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# ORGANIC PIG AND POULTRY PRODUCTION: WHAT ARE THE ANIMAL WELFARE CHALLENGES?

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# Introduction

Organic production = High degree of expression of natural behaviour

But they are still welfare challenges (van de Weerd et al 2009, Sutherland et al 2013)

Similar to conventional  
production

Specific to organic systems  
such as

- Use of a range (predation, parasitism, weather...)
- No antibiotics use
- ...

High diversity of systems  
=  
Diversity of welfare  
problems

Improving rearing methods =

- screen the practices applied in organic farming systems
- identify the best practices from the welfare point of view

# What are the challenges in organic pig and poultry production ? Method

Interviews of key informants (11 per country) in Italy, France, Finland and United Kingdom

Farmers

Slaughter house-Meat (or egg) quality

Premix producer

NGOs involved in animal welfare

Genetic selection firms representatives

Vets involved in veterinarian union



# What are the challenges in organic pig and poultry production ? Method

Peer-reviewed articles

**PRISMA methods:**  
example of  
laying hens

Full articles  
(n=144)

Project research

Selection of projects  
(77 projects from 294)

National and international  
standards

Identification of  
systems  
(webropol survey)



Inventory of  
practices

# What are the challenges in organic pig production?

## From the interviews

United Kingdom		Finland	
France	<i>Destruction of park</i> <i>Pollution</i>	<i>Human welfare</i> <i>Biosecurity</i>	
	<i>Parasitism</i> <i>Insolation burns</i> <i>Aplomb</i> <i>Parturition in freedom</i>	<i>Aggressiveness</i> <i>Competition</i> <i>Water quality</i>	<i>Feeding</i> <i>Cannibalism</i> <i>Mortality</i> <i>Weather</i>
	<i>Castration</i>	<i>Predation</i> <i>Robustness</i>	
Italy	<i>Environment plan</i>	<i>Lack of expression of natural behaviour</i>	<i>Flock size and density</i>

Legend: *Word* mentioned by only one interviewee per country,

□ by one country , □ by two countries and □ by three countries



# What are the challenges in organic pig production?

Health	Behaviour	Management practices
<p>Biosecurity</p> <p>Neonatal mortality</p> <p>Parasitism</p> <p>Other infectious problems</p> <p>Diarrhoea</p> <p>Robustness</p> <p>Insolation burns/sunburns</p> <p>Footing</p> <p>Use of alternatives to antibiotics</p> <p>Feeding</p> <p>Water quality</p>	<p>Neonatal mortality due to a lack of maternal behavior</p> <p>Cannibalism/ Tail biting</p> <p>Low expression of natural behavior</p> <p>Aggressiveness</p> <p>Competition for food</p> <p>Destruction of park</p> <p>Sexual behaviour inducing lesions in entire male rearing</p>	<p>Reproduction</p> <p>Weather risks</p> <p>Risk of predation</p> <p>Castration</p> <p>Group size and stocking density</p> <p>Environment plan</p> <p>Pollution</p> <p>Light</p> <p>Human welfare</p>

# Inventory of welfare practices in organic pig production systems in the EU: Behaviour challenges

Issue	Item	Rationale of solution in pig production
Tail biting	Management	<ul style="list-style-type: none"> <li>• Food and air quality and lower density limit tail biting</li> <li>• Enrichment to occupy piglets</li> <li>• Socialization at early stage</li> </ul>
	Technology	Different tools are monitoring piglets and alerting the farmer in order for him to intervene and stop the cannibalism when tails are not docked.





# Inventory of welfare practices in organic pig production systems in the EU: Behaviour challenges

Issue	Item	Rationale of solution in pig production
Lack of expression of natural behavior	Management	Deep litter and straw provide more possibilities for pigs to express their natural behaviour than slatted floors.
Aggressiveness	Management	<ul style="list-style-type: none"> <li>• Taming sows thanks to rewards such as sugary food</li> <li>• Piglets socialization thanks to high door during maternity. Sows are separated but not piglets.</li> <li>• Inside fence to create a spare space before the introduction of a new lot seems to limit competition</li> </ul>
	Genetic	Aggressiveness depends on the strain.





# What are the challenges in organic poultry production?

From the interviews

United Kingdom

Finland

		Field management		Human welfare
France	Worm infection <i>Pododermatitis</i> <i>Arthrosis</i> <i>Water quality</i> <i>Time spent by farmers</i> <i>Catching</i> <b>Nervousness</b>	Fractures	Feather pecking Weather	Robustness
			Food Biosecurity Lack of expression	Predation Environment
			Regulation Flock size and density	
Italy				

Legend:

*Word* mentioned by only one interviewee per country

**Word** mentioned by at least half the interviewees per country

mentioned by two countries

mentioned by three countries

mentioned by all four countries



# What are the challenges in organic poultry production?

Health	Behaviour	Management practices
Biosecurity Parasitism Digestive diseases Arthrosis, Pododermatitis Use of alternatives to antibiotics Water quality Mortality Feeding Osteoporosis Robustness Fractures	Feather pecking Fearfulness Use of the outdoor space Lack of expression of natural behaviour	Risk of predation Weather risks Environment Flock size and stocking density Human welfare/well-being Time spent with the animals by farmers Depopulation/loading procedure Range management

