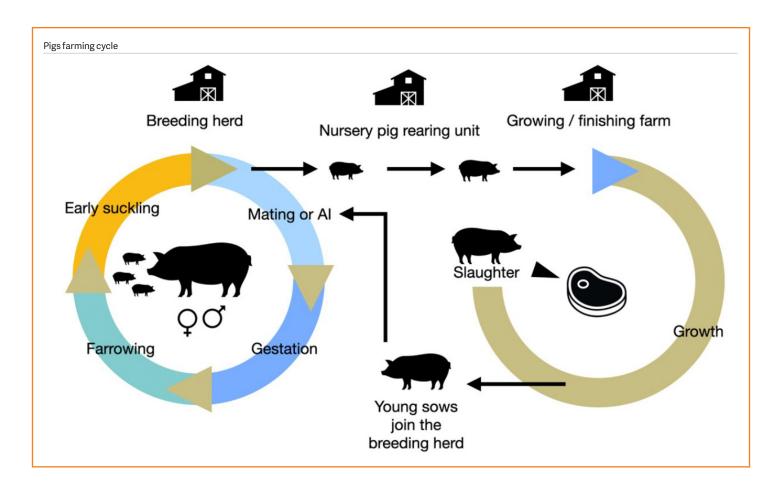
5.7 Sows Toolkit

Introduction

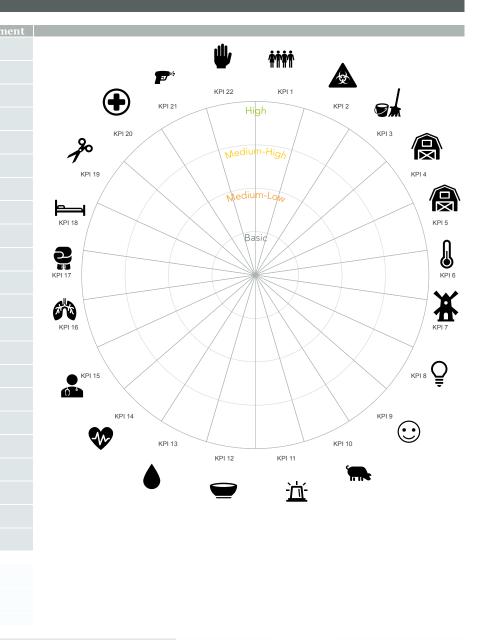
Pigs were domesticated approximately 10,000 years ago in the Near East region of Western Asia, Turkey and Egypt. Early domesticated pigs lived a relatively feral existence, until, in the 18th century, different breeds were developed with distinctive attributes including increased productivity, larger body size, and multiple litters of piglets a year. In areas where there is a tradition of consuming pork and raising pigs, particularly in East and Southeast Asia, pig production has expanded in the last 50 years, as a response to increasing demand for animal-based protein. Between 1960 and 2010, global pig stocks increased 2.5 times and average carcass weights almost doubled. This has resulted in a quadrupling of pig meat production over the same period. Pigs are raised in a variety of settings, from small family units of scavenging pigs, through small- to medium-sized commercial, semi-intensive units, to very large intensive units. There are currently about 700 million pigs worldwide (see Resource 11). China is the world's single biggest producer with 300 million pigs, with the US, Brazil, the European Union, Korea, Mexico and Japan also significant pig producers.

Key welfare issues in pigs include: many farmed environments do not provide the pigs opportunities to forage, dig, or nest build; farrowing crates and gestation stalls are extremely restrictive allowing only standing and lying; wallowing in mud or water is often not possible in intensive farming systems; fighting between pigs can occur in intensively-farmed pigs; lameness; skin lesions; and CO₂ stunning is highly aversive (unpleasant) for pigs.

This Toolkit is for sows. Please refer to the separate Toolkit for growing pigs.







