

DG –SANCO

Workshop on pig welfare

**Economic impact of the implementation of EU
legislation**

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Animal Welfare Legislation

PIGS

Council Directive 2008/120/EC of 18 December 2008
laying down minimum standards for the protection of pigs

Application of Welfare Legislation PIGS

More restrictive housing requirements for pig farms:

- ❖ **minimum floor area available** for sows (2,25 m²/head) and gilts (1,62m²/head) kept in group
- ❖ **banning of crates for pregnant sows and gilts** from the fifth week after service until one week before farrowing
- ❖ permanent access to **manipulable material**
- ❖ **banning of totally slatted floor** for sows and gilts (solid floor at least 0,95 m² per gilt and at least 1,3 m² per sow)

Application of Welfare Legislation PIGS

❖ when **concrete slatted floors** are used for pigs kept in groups the *maximum width of the openings* must be 11 mm for piglets, 14 mm for weaners, 18 mm for rearing pigs, 20 mm for gilts after service and sows and the *minimum slat width* must be 50 mm for piglets and weaners and 80 mm for rearing pigs, gilts after service and sows

These provisions shall apply on all holdings from 1 January 2013

Methodology (1)

Assessment of costs and benefits

- Simulation on standard farm type
- Definition of typical farms in Italy, Netherlands and Sweden (Welfare Quality project)
- Modelling analysis of costs and benefits

Methodology (2)

Assessment of farmers opinion

Telephone interviews in Sweden, Netherlands and Italy of:

- 470 Pig farms

Common questionnaire has been designed

Methodology (3)

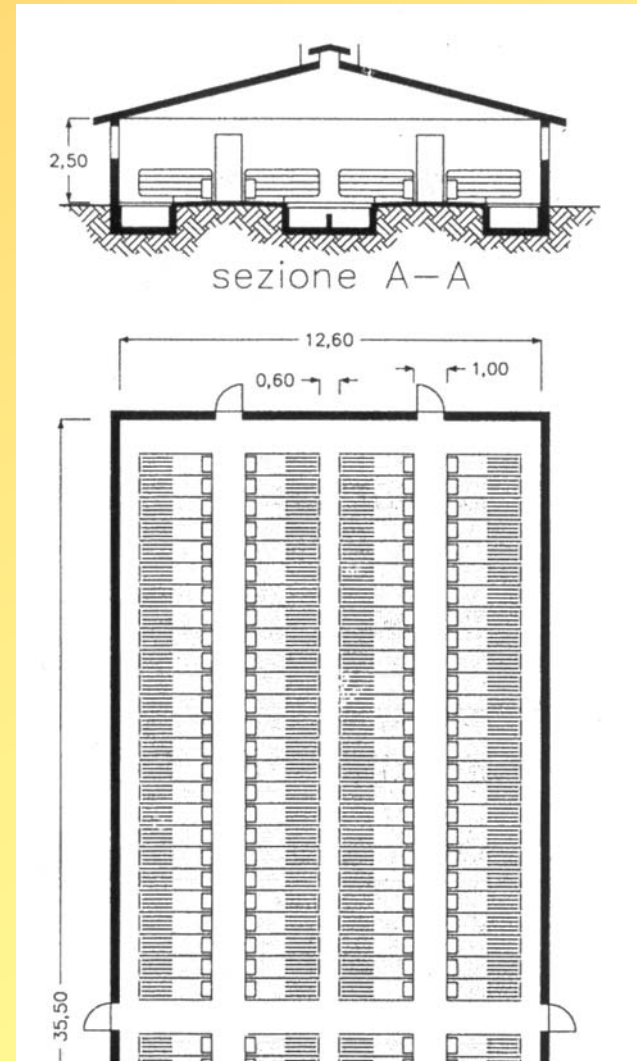
View of multiple retailers and processing industry on WQ assessment scheme

Data collection carried out by means of questionnaires sent by e-mail to the members of the European Animal Welfare Platform and companies involved in the first phase of Welfare Quality

