



Slaughter Conditions on Poultry Species

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Introduction

Poultry species have been one of the most influential livestock species in the world because of their diversity, breeding ease, products, nutrition content, and growing processing efficiency around the world. Birds such as chickens that are typically used in production are not defined as a breed but rather by their lines and can be divided into two areas of production, which are eggs and meat. As a result of their ability to breed well, growth efficiency, and nutrient content, meat birds can be processed quickly and in large numbers. The production taking place within poultry slaughterhouses is brisk and convenient to consumers, but can be improved to support the well-being of the birds. While slaughter conditions on poultry species are economically beneficial to producers due to their efficiency and effectiveness, they compromise the well-being of the birds and pose consumer concerns due to their perceived brutality and stressful nature.

Other than poultry, many species undergo processing and are protected under the Humane Methods of Slaughter Act, a slaughter law passed in 1958 that requires that food animals be treated and handled humanely at slaughter plants while also being provided a fast and efficient death. The law is also enforced by the United States Department of Agriculture and was amended in 1978 to allow the USDA Food Safety Inspection Service inspectors to stop the slaughter of animals if they believe an animal is undergoing inhumane treatment (USDA, 2024). However, the Humane Methods of Slaughter Act does not protect poultry because poultry are not a livestock species.

Poultry meat production tends to be regarded as a quick and efficient process but, at times, can lack proper reforms to make the process better for everyone. There are three main phases of poultry slaughter: pre-stunning, stunning, and bleeding. The pre-stunning process involves the arrival, unloading, confinement, and removal of birds from confinement (Alvarez et al., 2019). Stunning is a form of restraint put on the birds by rendering them unconscious, which can be done in one of three ways: controlled modified atmosphere, electrical, or mechanical. Controlled atmosphere stunning is when producers render the birds unconscious via gas. Electrical stunning is when the birds are put through a low-voltage current to put them into a comatose state. Mechanical stunning involves an apparatus that causes a concussion upon the animal to numb the bird temporarily (Alvarez et al., 2019). Bleeding is completed after stunning and done by slitting the throat of




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I'm a St. Louis native and graduating Animal Sciences major here at Mizzou, and an incoming veterinary student at Mizzou's College of Veterinary Medicine. Animal Welfare is a topic I care deeply about and seek to bring about positive changes through writing and continuing my education in animal care. Outside of school, I intern and volunteer at animal rescue organizations such as the Wildlife Rescue Center and Central Missouri Humane Society. When I'm not volunteering and studying, I enjoy running, skiing, and playing with my French Bulldog Gabby. After completing veterinary school, I hope to specialize in veterinary dermatology or oncology.

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the bird and making sure all of its blood is out of its body (Alvarez et al., 2019). While the process is performed in a timely manner, the humane aspect is absent.

Despite what the Humane Methods of Slaughter Act states, poultry has one of the highest slaughter rates of any other livestock species. For example, in 2018, over nine billion birds were slaughtered in the United States alone (Chan et al., 2022). In addition, poultry are consciously hung upside down and stunned during slaughter, break their legs because of their shackles, or are still alive while being plunged into scald tanks (Chan et al., 2022). While there are many adverse effects associated with poultry production, the technology associated with slaughter methods used today has generated significant growth of production and promoted a positive outlook on the future of the poultry industry. The poultry slaughter assembly line style has forever shaped how birds are processed and indicates positive economic growth within the poultry industry (Mottet and Tempio, 2017). The poultry industry is lacking reform for how they process chickens, but how poultry are processed is helping with increased demand from consumers.

Benefits of poultry slaughter


Poultry production benefits producers because of the projected demand for poultry products in the future. Not only is the United States' population growing, but also the world, so domestic and foreign exports are expected and desired for human growth and function (Mottet and Tempio, 2017). From 1995 to 2005, poultry production and consumption drastically increased worldwide (Mottet and Tempio, 2017). Chicken, turkey, duck, and goose meat have increased by 53%, 13%, 67%, and 53% respectively (Mottet and Tempio, 2017). The statistics do not include poultry going into value-added products, which would dramatically increase poultry consumption statistics. Value-added products include further production aside from preparing the whole bird for sale, such as chicken nuggets and pre-prepared lunch and dinner meals. Additionally, chicken meat production has increased by over 38% within the ten-year period (Scanen, 2007). The consequent increase includes more birds involved in production to support both the growth and demand of the meat bird industry.