Sow pigs	V1	
	Ac	hiev
KPI 1 : People, training - Links to P1, P2, P11	0	
KPI 2: Biosecurity - Links to P5, P8, P11	0	
KPI 3: Cleaning and disinfection - Links to P5, P8, P11	0	
KPI 4: Farm environment: physical - Links to P2, P4, P5, P6, P9	0	
KPI 5: Farm environment: physical (farrowing) - Links to P2, P4, P5, P6, P9	0	
KPI 6: Farm environment: temperature - Links to P4, P9	0	
KPI 7: Farm environment: ventilation - Links to P4, P9	0	
KPI 8: Farm environment: light - Links to P6	0	
KPI 9: Farm environment: enrichments - Links to P6	0	
KPI 10: Farm environment: stocking density - Links to P1, P4, P6	0	
KPI 11: Farm environment: emergency - Links to P7, P10, P11	0	
KPI 12: Feed - Links to P3	0	
KPI 13: Water - Links to P3	0	
KPI 14: Health, and health planning - Links to P8	0	
KPI 15: Medicines - Links to P2, P8, P11	0	
KPI 16: Ammonia (NH3), dust, humidity - Links to P4, P5, P9	0	
KPI 17: Mixing unfamiliar animals - Links to	0	
KPI 18: Resting surface, bedding - Links to P4	0	
KPI 19: Mutilations - Links to P5, P7	0	
KPI 20: Hospital pen - Links to P5, P8	0	
KPI 21: Euthanasia - Links to P5, P7	0	

KPI 22: Handling - Links to P 🔘

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

Overall KPI achievement





KPI

KWI	Achievement
KWI 1: Animal records - Links to P10 C	
KWI 2: Lameness - Links to P1, P4, P5, P11 C	1 0 60013 6001
KWI 3: Leg swellings - Links to P1, P4, P5, P11	
KWI 4: Enrichment use - Links to P1, P5, P6, P11	
KWI 5: Tail docking, tail lesions - Links to P1, P5, P6, P11	
KWI 6: Tooth reduction, face and udder lesions - Links to P1, P5, P6, P11	
KWI 7: Body lesions - Links to P1, P5, P6, P11	
KWI 8: Shoulder lesions - Links to P1, P5, P6, P11	u O Basic
KWI 9: Vulva lesions - Links to P1, P5, P6, P11	
KWI 10: On-farm culls - Links to P5, P10, P11	
KWI 11: On-farm mortality - Links to P5, P10, P11	
KWI 12: Fitness to transport/ mortality - Links to P2, P4, P5, P7, P11	
KWI 13: Slaughter - Links to P11, P12	20
Basic level not achieved	
Basic (B) Medium-Low (ML)	
Medium-High (MH)	A) KWI 7
High (H)	
Overall KWI achievement	كمتنا
Overall achievement	

Overall achievement



People, training -	Links to P1, P2, P11	Observed?	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 in animal care and animal welfare.	0		0		

KPI Sow pigs

Biosecurity - Linl	ks to P5, P8, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Indoor environments have surfaces that allow for effective cleaning.	0		0		
	A biosecurity programme or plan (Resource 7) is in place.	0				
	Access to houses is limited and visitors adhere to strict biosecurity requirements specific to the	0		~		
Medium-Low (ML)	farm being visited.	~		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.	0				
	If vehicles are brought on-site, they are sprayed (wheels as a minimum) at the gateway.	0				
Medium-High (MH)	The biosecurity program includes a risk assessment (which may be based on hazard analysis and	~		0		
0 ()	critical control point (HACCP) training) of the primary pathogens and parasites that are likely	0		Ŭ,		
	to pose a risk to the animals.	0				
	Where high health status pigs are housed:	0				
	Hand washing and sanitisation is available on entry to each house.	0				
High (H)	All staff and visitors shower on-site and are provided with a full complement of protective	0		0		
	clothing.	<u> </u>		~		
	Feed silos are located at the perimeter of the site so that feed vehicles do not need to enter the	0				
	site.	~				



