BVA British Veterinary Association | Policy statement

BVA, BCVA, GVS and BVPA position on surplus male production animals

Executive summary

The specialisation of breeds for desirable food production traits, such as high yield milk, meat and egg production, has created a problem of unwanted offspring in some farmed species[1]. Many of these animals are killed at a young age, often shortly after birth. This raises ethical issues, although the killing of animals is not a welfare harm per se providing it is carried out humanely.

Sentient animals are capable of experiencing positive and negative feelings such as pain, frustration and contentment. Where animals are used for human benefit this should be exercised with responsibility, and with consideration and compassion for the animals concerned.

The overarching priority should be the five welfare needs, the principle of a life worth living and a humane death. We believe that:

Recommendation 1: Quality of life should always take precedence over lifespan.

Recommendation 2: The dairy and egg industries should aim to move away from the production of surplus animals and seek solutions to the killing of unwanted animals.

Recommendation 3: The dairy and egg industries should adopt a '3 Rs' (reduce, replace, refine) approach to the rearing and slaughter of animals which are surplus to the requirements of the main production requirements of the enterprise.

Recommendation 4: Further research should be carried out into practical methods for reducing the number of unwanted male offspring produced.

Recommendation 5: Although the development of the market for meat from otherwise unwanted male calves and goats should be explored, animals should only be reared for meat if the production system allows for a good life and humane death.

Recommendation 6: The markets for high-welfare UK veal and goat meat should be promoted, to increase demand and reduce the need for on farm slaughter of surplus male animals.

Recommendation 7: Farmers considering exporting animals should first consider the recommendations laid out in the BVA position on the welfare of livestock during transport.

Recommendation 8: Killing must always be undertaken in ways which are humane to reduce animal welfare harms, regardless of economic pressures. Veterinary professionals should inform themselves about how their clients are killing surplus animals and, when necessary, offer guidance on legislative requirements and good practice.

Recommendation 9: Further research should be carried out into practical methods for refinement of on-farm killing methods so that surplus animals are killed as humanely as possible.

Recommendation 10: When animals are killed, the dairy and egg industries should make efforts to ensure the carcass is used to reduce wastage and improve sustainability.

Recommendation 11: The public should have access to reliable factual information on production methods which require routine killing of unwanted healthy animals, in order that the range of harms can be widely understood and to generate public interest in potential solutions.

[1] Wolfschmidt M., Das Schweinesystem: Wie Tiere gequält, Bauern in den Ruin getrieben und Verbraucher getäuscht werden ISBN-10: 3100025466

Recommendation 12: Farm Assurance Schemes should be promoted to better enable customers to make sustainable and ethically informed choices about the food products they buy and the impact of these products on animal health and welfare.

Recommendation 13: Within the context of One Health, the agricultural sector and veterinary profession should promote the benefits of sustainable consumption, the concept of "less and better", and the benefits of properly valuing quality animal-derived products, where quality encompasses good animal health and welfare, food safety, environmental protection and fair returns for producers.

Introduction

The specialisation of breeds for desirable food production traits, such as high yield milk, meat and egg production, has created a problem of unwanted male offspring in some farmed species[2]. Many of these animals are killed at a young age, often shortly after birth. Although the killing of surplus animals is something which, understandably, may be distasteful to consumers, it is not a welfare harm per se providing it is carried out humanely[3], that is to say, the animal is protected from avoidable excitement, pain or suffering.

Sentient animals are capable of experiencing positive and negative feelings such as pain, frustration and contentment. Where animals are used for human benefit, including for food, clothing, entertainment, sport, scientific research, transport and companionship, this should be exercised with responsibility, and with consideration and compassion for the animals concerned.

This issue affects large numbers of male dairy calves (bobby calves), which do not have the desired genetic traits for economic meat production and so are often not considered suitable for typical beef rearing. In 2015, 19% of bull calves were killed shortly after birth (approximately 95,000 calves)[4]. This number is thought to be decreasing, but the AHDB methodology for estimating the numbers is currently under review to take into account increasing quantities of sexed semen used (see 'Reduce' section for more information).

It also affects large numbers of male chicks of layer strains, which have no commercial value since they do not lay eggs and their slow growth makes them unsuitable for economic meat production. This affects approximately 30million[5] chicks each year.

