



Food Protection and Defense Institute

A Homeland Security Center of Excellence

May 8, 2020

COVID-19 Near-Term Issues Spotting in Food Supply Chain

Pork and Cattle Supply Chain and Mass Depopulation – UPDATE #12

Action Opportunity Update

- Critical path to issue resolution
 - Reopen pork processing facilities in consideration of worker safety with federal guidance and support
 - Reopening at reduced capacity helps alleviate, but does not solve issue
 - Prioritize processing of heaviest weight pigs currently in overstock that are still within processing equipment capacity
 - Evaluate weekend processing to enhance short-term capacity
 - Identify all available alternate distribution to consumers and address logistics and regulations to supply into those distribution channels
 - Monitor and address critical shortages in cold storage and containers for shipping
 - Euthanize and dispose of hogs under federal leadership, coordination, and assistance
 - Support pork producers and processors in achieving new equilibrium with financial and liability considerations
 - Implement coordinated federal, state, local, and private sector communication plans to mitigate adverse public reaction and actions to depopulation
 - Provide direct communication to consumers regarding food availability to mitigate panic buying and hoarding
- Implement a national plan to identify all available alternate distribution to consumers and address logistics and regulations to supply into those distribution channels
 - Coordinate through ESF-11 including appropriate government agencies and stakeholders, private sector stakeholders (e.g. pork industry, food assistance networks, meat processors and butchers, industry renderers, restaurants), and academic experts (e.g. Food Protection and Defense Institute)
 - Coordinate federal, state, and local processing regulations, zoning, permitting for harvest and processing of animals in alternative supply chains



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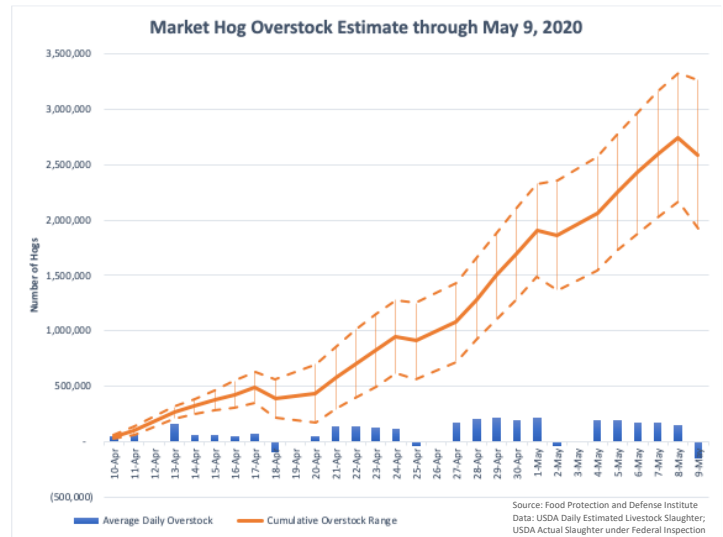
- Identify and coordinate cold storage and logistics for distribution in alternative supply chains
- Implement a national plan to manage the entire process of depopulation/culling and carcass disposal of the excess hogs in multiple states
 - Coordinate through ESF-11 including appropriate government agencies and stakeholders, private sector stakeholders (e.g. pork industry, meat processors and butchers, industry renderers), and academic experts (e.g. Food Protection and Defense Institute)
 - Coordinate federal, state, and local process regulations, zoning, permitting for mass euthanasia/depopulation and disposal
 - Identify and implement the most appropriate and humane depopulation and culling methods and locations (e.g. slaughter facilities, on farm, etc.)
 - Identify and obtain permitting for disposal sites, whether composting, incinerators, or burial sites. Federal land should be considered as an option
 - Engage National Guard and military, as appropriate, through ESF-11 for personnel and logistics support including a plan to address media coverage of such involvement
 - Contracting trailers and tractors, including refrigerated options, to move the carcasses to disposal sites from the depopulation/culling locations
 - Provide security support to control access to depopulation and disposal locations
- Implement a media plan for press coverage resulting from this process
 - Plan for negative media and protests from organized groups opposing animal agriculture
 - Plan to address consumer perception and discontent around food shortages and food waste
 - Plan security support for media personnel given potential for public protest



