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Consolidation and Concentration in Animal Agriculture

Brief #3: Census of Agriculture Project August 2026

Introduction

Animal agriculture in the United States has increasingly moved toward larger farms over time.[1] Although the number of farms producing livestock and poultry has declined, the number of animals produced per farm has grown — a trend called consolidation. A key factor driving consolidation has been the rise in confinement feeding practices, where animals are housed in restricted spaces to control their environment, feeding, and overall management.[2] Combined with changes in breeding, feed formulations, and other technologies designed to maximize output, these practices have lowered costs and boosted productivity.[3,4] As a result, larger animal farms have been able to achieve greater economies of scale, benefiting from increased efficiency and higher output, which has made them more competitive and financially viable over smaller, more diversified farms.[5]

In the poultry and hog sectors, the same companies often own multiple stages along the supply chain, from breeding the animals through slaughtering and processing.[6-9] In part due to this trend — called vertical integration — these industries have become geographically concentrated in specific regions, often determined by proximity to processing plants, feed mills, and transportation routes.[6,7]

This brief uses data from the Census of Agriculture to explore trends in U.S. animal agriculture, examines the implications of consolidation and geographic concentration, and introduces policies aimed at addressing the public health, ecological, and economic consequences of these trends.

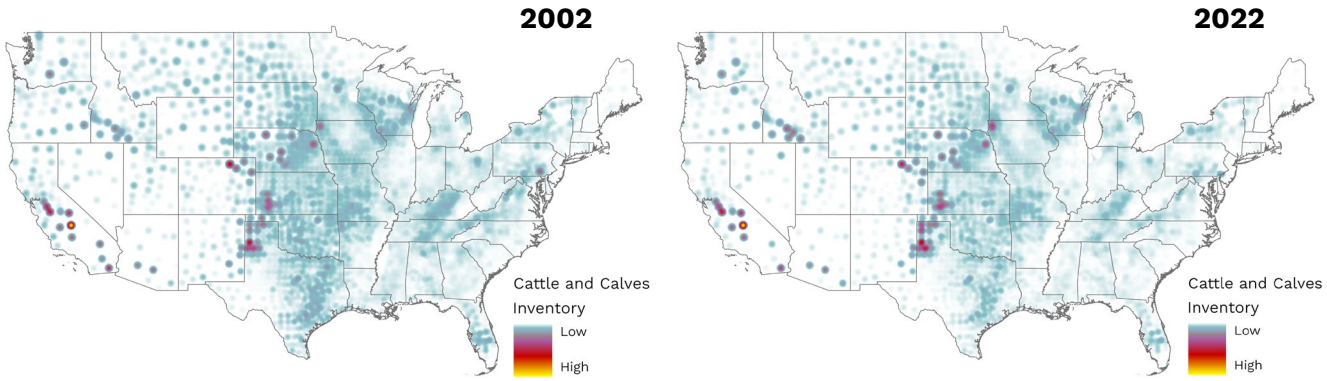
Trends

The Census of Agriculture, conducted every five years by the U.S. Department of Agriculture (USDA), tracks trends in animal agriculture across the country. Census data from 2002 to 2022, for example, show a distinct trend toward larger, more geographically concentrated farms. However, examining production figures for cattle, hogs, and broiler chickens (chickens bred and raised for their meat) reveals key differences in the way each sector is developing.