Application of Welfare Legislation PIGS

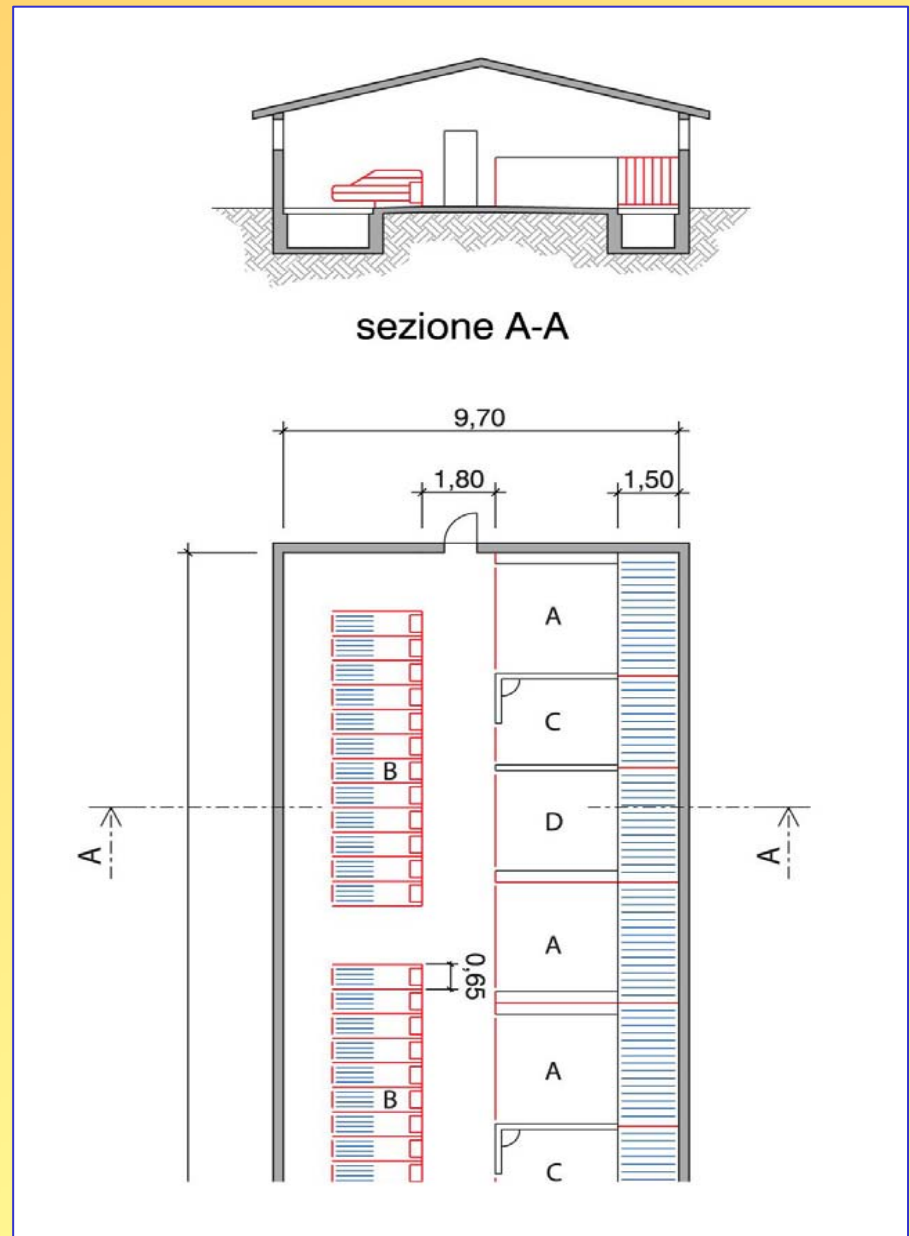
Individual crates during
pregnancy phase