A small number of other farmed species are also affected, including male dairy goat kids. The numbers of kids killed is unknown, but the goat industry is much smaller than the cattle and egg industries. The Goat Veterinary Society (GVS) estimate the number of goats killed shortly after birth to be in the region of 3,000 kids per annum.

It can be contentious to kill healthy young animals, raising ethical issues surrounding the denial of potentially positive experiences that could have been available to the young animal. It may also pose risks to animal welfare depending on the method of killing and the treatment of the animal before it is killed.

Without a specific intended use of the carcass, the routine killing of healthy animals also constitutes wastage, which is not in line with the principle of sustainable animal agriculture. For an animal agriculture system to be regarded as sustainable, it should be undertaken in a way that is environmentally, ethically and economically acceptable for consumers, producers and wider society. As part of this, animal health and welfare should not be unnecessarily compromised to address human need.

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[2] Wolfschmidt M., Das Schweinesystem: Wie Tiere gequält, Bauern in den Ruin getrieben und Verbraucher getäuscht werden ISBN-10: 3100025466
[3] https://www.hsa.org.uk/faqs/general#n3
[4] AHDB 2018/BCMS, referenced in http://beefandlamb.ahdb.org.uk/wp-content/uploads/2018/03/CHAWG-update-on-Dairy-bull-calves-March-2018.pdf
[5] https://www.gov.uk/government/statistics/poultry-and-poultry-meat-statistics

The priority should be the five welfare needs, the principle of a life worth living and a humane death. However, where possible, the dairy and egg industries should adopt a '3 Rs' approach, to first minimise the number of surplus males being produced (reduce), then avoid the need to kill them by finding suitable markets (replace) and improve slaughter methods to minimise suffering and improve welfare (refine).

Recommendation 1: Quality of life should always take precedence over lifespan.

Recommendation 2: Dairy and egg industries should aim to move away from the production of surplus animals and seek solutions to the killing of unwanted animals.

Recommendation 3: The dairy and egg industries should adopt a '3 Rs' (reduce, replace, refine) approach to the rearing and slaughter of animals which are surplus to the requirements of the main production requirements of the enterprise.

Reduce

Further research into solutions to reduce the number of unwanted male offspring and to refine on-farm methods of killing surplus animals could be invaluable.

Selecting for sex

For cattle, dairy farmers can use sexed semen to reduce the numbers of unwanted male calves born. This has the ability to significantly reduce the number of male offspring born, potentially to zero. In 2018, 24% of semen used in the dairy industry was sexed. The number of farmers using this appears to have been increasing, and it is expected to become more popular as confidence in the technology, availability and commercial viability of sexed semen increases.

Sexed goat semen is not currently available in the UK due to patent issues. It is being trialled in other countries, however artificial insemination is difficult in goats, so this may not be a viable option. Research is being carried out on the use of embryo transfer, which may help to select the sex of the kids. However, the potential welfare harms of embryo transfer for the recipient must also be a consideration if this is to become a viable solution.

In-ovo sexing to allow the destruction of male embryos prior to hatching could provide an invaluable refinement for the egg industry. There have been issues with practical implementation at a commercial level, however this technology has recently been used for the first time in Germany[6,7], showing that it has the potential to be used commercially. It is important to note that embryos are protected under ASPA during the last third of their incubation period and must still be killed humanely.

Maximising the length of the lactation period

By increasing the length of time an animal can produce milk without needing to give birth, the frequency and therefore number of off-spring being produced will reduce.

Cows have a lactation period of 10 to 12 months, usually giving birth on an annual basis. Cattle milk production reaches peak productivity at approximately 40 to 60 days after calving, then continues to reduce every week afterwards. The lactation period usually lasts for 305 to 330 days, dependent on farm, system and yield. Deliberately extending this period, either through selective breeding or management processes, would be costly and make many farms unviable. Some production systems have also been designed around weather patterns and seasons, such as those looking to utilise spring grass growth, thus extended lactations may not be compatible with other elements of the system.

Goats can be milked for a long time without a significant fall in productivity, so can be selectively bred for longer lactations. It is possible for a goat to continue lactations for several (2 to 5) years without

[6] http://www.seleggt.com/overview/
[7] https://www.theguardian.com/environment/2018/dec/22/worlds-first-no-kill-eggs-go-on-sale-in-berlin

having a kid, and this has become common practice in the UK goat industry. Genomic research has recently been carried out which could help keepers to breed goats with longer lactations[8,9].

