

Scenario 1 - Current use of farrowing crates in pig production

Score sheet	Name of scorer: Expert 3		Comments					
Welfare principles	Welfare criteria	1st round score	90% certain lower bound	90% certain upper bound	2nd round score	90% certain lower bound	90% certain upper bound	
Good feeding	1 Provision and access to food. Animals should have appropriate access to the quantity and quality of appropriate foodstuffs for health and wellbeing	60	45	70				Sows fed at approx 50% of preferred intake (through pregnancy not just in crate) so likely to have some negative consequences of hunger even if this is to prevent health problems with over consumption/rapid growth. Sows also likely to have a boring and monotonous diet, little opportunity to seek more pleasurable foods. Pigslets may have lower sucking opportunities in farrowing crates - studies show lower intakes in crates but will have creep access.
	2 Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and wellbeing	80	70	90	50	35	65	Sows should have continual access to fresh water, may show polydipsia if bored in the crate, unable to seek alternative sources of water, method of supplying water does not replicate normal drinking behaviour.
Good housing	3 Animals should have comfort when resting	40	30	50	80	70	90	Sow can spend up to 25% of her life in a farrowing crate (3 litters x 4 weeks), limited movement and no choice of where to lie, usually not bedded. Pigslets may have more lying so comfort if bedded.
	4 Animals should have thermal comfort being neither too hot nor too cold	70	50	90	30	20	40	Requirements for farrowing houses to be warm, might be too warm for the sow. Pigslets to have heated creep to prevent chilling, in general should be able to maintain thermal comfort for first 4 weeks of life although some flooring can cause cold draughts.
Good health	5 Animals should have sufficient space to move freely	20	10	30	20	10	30	Sow can spend up to 25% of her lifetime with this freedom to turn around in farrowing crate, increasing low dimensional means that the crate can be very small and restrictive, with little movement possible. Pigslets have more movement opportunities but still restricted of opportunities to forage and express their behaviours requiring space.
	6 Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	35	20	45				Increased likelihood of sores and lesions from lying on hard surfaces, little opportunity for movement leading to reduced cardiovascular fitness and increased lameness and poor leg strength. Pigslets at higher risk of injury and mortality from scavenging by mother.
	7 Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene	45	20	55	35	20	45	Increases on cardiovascular fitness of high levels of movement restriction, impacts of repeated cycles of reproduction and lactation on insulin resistance and metabolic disease, impacts of gastric acidulation from feeding methods.
	8 Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.	40	20	60	45	20	55	Sows and piglets experience pain through teeth grinding and tail docking, may be increased in these systems through impacts of early weaning. Sows associated with vulnerable to poor handling as the is confined and unable to escape human handlers. Call sow transport can be prolonged and sow may be vulnerable to stressors associated with transport (e.g. temperature) as they are less concerned due to lower economic value. Pigslets are protected from crushing.
	9 Animals should be able to express normal, non-harmful social behaviours such as grooming and social bonding	20	10	45	40	20	60	Sows are prevented from having open social interactions with their piglets (such as nose-to-nose contact), maternal behaviour is limited to lying and suckling piglets. Sows also prevented from having normal social interactions with other sows for up to 25% of their life, prevented from forming normal social relationships with piglets from other litters with consequences for future aggressive behaviour.
	10 Animals should be able to express other normal behaviours (e.g. foraging, exploring)	10	5	25	10	5	25	Severely restricted from showing highly motivated nest building behaviour and even with some substrate provided, opportunities for any foraging or exploratory behaviour severely limited for up to 25% of adult life. Pigslets also prevented from showing much foraging, exploration and play behaviour due to physical restriction of space.
Appropriate behaviour	11 Animals should be handled well with positive and not negative animal/human relationships	40	20	60	30	20	45	Sows can be vulnerable to poor stockperson behaviour so unable to move and staff are protected from sow attempts to protect her offspring, frustration and distress at inability to protect young. Pigslets can be treated poorly as small and vulnerable.
	12 Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals	25	10	35	25	10	35	Generally sows spend a significant proportion of their productive lives in a situation where they have no choice or control over their environment, no agency, where most of their motivations are frustrated and they are unable to perform very well motivated behaviours. Pigslets do a little better but are still kept in a restricted environment with limited space and opportunity to make choices or engage with other outside the family unit.

