

Scenario 1 - Current use of farrowing crates in pig production

Score sheet		Name of scorer Expert 2				Comments - Round 1				Comments - Round 2			
Welfare principles	Welfare criteria	Test round score	90% certain lower bound	90% certain upper bound	90% certain lower bound	90% certain upper bound	Test round score	90% certain lower bound	90% certain upper bound	Test round score	90% certain lower bound	90% certain upper bound	Test round score
Good feeding	1. Provision and access to food. Animals should have appropriate access to the quantity and quality of appropriate foodstuffs for health and well-being.	40	30	50	30	20	Food quantity and quality meets sow maintenance needs, but is consumed very rapidly and is less than ad lib. Likely to be some hunger and thwarted feeding motivation. Crate bars make accessing feed more problematic for pigs.			Food quantity and quality meets sow maintenance needs, but is consumed very rapidly and is less than ad lib. Likely to be some hunger and thwarted feeding motivation. Crate bars make accessing feed more problematic for pigs.			
	2. Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and well-being.	85	80	90	85	80	Drinker is right in front of sow. No choice over water source.			Drinker is right in front of sow. No choice over water source.			
Good housing	3. Animals should have comfort when resting.	15	5	20	30	15	Sows have little postural freedom and lie on largely unyielded concrete. Shoulder sores a problem. Pigs may have some bedding and artificial heat in farrowing house, but increased comfort for them can't compensate for poor comfort of sow.			Sows have little postural freedom and lie on largely unyielded concrete. Shoulder sores a problem. Pigs may have some bedding and artificial heat in farrowing house, but increased comfort for them can't compensate for poor comfort of sow. Pigs usually on slats after leaving farrowing house. Some on straw, hence large range.			
	4. Animals should have thermal comfort being neither too hot nor too cold.	50	10	70	80	70	Zero choice of microclimate for sow. Thermal needs of sow and piglets are very different - hard to satisfy both. Risk of chilling for some piglets. Large range reflects likely variation in how well thermal needs are met on different farms.			Zero choice of microclimate for sow in crate. Thermal needs of sow and piglets are very different - hard to satisfy both. Risk of chilling for some piglets. Large range reflects likely variation in how well thermal needs are met on different farms. After leaving farrowing house, thermal challenges lessen.			
Good health	5. Animals should have sufficient space to move freely.	0	0	5	20	5	60 Crates deliberately prevent movement beyond the minimum needed to stand and lie. Gilts may have marginally more space but old crates are typically smaller than intended for modern large genotypes of sows. Pigs have a very limited space to play and the environment is utterly different to what they would have in then wild.			60 Crates deliberately prevent movement beyond the minimum needed to stand and lie. Gilts may have marginally more space but old crates are typically smaller than intended for modern large genotypes of sows. Pigs have a very limited space to play and the environment is utterly different to what they would have in then wild. After leaving farrowing house piglets may be in restricted flat decks and thereafter fully slatted pens, through to large straw barns, so large range in score.			
	6. Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	25	10	60	40	20	Large range as experience of each animal will differ. Shoulder sores can be severe on some sows. Test injuries from suckling are common. Leg weakness from confinement in crates occurs.			Large range as experience of each animal will differ. Shoulder sores can be severe on some sows. Test injuries from suckling are common. Leg weakness from confinement in crates occurs. Pigs receive facial injuries from competition over teats. Fractures from crushing of piglets occur in crates.			
Appropriate behaviour	7. Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene.	50	40	60	45	30	70 All-in, all-out. Treatment of piglets easier with sow restrained as compared to partial or free farrowing systems.			70 All-in, all-out. Treatment of piglets easier with sow restrained as compared to partial or free farrowing systems. Post-weaning sow common.			
	8. Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.	20	10	30	35	25	Shoulder sores likely to be painful. Test injuries likely to be painful and sow can't do anything about protecting the teats. Pigs are routinely teeth clipped, tail docked and tagged without anaesthetic. Farrowing may be painful.			Shoulder sores likely to be painful. Test injuries likely to be painful and sow can't do anything about protecting the teats. Pigs are routinely teeth clipped, tail docked and tagged without anaesthetic. Farrowing may be painful. Post-weaning aggression likely to cause pain.			
	9. Animals should be able to express normal, non-harmful social behaviours (such as grooming and social bonding).	50	40	60	40	25	Not a big problem for the sow as sows naturally socially isolate before giving birth and for 2 weeks after. Lack of integration of piglets with unfamiliar littermates (naturally occurs around 2 weeks old) creates more problems with aggression when older. Space limits quantity and quality of locomotory social interactions between piglets. No opportunity to avoid dominant sows.			Not a big problem for the sow as sows naturally socially isolate before giving birth and for 2 weeks after. Lack of integration of piglets with unfamiliar littermates (naturally occurs around 2 weeks old) creates more problems with aggression when older. Space limits quantity and quality of locomotory social interactions between piglets. No opportunity to avoid dominant pigs after weaning for sow or piglets. Abnormal social structures post-weaning (often some age and sex).			
	10. Animals should be able to express other normal behaviours (e.g. foraging, exploring).	20	10	25	25	20	Almost completely prevented for the sows. Nest building impossible due to lack of space and substrate. Lack of substrate and variation in environment limits opportunities for exploration by piglets too, but they have far more possibilities than the sow.			Almost completely prevented for the sows. Nest building impossible due to lack of space and substrate. Lack of substrate and variation in environment limits opportunities for exploration by suckling piglets too, but they have far more possibilities than the sow. After weaning, pigs can be as anything from isolated pens to deep straw - hence wide range in score.			
	11. Animals should be handled well with positive and not negative animal-human relationships.	30	25	40	40	35	Zero opportunity for sow to avoid contact with humans. Likely that threatening maternal defense (e.g. withdrawing with litter) is stressful, especially during handling of the piglets. Do the sows want to bond with humans? I doubt it. Harsh handling may be used to get sow into crate. Only contact between piglets and humans is when humans chop bits off.			Zero opportunity for sow to avoid contact with humans. Likely that threatening maternal defense (e.g. withdrawing with litter) is stressful, especially during handling of the piglets. Do the sows want to bond with humans? I doubt it. Harsh handling may be used to get sow into crate. Only contact between piglets and humans is when humans chop bits off. Maternal contact with humans after weaning.			
	12. Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals.	20	15	30	30	25	Opportunities for expression of maternal behavior is considered here rather than in 9 above. No opportunities for sow to show maternal behaviour and to interact with her piglets. Pigs 65 may also be penalised by lack of an interacting mother. No opportunities for positive experiences for the sow.			Opportunities for expression of maternal behavior is considered here rather than in 9 above. No opportunities for sow to show maternal behaviour and to interact with her piglets. Pigs 65 may also be penalised by lack of an interacting mother. No opportunities for positive experiences for the sow other than contact with piglets after first week.			