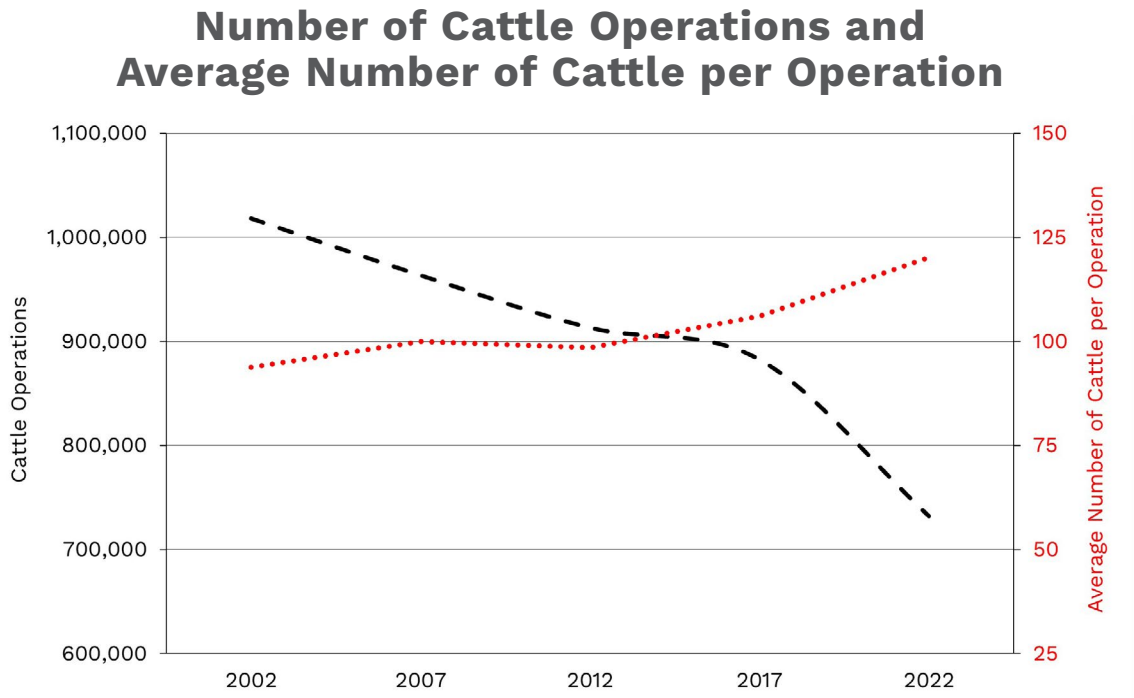
The numbers for animals in this brief are derived from inventory data, which capture the number of animals on a farm on December 31st of the year the census was conducted. Unlike sales data, which count animals marketed over the course of a year, inventories provide a snapshot of how many animals are being raised on a farm at a given point in time. In this section of the brief, the term “operations” will be used instead of “farms” to align with the terminology in the Census of Agriculture, which reports inventories at the operational level.

Cattle

The inventory of cattle and calves in the U.S. declined by 8% between 2002 and 2022, representing a reduction of more than 7 million animals. The maps below show that there has been a general decline in cattle and calf inventories across most of the U.S. from 2002 to 2022, with 42 out of 50 states experiencing losses.

