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Hygiene performance rating – an auditing scheme for evaluation of slaughter hygiene and a contribution to comply with regulations

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HPR in Norwegian slaughterhouses since 2002

Cattle

Sheep

Pigs

Broilers (new in 2020)

Broiler on-farm (new in 2020)

Hygiene Performance Rating



4. Fortförling		0	1	2	3	6	12
43	Er alle arbeidsposisjoner tilfjølige med vann	1	1	0			
44	Er alle arbeidsposisjoner tilfjølige med knivskreller	1	1	0			
45	Er alle arbeidsposisjoner, der det er nødvendig, tilfjølige med alle trykkløse	1	1	0			
50	Sitter vasker hendekløyning plassert i forhold til arbeidersteden	1	1	0			
51	Sitter knivskreller hendekløyning plassert i forhold til arbeidersteden	1	1	0			
42	Sitter arbeidsposisjoner hendekløyning plassert i forhold til arbeidersteden	1	1	0			
53	Sitter vasker slik plassert at det ikke spruter vann på kjøttet med bruk	1	1	0			
54	Sitter knivskreller slik plassert at det ikke spruter vann på kjøttet med bruk	1	1	0			
55	Sitter arbeidsposisjoner slik plassert at det ikke spruter vann på kjøttet med bruk	1	1	0			
56	Er knivskreller slik konstruert at hele bladet og overgangen til handle er godt vasket	1	1	0			
57	Er alle kjøtt tilgjengelig ved vasken	3	2	0			
58	Temperatur på vann i håndvask	1	2	0			
59	Temperatur i knivskreller ved skillestadiet	1	2	0			
60	Temperatur i knivskreller gjennom dagen	3	2	0			
61	Temperatur i håndvasker ved skillestadiet	2	0				
62	Temperatur i håndvasker gjennom dagen	3	2	0			

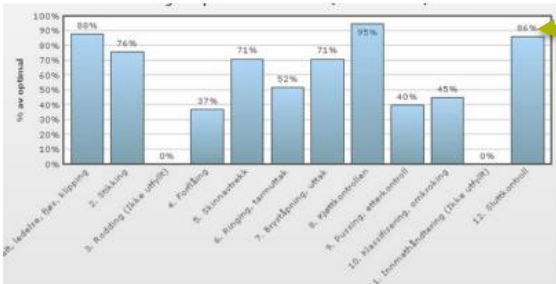
Protocol: a systematic evaluation of hygienic practices of each operation.