BANNED FROM 1/1/2013



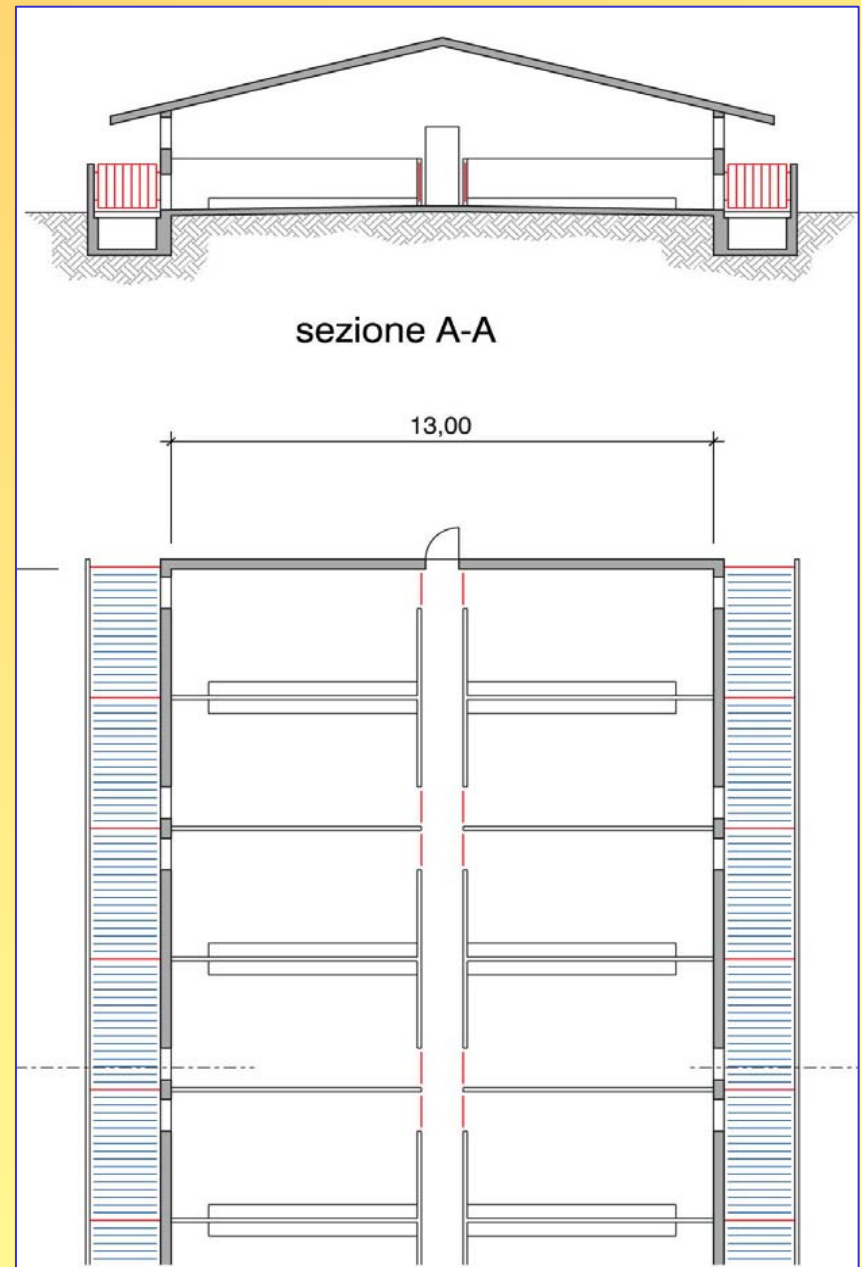
Application of Welfare Legislation PIGS

Individual crates (first phase until the fourth week after service) and collective pens with partially slatted floor



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Collective pens with solid
floor and open dung alley



Additional housing costs for application of sows welfare (new building)

Unit/Investment	N. places	Housing system with individual crates for sows		Group housing of sows after 4 weeks of insemination		% var.
		€/place	investment €	€/place	investment €	
Insemination 1st phase*	65	1.270	82.550	1.531	99.515	20,6
Pregnancy 2nd phase	66	1.180	77.880	1.257	82.962	6,5
Farrowing	36	3.684	132.624	3.684	132.624	0,0
Weaning	462	370	170.940	370	170.940	0,0
Maiden gilts	15	600	9.000	600	9.000	0,0
Growing up to 50 kg	296	320	94.720	320	94.720	0,0
1st phase fattening	560	480	268.800	480	268.800	0,0
2nd phase fattening	560	700	392.000	700	392.000	0,0
Other investments			370.000		370.000	
Total investment			1.598.514		1.620.561	1,4

Source: CRPA

Adjustment costs for group housing of sows in existing farms

Unit/Investment	N. places	Housing system with individual crates for sows		Group housing of sows after 4 weeks of insemination		% var.
		€/place	investment €	€/place	investment €	
Insemination 1st phase*	65	1.270	82.550	1.320	85.800	3,9
Pregnancy 2nd phase	66	1.180	77.880	1.780	117.480	50,8
Farrowing	36	3.684	132.624	3.684	132.624	0,0
Weaning	462	370	170.940	370	170.940	0,0
Maiden gilts	15	600	9.000	600	9.000	0,0
Growing up to 50 kg	296	320	94.720	320	94.720	0,0
1st phase fattening	560	480	268.800	480	268.800	0,0
2nd phase fattening	560	700	392.000	700	392.000	0,0
Other investments			370.000		370.000	
Total investment			1.598.514		1.641.364	2,7