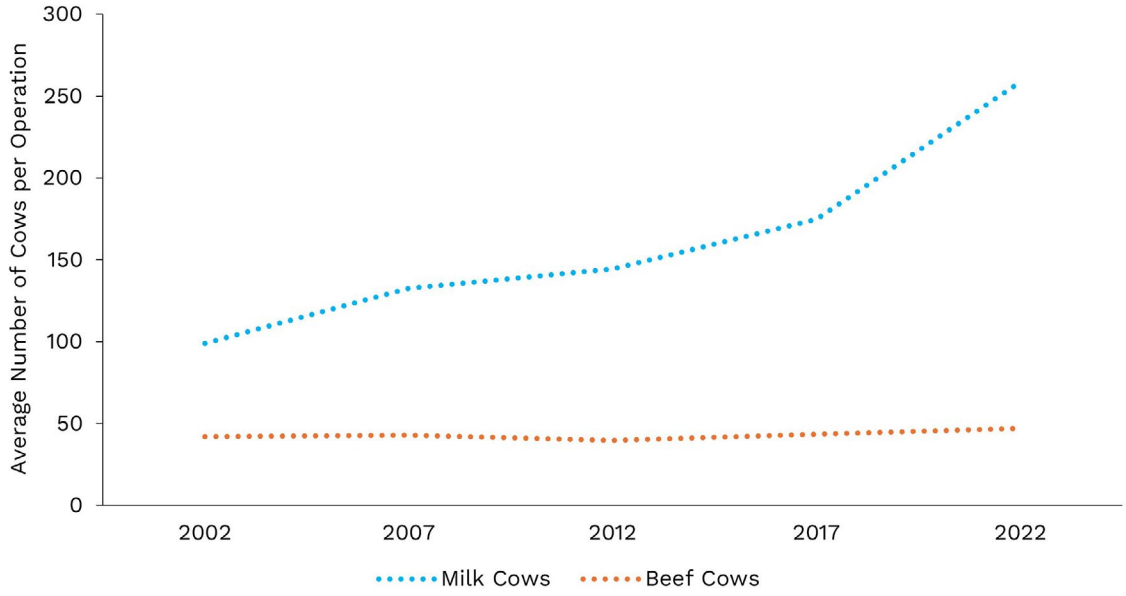


As cattle inventories declined, the number of cattle operations fell by 28%, while the average inventory per operation grew by 28%, showing a shift toward fewer, larger operations.



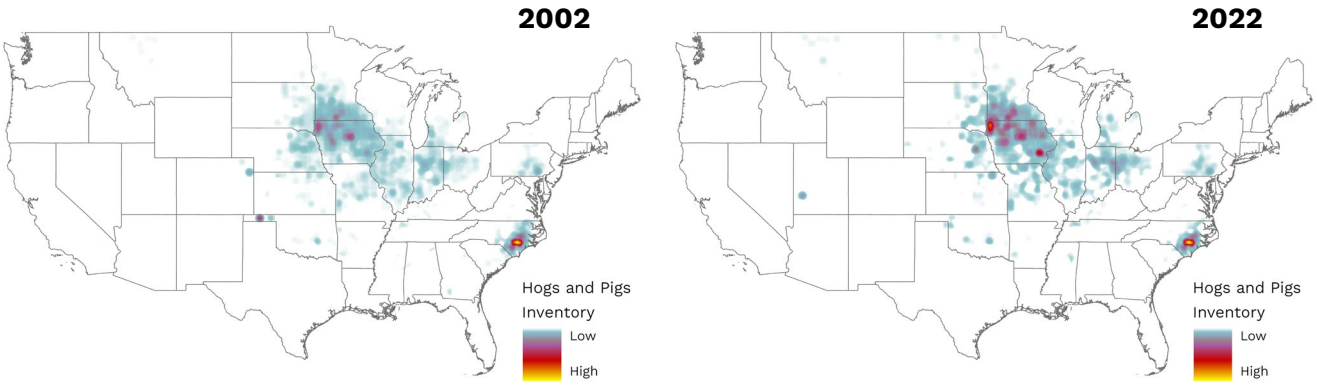
Within the cattle sector, which includes both beef and dairy, dairy underwent much greater consolidation. Between 2002 and 2022, beef cow inventories declined by 13%, while the number of operations fell by 22%. Meanwhile, the average number of beef cows per operation increased by 12%. The milk cow inventory remained relatively static (increasing by 2%), while the number of milk cow operations dropped by 60%, leading to an average of 2.6 times more milk cows per operation. Dairy operations were also more geographically concentrated than beef operations.[8]