Due to the increased demand and production of poultry, producers within the industry are encouraged not to look at poultry as more than products that will be slaughtered because of their centrality to their workforce. As a result, producers and slaughterhouse workers are suggested to undergo a 'de-animalization' process to become more detached from the animals since poultry differs from domesticated animals such as cats and dogs (Hamilton and McCabe, 2016). The poultry industry looks at the birds being processed as 'food-in-waiting', and previous studies have shown that looking at poultry species as more than a food product is detrimental to production practices and projected production growth (Hamilton and McCabe, 2016). Looking at the birds as more than food could cause a slowing of production and inhibit the supply of the growing demand the public puts on the industry.

Inhibiting poultry production is shown to be detrimental to the world's economy and food supply. Poultry is one of the world's cheapest food products compared to pork and beef, and diminishing the efficient production now will make poultry products more inaccessible to low-income individuals who are already struggling financially (Mottet and Tempio, 2017). Poultry is also one of the most nutritious proteins on the market, and removing poultry products from store shelves will take away healthy alternatives for consumers (Mottet and Tempio, 2017). The removal of poultry products could potentially result in a health decline in world populations as other meat sources, such as pork and beef, do not contain the same nutritional content as poultry products. While there are many reasons why poultry production should stay in place, there could be improvements instilled in slaughterhouses to better treat and handle poultry species compared to previous norms and regulations throughout history.

Drawbacks of poultry slaughter

While there are many positive aspects associated with poultry slaughter, there are better ways to improve the welfare of poultry species throughout the process and change public perception towards the industry. An animal's welfare is determined by its overall mental and physical happiness by taking care of the animal through actions such as meeting



the animal's basic needs and allowing the animal to express natural behaviors. One suggestion for improving the welfare of poultry during meat production is for producers and legislators to allocate more of their resources and goals towards decreasing the painful nature associated with poultry slaughter conditions. The birds will be less stressed, and consumers will be given access to higher-quality meat (Fuseini et al., 2023). The pre-slaughter conditions of poultry due to rough handling cause the birds to experience acute stress. The stress caused within the birds can then lead to the final product of the bird exhibiting pale, soft exudative meat, which is seen as inferior quality when being assessed by meat graders. Pale, soft exudative meats have an abnormal color and are prone to losing much water, creating an overall dry product (Fuseini et al., 2023). Through suggested government reform, better poultry products could be available to consumers.

Furthermore, the environment in which birds are processed is stressful and anxiety-provoking from the bird's point of view during processing. During the pre-slaughter phase, birds are stacked all around each other in unsanitary conditions to the point where fecal matter is dropping on other birds (Alvarez et al., 2019). In addition, the stunning and bleeding phases can be unsuccessful in rendering the bird unconscious and dead, respectively (Alvarez et al., 2019). As a result, the bird is forced to move through each stage of the slaughter process fully conscious and capable of feeling severe, unpleasant pain (Alvarez et al., 2019). The conditions in which poultry species are placed throughout production concoct unpleasant images for consumers.

Consumers feel uncomfortable with poultry processing because of the problems and harm that can happen to the bird. Most consumers view birds as being housed in small, tightly packed crates during extreme weather conditions (PETA, 2024). Consumers also tend to think about how many birds suffer broken wings and legs due to the handling of the animals by the workers (PETA, 2024). Death from undue stress or issues that can arise during processing, such as not being dead upon slaughter, is also a common concern for consumers (PETA, 2024). There are seemingly many concerns associated with poultry processing upon evaluation of events leading up to the death of the animals. However, the conditions in which birds are placed and consumer perception of the poultry industry could change for the better to create a better outlook for the industry.

