



The Science Source for Food,
Agricultural, and Environmental Issues

Impacts on Human Health and Safety of Naturally Occurring and Supplemental Hormones in Food Animals (Commentary) Chair: Robert J. Collier, University of Idaho

Overview:

Since World War II, the United States has pursued a national policy of an abundant and inexpensive food supply. The average share of disposable personal income spent on total food by consumers in the U.S. from 1960 to 2018 fell from 16.8% to 9.7%. Since then, there has been a focus on improving nutrition, reproduction, genetics, and health and management practices. Feed additives, hormonal treatments, and growth enhancing technologies have also been studied and implemented by some producers. These technologies have reduced cost of food production and reduced impacts of animal production on the environment.

Learning Outcomes

- *Explain how different hormones are used in food production animals.*
- *Compare the amounts of hormones in food to those that are naturally produced in humans.*
- *Justify the use of hormonal products in food animals.*

Resources

Access the Issue Paper, Ag quickCAST, and webinar here: <https://www.cast-science.org/publication/impacts-on-human-health-and-safety-of-naturally-occurring-and-supplemental-hormones-in-food-animals/>

“Chickens Do Not Receive Growth Hormones: So Why All the Confusion?”:

<https://thepoultrysite.com/articles/chickens-do-not-receive-growth-hormones-so-why-all-the-confusion>

“Milk, Hormones and Cancer”: <https://www.mcgill.ca/oss/article/food-health-science-science-everywhere/milk-hormones-and-cancer>

“Consumer Concerns About Hormones in Food”:

<https://ecommons.cornell.edu/bitstream/handle/1813/14514/fs37.hormones.pdf>



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Assessment Questions

1. Write a summary of this article highlighting 3-5 important facts you learned.
2. Explain the different classes of hormones and give an example of each.
3. What are the primary hormones used in animal production and what are they used for?
4. How do the amounts of consumed hormones differ from the amounts that are produced by the human body?
5. How are the safe levels and risks of hormones evaluated? What does the FDA require in order for a new hormonal product to be approved?

Student Reflection

1. What are some of the misconceptions regarding hormone use in food animals? How do you think these misconceptions start? What could be done to help dispel consumer misconceptions?
2. Explain why hormones are used in animal agriculture and how they increase the efficiency of beef production.