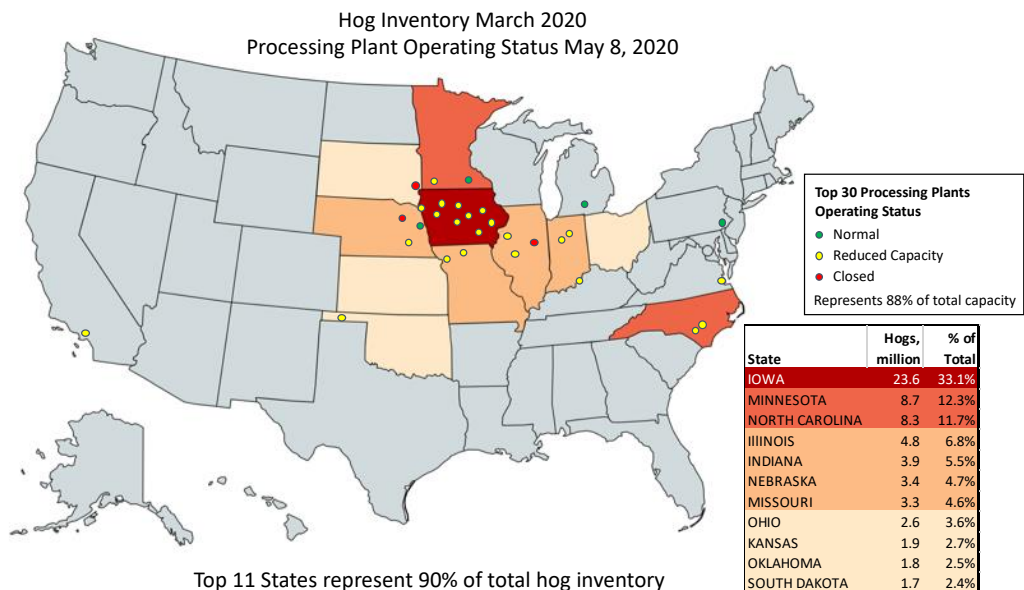
Situation Update

Since the previous update, the following developments have occurred:

- Daily Pork Slaughter and Overstock
 - Overstock estimates of above market weight hogs are about 2.6MM, to date, with uncertainty ranges from 1.9MM to 3.2MM that must be culled due to COVID-19 causing processing plant closure and reduced capacity. (USDA Daily Estimated Livestock Slaughter; USDA Actual Slaughter under Federal Inspection)
 - Pork processing capacity is reduced by approximately 32% which adds



approximately 160,000 animals to the overstock amount each day. Capacity increased in 5 facilities with 1 of those being plants reopening, but declined in 5 plants with 1 moving back to no capacity. (Kerns & Associates courtesy of NPPC)



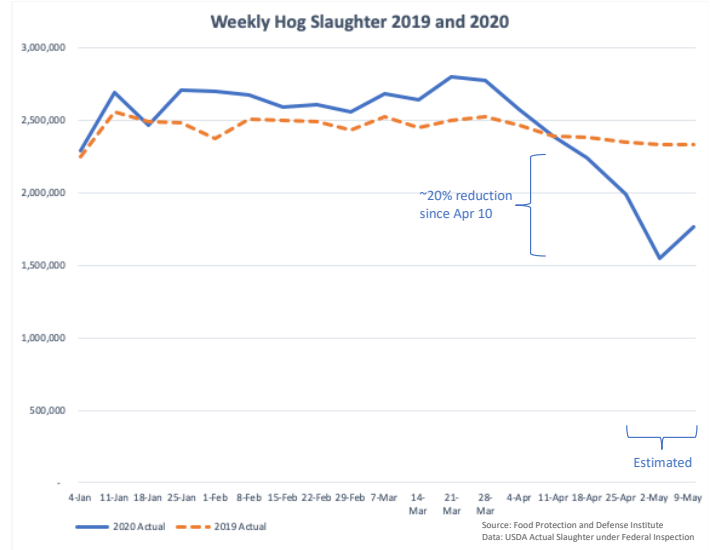
Source: Food Protection and Defense Institute
Data: USDA National Agricultural Statistics Service Quarterly Hogs and Pigs; Pork Checkoff US Pork Packers; Steiner Group courtesy of NPPC