It is important that breeders are aware of and give appropriate consideration to any possible unintended health and welfare consequences of selecting for high yield, such as introducing other undesirable or harmful traits.

Recommendation 4: Further research should be carried out into practical methods for reducing the number of unwanted male offspring produced, and the uptake of current methods encouraged where appropriate.

Replace

When surplus male animals are produced, alternatives to replace the need for killing should be sought.

Raising male offspring for meat

As an alternative to slaughter shortly after birth, bull calves can be raised for production of veal (up to 8 months of age) or young beef/rosé veal (around 8-12 months of age). Significant steps have been made by the dairy sector to promote the uptake of dairy bull calves being retained in the British beef chain, which have had a substantial impact. The number of calves rose 59% from 245,586 calves in 2006 to 392,473 in 2015, with an estimated 81% of all male calves born to in the Great British dairy herd in 2015 being reared for beef in Great Britain[10].

It is important to remember that quality of life must take precedence over lifespan. Some calves may not be sufficiently healthy or viable to be reared for meat and considerations such as the stress of moving them to another rearing unit must be taken into account before choosing to do so.
Some methods of veal production are associated with significant animal health and welfare issues, including abnormal nutrition (e.g. an iron-deficient diet) and barren housing. To avoid these issues, EU legislation now dictates that calves must be provided with suitable bedding and fed a diet with sufficient iron and fibre[11]. It is important to note that the use of veal crates, which pose particular welfare issues to calves, is also banned under EU regulations.

High welfare UK veal schemes exist to ensure bull calves being raised for meat are treated humanely. These schemes provide the customer with additional assurances that the calves' health and welfare needs have been met. For example, RSPCA assured veal calves cannot be sold through markets and cannot be sold for export. Farmers are assessed to a set of standards that are more detailed and stricter than the minimum legal requirements[8], such as the provision of environmental enrichment from 6 weeks of age, allowing significantly more space than is legally required, and not fully weaning calves until 8 weeks of age. These high welfare veal schemes allow farmers a valuable alternative to killing bobby calves, but they can only take a limited number of calves and are dependent on consumer demand.

Dedicated supply chain initiatives have also helped to increase the number of dairy calves being reared for beef. There are a number of calf rearing operations who are contracted to regularly collect Holstein bull calves from dairy units, which then go to dedicated rearing and then finishing units to feed the beef industry. Examples include Blade Farming, StraightLine Beef and Dunbia.

The marketing options are more limited for calves on TB-restricted dairy herds. They can only be moved to an Approved Finishing Unit (AFU) or to an isolation unit, which can only deal with limited numbers and are usually full to capacity and unable to take on any new herds with a TB breakdown.

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[8] Mucha, S., R. Mrode, M. Coffey, and J. Conington. 2014. Estimation of genetic parameters for milk yield across lactations in mixed-breed dairy goats. J. Dairy Sci. 97:2455-2461.
[9] Mucha, S., R. Mrode, M. Coffey, and J. Conington. 2015. Estimation of genomic breeding values for milk yield in UK dairy goats. J.Dairy Sci. 98:8201-8208
[10] AHDB 2018/BCMS, referenced in http://beefandlamb.ahdb.org.uk/wp-content/uploads/2018/03/CHAWG-update-on-Dairy-bull-calves-March-2018.pdf
[11] EU Directive 2008/119

When sold, the price achieved barely covers the cost of rearing them to that age. Calf buying groups help to relieve some of the pressure, but the limited market remains one of the main reasons why some dairy bull calves are killed on TB restricted farms. TB continues to be the most significant animal health problem facing cattle farmers in England and Wales.

Cross-breeding may provide an option for dairy farmers to increase the value and therefore viability of calves. The farming of dual purpose breeds is a route with increasing uptake for those herds yielding up to 8,500 litres per lactation, however it may be less suitable for high input, high yielding farms (those giving 13,000 litres per lactation) who represent a significant proportion of the industry. These farms are generally those looking to reduce the number of male offspring by utilising sexed semen.

The market remains volatile, so further promotion and public education is needed to ensure a stable market in high welfare veal exists, and to provide sufficient opportunities to encourage farmers to raise the remaining bobby calves for meat.

