

Produce, Provenance & Sourcing

BMGM4005

Week 7: Food Production Methods

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What is important to you when purchasing animal products for your home?

What is important to you when purchasing animal products for your business?

What is Animal Husbandry?

Animal husbandry, (animal agriculture) is the branch of agriculture that focuses on the breeding, raising, and care of domesticated animals for various purposes, including food production, labor, and companionship. This practice involves the management of livestock such as cattle, sheep, goats, pigs, poultry, and other animals.

Extensive Grazing and Outdoor Systems

- Pasture-Based Animal Husbandry
- Free-Range Farming
- Pastured Poultry
- Sheep and Goat Farming
- Horse Husbandry (Equine)
- Companion Animal Husbandry

Intensive Farming Systems

- Intensive Animal Farming (Conventional)
- Poultry Farming
- Pig Farming (Swine Husbandry)

Specialised Farming Systems

- Organic Animal Husbandry
- Dairy Farming
- Beef Cattle Farming
- Aquaculture (Fish Farming)
- Rabbit Farming (Cuniculture)
- Specialty Animal Husbandry

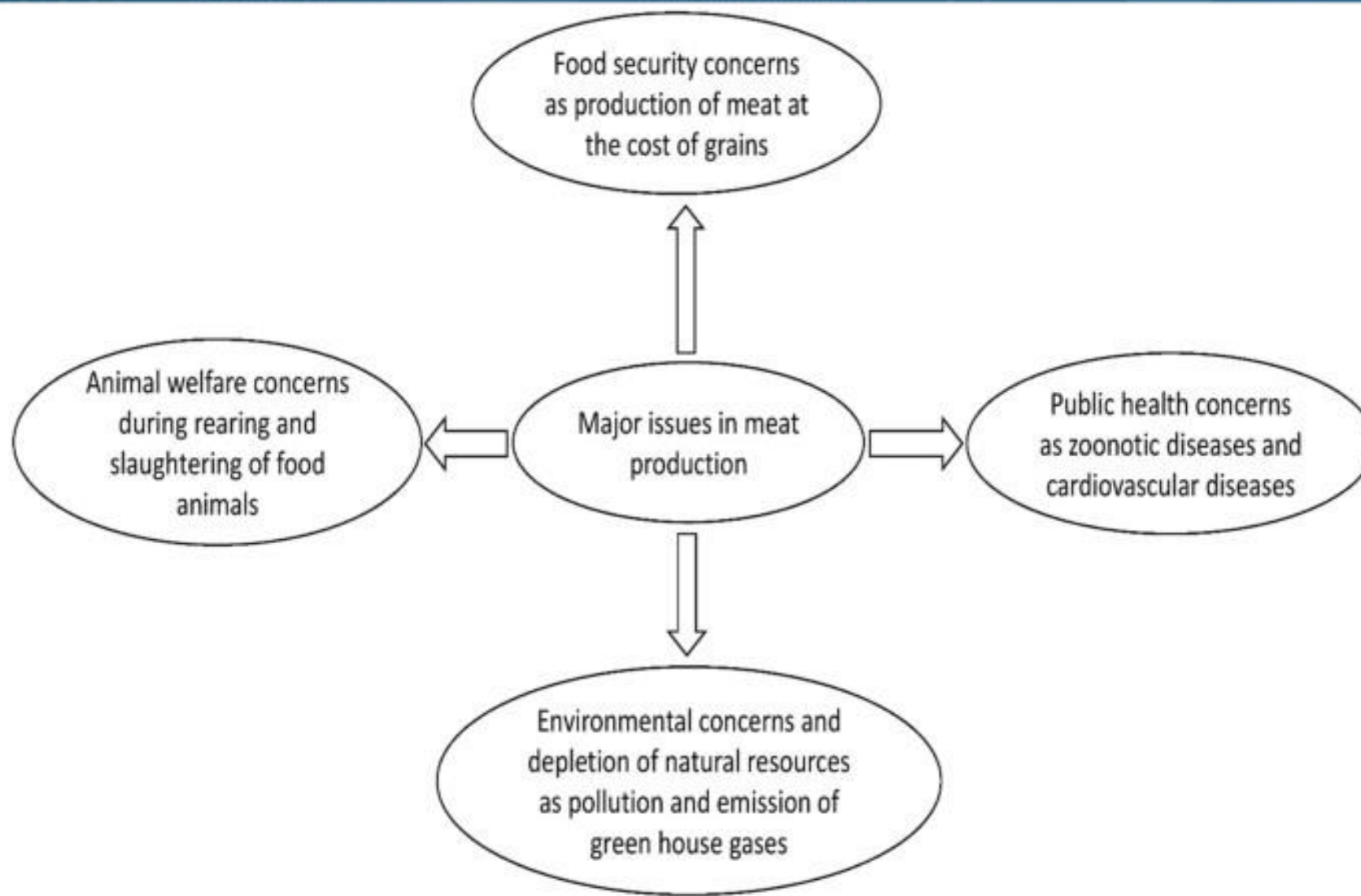


Figure 1. Issues related to the production of animal meat.

(Singh and Sit, 2022)

A person wearing a white protective suit and a black face mask stands in the center of a large hall. The hall is filled with rows of meat carcasses, likely pork, hanging from hooks. The lighting is warm and the scene appears to be a meat processing facility.

The great meat debate

Animal Welfare

Do consumers care?



Animal Welfare – Chickens





Animal Welfare – Chickens

- Cruelty Free
- Free Range
- Organic

Organic Egg

Organic standards ensure the enclosure is rested between flocks, allowing more time for vegetation to grow back, and gives hens access to the outdoors at 12 weeks - a much younger age than free range systems.

Hens are fed a diet free from genetically modified (GM) ingredients. Not given routine antibiotics, which are often overused in other farming practices

(Robinson, 2019)

Free Range Eggs