KPI Sow	pigs 3					
Cleaning and disi	nfection - Links to P5, P8, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Vermin are controlled through appropriate and effective measures, only approved pest control substances or chemicals permitted by law are used.	0		0		
Dasic (D)	The construction of accommodation, pens and equipment can be thoroughly cleaned and disinfected.	0		0		
	Written cleaning and disinfection protocols are implemented.	0				
Medium-Low (ML)	A list of permitted disinfectants and detergents used on the farm, and their safety data sheets, is available.	0		0		
	Internal house equipment, water tanks, and silos are cleaned at house cleaning.	0				
	The areas around the buildings are kept clear of debris and non-essential equipment.	0				
Medium-High (MH)	Vegetation is kept short and is well managed so as not to offer shelter to wild birds or rodents.	0		0		
High (H)	A microbiological testing programme for house hygiene is in place for a targeted sample of company farms each year, and there is a policy for feeding results back to the farm and the cleaning teams.	0		0		
	The most humane effective baiting method is adopted, and pest control baits are only accessible to the targeted species.	0				

KPI Sow pigs 4 Farm environment: physical - Links to P2, P4, P5, P6, P9 **Observed**? Comment on observation Achieved level? Progress Evidence/comment Floors, surfaces, fittings, equipment and other facilities in and around the shed are designed, Ο constructed, operated and maintained to minimise the risk of injury or disease, and are free from rough edges and sharp protrusions. Ο Basic (B) The house environment provides opportunity for comfortable resting and normal movement, 0 and expression of a range of normal species behaviours. 0 Gestation stalls are not used. The house environment provides the opportunity for important behaviours appropriate to the 0 species. Medium-Low (ML) 0 Ο Animals are protected from predators, vermin, and excessive noise. Housing is constructed to minimise fire risk, and firefighting equipment and smoke detectors 0 are installed, with capacity to escape the building in an emergency. Functional biological areas (resting, investigatory, feeding, drinking, elimination) are promoted Ο Medium-High (MH) through environmental design. Automatic systems have not replaced human 'care and observation' until their safe and reliable 0 use in maintaining animal welfare has been demonstrated. Ο High (H) Suitable outdoor woodland or pasture-based range is provided, with foraging opportunities 0 and shelter from extreme conditions.

KPI Sow	pigs 5					
Farm environmer	it: physical (farrowing) - Links to P2, P4, P5, P6, P9	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Where confinement farrowing systems are used, they are limited to a maximum period extending from 1 week prior to farrowing to weaning.	0		0		
Medium-Low (ML)	Nesting material is provided from at least 2 days prior to farrowing.	0		0		
Medium-High (MH)	Temporary confinement systems are employed to reduce the period of extreme confinement to no more than 10 days.	0		0		
	Free farrowing systems are employed providing at least 10m2 per sow with piglets.	0		0		

IJ

Farm environmen	t: temperature - Links to P4, P9	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Heating and cooling systems are capable of producing enough heat or cooling to ensure that pigs/piglets do not get too hot or too cold.	0		0		
Medium-Low (ML)	Automatic equipment for temperature control is fitted with alarms that warn immediately of equipment failure.	0		0		
	Heating and cooling systems essential for pig health and welfare are checked daily for proper operation.	0		Ŭ.		
Medium-High (MH)	Records of daily maximum and minimum shed temperatures at bird height are kept on file and available for review.	0		0		
0 1 1	House temperature are controlled to maintain the temperature range that has been recommended by the breeder or veterinarian.	0		0		
High (H)	Houses are equipped with means of controlling relative humidity. A choice of temperature/environment (for example a wallow) is provided to enable animals to maintain individual thermal comfort.	• •		•		

KPI Sow pigs 7

Farm environmen	t: ventilation - Links to P4, P9	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The equipment for ventilation supports pigs in both extreme hot and cold weather, manages air exchange, air quality and dust, and ensures pig comfort.	0		0		
	Automatic equipment for ventilation is fitted with alarms that warn immediately of equipment failure.	0				
Medium-Low (ML)	Automatic equipment for ventilation has a back-up power supply that is tested weekly.	0		0		
	Ventilation systems essential for pig health and welfare are checked daily for proper operation.	0				
Medium-High (MH)	As previous requirement	0		0		
High (H)	As previous requirement	0		0		