# Inventory of welfare practices in organic poultry production systems in the EU : Management challenges

Issue	Item	Rationale of solution in poultry production
Predation	Management	<u>Guarding animals</u> reduce the losses due to predation <u>Outdoor space</u> Shade, brambles and other structure which allow the hens to hide.
Coping with weather	Building design and light use	Mobile house is a potential lever to cope with adverse weather.
	Management	<u>Housing:</u> Ventilation in the buildings is a lever against hot weather. <u>Early life:</u> Incubation conditions can help to increase the resistance to heat stress and thus coping with hot weather.
	Genetics	Developing genetic resistance to heat stress



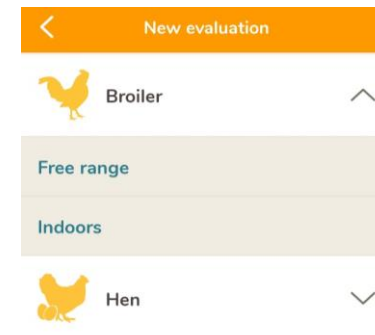


# Inventory of welfare practices in organic poultry production systems in the EU : Management challenges

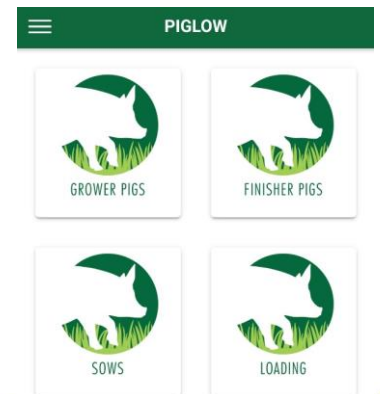
Issue	Item	Rationale of solution in poultry production
Hatching	Management	Pre- and post-hatching are decisive steps for health since early stress can have negative long-term effects. Solutions could be feed during the transport or on-farm hatching for e.g.
Nutrition	Against unbalanced diets	<ul style="list-style-type: none"> <li>• Training of the farmer allows limiting this issue.</li> <li>• The run can be a source of nutritional resources.</li> </ul>
Management	<b>Welfare assessments</b>	<b>Evaluation of animal welfare by self-assessment tools</b>



EBENE App



PIGLOW App

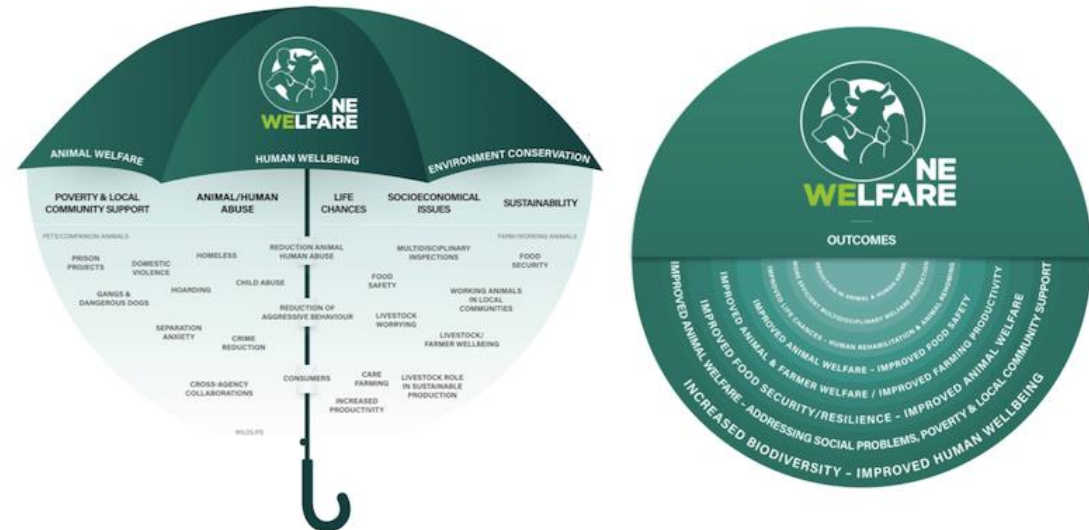


# Conclusion

Shortlist of practices that could be used to improve animal welfare while taking into account farmer wellbeing and sustainability and so contributing to “One Welfare”



## ‘ONE WELFARE’



Garcia Pinillos et al. Veterinary Record 2016, 179: 412-413

<http://veterinaryrecord.bmj.com/content/179/16/412/DC1/embed/inline-supplementary-material-1.pdf>

[www.onewelfareworld.org](http://www.onewelfareworld.org) @onewelfare onewelfare

This shortlist will be used further to work on improving welfare in organic and low input systems directly with the practitioners in a participatory approach.



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*Thank you for your attention*

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**Thank you!**

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