

POTENTIAL IMPACTS OF NO ANTIBIOTICS EVER/RAISED WITHOUT ANTIBIOTICS PRODUCTION ON ANIMAL HEALTH AND WELFARE

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Key Points

- A survey was conducted to investigate the impacts of removing antibiotics from the food animal supply chain on key parameters such as animal health and welfare, food safety, consumer demand, and cost of food production.
- A total of 565 completed responses were received from veterinarians, producers, and other stakeholders involved directly in raising broilers, turkeys, swine, beef cattle or dairy cattle.
- Across all surveyed commodities, the main reasons for raising animals without antibiotics were market-driven.
- Concerns for animal health and welfare were the most commonly cited reasons for not participating in a raised without antibiotics (RWA) production system.
- A majority of veterinary and producer respondents across all animal commodities indicated that RWA leads to decreased production efficiency and worse animal health and welfare.
- In general, respondents in all commodities indicated that RWA production would have negative impacts on animals, including increased morbidity, mortality and culling rates.
- Most veterinarians and producers indicated, however, that they think retail, restaurant and food service company leadership believe that animal health and welfare are significantly improved with RWA programs.
- Respondents indicated that RWA programs would slightly to significantly increase the cost of production. They felt, however, that demand for their commodity's products would only slightly increase or not change at all.
- Respondents indicated there are times that maintaining the RWA label is prioritized over animal health and welfare.
- Across all surveyed commodities, respondents generally felt that there was a need for increased auditing/assessment of animal health and welfare if RWA systems are practiced.

Executive Summary

Ensuring the safety, health, and overall well-being of animals raised for food is both an ethical obligation and a critical component of providing safe food products. The use of antibiotics for maintaining animal health has come under scrutiny in recent years due to the rise of antibiotic resistance globally. Some U.S. producers, especially in the poultry industry, have responded by eliminating their antibiotic use.

Restaurants, grocers and other retailers of meat, egg, and dairy products have implemented programs centered on providing proteins sourced from animals that received no antibiotics throughout their lives. The number of animals raised without antibiotics (RWA) is growing in the U.S., but there are concerns that RWA practices might negatively impact animal health and welfare. Therefore, the objectives of this survey were to investigate the impacts of removing antibiotics from animal production on key parameters such as animal health and welfare, food safety, consumer demand, and cost of food production.

Veterinarians, farmers, ranchers, producers, and other stakeholders involved in raising broilers, turkeys, swine, beef cattle or dairy cattle were surveyed. Of the 565 completed responses received (Table 1), the majority of respondents self-reported as practicing veterinarians or producers. Just over half of all respondents reported having past or current experiences working with animals in an RWA program. For the purposes of this report, respondents with past or current RWA experience were grouped together as “RWA respondents” and those with no RWA experience were considered “Conventional respondents.” The Conventional respondents group therefore included individuals who may have eliminated specific antibiotics from production, but who have not raised animals in an RWA production system.

Respondents in all commodities most commonly identified market-driven reasons for their decision to raise animals without antibiotics. The most common reason was “to fulfill a client/customer request” (>60% across all commodities). The two most common reasons that Conventional respondents identified for not switching to RWA production were “concerns about negative impacts to animal health and welfare” and “already raising animals in a responsible [antibiotic] use program.”

Survey participants were asked to rank the disease challenges and the health and welfare challenges faced when raising animals in their identified RWA or Conventional production system. Similar disease challenges were experienced by RWA and Conventional respondents within each of the commodity groups. For example, greater than 65% of RWA and Conventional broiler respondents ranked necrotic enteritis as their primary disease challenge. Likewise, respondents in both groups within each commodity indicated similar health and welfare challenges. For example, greater than 65% of RWA and Conventional swine respondents ranked respiratory system disorders as their primary health and welfare challenge. Survey respondents were asked to identify the magnitude of impact that raising animals without antibiotics in their commodity has / would have on key production parameters. In general, RWA and Conventional respondents in all commodities indicated that RWA production would have negative impacts on animals, including increased morbidity, mortality and culling rates while decreasing animal performance leading to increased cost of production.