KPI Sow pigs 8

Q

Farm environmen	ıt: 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, 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			
Medium-Low (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	
	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		0	
Medium-High (MH)	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)	Natural light is provided throughout the year.	0		0	



(\cdot) KPI Sow pigs 9 Comment on observation Achieved level? Progress Evidence/comment Farm environment: enrichments - Links to P6 **Observed**? The producer is aware that pigs have a behavioural need to root or investigate manipulable 0 materials. 0 Basic (B) Manipulable material or object is provided. Pigs prefer enrichments that are destructible, Ο rootable, chewable, edible and clean. Manipulable material is provided in sufficient quantity for all pigs to be able to access it Medium-Low (ML) 0 Ο simultaneously. Clean manipulable material, with destructible, rootable, chewable, edible properties is 0 0 Medium-High (MH) provided in sufficient quantity for all pigs to be able to access it simultaneously. A choice of manipulable materials to encourage rooting and investigatory behaviour is provided 0 High (H) to all pigs.

KPI Sow pigs 10

Farm environmen	t: stocking density - Links to P1, 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 pigs have sufficient space to walk, turn around, rest undisturbed, and access feed and water	0		0		
	without undue competition.	0				
Medium-Low (ML)	Stocking density is not above the requirements in Resource 10a.	0		0		
Medium-High (MH)	Stocking density is not above the requirements in Resource 10b.	0		0		
		0		\sim		
High (H)	Outside access and lying areas are required with total stocking densities as in Resource 10c.	0		0		

KPI Sow pigs 11

Farm environmer	it: 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.	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		
Medium-Low (ML)	If generators are used for back-up power, they are tested under conditions of load at least 4 times a year.	0		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 have been developed in consultation with a specialist veterinarian and are updated annually, to cover circumstances such as animals infected with a potentially zoonotic or notifiable disease.	0		0		



/	KP	I S	OW	7 p	1gs	12

Feed - Links to P3		Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The feed is of 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 pig husbandry practices and local regulatory requirements, and must provide adequate access for all animals.	0		0		
	Feed and watering systems are designed to reduce aggression and competition.	0		~		
	All feeding and drinking systems are checked for proper operation daily.	0		0		
	In the event of a supply failure, the farms can provide feed within 24 hours.	0		~		
Medium-High (MH)	Additional edible fibre is provided to sows and boars to prevent chronic hunger.	0		0		
	Food type and presentation provides interest and occupation for animals (for example, scatterfed, or from a foraging device).	0		0		

Water - Links to I		Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	Water is of a quantity and quality to maintain normal health, and to prevent dehydration.	0			Ŭ	
Basic (B)	Drinkers meet both manufacturers' recommendations and local regulatory requirements, and must provide adequate access for all birds.	0		0		
	Drinking systems essential for bird health and welfare are checked for proper operation daily.	0				
Medium-Low (ML)	Pigs have access to clean potable water at all times.	0		0		
Medium-Low (ML)	In the event of a power failure, the farms can provide water within 12 hours.	0		0		
Medium-High (MH)	Water should be tested annually to ensure potability to FAO standards (see FAO, Resource 11).	0		0		
High (H)	The emergency supply of water has sufficient capacity to supply the site for 24 hours at maximum demand.	0		0		

KPI Sow pigs 14

Health, and healt	h planning - Links to P8	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	A procedure is in place to deal with an outbreak of important transmissible disease, including geographically appropriate OIE-listed diseases.	0		0		
Modium I ow (MI)	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		
Medium-High (MH)	The farming system does not depend on prolonged or routine use of pharmaceuticals. A H&W plan is in place (Resource 6).	0		0		
High (H)	The H&W plan is reviewed and updated annually, and authorised by a specialist veterinarian.	0		0		



