan includes veterinary consultation and actions to address the problem where necessary.	0		0		

KWI Broile

On-farm mortality	y - Links to P2, P10, P11	Observed?	Comment on observation Achieved level?	Progress	Evidence/comment
Basic (B)	Daily mortality data is recorded.	0	0		
	As previous requirement.	0	0		
Modium High (MH)	Mortality data is analysed, and the cause of adverse trends is investigated, and acted upon. The suggested threshold for investigation is total mortality $>5\%$.	0	0		
Medium-High (MII)	suggested threshold for investigation is total mortality >5%.	\sim	<u> </u>		
	A procedure is in place to investigate unexplained mortality of >2 birds/1,000/day. If				
High (H)	morbidity and mortality levels increase, and other signs indicate the flock has been affected by	0	0		
	disease, a diagnostic investigation is conducted to identify the causative agent.				

KWI Broiler 9

Transport - Links	s to P10, P11	Observed?	Comment on observation	Achieved level?	Progress 1	Evidence/comment
Basic (B)	Dead on arrival (DOA) at slaughterhouse is calculated and recorded. To protect from high temperatures during transport, birds are loaded and transported in the cooler parts of the day, or during the night, and are provided with shade and good ventilation in the lairage.	0		0		
Medium-Low (ML)	DOA at slaughterhouse < 0.5% All birds are slaughtered within 8 hours of loading the first bird into a module. The time from when birds leave the farm to arriving at the processing plant is no longer than 4 hours.	0000		0		
Medium-High (MH)	DOA at slaughterhouse <0.25% Journey times are kept to a minimum.	8		0		
High (H)	The company has a written plan in place to respond to negative changes in DOA over any 24hr period. The company sets high targets, measures performance and reports on outcomes.	0		•		

KWI Broiler 10								
Slaughter: wing d	amage - Links to P10, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment		
Basic (B)	The slaughterhouse is aware of wing damage as a welfare issue, and communicates wing damage to the farmer when it occurs.	0		0				
Medium-Low (ML)	Wing damage <0.5%	0		0				
Medium-High (MH)	Wing damage <0.25%	0		0				
	The company has a written plan in place to respond to negative changes in wing damage over any 24hr period.	0		0				
	The company sets high targets, measures performance and reports on outcomes.	0						



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Slaughter: leg dar	nage/bruising - Links to P10, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The slaughterhouse is aware of leg damage, broken or dislocated legs as a welfare issue, and communicates leg damage to the farmer when it occurs (where the slaughter house and the farm are in communication).	0		0		
Medium-Low (ML)	Leg damage/broken/dislocated legs <0.5%	0		0		
Medium-High (MH)	Leg damage/broken/dislocated legs <0.25%	0		0		
High (H)	The company has a written plan in place to respond to negative changes in leg damage over any 24hr period.	0		0		
	The company sets high targets, measures performance and reports on outcomes.	0		-		

KWI Bro	iler 12				
Slaughter - Links	to P11	Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
	A recognised method to induce immediate insensibility is adopted at slaughter (see Introduction Section 3.5 regarding stunning).	0			
	Animals are slaughtered adopting local legally-approved methods.	0			
Basic (B)	The slaughterhouse is aware of stunning as a welfare issue.	0		0	
Dusie (D)	Stunning and killing is conducted by an appropriately trained and competent person.	0		Ŭ	
	Any equipment used for euthanasia is maintained in good working order, and is appropriate for the designated use, and records documenting maintenance are kept.	0			
	Electro-immobilisation is not used.	0			
	Staff are trained in, and able to explain: how to check an animal has been properly stunned; check for signs of consciousness and unconsciousness; and know what to do if an animal hasn't been properly stunned.	0		0	
Medium-Low (ML)	At least 1 welfare contact person or co-ordinator, sometimes known as an Animal Welfare Officer) is appointed to have specific knowledge, training and responsibility for welfare during slaughter.	0			
	Maximum stun-to-start of bleed intervals of 15 seconds are adopted.	0			
Madium High (MH)	Percentage of birds not effectively rendered immediately insensible is recorded and actions taken to reduce the number to a minimum.	0		0	
Medium-High (MH)	Company is moving away from use of electrical waterbath stunning, and towards gas or LAPS systems (beneficial for both welfare and quality reasons).	0		Ŭ	
High (H)	Internationally-recognised best practice methods for slaughter are adopted (Better Chicken Commitment, Resource 10).	0		0	
	Non-electrical stunning systems are used.	0			