Free range birds have unlimited day time access outside and are housed in barns with bedding and perches. Space indoors is set at 9 hens per m² and under the RSPCA-assured and British Lion standards, free range flocks are capped at 16,000.

(Robinson, 2019)

Caged Eggs

The worst practices of battery cages were prohibited by the EU in 2012, but 'enriched' or 'furnished' cages are legal - although there are questions over whether they're really any better. With up to 17 birds allowed per square metre, no limit on the flock size and beak-trimming routine, many retailers no longer stock eggs from caged hens.

(Robinson, 2019)

A quick summary of Egg Farming

How much indoor space?		
Organic eggs 6 hens per m ²	Free range eggs 9 hens per m ²	Caged eggs 17 hens per m ²
How much outdoor space?		
Organic eggs 4m ² per hen	Free range eggs 4m ² per hen	Caged or barn No outdoor access
Maximum flock size		
Organic eggs 3,000	Free range eggs 16,000	Caged eggs Unlimited

(Robinson, 2019)

Activity - Discussion

- Should we buy free range egg, organic eggs or normal (caged) eggs?



Chicken's

What type of chicken farm is this?

Scan and read the article



Environmental Concern

- Do you like Beef?



Vex

Charm

Alice

?





List of Reference

Robinson, P. (2019) *Ethical eggs: how organic is different*. Available at: <https://goorganicuk.com/blog/articles/ethical-organic-eggs#:~:text=Organic%20is%20the%20gold%2Dstandard,least%204m%C2%B2%20of%20space%20outdoors> (Accessed: 07 Oct 2023).

Schuetzendorf, F. (2023) *Top 10 Trends in the Food and Beverage Industry*. Available at: <https://hospitalityinsights.ehl.edu/food-and-beverage-industry-trends> (Accessed: 11 Sep 2023).

Singh, A. and Sit, N. (2022) Meat Analogues: Types, Methods of Production and Their Effect on Attributes of Developed Meat Analogues. *Food Bioprocess Technol* 15, pp. 2664–2682

Wilson, A., Chandry, P.S., Turner, M.S., Courtice, J.M. and Fegan, N. (2021) Comparison between cage and free-range egg production on microbial composition, diversity and the presence of *Salmonella enterica*, *Food Microbiology*, 97, pp.1-9