Medicines - Links		Observed?	Comment on observation	A abjorred level2	Progress Evidence/comment
Medicines - Links		Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
Basic (B)	Any drugs or other agents used to treat animals shall be compliant with all local guidelines and applicable local legislation.	0		0	
Dasic (D)	Hormones and antibiotics are not used as growth promoters.	0		0	
	Preventive (prophylactic) use of antimicrobials is not permitted.	0			
	The company has an antimicrobial reduction programme (See World Vet in Resource 11).	0			
	Vaccines and medicines are stored securely and in the recommended conditions (label instructions).	0			
Medium-Low (ML)	Medicine use is recorded (Resource 5).	0		0	
	The company has access to a veterinarian experienced in pig care.	0			
	Any antimicrobial classified as being of 'high' or 'medium' importance for human medicine is not permitted for use in pigs, unless under veterinary advice.	0			
Medium-High (MH)	Persons using medicines have relevant experience and training.	0		0	
Ilich (II)	An antimicrobial stewardship plan is in place, and is complied with (see OIE 2016 in Resource 11).	0		_	
High (H)	The plan is reviewed annually, and is linked to existing regional or national antimicrobial stewardship schemes.	0		<u> </u>	

Ammonia (NH3),	dust, humidity - Links to P4, P5, P9	Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
	Ammonia is measured if the levels appear to be noxious to humans.	0		0	
	Ammonia is tested at the end of the herd cycle, or if levels appear to be rising. Ammonia is <20ppm at all times.	0		0	
	The cause of high ammonia is rectified.	0			
	If dust levels are recognised to be causing negative impacts on health and welfare, steps are taken to reduce dust (from feed, bedding and ventilation).	0		0	
	House humidity at pig level is measured and recorded.	0			
High (H)	The target for NH3 levels is <10ppm.	0		0	

KPI Sow pigs

Mixing unfamilia	r animals - Links to	Observed?	Comment on observation Achi	ieved level? Prog	ress Evidence/comment
Basic (B)	The farmer is aware of the social and physical stress of mixing unfamiliar pigs.	0	0		
Medium-Low (ML)	Where mixing of unfamiliar pigs occurs, methods are employed to reduce social stress and physical injuries, such as providing visual barriers.	0	0		
Medium-High (MH)	Mixing events are minimised and monitoring of physical lesions is employed to review management practices designed to reduce social stress and physical injuries.	0	0		
High (H)	Mixing unfamiliar pigs is avoided where possible. Where unavoidable, mixing occurs gradually in environments designed to prevent stress and lesions.	0	0		



Resting surface, b	edding - Links to P4	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	A clean, dry, comfortable lying area is provided for all pigs to rest simultaneously.	0		0		
Medium-Low (ML)	Where bedding is not provided, the surface available should promote clean pigs and prevent leg injuries (swollen bursae/ capped hocks) and lameness.	0		0		
Medium-High (MH)	Bedding is provided in the lying area to a depth of at least 5cm to promote physical comfort.	0		0		
High (H)	The bedded lying area is of sufficient size to allow all pigs to lie on their side simultaneously.	0		0		

KPI Sow pigs 19

Mutilations - Lin	ks to P5, P7	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Tail docking, castration and/or tooth reduction are performed by trained, competent stockpeople.	0		0		
Madium Laur(ML)	Tail docking and tooth reduction are not conducted routinely, but only where management efforts have proved ineffective at reducing tail biting and piglet competition to a minimum.	0		0		
	Management efforts should continue to aim to reduce the need for tail docking. Monitoring of tail lesions, piglet facial lesions and sow udder lesions is required.	0		0		
	Where tail docking is performed, anaesthesia and analgesia are provided. Tooth reduction is performed by grinding, not clipping. Castration is not carried out. Immunocastration may be used.	000		0		
High (H)	Tail docking and/or tooth reduction are not carried out and there are very low levels of tail lesions or face/udder lesions.	0		0		

KPI Sow pigs 20

Hospital pen - Lir	ks to P5, P8	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	A hospital pen is available for sick and injured pigs to receive specialist care and treatment.	0				
Basic (B)	The hospital pen is monitored at least twice daily to ensure appropriate treatment and	0		0		
	euthanasia prevents suffering.	0				
Medium-Low (ML)	Hospital pens have bedding and easy access to food and water.	0		0		
Medium-High (MH)	As previous requirement.	0		0		
High (H)	As previous requirement.	0		0		