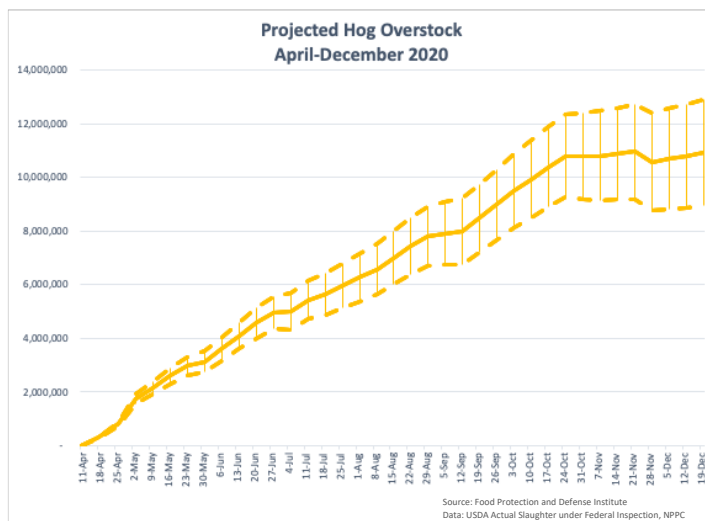
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- Slaughter numbers were down by approximately 140,000 hogs for May 8 (328,000 hogs) as compared to a year ago (440,000 head) and to the same day of the week of April 3-9 (483,993 hogs). Slaughter numbers for May 9 are estimated to be *increased* by about 100,000 hogs (226,000 hogs) as compared to a year ago (8,300 head) and to the same day of the week of April 3-9 (140,189 hogs). (USDA Daily Estimated Livestock Slaughter; USDA Actual Slaughter under Federal Inspection)



- Projected Year End Hog Overstock
 - Year on year actual slaughter numbers for January-March (pre-pandemic) are 6.4% higher in 2020 than 2019. Overstock numbers have been adjusted to account for this industry growth and *improvements in slaughter capacity during the week of May 10*. (USDA Actual Slaughter under Federal Inspection)
 - Total hog overstock through December 2020 is projected to peak at about 11MM market weight hogs in late October with an uncertainty range of 19MM to 13MM animals



- Assumptions**
- 6-month growth phase
 - No culling prior to April 10
 - Hog inventory at 95% plant capacity through mid-October representing market conditions for pigs already born and in growth cycle prior to COVID-19
 - Average plant capacity
 - 75% by week of May 10
 - 80% by week of Nov 1 – level expected to incorporate COVID-19 worker health and safety measures
 - Young pig and sow culling (relative to Q1)
 - 5% for pigs reaching market weight in mid-September
 - 10% for pigs reaching market weight in mid-October
 - 25% for pigs reaching market weight in November
 - The 25% reduction in herd size as compared to Q1 2020 and 80% plant capacity creates a pseudo-equilibrium

(Date: May 8, 2020)



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- Assuming a population of about 300MM adults, the 11.5MM hog overstock represents about ½lb of pork per week to every adult American for the next 20 weeks. The potential positive impact on the food insecure in the US is tremendous. If only a fraction could be diverted to food assistance networks.
- Hog Production Stats
 - Processing capacity is approximately 510,000 hogs/day. Pre-pandemic processing was operating at 95% of daily capacity first 3 months of 2020 (USDA Actual Slaughter under Federal Inspection; Steiner Consulting Group courtesy of NPPC)
 - An average slaughter weight hog at 288 lbs. that missed slaughter on April 10 would weigh between 325-338 lbs. on May 5. Hogs of this size cannot be processed because maximum weight in slaughter facilities is 340 lbs. due to equipment limitations. Each day approximately 200,000 hogs exceed the weight limitations for processing.
- Webinar
 - [Is Your Plant COVID-19 Ready?](#) – Food Safety Tech, May 27, 2020 12-1 EDT
 - “Using CDC and WHO Guidance, this webinar will provide practical tips on best practices to mitigate workplace exposure based on what is currently known about the COVID-19 virus. The use of “social distancing” as the primary mode of mitigation has proven to be particularly difficult to implement in a food production setting but there are steps that can be taken.”
- Recommendations from authoritative bodies
 - [COVID-19 Health and Safety Guidelines for the Meatpacking Industry](#) – Minnesota Department of Health
 - Updated [Recommendations for Swine Depopulation](#) – American Association of Swine Veterinarians, April 30, 2020
 - [Emergency Animal Mortality Management – Swine](#) – USDA
 - [USDA Carcass Management Dashboard](#) – USDA
- Letters from Appointed and Elected Officials
 - -