Average Number of Milk and Beef Cows per Operation

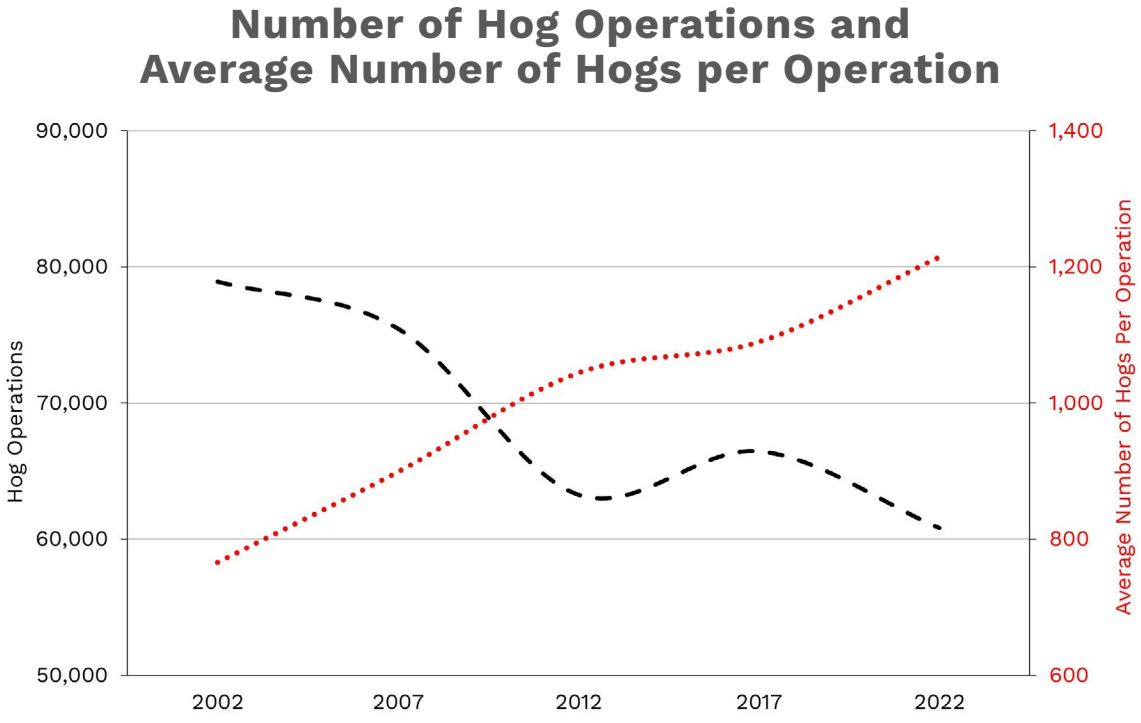


Hogs

The inventory of hogs in the U.S. grew by 22% from 2002 to 2022, an increase of over 13 million animals. Hog production in the U.S. is largely concentrated in the Midwest, particularly in and around Iowa, and in parts of North Carolina and Pennsylvania. The maps below indicate that hog production intensified in those regions over time.

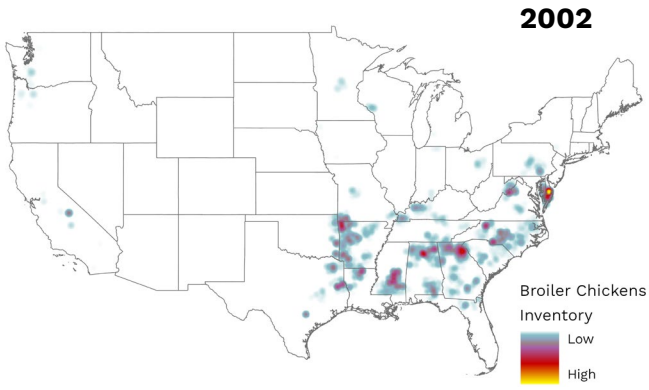


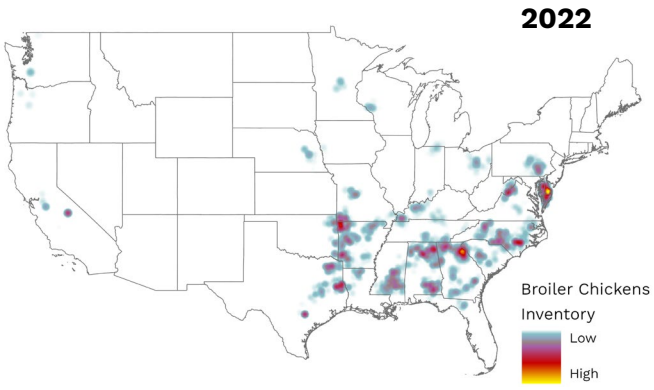
Although total inventory increased, the number of hog operations fell by 23%, and the average inventory of hogs per operation increased by 59%, reflecting a trend toward fewer and larger hog farms.