Billy kids can also be raised for meat, often being sold early in life to dedicated meat goat rearing units. The market for goat meat is relatively small and changeable, predominantly destined for the gourmet, restaurant, and farmer markets, making it difficult for farmers to generate an income. However, there is a growing and potentially increasing demand for goat meat, which appears to be resulting in a reduction in the number of kids killed at an early age[12]. The increase in demand for goat meat also appears to have led to an increase in the use of dual dairy and meat breeds, although dairy goat breeds still produce good quality meat.

Layer chickens grow too slowly to be raised for meat economically. Whilst it is possible to have dual breeds, the egg and meat sectors are completely independent and competitive, thus need to select the most efficient genetics to be viable.

Recommendation 5: Although the development of the market for meat from otherwise unwanted male calves and goats should be explored, animals should only be reared for meat if the production system allows for a good life and humane death.

Recommendation 6: The markets for high-welfare UK veal and goat meat should be promoted, to increase demand and reduce the need for on farm slaughter of surplus male animals.

Live export of male offspring

There is a market for farmers to export calves to be raised for veal in countries outside the UK. There is not currently thought to be an export market for goat kids to be reared for meat, although this could grow as goat meat becomes more popular.

Any movement of animals will have a potential impact on their health and welfare. Whatever the type and scale of movement, the welfare of animals must be prioritised with the aim of reducing the impact of the movement as far as is reasonably possible.

Wherever possible, and paying due regard to scientific evidence regarding the relationship between journey times and welfare outcomes, animals to be slaughtered for food should be slaughtered as close to the point of production as possible.

No animal should be exported to a destination with unknown welfare standards or exported, then raised in systems banned in this country due to welfare considerations.

Any movement of animals will have a potential impact on their health and welfare. Whatever the type and scale of movement, the welfare of animals must be prioritised with the aim of reducing the impact of the movement as far as is reasonably possible. Farmers considering exporting live animals should

[12] BVA, GVS and VPHA joint consultation response to FAWC's call for information on the welfare of goats at the time of killing

ensure compliance with existing legislative requirements[13,14,15,16] and refer to the BVA Position on the welfare of livestock during transport for guidance before making a decision whether or not to do so.

There have been significant efforts to reduce the number of calves exported from the UK, with a 98% reduction between 2006 and 2014, from 80,700 to less than 2000 calves. This represented just 0.5% of dairy calves born in 2014. This decrease is largely due to improved opportunities in the UK for rearing high-welfare veal and beef and the closure of overseas markets.

Recommendation 7: Farmers considering exporting animals should first ensure compliance with existing legislative requirements and consider the recommendations laid out in the BVA position on the welfare of livestock during transport.

Refine

Whenever it is necessary to kill animals, measures should be taken to prevent avoidable suffering. All owners, managers and stockmen must understand their legal and ethical responsibilities to these animals. Slaughter must be carried out in accordance with current legislation[17], and those killing the animals should be suitably trained to do so. Keepers carrying out elective killing of animals may also need to be licensed under the Welfare of animals at time of killing regulations (WATOK).

The most humane killing methods for bobby calves or goat kids are with an appropriate firearm, or by chemical injection by a veterinary surgeon, on-farm soon after birth. Humane methods of killing male layer chicks involve using either controlled atmospheric stunning using inert gas mixtures or by instantaneous mechanical destruction, at a day old.

For appropriate slaughter methods, we support the Humane Slaughter Association's guidance on:

- Humane dispatch and disposal of infant calves
- Humane dispatch and disposal of kids and lambs
- Gas killing of chicks in hatcheries and instantaneous mechanical destruction. The gas or gas mixture is very important: argon is widely used, as carbon dioxide is aversive

We welcome developments to improve animal welfare during the stunning and slaughter process. For example, Low Atmospheric Pressure Stunning (LAPS) is a new system for stunning poultry which has recently been approved by EFSA, but is currently only permitted under WATOK for slaughter of broiler chickens, not day old chicks. The system involves making the birds unconscious so that they can be held at a minimal pressure, which leads to a non-recoverable state. This could potentially improve the welfare of birds. Further research into practical technological solutions to refine on-farm methods of killing surplus animals would be beneficial to ensure animals are killed as humanely as possible.

All the animal's welfare needs must still be addressed in the time prior to slaughter. For example, access to nutrition must not be withdrawn whilst waiting for a suitable trained person to kill the animal.

Recommendation 8: Killing must always be undertaken in ways which are humane to reduce animal welfare harms, regardless of economic pressures. Veterinary professionals should inform themselves about how their clients are killing surplus animals and, when necessary, offer guidance on legislative requirements and good practice.