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- Reopening facilities (This section contains exemplary material from multiple perspectives around the issue. Most focus on the issues of potential capacity and timing while assuring worker health during reopening.)
 - [COVID-19 Among Workers in Meat and Poultry Processing Facilities — 19 States, April 2020](#) – CDC MMWR, May 8, 2020
 - [Tracking Covid-19's impact on meatpacking workers and industry](#) – Investigate Midwest, updated daily with downloadable data set
 - “As of May 7, there have been at least 10,800 reported positive cases tied to meatpacking facilities in at least 170 plants in 29 states, and at least 49 reported worker deaths at 27 plants in 18 states.”
 - [Mapping Covid-19 in meat and food processing plants](#) – Food & Environment Reporting Network, updated daily with interactive map
 - [Sonny Perdue's predictions about meat production recoveries could be coming true](#), Food Safety News, May 8, 2020
 - [‘Working In Fear’: Meat Processing Plant Employees Say Protective Measures Came Too Little Too Late](#) – WUNC, May 8, 2020 (includes video discussing collaboration between HC Health and Human Services and NC National Guard)
 - [America's Meatpacking Facilities Practicing Safe Reopening to Ensure a Stable Food Supply](#) – USDA, May 8, 2020

- Market media coverage (This section contains exemplary media coverage from multiple perspectives around the issue.)
 - [McDonald's CEO discusses impact of meat supply chain – Good Morning America](#), May 7, 2020

- Pork producer media coverage (This section contains exemplary media coverage from multiple perspectives around the issue.)
 - [Hog farmers face 'devastating decision' over euthanizing herds](#) – ABC News, May 8, 2020
 - “As many as 10,000 pigs a day are being euthanized in Minnesota.”
 - [Extreme risk for Canada's hog producers due to Covid-19](#) – Pig Progress, May 8, 2020 – also true for US producers with leading cause processing plant closures due to COVID-19 worker illness and absenteeism
 - [Pork farmers are euthanizing their pigs since meat processing plants are closed due to COVID-19](#) – FOX10, May 7, 2020
 - [Shutting meat packing plant is causing shortages right now with Brad Freking](#), New Fashion Pork – Vance Crowe Interviews with Experts, May 1, 2020 (47-minute video) (note timing of release relative to dates and times discussed in video)



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- Depopulation and disposal media coverage (This section contains exemplary media coverage from multiple perspectives around the issue.)
 - [Wood chippers employed to help compost thousands of excess hogs near Worthington plant](#) – Pioneer Press, May 6, 2020 (behind paywall; key points below)
 - Land in Nobles County (SW Minnesota) being used as a major composting operation
 - Accepting euthanized hogs coming from JBS Worthington pork processing plant and area farmers
 - “[site can] accommodate ... up to 2,000 head per day” per Mike Crusan, Minnesota Board of Animal Health
 - JBS announced last week it could euthanize 3,000 head of market-weight hogs per day because they couldn’t be processed before they grew too large for slaughter and packaging.
 - JBS plant in Worthington shut down temporarily because of an outbreak of COVID-19
 - Minnesota Pork Producers Association is working with the team to establish three other composting sites in the state
 - Hog carcasses at the Nobles County site will be run through the chipper simultaneously with the wood material
 - [States are killing pigs, chickens that COVID-19 keeps from the market. Could NC be next?](#) – Raleigh News & Observer, May 8, 2020

- Food shortage media coverage (This section contains exemplary media coverage from multiple perspectives around the issue. At present, there are no indications of wide-scale food shortages although supply chain disruptions continue to create spot limited supply or out of stock situations.)
 - [The global food supply chain is passing a severe test](#) – Economist, May 7, 2020
 - [Why Coronavirus Could Cause Millions of People to Go Hungry, Even Though There's Enough Food to Go Around](#) – Time, May 8, 2020
 - [Coronavirus meat shortage stems from lost labor, supplier says](#) – FOXBusiness, May 8, 2020
 - [Local meat market feels prepared for possible meat shortage](#) – KATC, May 7, 2020