Broiler Chickens

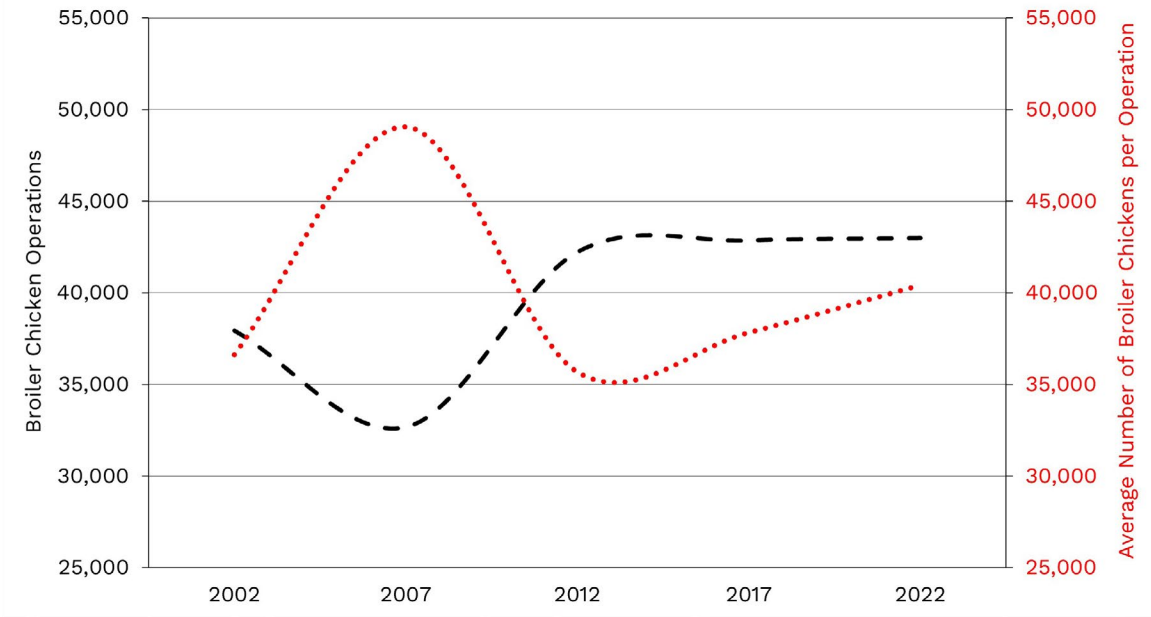
Between 2002 and 2022, there was a 25% increase in broiler chicken inventory in the U.S., representing over 300 million additional chickens. Broiler chicken production is primarily concentrated in parts of the South and the Mid-Atlantic. The maps below show that broiler chicken production intensified in these same regions over time.





During the same period, the number of broiler chicken operations rose by 13%, while the average inventory per operation increased by 10%.

Number of Broiler Chicken Operations and Average Number of Broiler Chickens per Operation



Implications

Animal agriculture in the U.S. has changed dramatically over the past several decades. Farms have become larger, more specialized, and more mechanized, focused on producing as many animals and animal products as possible. This shift has led to a dramatic rise in production numbers, reductions in labor requirements, lower costs of production, and lower retail prices for consumers.[3,4] But the prices we pay at the store do not reflect the hidden costs borne by public health, the environment, and rural communities.