Notes: Broiler chickens

AssureWel: The AssureWel Approach to Improving Farm Animal Welfare: The Development and Use of Welfare Outcome Assessments in Farm Assurance Better Chicken Commitment: Welfare Commitments: European Chicken Commitment KFC: Better Chicken Commitment Better Chicken Commitment: Commitments Farmers Weekly: What the better chicken commitment means for farmers BBFAW Investor Briefing (August 2015): How are Investors Using the Business Benchmark on Farm Animal Welfare? BBAFW Investor Briefing (November 2017): How Companies Are Using the Business Benchmark on Farm Animal Welfare BBFAW: The Business Benchmark on Farm Animal Welfare Report 2019 British Veterinary Association: Farm Assurance Schemes Infographic Canadian National Farm Animal Care Council (2016): Codes of Practice, Chickens, Turkeys and Breeders Compassion in World Farming, Strategic Plan 2013–2017, For Kinder, Fairer Farming Worldwide COUNCIL DIRECTIVE (EC) 1099/2009 on the protection of animals at the time of killing COUNCIL DIRECTIVE (EC) 1/2005 of 22 December 2004 on the protection of animals during transport and related operations and amending Directives EEC 64/432/EEC and 93/119/EC and Regulation (EC) 1255/97 COUNCIL DIRECTIVE 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes COUNCIL DIRECTIVE 2007/43/EC of 28 June 2007 laying down minimum rules for the protection of chickens kept for meat production COUNCIL DIRECTIVE 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes CSIRO Publishing (2001): Model Code of Practice for the Welfare of Animals: Livestock at Slaughtering Establishments DEFRA (2018): Code of practice for the welfare of meat chickens and meat breeding chickens European Bank for Reconstruction and Development: Sub-sectoral Environmental and Social Guideline: Poultry Farming FAO: Water Quality for Livestock and Poultry FAWC advice on animal sentience (10 June 2019) FAWC: Evidence and the welfare of farmed animals - part 2: evidence based decision making (19 July 2018) FAWC advice on space and headroom allowances for transport of farm animals (17 September 2013) FAWC report on farm animal welfare: health and disease (29 November 2012) FAWC opinion on contingency planning for farm animal welfare in disasters and emergencies (15 March 2012) FAWC advice on sustainable intensification of livestock agriculture (3 February 2012) FAWC report on education about farm animal welfare (15 December 2011) FAWC report on economics and farm animal welfare (7 December 2011) FAWC opinion on the welfare of animals killed on-farm (29 March 2018) FAWC opinion on CCTV in slaughterhouses (3 February 2015) Gov UK: The Welfare of Farmed Animals (England) Regulations 2007 Gov UK: Animal Welfare Act 2006 IFC (2014): Good Practice Note: Improving Animal Welfare in Livestock Operations (2014) Edgar, J.L.; Mullan, S.M.; Pritchard, J.C.; McFarlane, U.J.C.; and Main, D.C.J.: Towards a 'Good Life' for Farm Animals: Development of a Resource Tier Framework to Achieve Positive Welfare for Laying Hens. Kestin, S.C.; Knowles, T.G., Tinch, A.E., and Gregory, N.G. (1992): Prevalence of leg weakness in broiler chickens and its relationship with genotype OIE: Terrestrial Animal Health Code (2019) OIE Terrestrial Animal Health Code (2019): Chapter 7.5, Slaughter of Animals OIE: The OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials (2016) Red Tractor Chicken Standards: Broiler and Poussin Standards Version 4.2 (updated 2019) Red Tractor Chicken Standards: Indoor Enhanced Welfare Version 1 (2020) Red Tractor Chicken Standards: Hatchery Version 4.1 (updated 2019) Red Tractor Chicken Standards: Free Range Standards Version 4.2 (Updated 2019) RSPCA (2017): Welfare Standards for Hatcheries (Chicks, Poults and Ducklings) RSPCA (2017): Broiler Breed Welfare Assessment Protocol Share Action: What we do Shields, S.J. & Raj, A.B.M. (2010): A critical review of electrical water-bath stun systems for poultry slaughter and recent developments in alternative technologies Vet Sustain (2019): The Veterinary Sustainability Goals Welfare Quality Network: Assessment Protocols

WHO: Water Safety and Drinking Water Quality Guidelines

World Bank Group: General Environmental, Health and Safety (EHS) Guidelines, (April 2007)

World Vet Antimicrobial Stewardship: McDonald's Corporation – Vision for Antimicrobial Stewardship in Food Animals (March 2015)