F KPI Sow pigs 2:

Euthanasia - Link	s to P5, P7	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Animals are euthanased by adopting local legally-approved methods.	0				
	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.	č		<u> </u>		
	People responsible for euthanasia have received appropriate training.	0				
	Any equipment used for euthanasia is maintained in good working order, and records	0		0		
	documenting maintenance are kept.	\sim		\sim		
Modium High (MH)	A written policy for euthanasia is produced by working with a veterinarian, and is based on recognised best international practice.	0		0		
Medium-Ingn (MIII)	recognised best international practice.	0		0		
High (H)	As previous requirement	0		0		



<u>اللار</u>

Handling - Links	to P	Observed?	Comment on observation	Achieved level?	Progress 1	Evidence/comment
	Handling is carried out by trained people.	0				
	Animals which are sick, weak, injured, or known to be diseased, are not transported. They are humanely euthanased on-site.	0		0		
Medium-Low (ML)	Pre-slaughter handling and transport is scheduled to minimise the time to slaughter as well as climatic stress during handling, transport and holding.	0		0		
	Lairages protect the pigs from adverse weather, high temperatures and social stress.	0				
Modium High (MII)	Pigs are handled using low-stress methods, equipment, and facilities that calm animal movement.	0		0		
Medium-High (MH)	Pigs are slaughtered as close as possible to the farm of origin, and as soon as possible after arrival.	0		0		
High (H)	As previous requirement	0		0		

KWI Sow pigs 1

Animal records -	Links to P10	Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
	Regular records are kept of:	0			
	Number of pigs onsite:	0			
Basic (B)	Sows/gilts	0		0	
Dasic (D)	Boars	0		0	
	Piglets (unweaned)	0			
	Weaned growing pigs	0			
Medium-Low (ML)	Records are kept of mortality and piglets born/stillborn.	0		0	
Medium-High (MH)	Records are kept of culls (with reason, if known) and pigs in a hospital pen (with reason, if	0		0	
Medium-righ (Mr)	known).	0		0	
High (H)	Records are kept of staff observations.	0		0	

KWI Sow pigs 2

Å

Lameness - Links	s to P1, 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 lame pigs (as scored using methods in Resource 1) are placed in a hospital pen, treated, or humanely culled as appropriate to prevent suffering.	0		0		
	All culls due to lameness are recorded on the daily mortality and cull record.	0				
Medium-High (MH)	If the prevalence of lameness in sows or growing pigs exceeds established targets in the H&W plan, measures are taken to reduce prevalence.	0		0		
High (H)	Proactive monitoring for lameness of a representative sample of >100 pigs is performed at least twice per year.	0		0		
Ingii (II)	Lameness is <1% of herd	0		\circ		
	The company sets high targets, measures performance and reports on lameness outcomes.	0				



Leg swellings - Li	1ks to P1, P4, P5, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
	The farmer is aware of leg swellings as a welfare issue.	0		0		
Medium-Low (ML)	Measures are taken to reduce the risk of leg swellings (such as modifying the lying area flooring or providing bedding).	\sim		0		
Medium-High (MH)	If the prevalence of leg swellings is higher than established targets in the H&W plan, measures are taken to reduce prevalence.	0		0		
	Proactive monitoring for leg swellings of a representative sample of >100 pigs is performed at least twice per year.	0				
High (H)	Leg swellings are present in <5% of herd	0		0		
	The company sets high targets, measures performance and reports on leg swelling outcomes.	0				