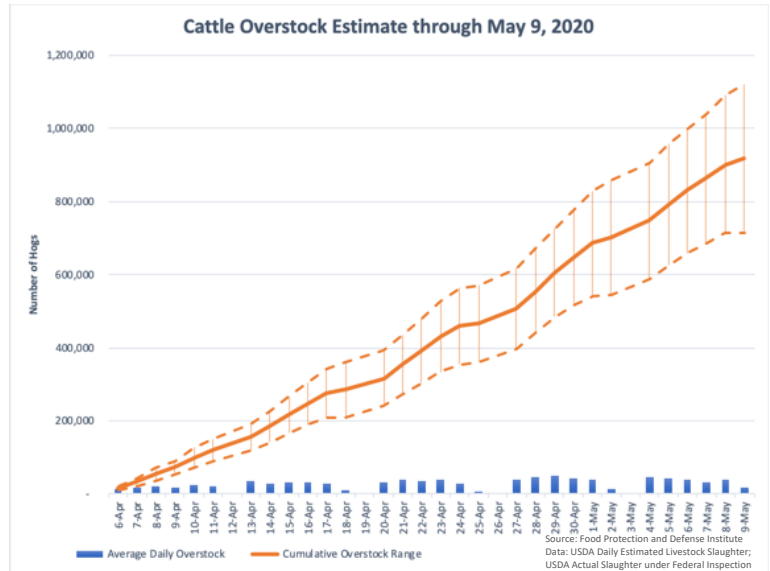
- Activist media coverage (This section contains exemplary media coverage around the issue and should not be interpreted as the views of the author or the Institute.)
 - [PETA buys shares in meat companies](#) – Meat+Poultry, May 8, 2020



Cattle Update

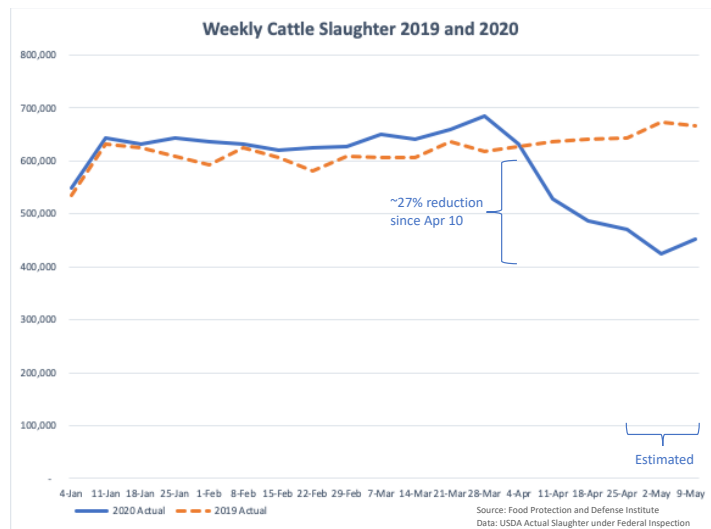
- Daily Cattle Slaughter and Overstock

- Overstock estimates of target market weight cattle is about 940,000, to date, with uncertainty ranges from 0.7MM to 1.1MM that were not processed due to COVID-19 causing processing plant closure and reduced capacity (USDA Daily Estimated Livestock Slaughter; USDA Actual Slaughter under Federal Inspection)



- Slaughter numbers were down by approximately 30,000 cattle for May 8 and 20,000 for May 9 (85,000 and 44,000 head, respectively) as compared to a year ago (118,000 and 70,000 head) and to the same day of the week ending April 4 (107,188 and 53,945 head). (USDA Daily Estimated Livestock Slaughter; USDA Actual Slaughter under Federal Inspection)

- Year on year actual slaughter numbers are 4.6% higher in 2020 than 2019 in January-March (pre-pandemic). Overstock numbers have been adjusted to account for this industry growth. (USDA Actual Slaughter under Federal Inspection)



- Slaughter numbers for the week ending May 10 were down approximately 32%. (USDA Daily Estimated Livestock Slaughter; USDA Actual Slaughter under Federal Inspection)



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- Cattle Production Stats
 - Cattle processing capacity is approximately 128,000 head/day. Pre-pandemic processing was operating at 91% of daily capacity for the first 3 months of 2020 (USDA Actual Slaughter under Federal Inspection; Steiner Consulting Group courtesy of NPPC)
 - Average slaughter weight of cattle is 1350-1400 lbs. Cattle processing weights are slightly more flexible on weight requirements than hog processing. (USDA Actual Slaughter under Federal Inspection)
 - Cattle husbandry practices provide greater options to throttle throughput during processing plant disruptions than hog production. This is due to both the ability to modify feeding practices and the distributed nature of cow-calf operations placing cattle into finishing operations. The economic impact of this throttling is significant, but throttling may be able to mitigate the need for mass depopulation.

- Cattle media update (This section contains exemplary media coverage from multiple perspectives around the issue.)
 - [Ala. cattle farmers take another hit as meat packing plants crippled by COVID-19](#) – WTVY, May 8, 2020
 - [A major beef: Farmers hope COVID-19 troubles expose 'collusion' among meat packers](#) – WJHL, May 8, 2020

Previous updates available upon request