Unlike the small, diverse farms common before industrialization, today's large operations often house thousands, or even hundreds of thousands, of animals. Managing the huge amounts of waste that come from these operations is a major challenge. Crowded conditions, combined with how manure is handled, can increase health risks for nearby communities. These operations are known to release air pollutants,[10] strong odors,[11] and disease-causing microbes,[12,13] while manure can contaminate soil and water with nutrients, pathogens, and drug residues.[6] People living nearby can experience higher rates of respiratory problems and infections, including those resistant to antibiotics.[14] Persistent odors can affect daily life, lower property values,[15,16] increase stress, and even raise blood pressure.[17,18] These burdens often fall hardest on low-income communities and communities of color.[19] As more animals are concentrated in certain areas, these health and environmental impacts tend to grow.

The effects of large-scale animal agriculture extend far beyond local communities. It contributes to climate change,[20,21] uses large amounts of freshwater,[21,22] pollutes water,[21,23] alters land use,[21,24] and fuels antibiotic resistance.[25] More hogs and chickens in the U.S. can exacerbate these problems, although a decline in beef cattle might offset some impacts. For example, beef generally produces far more greenhouse gases per gram of protein than pork or chicken,[21] although management practices, like grazing versus feedlots, also

make a big difference.[26] How the structure of U.S. livestock production affects both local communities and the planet is therefore a critical question.

Overall, the consolidation of animal agriculture represents a major shift in how the U.S. produces food, with serious health, environmental, and economic consequences. While fewer cattle may help reduce some environmental impacts, growing numbers of hogs and chickens pose risks to public health and the environment. Policies are needed to protect rural communities from the negative effects of industrial operations and to reduce the industry's contribution to global climate change.

Policy Proposals

This section provides examples of potential policy approaches to address issues connected to the consolidation and geographic concentration of animal agriculture. This list is not exhaustive.

As a reminder, the first brief in this series introduced the four principles of the CLF Public Health Agenda for Food Systems Change. Two of these principles are used below to illustrate proposed policy solutions that address issues discussed in this brief.

- Promote transitions to food production methods that support the health of people and the planet
- Expand transparency around food system practices and their impacts

PROMOTE TRANSITIONS TO FOOD PRODUCTION METHODS THAT SUPPORT THE HEALTH OF PEOPLE AND THE PLANET

A variety of policy shifts could help smaller, independent producers access markets, compete against larger operations, and support alternative animal production models.[19] Larger industrial operations often control much of the existing resources and infrastructure, such as meat processing capacity, so improved access to processing is important to independent producers. Other proposals include changes to conservation programs, such as reforming the Environmental Quality Incentives Program (EQIP) to eliminate funding for manure management at concentrated animal feeding operations (CAFOs).[27,28]

Examples of proposals to promote alternative food production models:

- Federal
  - Environmental Quality Incentive Program (EQIP) Improvement Act
    - Legislation that would enhance EQIP by expanding access, especially for small farmers, prioritizing funding for effective conservation practices, and providing states more flexibility in implementing the program.
  - Conservation and Regenerative Optimization Practices (CROP) for Farming Act
    - Legislation that would bolster climate-smart conservation practices under EQIP, including cover cropping, no-till farming, and improved grazing management.
  - Soil Conservation And Regeneration Education (Soil CARE) Act
    - Legislation that would establish training programs and curriculum to support long-term soil health management, land restoration, farm profitability, and resilience to climate-driven floods and droughts.
  - Industrial Agriculture Conversion Act
    - Legislation that would use existing conservation program funding to