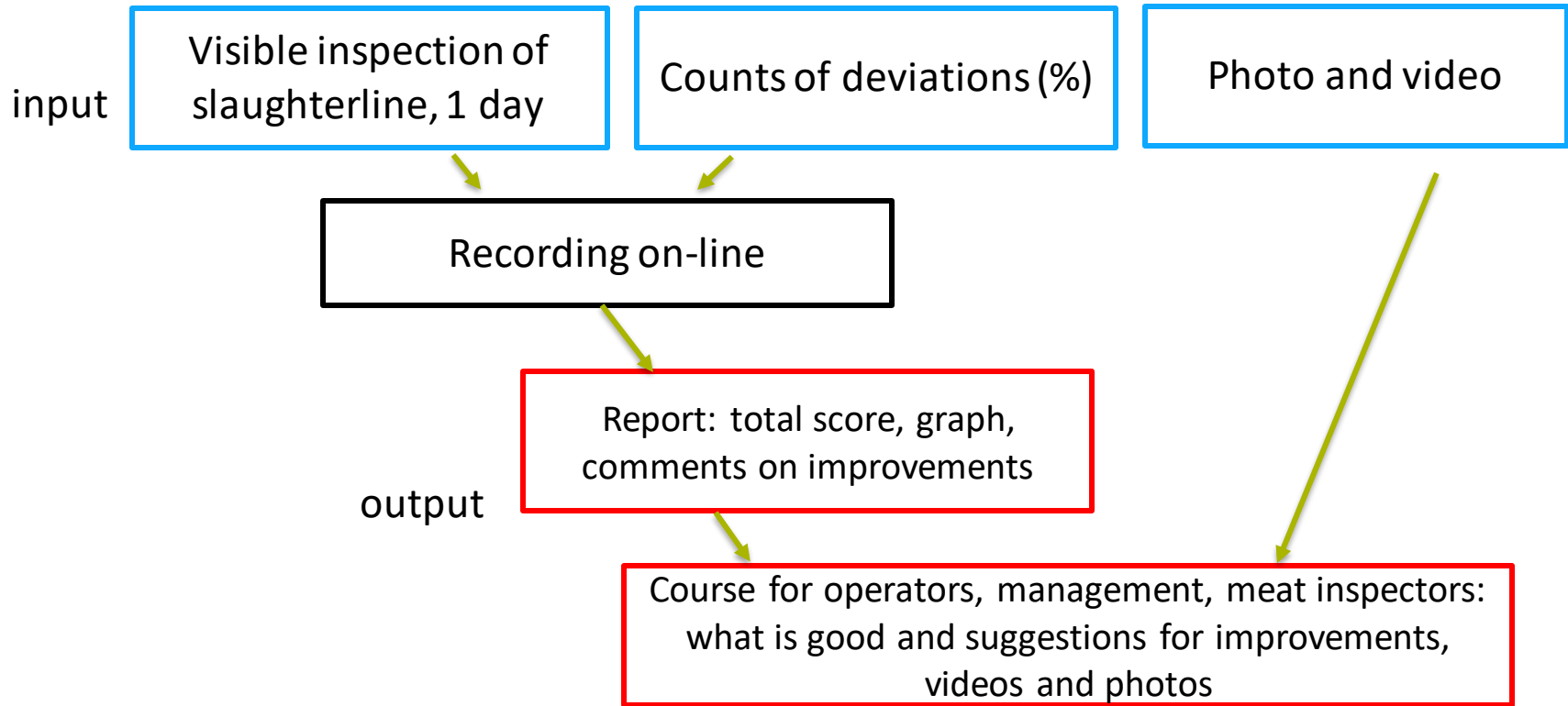
Scores: 1 = “acceptable”, 2 = “potential for improvement”, and 3 = “not acceptable”.

Weight factor for hygienic impact (1, 3, 6 or 12) and economic consequences (significant investment (1) or a cheap quick-fix (2))

Calculate into a percentage where 100% is perfect hygiene.

Course: Presentation of results for all





Examples:
dirty knives



hole in intestins/rectums



rodding errors



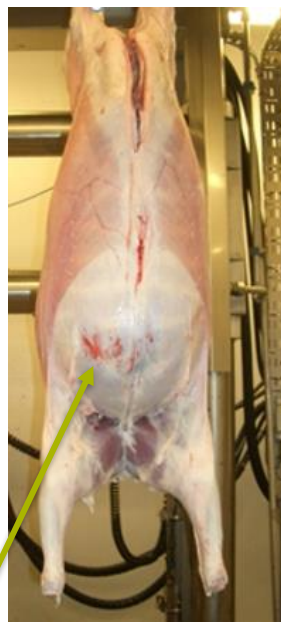
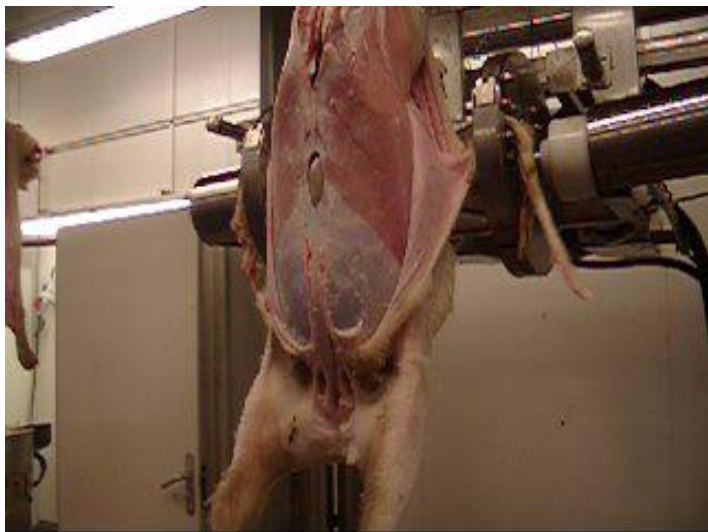
Counting
- > find %

