Social and ethical aspects of (alternatives to) the killing of day-old male chicks

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Introduction, origin of the issue

- Since the fifties: demand for safe and cheap food
 - Innovation / new techniques and developments (housing, veterinary care, etc.)
 - Competition in sector
- → Specialised and efficient poultry sector

- Main consequences:
 - Demand for safe and cheap food is met



Public concern about treatment of animals



Introduction, alternatives

Raise the males for meat production

Different ways to achieve:

- Rear layer males
- Use a less specialised chicken



Introduction, alternatives

In ovo sex determination

Different moments

- Before incubation (most likely possible with GM)
- During incubation

Different techniques

- Analyse a sample from the egg
- Direct optic techniques (spectroscopy)
- Genetic Modification (GM) to facilitate optic detection



Research questions

Why is the killing of day-old chicks problematic?

Which ethical aspects are involved in the different situations?

Do the alternatives have the potential to really solve the problem of killing day old male chicks?



Method

Reflective Equilibrium Model (REM)

- Exploration
- Explicitation
- Analysis
 - Who are involved and what is their perspective?
 - Which arguments are relevant to answer the moral question?
 →Ethical Matrix
- Consideration
- Approach



Ethical matrix

Respect for:	Well-being / to do good	Autonomy / choice	Justice / fairness
Citizen	Food safety Acceptability	Consumers' choice	Affordable product Availability
Egg sector	Maintain profitable Quality of life	Freedom of management	Fair trade Fair legislation
Day-old male chicks	Animal welfare	Integrity Right to life Naturalness	Intrinsic value
Environment	Use of resources Waste output		



Arguments

Current situation

Positive:

- Efficient production
 - Affordable source of animal protein
 - Low environmental impact per unit of product

Negative:

- The aspects concerning day-old chicks
 - Interpretation and rating of importance differs between different groups of people)



Ethical matrix, current situation

Respect for:	Well-being / to do good	Autonomy / choice	Justice / fairness
Citizen	Food safety Acceptability -	Consumers' choice	Affordable product + Availability
Egg sector	Maintain profitable Quality of life	Freedom of management	Fair trade Fair legislation
Day-old male chicks	Animal welfare -	Integrity Right to life Naturalness	Intrinsic value -
Environment		Use of resources Waste output	



Arguments

Dual purpose

Positive:

- Aspects concerning day-old chicks improve (importance depends on stakeholder)
- Freedom of choice

Negative:

- Relatively inefficient production
 - More expensive product
 - Market
 - Higher environmental impact



Ethical matrix, dual purpose

Respect for:	Well-being / to do good	Autonomy / choice	Justice / fairness
Citizen	Food safety Acceptability	Consumers' choice	Affordable product - Availability
Egg sector	Maintain profitable — Quality of life	Freedom of management	Fair trade Fair legislation
Day-old male chicks	Animal welfare +	Integrity Right to life Naturalness	Intrinsic value +
Environment		Use of resources Waste output	



Arguments

In ovo sex determination

Positive:

- Efficient production
 - Affordable source of animal protein
 - Low environmental impact

Positive / Negative:

- Aspects concerning day-old chicks improve or become worse, depending on
 - Technique (e.g. invasive vs. non-invasive or GM vs. no GM)
 - View (e.g. citizen or sector)



Ethical matrix, in ovo sex determination

Respect for:	Well-being / to do good	Autonomy / choice	Justice / fairness
Citizen	Food safety Acceptability	Consumers' choice	Affordable product Availability
Egg sector	Maintain profitable Quality of life	Freedom of management	Fair trade Fair legislation
Day-old male chicks	Animal welfare +	Integrity Right to life Naturalness	Intrinsic value + / -
Environment	Use of resources Waste output		



Discussion

- Examples of ethical dilemmas:
 - Inefficient production with dual purpose (environment vs. animal and market vs. animal)
 - How to value importance of killing a young animal vs. killing an embryo at certain stage?
 - How important is the utilization of the chicks/embryos?
 - How to weight the different interpretation and appreciation between, for example, citizen and sector?
 E.g. with regard to production efficiency?



Conclusions

- Killing of day-old chicks is problematic because the aspects intrinsic value, animal integrity and right to life are violated
- Dual purpose alternative:
 - Most positive in relation to the ethical objections with regard to the animal
 - Inefficient (environment/market)
- In ovo gender determination:
 - Change in animal related objections: partly improves
 - Efficient
- Alternatives give rise to new ethical dilemmas:
 - Difficult to compare



Questions or remarks?

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