Scenario 2 - Free farrowing

Score sheet		Name of scorer Expert 2				Comments			
Welfare principles	Welfare criteria	Test round score	90% certain lower bound	90% certain upper bound	90% certain lower bound	90% certain upper bound	Test 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 well-being.	45	35	55	30	20	Food quantity and quality meets sow maintenance needs, but is consumed very rapidly and is less than ad lib. Likely to be some hunger and thwarted feeding motivation.		
	2. Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and well-being.	85	80	90	85	80	Drinker is readily accessible to sow. No choice over water source.		
Good housing	3. Animals should have comfort when resting.	40	15	60	35	15	Sows have some postural freedom but system encourages them to lie in one place and bedding is likely to be minimal. Although freedom to choose resting location and posture is much greater than in crates, it is still limited compared to the wild. Large range reflects likely variation in bedding depth and cleanliness.		
	4. Animals should have thermal comfort being neither too hot nor too cold.	60	15	75	80	70	Some choice of microclimate for sow - better than in crates, but this is still a small pen. Thermal needs of sow and piglets are very different - hard to satisfy both. Risk of chilling for some piglets. Large range reflects likely variation in how well thermal needs are met on different farms.		
Good health	5. Animals should have sufficient space to move freely.	25	15	30	35	20	60 Much more freedom than in crates, but pen is still very small. Pigs have more space to play than in crate pens, but still limited space to play and the environment is utterly different to what they would have in then wild.		
	6. Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	35	10	65	40	20	Large range as experience of each animal will differ. Shoulder sores less of a problem than in crates. Pigs receive facial injuries from competition over teats. Fractures from crushing of piglets occur - higher risk in free farrowing. Risk of pain, injury and death from sawing - lower risk in free farrowing.		
Appropriate behaviour	7. Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene.	40	35	55	45	30	70 All-in, all-out. Treatment of piglets easier with sow restrained, so harder to treat piglets compared to crate systems.		
	8. Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.	25	15	30	30	25	10 Pigs are routinely teeth clipped, tail docked and tagged without anaesthetic. Farrowing may be painful.		
	9. Animals should be able to express normal, non-harmful social behaviours (such as grooming and social bonding).	50	40	60	40	25	Not a big problem for the sow as sows naturally socially isolate before giving birth and for 2 weeks after. Lack of integration of piglets with unfamiliar littermates (naturally occurs around 2 weeks old) creates more problems with aggression when older. Space limits quantity and quality of locomotory social interactions between piglets. Little opportunity to avoid dominant sows.		
	10. Animals should be able to express other normal behaviours (e.g. foraging, exploring).	30	20	35	30	25	10 Opportunities for expression of maternal behavior is considered here rather than in 9 above. No opportunities for sow to show maternal behaviour and to interact with her piglets (when sow is likely to be confined in feeding stall). Do the sows want to bond with humans? I doubt it. Marginally more contact between piglets and humans as humans may need to clean pen, but still the most intense contact is when humans chop bits off.		
	11. Animals should be handled well with positive and not negative animal-human relationships.	35	25	50	45	35	60 Very little opportunity for sow to avoid contact with humans. Likely that threatening maternal defense (e.g. withdrawing with litter) is stressful, especially during handling of the piglets (when sow is likely to be confined in feeding stall). Do the sows want to bond with humans? I doubt it. Marginally more contact between piglets and humans as humans may need to clean pen, but still the most intense contact is when humans chop bits off.		
	12. Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals.	50	35	55	35	30	65 Opportunity for expression of maternal behavior is considered here rather than in 9 above. Some opportunities for sow to show maternal behavior and to interact with her piglets from 65 birth - much better than crate systems. No opportunities for positive experiences for the sow other than contact with piglets after first week.		

