Scenario 1 - Colony cage egg production

Score sheet | Name of scorer: Expert 9 | Comments Round 1 | Comments Round 2

Welfare principles	Welfare criteria	Impact on welfare (+ve and -ve)	Text round score	90% certain lower boundary	90% certain upper boundary	End round score	90% certain lower boundary	90% certain upper boundary	Comments Round 1	Comments Round 2
Good feeding	1	Processes and access to food: Animals should have appropriate access to the quantity and quality of appropriate foodstuffs for health and wellbeing	60	45	70	60	45	70	poor hatch access to feed may very impacting development, growth, & immunity and interaction with transport to increase fearfulness later in life; feed provision during rearing (17-19% life) ad libitum, during lay (85-85% life) feed provision ad libitum so unlikely to experience hunger until quality of diet is reduced after peak lay and very little nutrition in last few days with feed removed 24h prior to transport - while may further reduce bone quality risking fracture. Dietary supply calcium currently insufficient to meet calcium demand and impacts risk of bone fracture (particularly at depopulation in colony cages). Insufficient fibre can contribute to feather pecking but calcium have common access to fine range. Increases opportunity to express choice, assess satiety in hatch at any point. rearing good balanced ration nutritionally. mixed away from pellets - new primarily mash so some choice and ability to forage. good access along length of feed - good access in general	poor hatch may be restricted in hydration for upto 72h, early experience may impact development, no choice during rearing or lay but should not have restrictions. Nipple drinkers do not facilitate natural drinking behaviour. In cages have to monitor carefully
	2	Provision and access to water: Animals should have appropriate access to the quantity and quality of water for health and wellbeing	60	55	70	60	55	70		
Good housing	3	Animals should have comfort when resting.	55	45	65	60	45	70	should have sufficient space for birds to perch together but possible issues with cage height impact perch height or comfort on perch and limited choice to perch with specific others, aggressive behaviour infrequent - more likely to be able to escape conflict where it occurs. If subjugation occurs, may be more at risk as may not have free choice of have bed have fracture - likely less comfortable. Dustbine (layinn mat may be disrupted via bird movement in limited space. probably not quite enough space for house birds in 15cm, may not be available for whole of rearing	
	4	Animals should have thermoregulation: compromised by overhirement, birds robust to cold temperatures except at end of lay when poorly feather covered but birds able to lower body heat when too hot. May struggle in high temperatures which are increasingly common, potential risk cold stress during transport when may occur several time	72	65	80	72	65	80		
	5	Animals should have sufficient space to move freely	60	50	65	50	20	70	may have more space initially if moved on single floor prior to cage but then centred may be more impactful (colder when percentage experience this) colony cage provides 750cm2 per bird, insufficient for preferred space use for many behaviours and also may have restricted height. May impede bird movement and increase disturbance at rest. most of the comfort behaviour possible - not nearly disturbed opening up some more space	
Good health	6	Animals should be free from injuries and diseases (e.g. skin conditions, lameness, bone fractures etc.)	50	35	65	60	25	70	birds only culled if severely injured / found moribund. hard to identify injuries / capture individuals in large tiered cages. Osteoporosis deaths may be greater in cages systems though no recent data on mortality sources[7] (and bone deformations & fractures. premature osteoporosis variable around 52.55 wk +-49 week likely lower levels than other systems - associated with chronic pain and impacts on mobility. 7 factures at depopulation (legs and wings). short term mortality generally low during rearing, and during lay when overall mortality is higher - this is more common in cage free systems. Assuming 5(6) (range quality remains good able to perform range of highly motivated behaviours (foraging, dustbathing) 80% of mortality levels. are may diseases/ pathogens. also floor increases risk of hypothermia. thickening and infections may be painful (BS. severe 210k mcl) - more common problems in ton and slow FC birds. Suffocation in smothers - less common in colony cages	
	7	Animals should be free from disease, including: - metabolic conditions, with high standards of health care and hygiene	55	50	60	55	50	60	birds only culled if severely injured / found moribund. infectious diseases likely fairly well controlled in caged systems. but metabolic conditions likely higher but metabolic conditions likely lower due to greater exercise in FC. reduced furniture must reduce the risk of red mite but absence of dust bathing substrate reduces bird control of red mite. new product available for treating red mite	
	8	Animals should not suffer pain: For example as a result of poor management, handling, surgical or other procedures, slaughter etc.	60	35	90	60	35	90	potential injuries at hatchery from conveyors etc, beak trimming >1/3d compromises ecidepacute control by birds and cause short term impacts (2 weeks) on feeding and normal behaviour and likely initiation associated with osteoporosis) as well as pain, handling at depopulation and wing/leg fractures - hard to catch birds in high tiers, feet may get trapped in crates at depopulation. experience of breakthroughs with gas stunning unknown, poor welfare associated with stunning for chemical waterbath stunning, emergency killing likely to not poorer slaughter experience assume low nutrient diet at moulting associated with longer, pain associated with feather pecking, beakbone fracture and smothering not directly due to procedures but could be attributed to management via selection and interactions with management quality - KB fractures may be associated with chronic pain	potential injuries at hatchery From conveyors etc, beak trimming <1/3d compromises ecidepacute control by birds and cause short term impacts (2 weeks) on feeding and normal behaviour and likely initiation associated with osteoporosis) as well as pain, handling at depopulation and wing/leg fractures - hard to catch birds in high tiers, feet may get trapped in crates at depopulation. experience of breakthroughs with gas stunning unknown, poor welfare associated with stunning for chemical waterbath stunning, emergency killing likely to not poorer slaughter experience assume low nutrient diet at moulting associated with longer, pain associated with feather pecking, beakbone fracture and smothering not directly due to procedures but could be attributed to management via selection and interactions with management quality - KB fractures may be associated with chronic pain
Appropriate behaviour	9	Animals should be able to express normal, non-harmful social behaviours (such as grooming and social bonding)	50	45	65	55	40	70	no-maternal care or brood formation: may impact social development and alters behaviour, do not appear to show "friendships" though this may be due to early life experience. They do not allogroom or choose to perch with specific others, aggressive behaviour infrequent - but cannot easily escape conflict where it occurs in cages systems, provision for synchronised behaviours may be less accomodated with relevant peers, smaller group sizes may facilitate dominance hierarchy formation	no-maternal care or brood formation may impact social development and alters behaviour, opportunity for social play during rearing, do not appear to show "friendships" though this may be due to early life experience. They do not allogroom or choose to perch with specific others, aggressive behaviour infrequent - They do not allogroom or choose to perch with specific others, aggressive behaviour infrequent but cannot easily escape conflict where it occurs in caged systems, provision for synchronised behaviours may be less accomodated with relevant peers, smaller group sizes may facilitate dominance hierarchy formation, not able to perform natural rearing behaviour
	10	Animals should be able to express other normal behaviours (e.g. foraging, exploring)	55	50	65	55	20	80	abnormal behaviours: injurious pecking, smothering can impact during rearing though mortality generally low during rearing, and during lay when overall mortality is higher - this is more common in cage free systems. Assuming 5(6) (range quality remains good able to perform range of highly motivated behaviours (foraging, dustbathing (are acute impact/engineered) and foraging. Able to perch but not at height or perfect and cage height may restrict. Able to use perching blocks but not perf. 1000 birds. able to rear big dustbath but not perf. 1000 birds. able to rear big dustbath but not perf. 1000 birds. able to rear big dustbath