Source: CRPA

Pig meat production cost

	Feed	Other	Buildings	Total
UK	0,89	0,15	0,56	1,78
NL	0,78	0,26	0,42	1,46
FR	0,80	0,31	0,40	1,51
IT	1,13	0,32	0,38	1,84
DK	0,78	0,27	0,36	1,40
BE	0,86	0,24	0,42	1,52
DE	0,77	0,34	0,49	1,60
ES	1,01	0,26	0,30	1,57

Source: Interpig

Production cost increase due to group housing of sows

	€cts	Var. %
NL	1,1	0,8
FR	1,1	0,7
IT	1,0	0,6
DK	1,0	0,7
BE	1,1	0,7
DE	1,3	0,8
ES	0,8	0,5

Source: CRPA

Other requirements of Dir 2008/120/EC

- Art. 6: Appropriate training courses are available focused on welfare aspects
- Annex I Chapter II: Measures shall be taken to minimise aggression in groups
- Annex I Chapter I: Pigs must have permanent access to a sufficient quantity of material to enable proper investigation and manipulation activities: straw, hay, wood, sawdust, mushroom compost, peat or a mixture of such

Costs and benefits of training course for pig farmers

- Pig reproductive performance increases with on average 7%
- Pre-weaning mortality is being reduced
- Feed costs per sow increase due to higher number of piglets

Percentage variation

	NL	IT	SE
Labour	0	0	0
Housing	1,4	2,2	1,5
Feed	9,7	6,8	6,5
N. piglets per sow	10,6	12,2	10,9
Production costs piglet	-6,5	-6,9	-7,8

Source: WUR-LR and CRPA

Costs and benefits of high fibre feed for pregnant sows

- 30% NDF in diet
- Lower energy content, lower price but higher use: increase of feed costs
- Vet costs decline
- NL: feeding station with wet sugar beet pulp
- IT concentrates with dry beet pulp

Percentage variation

	NL	IT
Labour	-4,1	0,0
Housing	4,5	0,0
Feed	4,0	2,3
Vet	-8,8	-8,9
Production costs piglet	0,6	0,6

Source: WUR-LR and CRPA

High fibre content in diet of pregnant sows

- Just over one half of pig farmers are convinced that a higher fibre content in the diet of pregnant sows will reduce their aggressive behaviour
- Farmers consider cereal bran the most suitable fibre source followed by beet pulp
- 71% of NL, 58% of SE and 41% of IT farmers is prepared to change the diet in order to reduce aggressiveness of SOWS

Provision of straw

	Netherlands		Italy	
	Standard	Use of straw	Standard	Use of straw
Number of pigs	3.035	3.035	2.000	2.000
Use of straw (kg/pig/week)	0,00	0,35	0,00	0,35
Extra labour (h/pig)		0,09		0,09
Treating pigs with tail biting		-0,005		0,005
Mortality (%)	2,700	2,656	4,000	3,957
Meat price	1,250	1,251	1,560	1,561

Source: WUR-LR and CRPA

Production cost increase due to the provision of straw (%)

	Netherlands	Italy
Labour	10,2	6,7
Housing	0,0	0,0
Interest	0,0	0,0
Piglet	0,0	0,0
Feed	0,0	0,0
Health care	-1,4	-2,1
Mortality	-1,1	-1,1
Other costs (e.g.straw)	6,1	4,2
Production costs	0,9	0,7

Source: WUR-LR and CRPA

Would you be prepared to provide straw to reduce tail biting?

	Yes	%	No	%
Italy	48	38,7	76	61,3
Sweden	117	97,5	3	2,5
The Netherlands	32	31,1	71	68,9
Total	197	100	150	100

Marketing conditions for WQ assessed commodities (1)

- Willingness to pay by consumers for products having a higher animal welfare content is very limited
- Cost increase due to WQ system is accepted to a limited extent
- Retailers retain that the upstream actors in the supply chains will have to sustain the costs of upgraded animal welfare
- Processing industries are claiming a higher price paid by the retailers.

Marketing conditions for WQ assessed commodities (2)

- Chance of introduction of WQ assessment scheme heavily depend on its practicality and the costs of the implementation
- WQ scheme may have a important chance to be introduced into existing multiple retailers schemes

On going economic research in FP7 on AW



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