Recommendation 9: Further research should be carried out into practical methods for refinement of on-farm killing methods so that surplus animals are killed as humanely as possible.

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[13] The Welfare of Animals (Transport) (England) Order 2006
[14] The Welfare of Animals (Transport) (Wales) Order 2007
[15] The Welfare of Animals (Transport) (Scotland) Regulations 2006
[16] The Welfare of Animals (Transport) Regulations (Northern Ireland) 2006
[17] BVA believes that all animals should be stunned before slaughter. See full position on non-stun slaughter at: https://www.bva.co.uk/uploadedFiles/Content/News,_campaigns_and_policies/Policies/Ethics_and_welfare/non-stun-slaughter-policy-position%20-%20August%202017.pdf

Non-human consumption of male offspring

Where human consumption is not desirable, surplus animals can be used for non-human consumption.

Male calves which are killed on farm do not enter the human food chain, but may be used for certain animal feed (some types of pet food) or rendering. Goat kids are unlikely to provide sufficient meat to be used in pet food, but may be sent for rendering.

The carcasses of chicks humanely killed by instantaneous mechanical destruction can be used for compound feeds for pet animals. Day old surplus males are more commonly killed by controlled atmospheric stunning using inert gas mixtures as there is a stronger demand for the whole carcasses of chicks to be used as animal feed, especially as hepatological or raptor feed. Any efforts to reduce the numbers of surplus male animals should be wary of this, as a reduction in the UK supply may result in products being sourced from alternative countries with lower welfare standards.

Recommendation 10: When animals are killed, the dairy and egg industries should make efforts to ensure the carcass is used to reduce wastage and improve sustainability.

Education and promotion

Greater public understanding of the ethical and animal welfare issues faced by the production sector could help to increase demand for higher welfare animal products. The promotion of high welfare products would help to create more stable markets, reducing the need for farmers to kill young animals. An increased demand in higher welfare products could also help to drive the research into possible technological solutions to reduce the number of male offspring being born.

To improve public understanding, efforts to raise awareness of Farm Assurance schemes, such as the BVA #ChooseAssured campaign, should be encouraged. UK Farm Assurance schemes play an integral role in supporting the implementation of high animal health and welfare practices and standards. They enable customers, as citizens, to make sustainable and ethically informed choices about the food products they buy and the impact of these products on animal health and welfare. These schemes could be instrumental in improving public understanding of the issues raised in this document, as well as wider health and welfare concerns. BVA has produced a position on farm assurance schemes with seven guiding principles to assist its members and the wider public to understand how farm assurance schemes promote higher animal health and welfare, as well as a UK farm assurance schemes graphic to aid the public in their purchasing choices of high health and welfare products.

Without a specific intended use of the carcass, the routine killing of healthy animals constitutes wastage, which is not in line with the principle of sustainable animal agriculture. Considering sustainable consumption and production together can have a positive impact on animal welfare and provide an opportunity to drive consumer demand for high animal welfare products. Within the context of One Health, the agricultural sector and veterinary profession should promote the benefits of sustainable consumption, coupled with properly valuing quality animal-derived products, where quality encompasses good animal health and welfare, food safety, environmental protection and fair returns for producers. In this way, the concept of “less and better” sees some citizens reducing consumption while maintaining proportional spend and directing this spend towards higher health and welfare products. Refer to the BVA Position on UK sustainable animal agriculture for more information.

Recommendation 11: The public should have access to reliable factual information on production methods which require routine killing of unwanted healthy animals, in order that the range of harms can be widely understood and to generate public interest in potential solutions.

Recommendation 12: Farm Assurance Schemes should be promoted to better enable customers to make sustainable and ethically informed choices about the food products they buy and the impact of these products on animal health and welfare.

Recommendation 13: Within the context of One Health, the agricultural sector and veterinary profession should promote the benefits of sustainable consumption, the concept of “less and

better", and the benefits of properly valuing quality animal-derived products, where quality encompasses good animal health and welfare, food safety, environmental protection and fair returns for producers.

More information

- BVA position on farm assurance schemes and BVA Farm Assurance Schemes Infographic
- BVA position on sustainable animal agriculture
- BVA position on the welfare of livestock during transport
- BVA position on non-stun slaughter
- FVE position on killing unwanted offspring in farm animal production