Photo: S.J. Hauge

Counts of deviations

No	Checkpoints	Registrations	Errors	%	Comments
88	The carcasses gulp rumen content from stinging to hanging the front part				
91	Correct rodding	50	7	14	less than last year
92	Holes are cut in the abdominal wall when cutting off the udder / testicles, so that the intestines come out and are contaminated				
94	Pieces of skin are left behind deskinning, and must be removed manually				
96	Torn intestine at deskinning				
100	The operator at circum-anal incision must put his hand into the abdomen to remove internal genitals and bladder				
102	Feces in the pelvis after evisceration	25	3	12	
103	Injured rectums at circum-anal incision	25	4	16	
104	Injuries on intestine /corpus at evisceration				
105	Spills of bile on carcass at removal of gallbladder				
111	Sufficiently cut off at neck clipping				
114	Visible remnants of feces on carcass				
115	Cisible hand marks on carcass				
116	Unacceptable amount of bloodshed on carcass				
117	Visible marks of fleece touching the carcass				
118	Wool remnants on carcass				
119	Membranes are torn on the thighs				
120	Tails are cut so short that the intestinal mucosa follows				

Example: deskinning



Less power -> better result

Videos: S.J. Hauge

Comparing HPR with microbiological testing of carcasses

20 slaughterlines in Europe

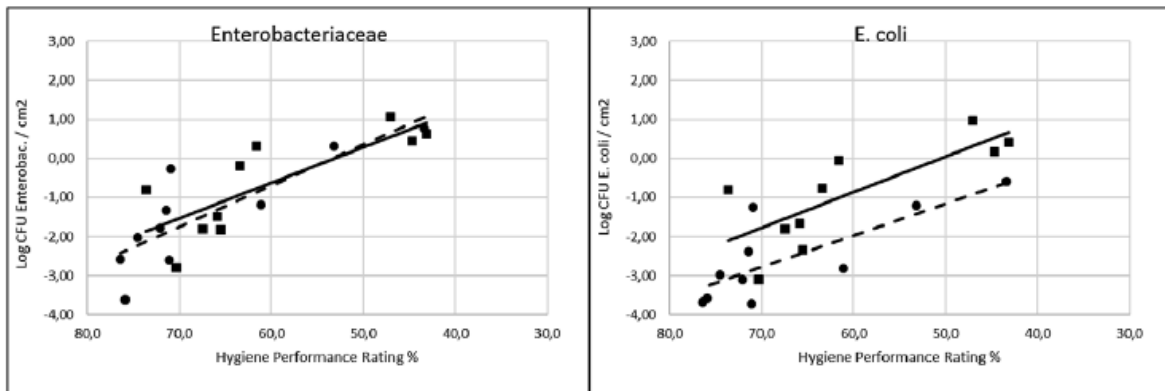


Fig. 3. The relationship between HPR results on the x-axis and microbiological carcass hygiene on the y-axis. The mean of log/cm² Enterobacteriaceae (graph to the left) and *E. coli* (to the right) on cattle (dots) and sheep carcasses (squares). The dashed line showed the regression line for cattle and the solid line for sheep. NB: The x-axis is reversed, with low hygienic scores to the right, high to the left of the x-axis.

Good hygiene



Poor hygiene



Food Control

journal homepage: www.elsevier.com/locate/foodcont

Slaughter hygiene in European cattle and sheep abattoirs assessed by microbiological testing and Hygiene Performance Rating

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Conclusion

- HPR could be a useful proxy measure for improving slaughter hygiene and risk management.
- A study performed in 20 European slaughter lines found a close relationship between the total HPR score and the *Enterobacteriaceae* and *E. coli* results of the carcasses.



MethodsX

journal homepage: www.elsevier.com/locate/mex



Method Article

Hygiene performance rating—An auditing scheme for evaluation of slaughter hygiene



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A B S T R A C T

The Hygiene Performance Rating scheme is developed by Animalia in Norway. This unique auditing tool for