Survey participants were asked questions regarding their perception of the impact of RWA production on food safety and animal health and welfare, as well as their opinion of what the customer (retailer/restaurant/food service) believes. The majority of respondents, across commodities and

production types, believed that RWA production has no impact or worsens food safety. When asked for their opinion on what their customers believe, the overwhelming response was that customers believe that RWA production slightly or significantly improves food safety (>65% for all commodities). Similarly, respondents across commodities and production types indicated that they believed that RWA production slightly or significantly worsens animal health and welfare (>65% for all commodities) (Figure 1). In contrast, they believed that their customers think that RWA production improves health and welfare (Figure 2). These discrepancies indicate that veterinarians and producers feel that retailers do not understand the potential negative impacts of RWA programs on animal health and welfare.

Survey participants were asked how they think that RWA production impacts the cost of production in their commodity as well as the overall consumer demand for the protein of the respective commodity. Respondents for all commodities and production types indicated that they think RWA production slightly or significantly increases the cost of production (>80% for all commodities) (Figure 3), while they believe that there will be no change or slightly increased demand for their commodity's product.

Survey participants were asked how strongly they agree or disagree with the following statements: "There are times that maintaining an RWA label has priority over flock/herd health and welfare" and "More stringent health and welfare auditing/assessment is needed for animals raised without antibiotics." An example of maintaining an RWA label priority over herd/flock health is the delayed treatment of animals needing antibiotic therapy due to illness. Responses to the statement about prioritizing the RWA label over health and welfare were mixed, with substantial percentages of all commodities and production types indicating they strongly disagree (approximately 20% - 55%) and strongly agree (40% - 80%) with the statement (Figure 4). There was more agreement overall regarding the need for more auditing/assessment in RWA production. The majority of respondents indicated that they somewhat or strongly agree that more stringent auditing/assessment is needed for RWA production (>50% for all commodities).

Finally, respondents were asked what knowledge gaps they thought need to be filled to make RWA production more successful/sustainable and to have fewer unintended consequences. The numerous and varied responses indicate a need and desire to more deeply explore if and how producers can make RWA production sustainable, while maintaining the health and welfare of the animals.

In summary, the survey responses indicated that the main reasons for raising animals without antibiotics were market driven; the change to this type of production was less commonly made for health-related reasons, such as to reduce antibiotic resistance or to improve animal health and welfare. On the contrary, the RWA respondents generally tended to indicate that raising animals without antibiotics negatively affected morbidity, mortality, culling rate, and overall performance. Veterinarians and producers indicated that RWA programs will increase production costs with questionable effect on meat, egg or dairy consumer demand. Although respondents felt that RWA production has negative impacts on animal health and welfare, they overwhelmingly indicated that the customer (retailer/restaurant/food service) believes that animal and health welfare will be significantly improved by raising animals without antibiotics. Many respondents felt that there are times when the RWA label takes priority over animal health and welfare. In general, across all surveyed commodities, respondents generally felt that there was a need for increased auditing/assessment of animal health and welfare in RWA systems.

Table 1: Characteristics of survey participants, n = 565

	Total	Broiler	Turkey	Swine	Beef	Dairy
Role	565	69	23	148	244	81
Practicing Veterinarian	43.9%	31.9%	52.2%	37.6%	43.4%	64.2%
Research/Academic/Government Veterinarian	5.1%	1.5%	4.4%	4.7%	4.1%	12.4%
Research/Academic/Government Non-veterinarian	1.1%	2.9%	-	0.7%	1.2%	-
Manager/Producer/Grower/Rancher/Owner	37.9%	26.1%	26.1%	47.3%	44.3%	14.8%
Technical Services	7.8%	29.0%	13.0%	5.4%	2.9%	7.4%
Other	4.3%	8.7%	4.4%	4.1%	4.1%	1.2%
Country of Experience						
United States	95.2%	86.8%	95.8%	96.0%	97.5%	92.6%
International	4.8%	13.2%	4.2%	4.1%	2.5%	7.4%
Experience with RWA						
Current Experience	42.7%	63.8%	95.7%	33.8%	36.1%	45.7%
Previous Experience	13.5%	2.9%	-	20.3%	13.5%	13.6%
No Experience	43.9%	33.3%	4.4%	46.0%	50.4%	40.7%