KWI Sow pigs 4

Friehmont uso	Links to P1, P5, P6, P11	Observed?	Comment on observation	A abjourned lowel?	Progress Evidence/comment
Enrichment use -	Links to F1, F5, F0, F11	Observeu:	Comment on observation	Achieveu level?	Progress Evidence/comment
Basic (B)	The farmer is aware of the behavioural need for pigs to root or investigate suitable material, and is aware of the inability to satisfactorily perform this behaviour as a welfare issue.	0		0	
Medium-Low (ML)	Measures are taken to increase enrichment use by active pigs (such as by providing rootable, edible, chewable, destructible and clean enrichment material).	0		0	
Medium-High (MH)	If the levels of enrichment use are lower than established targets in the H&W plan, measures are taken to reduce prevalence.	0		0	
	Proactive monitoring for enrichment use of a representative sample of >100 active pigs is performed at least twice per year.	0			
High (H)	Enrichment use is occurring in >70% of actively investigating pigs	0		0	
	The company sets high targets, measures performance and reports on enrichment use outcomes.	0			

KWI Sow pigs 5

Tail dealring tail l	logiona Linkato De De Des	Observed?	Comment on observation	A abjorred lovel9	Drograde Evidence (commont
	, , , ,	Observed?	Comment on observation	Achieved level?	Progress Evidence/comment
	The farmer is aware of tail biting, tail lesions and tail docking as welfare issues for pigs undergoing docking, those with lesions and those undertaking biting of other pigs.	0		0	
	Procedures are in place to ensure severely tail-bitten pigs (as scored using methods in Resource 1) are placed in a hospital pen, treated, or humanely culled as appropriate to prevent suffering.	0			
Medium-Low (ML)	All culls due to tail biting are recorded on the daily mortality and cull record.	0		0	
	Tail docking is performed only to prevent high levels of tail lesions.	0			
	Monitoring of tail lesions occurs, and if levels are high (>1%) management changes are undertaken to reduce risk.	0			
	Tails are docked and low levels of tail lesions are achieved. Trials of undocked pigs are undertaken as part of a transition to permanently not docking.	0		0	
	Tails are undocked and the prevalence of any tail lesions is low (<0.1%)	0			
High (H)	The company sets high targets, measures performance and reports on tail docking and lesion outcomes.	0		•	



Tooth reduction,	face and udder lesions - Links to P1, P5, P6, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware of tooth reduction and piglet face and sow udder lesions as a welfare issue.	0		0		
	Tooth reduction is performed only to prevent high levels of face and udder lesions.	0		~		
	Monitoring of lesions occurs and if levels are high (>1%) management changes are undertaken to reduce risk.	0		0		
Medium-High (MH)	Teeth are reduced and low levels of face and udder lesions are achieved. Trials of piglets with non-reduced teeth are undertaken as part of a transition to permanently not reducing.	0		0		
	Teeth are not reduced, and the prevalence of face/udder lesions is low (<0.1%).	0				
High (H)	The company sets high targets, measures performance and reports on hock lesion outcomes.	0		0		

KWI Sow pigs 7

Body lesions - Lin	ks to P1, P5, P6, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware of social stress, competition for resources, aggression and resultant body lesions as welfare issues.	0		0		
	Measures are taken to reduce the risk of body lesions, through reducing the mixing of unfamiliar pigs or providing environmental buffering such as visual barriers or gradual introductions.	0		0		
incurain ringir (iniri)	are taken to reduce prevalence.	\sim		0		
High (H)	Proactive monitoring for body lesions of a representative sample of >100 pigs is performed at least twice per year. Body lesions are present in <5% of herd.	•		0		
	The company sets high targets, measures performance and reports on lameness outcomes.	ŏ				

KWI Sow pigs 8

Shoulder lesions ·	Links to P1, P5, P6, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	The farmer is aware of shoulder lesions as a welfare issue.	0		0		
Medium-Low (ML)	Measures are taken to reduce the risk of shoulder lesions, such as maintaining good body condition of dry and lactating sows, and modifying flooring in the farrowing accommodation.	0		0		
Medium-High (MH)	If the prevalence of shoulder lesions is higher than established targets in the H&W plan, measures are taken to reduce prevalence.	0		0		
	Proactive monitoring for shoulder lesions of a representative sample of >100 sows is performed at least twice per year.	0		0		
.	Shoulder lesions are present in <0.1% of herd.	0		\sim		
	The company sets high targets, measures performance and reports on lameness outcomes.	0				