Summary

The meat production of poultry species is vital for the economy of many world nations and the well-being of individuals looking for a cheap, nutritious protein source to be used in meals. Poultry is one of the cheapest food products available on the market, and taking that source away could lead to severe imbalances and problems within the processing of livestock and the lives of consumers. Alternatively, the current nature of poultry meat processing could be changed for the better due to the ostensibly poor conditions of the birds' cages that allow fecal matter to fall on birds during transportation to the processing facilities. The birds' cages that are causing them to endure broken legs and wings could also be a factor in negative public perception, and re-engineering cages to make the birds more comfortable is a possibility. While a neutral third party cannot say what the birds are going through from a production standpoint since they cannot be there, consumer perception puts poultry processing in a negative light because of all the negative possibilities and aspects an animal goes through during production. By improving the birds' lives before and during processing, consumer perceptions could lean towards a more positive light and boost morale for an ever-growing industry. Despite all the factors that make bird processing both positive and negative, promoting animal welfare while supporting the growing population and economy of consumers is of the utmost importance. As a result, many solutions could be put in place to find the delicate balance between keeping the birds as comfortable as possible while they are alive and supporting the needs of consumers.

Recommendation

The poultry industry can be improved by making poultry species more comfortable during slaughter by thinking more about the birds than the process itself. Poultry processes can consider manual slaughter, comfortable transportation housing, better handling, and consumer assurance to create a better environment and outlook on poultry slaughter while ensuring optimal bird comfort.



One example of more humane treatment towards poultry species is manual slaughter in place of the stunning phase. Manual slaughter is a better process than controlled modified atmosphere, electrical, or mechanical stunning methods, which, in the past, have proven to be ineffective in rendering birds unconscious. Manual slaughter is quick and painless for the bird while also ensuring that the bird is dead throughout the rest of production (Berg and Raj, 2015). As a result, the birds are assured not to be alive during the more physically intense aspects of production, such as de-feathering, blood draining, and organ removal. Being alive throughout the post-slaughter process causes undue stress and kills the birds in an inhumane way, as they can still feel what is happening to them.

Another way the processing industry can make poultry species more comfortable during meat production is through accommodations put in their cages while awaiting their destination at the slaughterhouse. The accommodations include more space, no holes, waterers, feeders, and a resting area. By providing accommodations, the birds will be less stressed, have space to move around to work out their nervous energy, and not have fecal matter splattering on them from other birds. Additionally, the extra space, lack of holes, and resting areas from the improved cages will prevent bone fractures and create an improved, humane environment for the birds (Christensen et al., 2016). The re-designed cages for the birds will make them more comfortable, allow workers to handle them more efficiently, and increase meat grading scores according to the quality and quantity of the poultry products.

A third enhancement to meat bird processing is putting more regulations in place to ensure that the birds are handled carefully and comfortably so that they are less stressed throughout production. Poultry processors can also ensure that the birds are being appropriately processed by adding more supervisors to ensure the work being done by the slaughterhouse workers is correct and complete to prevent any live birds from undergoing painful post-mortem procedures. Laws can even be put in place to allow for the humane slaughter of poultry species since the Humane Slaughter Act does not cover them. By taking the legislative route, the well-being and livelihood of the birds is protected while improving the public's perception of poultry slaughter.

Lastly, consumer perceptions of poultry slaughter can change by allowing the public to take an up-close look at poultry processing and being more public about what meat bird processing entails. One way consumers can be informed is by making information about poultry processing more accessible and easy to understand through videos and credible websites that take the consumer through the entire process.

Applying solutions to problems within the industry would resolve the issue, resulting in less stressed birds that would provide consumers with delicious, high-quality meat and assurance that no suffering was inflicted on the animals during processing.

Conclusion

Over many years, the productivity of poultry processing has proven economically beneficial to producers but looked down upon by consumers because of the stress put on the birds during the slaughtering process due to perceived negligence and abuse. The efficiency of poultry slaughter provides the U.S. with economic support while presenting consumers with food security and nutritional benefits. However, poultry slaughter provides chickens with abundant obstacles because of the lack of measures to improve the quality of life of the birds during meat production, which has caused consumer disapproval over the past couple of years. By improving the various aspects of poultry slaughter, consumers can be reassured that the poultry they are consuming is of the highest quality and produced in a cruelty-free environment. While a lot of Americans enjoy an abundance of poultry products, they don't want to associate their eating experience with the guilt of animal suffering. Therefore, consumers must consider the mechanisms that need to be implemented to promote the welfare of birds before slaughter by making them more comfortable and less stressed.



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