support farms as they transition away from large-scale industrial practices to more sustainable practices.
    - Strengthening Local Meat Economies Act
        - Legislation designed to support and expand the capacity of local and regional meat processing through changes in federal procurement practices and the development of digital meat exchange platforms.
    - Strengthening Local Processing Act
        - Legislation that aims to support small processors and producers by providing grants and training programs, as well as streamlining regulations.
    - Agriculture Resilience Act
        - Legislation that aims to help the U.S. reach net-zero greenhouse gas emissions in the agricultural sector by 2040. The bill would expand agroforestry research, create soil health grants, support small meat processors serving pasture-based farms, and reduce food waste.
    - Partnerships for Agricultural Climate Action Act
        - Legislation that would authorize grants supporting agricultural climate mitigation and adaptation strategies. The bill is modeled on Washington state's Sustainable Farms and Fields program, which incentivizes voluntary conservation practices.
- State
    - California:
        - Farm to Community Food Hubs Program
            - A state initiative enacted in 2021 designed to improve the accessibility of locally grown food by connecting small and mid-sized producers with community organizations, schools, and other institutions.
    - Illinois:
        - Local Food Infrastructure Grant Program
            - A state initiative enacted in 2024 designed to strengthen and expand the local food system in Illinois by providing financial support to enhance the infrastructure needed to grow, process, distribute, and market locally produced food.
    - Minnesota:
        - Bottleneck Project
            - A state initiative aimed at identifying and addressing challenges or bottlenecks within the state's food supply chain, particularly in relation to small and mid-sized agricultural producers.

EXPAND TRANSPARENCY AROUND FOOD SYSTEM PRACTICES AND THEIR IMPACTS

Transparency is critical for identifying and addressing illegal, inequitable, or otherwise harmful practices. The USDA has developed regulations aimed at eliminating deceptive and coercive practices in the meat industry. Other federal proposals include legal challenges of mergers that would concentrate excessive market power in single entities, and bills that would enhance reporting and accountability from corporate producers.

Examples of proposals to increase food system transparency and accountability:

- Family Grocery and Farmer Relief Act
  - Legislation that would reduce concentration in the meatpacking industry by prohibiting major meatpacking companies from controlling more than one major category of meat production, enforcing divestiture plans, addressing pricing practices affecting independent grocers, and providing financial assistance and technical support to farmer cooperatives and small businesses seeking to acquire or operate meatpacking facilities.
- American Beef Labeling Act
  - Legislation aimed at requiring more transparent labeling of beef products sold in the U.S.
- Fairness for Small-Scale Farmers and Ranchers Act
  - Legislation that seeks to address corporate mergers, strengthen antitrust laws in the food and agricultural system, and support local, small-scale farmers and ranchers.
- Farm System Reform Act
  - Legislation that would strengthen the Packers and Stockyards Act, restrict monopolistic practices of meatpackers and corporate integrators, place a moratorium on large-scale livestock and poultry farms, and restore country-of-origin labeling requirements.
- Industrial Agriculture Accountability Act
  - Legislation that would establish an Office of High-Risk Animal Feeding Operation (AFO) Disaster Mitigation and Enforcement in the USDA and requires large-scale AFOs to submit disaster preparedness plans.
- Livestock Consolidation Research Act
  - Legislation that would require the USDA's Economic Research Service to conduct research on consolidation and concentration in the livestock industry, determine its impacts, and inform policies that would promote fairer competition and market opportunities for smaller producers.
- Freedom for Agricultural Repair and Maintenance (FARM) Act
  - Legislation that would require manufacturers to share documentation, parts, and software with farmers and independent repairers to restore competition in the agricultural repair market.
- Fertilizer Transparency Act
  - Legislation that would establish a mandatory weekly price reporting program for key fertilizer inputs and products to increase transparency on fertilizer and fertilizer product prices.
- Fair and Competitive Livestock and Poultry Markets Proposed Rule
  - This 2024 proposed rule, later withdrawn in 2025, was designed to support fair and competitive markets for livestock and poultry.
- Inclusive Competition and Market Integrity Under the Packers and Stockyards Act Final Rule
  - The final rule sought to clarify standards under the Packers and Stockyards Act for prohibited practices relating to discrimination, retaliation, and deception in contracting.
- Federal Trade Commission lawsuit blocking Kroger's acquisition of Albertsons
  - A lawsuit that successfully blocked the largest supermarket merger in U.S. history, arguing that it would eliminate competition, lead to higher grocery prices, lower the quality of products and services, and negatively impact workers.

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