Vulva lesions - Li	nks to P1, P5, P6, P11	Observed?	Comment on observation Achieved level	Progress Evidence/comment
Basic (B)	The farmer is aware of vulva lesions as a welfare issue.	0	0	
Medium-Low (ML)	Measures are taken to reduce the risk of vulva lesions, such as reducing competition over resources including feeding stations.	0	0	
Medium-High (MH)	If the prevalence of vulva lesions is higher than established targets in the H&W plan, measures are taken to reduce prevalence.	0	0	
High (H)	Proactive monitoring for vulva lesions of a representative sample of >100 pigs is performed at least twice per year.		0	
	Vulva lesions are present in <0.1% of herd.	0	\mathbf{O}	
	The company sets high targets, measures performance and reports on lameness outcomes.	0		

WI Sow pigs 10

On-farm culls - Li	1ks to P5, P10, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Only mortality (not cull) data is 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)	Both mortality and cull data is analysed, and the cause of adverse trends is investigated, and acted upon – the suggested thresholds for investigation are total cull >1.5%.	0		0		
	A written plan is 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		

\frown			
	KWI Sow pigs 11		

On-farm mortality	y - Links to P5, P10, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Daily mortality data is recorded.	0		0		
Medium-Low (ML)	As previous requirement.	0		0		
Medium-High (MH)	Mortality data is analysed, and the cause of adverse trends is investigated, and acted upon.	0		0		
	A procedure is in place to investigate unexplained mortality.	0				
High (H)	If morbidity and mortality levels increase, and other signs indicate that the herd has been	0		0		
	affected by disease, a diagnostic investigation is conducted to identify the causative agent.	0				

KWI Sow pigs 12

Fitness to transpo	ort/ mortality - Links to P2, P4, P5, P7, P11	Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Basic (B)	Dead, sick and injured animals arriving at the slaughterhouse are reported to the farmer.	0		0		
Medium-Low (ML)	As previous requirement.	0		0		
Medium-High (MH)	If the incidence/prevalence of dead, sick and injured animals arriving at the slaughterhouse is higher than established targets in the H&W plan, measures are taken to reduce prevalence.	0		0		
High (H)	The company has a written plan in place to respond to negative changes in dead, sick and injured animals arriving at the slaughterhouse.	0		0		
	The company sets high targets, measures performance and reports on outcomes.	0				



KWI Sow pigs 13						
Slaughter - Links to P11, P12		Observed?	Comment on observation	Achieved level?	Progress	Evidence/comment
Dasic (D)	A recognised method to induce immediate insensibility is adopted at slaughter (see Introduction Section 3.5 regarding stunning).	0		0		
	Animals are slaughtered adopting local legally-approved methods.	0				
	Slaughterhouse is aware of the importance of pre-slaughter stunning to prevent a welfare issue.	0				
	Stunning and killing is conducted by an appropriately trained and competent person.	0				
	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		
	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				
	A maximum stun-to-stick interval of 15 seconds is adopted.	0				
Medium-High (MH)	Percentage of pigs not effectively rendered immediately insensible is recorded and actions taken to reduce to a minimum.	0		0		
High (H)	Internationally-=recognised best practice methods for slaughter are adopted.	0		0		



Notes: Sows

AssureWel: Pigs AssureWel: The AssureWel Approach to Improving Farm Animal Welfare: The Development and Use of Welfare Outcome Assessments in Farm Assurance 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 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 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs 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 (2003): Code of Recommendations for the Welfare of Livestock: Pigs 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) Farm Animal Welfare Committee (FAWC) opinion on free farrowing systems (26 November 2015) 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. (2013): Towards a 'Good Life' for Farm Animals: Development of a Resource Tier Framework to Achieve Positive Welfare for Laying Hens (Animals 2013, 584-605)

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 Pigs Standards (2017)

RSPCA (2017): Welfare standards for pigs

Share Action: What we do

Soil Association (2020): Farming and Growing Standards

Statista: Number of pigs worldwide in 2020, by leading country (in million head)

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)