Figure 1: How RWA (practice) and Conventional (perception) respondents believe RWA production will impact animal health and welfare

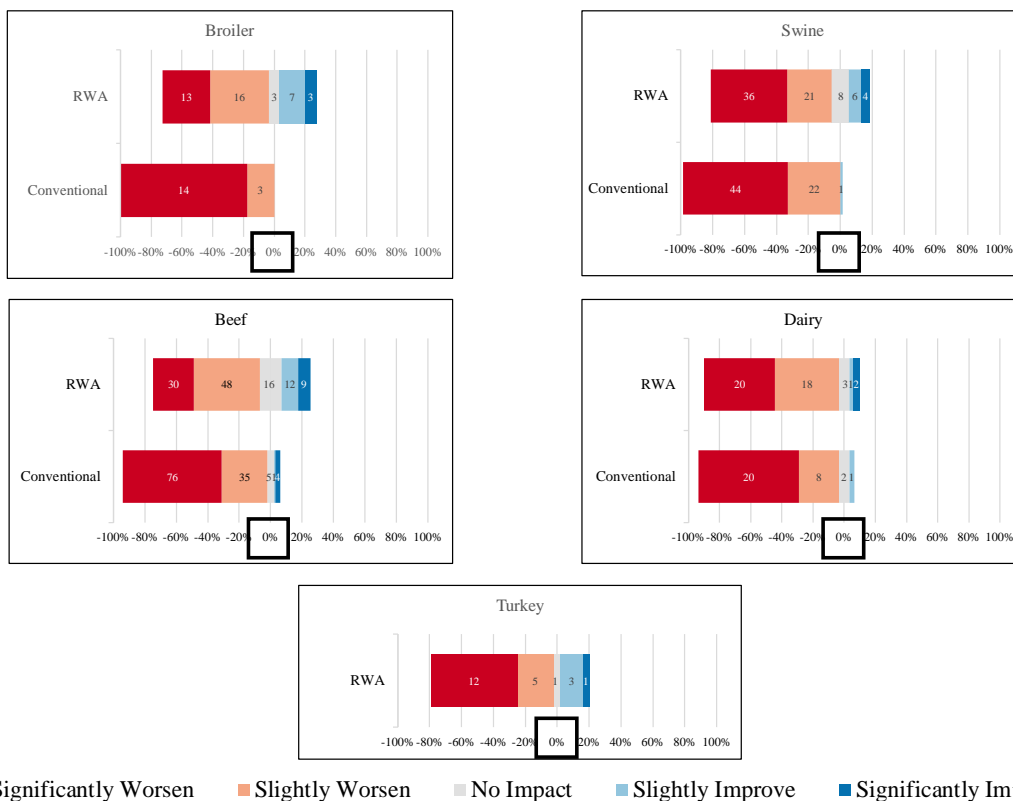


Figure 2: How RWA (practice) and Conventional (perception) respondents think Customers believe RWA production will impact animal health and welfare