Scenario 3 - Temporary use of farrowing crates

Score sheet		Name of scorer Expert 2				Comments			
Welfare principles	Welfare criteria	Test round score	90% certain lower bound	90% certain upper bound	90% certain lower bound	90% certain upper bound	Test 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 well-being.	40	30	50	30	20	Food quantity and quality meets sow maintenance needs, but is consumed very rapidly and is less than ad lib. Likely to be some hunger and thwarted feeding motivation. Crate bars make accessing feed more problematic for piglets. Crates will be moved out of the way for older piglets, so marginal improvement over standard farrowing crates.		
	2. Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and well-being.	85	80	90	85	80	Drinker is right in front of sow. No choice over water source.		
Good housing	3. Animals should have comfort when resting.	20	10	25	32	15	Sows have little postural freedom and lie on largely unyielded concrete. More choice than in standard crates, but still highly restricted. Shoulder sores a problem. Pigs may have some bedding and artificial heat, but increased comfort for them can't compensate for poor comfort of sow.		
	4. Animals should have thermal comfort being neither too hot nor too cold.	55	10	70	82	70	Very little choice of microclimate for sow - better than standard crate, but not by a lot. Thermal needs of sow and piglets are very different - hard to satisfy both. Risk of chilling for some piglets. Large range reflects likely variation in how well thermal needs are met on different farms.		
Good health	5. Animals should have sufficient space to move freely.	10	5	15	25	10	60 Crates deliberately prevent movement beyond the minimum needed to stand and lie. When opened, sow has a lot more space but pen is still very small. Gilts may have marginally more space than sows. Sows have less space than in a standard crate pen but still very little compared to the natural environment.		
	6. Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	30	15	65	45	25	80 Crates deliberately prevent movement beyond the minimum needed to stand and lie. When opened, sow has a lot more space but pen is still very small. Gilts may have marginally more space than sows. Sows have less space than in a standard crate pen but still very little compared to the natural environment. Almost completely prevented for the sows. Nest building impossible due to lack of space and substrate. Lack of substrate and variation in environment limits opportunities for exploration by piglets too, but they have far more possibilities than the sow. Some has a bit more opportunity once crate is opened, but the environment is still very small and barren.		
Appropriate behaviour	7. Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene.	45	35	55	40	30	70 All-in, all-out. Treatment of piglets easier with sow restrained, so harder to treat piglets compared to standard crate system.		
	8. Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.	20	10	30	36	25	Shoulder sores likely to be painful. Test injuries likely to be painful and sow can't do much about protecting the teats. Pigs are routinely teeth clipped, tail docked and tagged without anaesthetic. Farrowing may be painful.		
	9. Animals should be able to express normal, non-harmful social behaviours (such as grooming and social bonding).	50	40	60	40	25	Not a big problem for the sow as sows naturally socially isolate before giving birth and for 2 weeks after. Lack of integration of piglets with unfamiliar littermates (naturally occurs around 2 weeks old) creates more problems with aggression when older. Space limits quantity and quality of locomotory social interactions between piglets. No opportunity to avoid dominant sows.		
	10. Animals should be able to express other normal behaviours (e.g. foraging, exploring).	25	10	30	26	20	10 Opportunities for expression of maternal behavior is considered here rather than in 9 above. Some opportunities for sow to show maternal behavior and to interact with her piglets during critical first week. Better thereafter. Pigs may also be penalised by lack of an interacting mother. No opportunities for positive experiences for the sow other than contact with piglets 65 after first week.		
	11. Animals should be handled well with positive and not negative animal-human relationships.	30	25	40	40	35	Zero opportunity for sow to avoid contact with humans when confined in crate and very little when released. Likely that threatening maternal defense (e.g. withdrawing with litter) is stressful, especially during handling of the piglets. Do the sows want to bond with humans? I doubt it. Harsh handling may be used to get sow into crate. Only contact between piglets and humans is when humans chop bits off.		
	12. Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals.	35	20	50	35	25	65 Opportunity for expression of maternal behavior is considered here rather than in 9 above. No opportunities for sow to show maternal behavior and to interact with her piglets during critical first week. Better thereafter. Pigs may also be penalised by lack of an interacting mother. No opportunities for positive experiences for the sow other than contact with piglets 65 after first week.		