


Scenario 1 - Current practice and castration

Score sheet		Name of scorer: Expert 1				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	Round 2	
Good feeding	1 	Provision and access to food. Animals should have appropriate access to the quantity and quality of appropriate forage for health and welfare keeping	55	40	65	60	40	75 Appears to be great variability in BCS according to system and season. Rubber ring castration carried out within 48 hours of birth can result in lambs falling to target protective amount of colostrum which puts the lambs at increased risk of disease and mortality (MHDS report). Grass monocultures, lack of variety in diet.	
	2	Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and welfare	60	50	80	70	50	80 Surprising number of farms not providing water? Lack of choice/preference? Difficulty accessing?	
Good housing	3	Animals should have comfort when resting.	65	40	70	65	50	75 Pain from castration make comfortable resting difficult. Lack of choice of warm, dry resting places?	
	4	Animals should have thermal comfort bearing neither too hot nor too cold.	50	30	60	65	40	75 Very variable. Breed for increased wooliness and therefore need for shearing.	
Good health	5	Animals should have sufficient space to move freely	60	50	90	70	60	75 Unfamiliar with average stocking densities in and outdoors. 50% ewes housed at some point and some indoor finishing of lambs, but mostly outdoors.	
	6	Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	60	40	70	55	40	60 Lameness. Had trouble finding prevalence of metabolic diseases and injuries.	
	7	Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene.	50	40	60	45	40	60 Common diseases: sheep scab, Border Disease, Gaseous lymphadenitis, Maedi Virus. Parasites.	
	8	Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc.	40	30	40	20	20	40 more lambs than breeding adults. Most lambs tail docked. 50% of lambs castrated.	
Good health	9	Animals should be able to express normal, non-harmful social behaviours such as grooming and social bonding.	40	30	60	60	50	75 Castration reduces normal social behaviours (mating), but some of these may be harmful. Early intervention may disrupt bonding/increase mismothering.	
	10	Animals should be able to express other normal behaviours (e.g. foraging, exploration)	55	40	70	55	40	70 Reduced normal behaviours due to pain; reduced normal mating behaviour A lot of outdoor access. But opportunities for interest and exploration may be low in some settings.	
Appropriate behaviour	11	Animals should be handled well with positive and not negative animal-human relationships.	20	10	50	35	20	50 Majority of human interactions are negative. Prey animals.	
	12	Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals.							

Scenario 2 - Castration with pain relief

Score sheet		Name of score: Expert 1		Comments					
Welfare principles	Welfare criteria	1st round score		2nd round score					
		90% certain lower bound	90% certain upper bound	90% certain lower bound	90% certain upper bound				
Good feeding	1	57	40	65	60	70	reduced pain improve colostrum intake?	raise difference a bit as suckling improves	
	2	65	50	80	75	70	80	Reduced pain increase suckling?	Keep same
Good housing	3	67	40	70	70	50	75	Reduced pain increase comfort whilst resting?	Having had pain refills less likely to lead to sensitisation in that area and increase comfort.
	4	50	30	60	67	50	75	No difference	pain - shock which interferes with thermoregulation, plus cognition not clouded to make comfort choice
Good health	5	60	50	90	70	60	80	No difference	
	6	60	40	70	57	40	65	No difference	reduced immune suppression due to pain
Good health	7	50	40	60	45	40	60	No difference	
	8	30	20	50	25	20	40	Pain reduced but not sufficient pain relief for example as a result of poor management, handling, surgery or other procedures, slaughter etc.	Pain reduced but not particularly long lasting and not necessarily always effective - research shows that current anaesthetic options not always effective, plus interaction with time limit - can't use some pain relief until 14 days
Appropriate behaviour	9	45	30	60	62	50	75	Pain reduced may increase normal bonding behaviours	2 hour period after rubber ring is pain and reduce normal social behaviour, bonding
	10	60	40	70	60	45	70	Reduced pain may increase normal/exploratory/positive behaviours	
Appropriate behaviour	11	25	10	50	35	10	50	Reduced pain may decrease negativity of castration handling	increase handling and still painful - injection - and not associate handling with pain relief due to time lag, counterbalanced with they may find interaction slightly less negative due to reduced pain of castration
	12							Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals.	

Scenario 3 - No castration

Score sheet		Name of score: Expert 1		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 Animals should have access to food. Animals should have appropriate access to the quantity and quality of appropriate feedstuffs for health and welfare	60	40	70	65	60	70	No pain increase colostrum intake? Better FCR of entire males?
	2 Provision and access to water. Animals should have appropriate access to the quantity and quality of water for health and welfare	65	50	80	75	70	80	No pain increase suckling?
Good housing	3 Animals should have sufficient space within resting	70	40	75	75	50	75	No pain increase comfort whilst resting?
	4 Animals should have thermal comfort being neither too hot nor too cold	50	30	60	68	50	75	No difference
Good health	5 Animals should have sufficient space to move freely	58	50	90	70	60	80	Housing/restriction may increase in order to separate uncastrated males
	6 Animals should be free from injuries and disorders (e.g. skin conditions, lameness, bone fractures etc.)	60	40	70	57	40	65	No difference
Good health	7 Animals should be free from disease, including metabolic conditions, with high standards of health care and hygiene	50	40	60	45	40	60	No difference
	8 Animals should not suffer pain - for example as a result of poor management, handling, surgical or other procedures, slaughter etc	40	20	50	35	20	40	No pain from castration but still tail docking
Appropriate behaviour	9 Animals should be able to express normal, non-harmful social behaviours (such as grooming and social bonding)	50	30	60	65	50	75	Reduced risk of mismothering / increased chance of good bond if no early intervention/handling. Increased risk of negative male behaviours so needs to be managed
	10 Animals should be able to express other normal behaviours (e.g. foraging, exploring)	65	40	75	62	45	70	No pain increase normal behaviours, positive behaviours as long as good management
Appropriate behaviour	11 Animals should be handled with positive and not negative animal-human relationships	35	20	50	37	10	50	No castration handling, but still majority of interactions negative/little opportunity for positive?
	12 Additional aspects not already adequately covered above in relation to the balance between positive and negative affective states for animals							Male lambs in hill systems normal behaviours may reduce e.g. taken away from hill, finished inside or in lowland system? Potential trade offs. Still handled to sex segregate, although less handling overall.