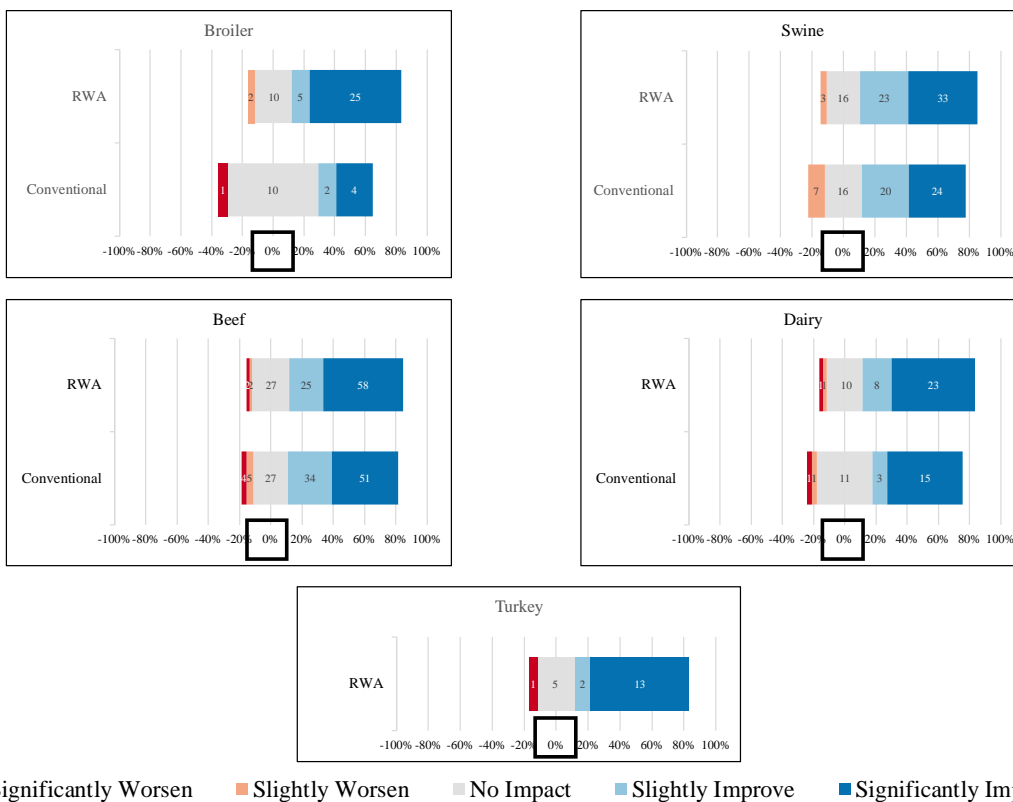
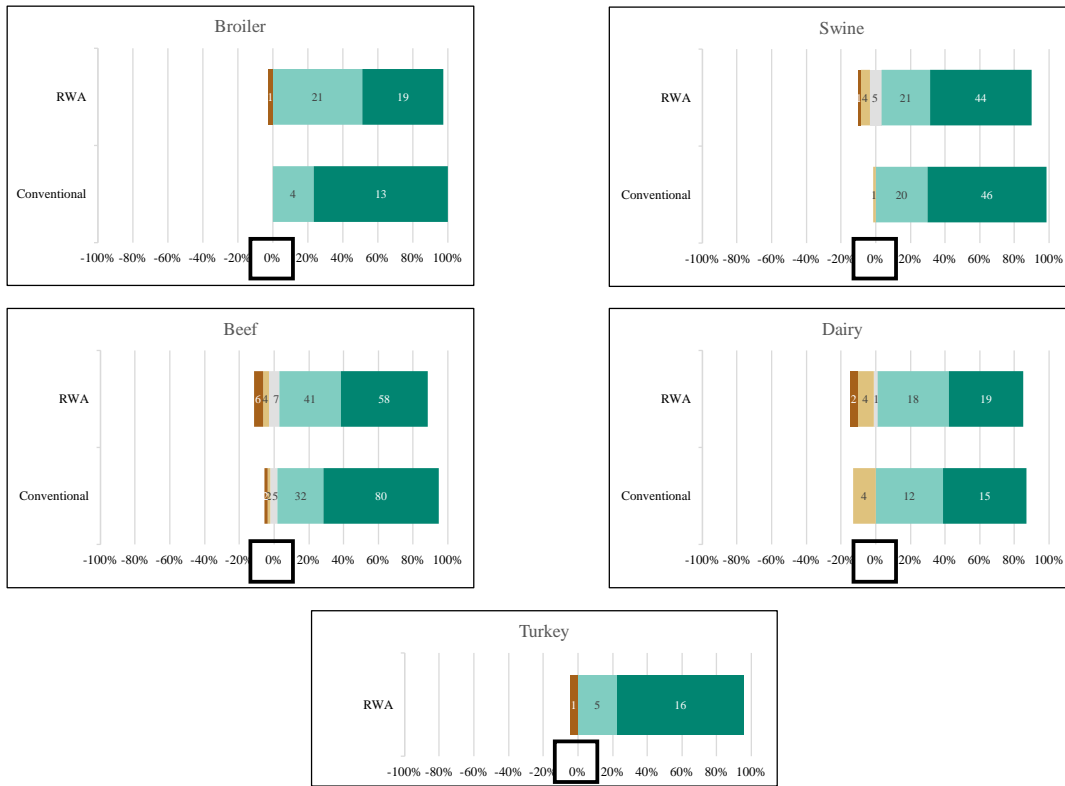


