

# Disruptions in the US Meat Supply and the Impact on Livestock Production and Antibiotic Use

Michael D Apley  
Kansas State University

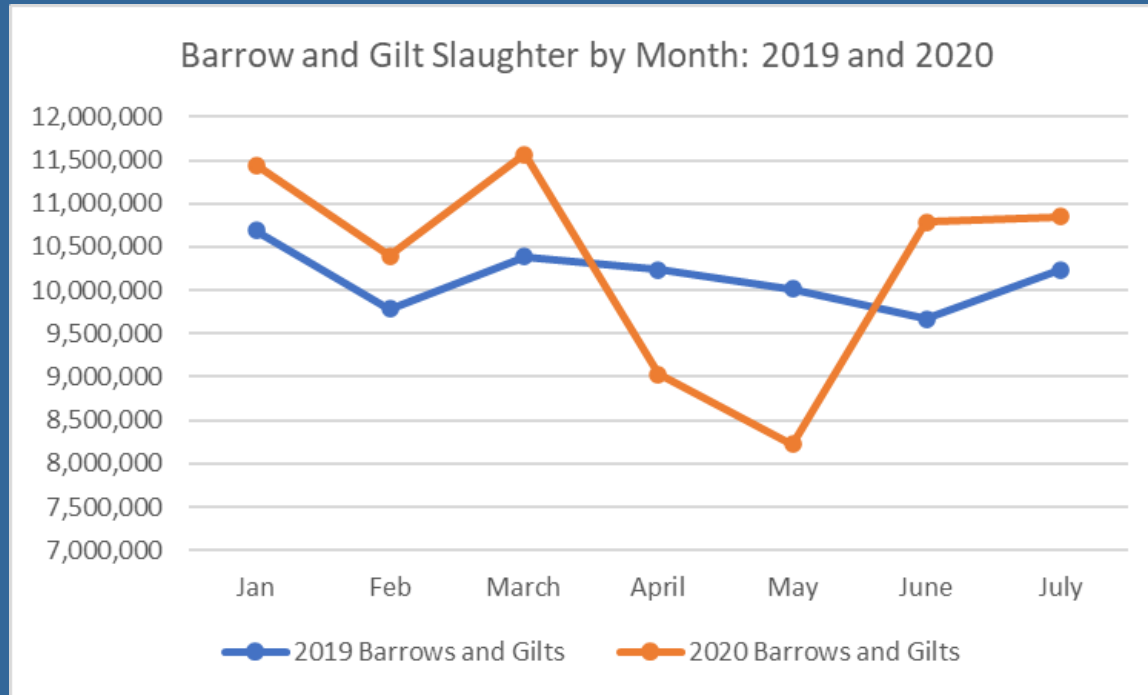
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# Livestock Challenges

- The COVID-19 pandemic has presented challenges to livestock production
- Notable disruptions have occurred in slaughter capacity which has fed back into supply chains supplying slaughter facilities

# Swine: Barrow and Gilt Slaughter



Source: USDA National Agricultural  
Statistics Service Livestock Slaughter  
Reports

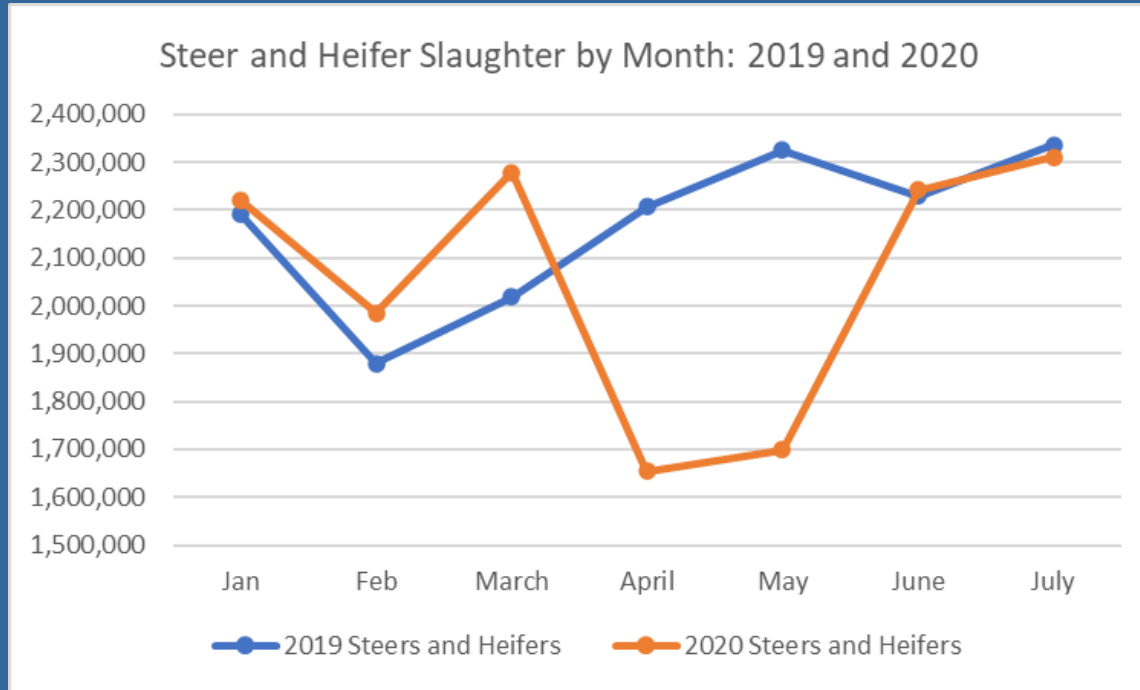
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# Swine Production System Response

- Innovative methods to stop weight gain and maintain animals at the end of their production cycle were instituted
  - Rations were formulated to allow continued ad lib consumption while maintaining weight
  - Animal welfare observations did not indicate any increased stress on the animals due to diet changes
  - Inactive facilities were reactivated to accept pigs.
- Depopulation was necessary in some instances
  - Veterinarians, producers, and associated organizations worked together to characterize the optimal methods

# Beef Cattle: Steer and Heifer Slaughter



# Beef Cattle Production System Response

- Cattle were held in place waiting marketing opportunities
  - Diet alterations were one alternative
- Reserve capacity in feedyards was utilized or cattle were not placed on feed
- Market signals and industry cooperation resulted in cattle being held at the cow/calf and stocker levels, or going to alternative facilities (e.g., backgrounding operations) rather than direct to the feedlot.

# COVID-19 Disruption Effects on Antimicrobial Use

- Swine and beef cattle were being held at the terminal portion of their production cycle as well as at earlier phases.
- The later part of production is typically the lowest period for use of medically important antimicrobials in beef cattle and swine
- Transitions between production stages are typically associated with the highest risk for infectious disease
  - These stages were carried out normally or delayed depending on individual circumstances

# COVID-19 Antimicrobial Use Effects

- The terminal phase of swine and beef cattle production systems require very close attention to slaughter withdrawal times
  - Slaughter withdrawal times are noted and adhered to at all phases of production, however...
  - near the end of the production period, and especially when shipment became uncertain, animals could receive the notice to ship to slaughter at any time, therefore maintaining a withdrawal-free population was of paramount importance



# Summary

- Disruptions in slaughter capacity peaked in April and May
- The industry is working hard to clear the backlog and bring the systems back to the normal production cycles
- We have no evidence that these market disruptions altered or increased antimicrobial use in these systems.