Scenario 2 - Free farrowing

Score sheet	Name of scorer: Expert 3		Comments						
Welfare principles	Welfare criteria	Highest level of attainment possible = 100	1st round score	90% certain lower bound	90% certain upper bound	2nd round score	90% certain lower bound	90% certain upper bound	
Good feeding	1 Provision and access to food. Animals should have appropriate access to the quantity and quality of appropriate foodstuffs for health and wellbeing		65	45	75	65	45	75	Sows fed at approx 50% of preferred intake (through pregnancy not just in crate) so likely to have some negative consequences of hunger even if this is to prevent health problems with over consumption/rapid growth. Sows also likely to have a boring and monotonous diet, little opportunity to seek more pleasurable foods. Pigslets should have better sucking opportunities and milk intake than in farrowing crates - should also have creep access.
	2 Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and wellbeing		85	70	90	80	70	90	Sows should have continual access to fresh water, unable to seek alternative sources of water, method of supplying water does not replicate natural drinking behaviour.
Good housing	3 Animals should have comfort when resting		65	55	80	65	55	80	Improved choice of lying location, with appropriate bedding can lie in comfort, bounds related to variation in access to this. Pigslets have opportunity to lie with the mother, or in creep areas.
	4 Animals should have thermal comfort being neither too hot nor too cold		70	50	90	70	50	90	Requirements for farrowing houses to be warm, might be too warm for the sow. Pigslets to have heated creep to prevent chilling, in general should be able to maintain thermal comfort for first 4 weeks of life although some flooring can cause cold draughts.
Good health	5 Animals should have sufficient space to move freely		70	55	80	70	55	80	Depends on type of pens but must implement ability to move, roam, stand up in different locations, exercise some choice over environment. Pigslets may also have improved space to move.
	6 Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)		65	45	75	65	45	75	Sows have impaired ability to move freely which implies long and causes risks of developing lesions on hind or hind surfaces. Pigslets may be at higher risk of crushing.
	7 Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene		60	45	70	60	45	70	Somewhat dependent on pen features.
	8 Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.		60	45	70	60	45	70	For impact of repeated cycles of reproduction and lactation on insulin resistance and metabolic disease, risks of gastric ulceration from feeding methods. For piglets: repeated immaturity and increased milk intake leading to improved early development
	9 Animals should be able to express normal, non-harmful social behaviours such as grooming and social bonding		75	60	85	75	60	85	Sows and piglets can experience pain from tail docking and both restriction although may be less common in these environments. Sows less vulnerable to poor handling as able to move away and higher standard of stockholders often required for these systems to work well. Cull sows may still experience poor welfare in transport at end of life. Pigslets likely to experience sawing but may be more likely to experience crushing, dependent on pen features.
	10 Animals should be able to express other normal behaviours (e.g. foraging, exploring)		75	60	85	75	60	85	Sows able to show full range of natural behaviour including nose to nose contacts and have longer suckling bouts. Pigslets have more space to interact with each other and with the limited social opportunities with non-family social companions during the lactation period, could impact on aggression for future contact.
Appropriate behaviour	11 Animals should be handled well with positive and not negative animal/human relationships		70	60	85	65	55	85	With sufficient adults, sows are able to show important highly motivated non-biting responses to competition, some opportunities to forage, root and explore for both sow and piglets whilst in confined areas for lactation but some limitations on what might be offered to both.
	12 Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals		70	50	80	70	50	80	Good stockperson relationships can occur and lead to improved production so incentivised, sows able to develop positive associations. Also able to show some defence of piglets if required and normal maternal care. Pigslets may be vulnerable to inappropriate handling in small and easily tumbled pens.
									Sows have some freedom of movement and opportunities for choice and agency. Opportunity to show some highly motivated behaviours and engage in some normal social interactions. This is still not sufficient for complete freedom and can be quite dependent on whether humans offer suitable substrate/enrichments etc (hence wide bounds for this).

Scenario 3 - Temporary use of farrowing crates

Score sheet		Name of scorer: Expert 3		Comments					
Welfare principles	Welfare criteria	1st round score	90% certain lower bound	90% certain upper bound	2nd round score	90% certain lower bound	90% certain upper bound		
Good feeding	1 Provision and access to food. Animals should have appropriate access to the quantity and quality of appropriate foodstuffs for health and wellbeing	65	45	75	65	45	75	Sows fed at approx 50% of preferred intake (through pregnancy not just in crate) so likely to have some negative consequences of hunger even if this is to prevent health problems with over consumption/rapid growth. Sows also likely to have a boring and monotonous diet, little opportunity to seek more pleasurable foods. Pigslets should have better sucking opportunities and milk intake than in farrowing crates - should also have creep access.	
	2 Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and wellbeing	85	70	90	85	70	90		Sows should have continual access to fresh water, unable to seek alternative sources of water, method of supplying water does not replicate normal drinking behaviour.
Good housing	3 Animals should have comfort when resting	60	35	80	50	35	80	Improved choice of lying location when temporary crating removed, although might be more restricted and variable size of penning, with appropriate bedding can lie in comfort, bounds related to variation in access to this. Pigslets have opportunity to lie with the mother at least for most of lactation, or in creep area.	
	4 Animals should have thermal comfort being neither too hot nor too cold	70	50	90	70	50	90		Requirements for farrowing houses to be warm, might be too warm for the sow. Pigslets to have heated creep to prevent chilling, in general should be able to maintain thermal comfort for first 4 weeks of life although some flooring can cause cold draughts.
Good health	5 Animals should have sufficient space to move freely	60	20	75	50	20	75	75 Depends on size of pen, and duration of use of the temporary crating but should have somewhat improved mobility to move, turn, stand up etc in different locations, exercise some choice over environment. Pigslets also have temporary space to play and social interactions.	
	6 Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	60	30	70	60	30	70		Sows have improved ability of move which improves leg health and reduces risk of developing some form of leg or hard surface, but also dependent on how long the temporary crating is used for and the use of floor space as can vary in different systems. Pigslets should be able to move freely and have some choice of environment. Pigslets should be able to move freely.
	7 Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene	60	45	70	60	45	70		For sows: impacts of repeated cycles of reproduction and lactation on insulin resistance and metabolic disease, risk of gastric ulceration from feeding methods. For pigslets: improved immunity and increased milk intake leading to more robust development.
	8 Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.	60	40	70	60	40	70		Sows and Pigslets can experience pain from tail docking and both reception although may be less common in these environments. Sows less vulnerable to poor handling as able to move away and higher standards of cleanliness/other measures to reduce risk to work. Cal