Figure 3: Impact of RWA production on cost of production



■ Significantly Decrease
 ■ Slightly Decrease
 ■ No Impact
 ■ Slightly Increase
 ■ Significantly Increase

Figure 4: Response to the statement “There are times that maintaining an RWA label has priority over flock/herd health and welfare”

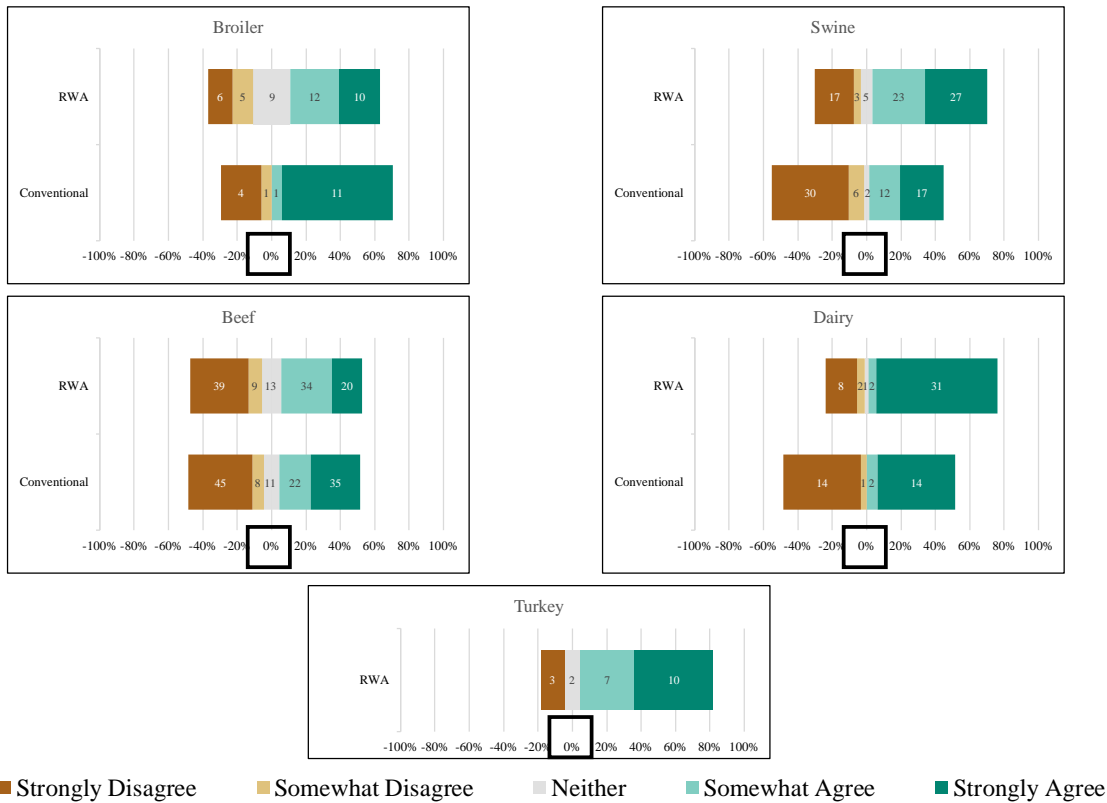


Figure 5: Response to the statement “More stringent health and welfare auditing/assessment is needed for animals raised without antibiotics”

