

What Is Depopulation?1

Depopulation, also known as culling or on-farm mass killing, is the process of killing a complete population of farmed animals, such as a flock or a herd. Common events leading to depopulation include efforts to prevent the spread of epidemic diseases—such as highly pathogenic avian influenza—the inability to care for animals during a natural disaster, and the inability of the supply chain to absorb animals (e.g., insufficient processing capacity). Despite a lack of transparency into the full details of depopulation, it is still clear that the scale can be massive. As a result of slaughterhouse shutdowns during the COVID-19 pandemic, millions of animals, including hens and pigs, were depopulated.

The Cruelest Depopulation Methods Should Not Be Used in Any Situation

There are a wide variety of depopulation methods: gunshot, captive bolt, inhalant gases, injected anesthetic overdose, electrocution, and others. Certain methods of depopulation that have become prevalent (or may become prevalent) are unacceptably inhumane—in particular, ventilation shutdown (VSD), water-based foam, and sodium nitrite poisoning.



- Ventilation shutdown: Shutting off all fans and closing vents to create an airtight environment for poultry and pigs. It can take animals many hours to die from a combination of heat, stress, and asphyxiation, as deeply disturbing undercover investigation footage has shown.
- Ventilation shutdown plus (VSD+): Ventilation shutdown
 with the addition of heat, humidity, and/or carbon dioxide.
 This increases stress on the animals to hasten mortality.
 Animals who survive VSD+ are killed by a second method,
 such as shooting with a captive bolt gun.
- Water-based foam: A depopulation method used with poultry. Animals are covered with a water-based foam that blocks their airways, causing the animals extreme distress as they drown.

There is currently a lack of effective legal framework for regulating acceptable methods. While the American Veterinary Medical Association (AVMA) publishes depopulation guidelines, these guidelines are not legally binding and have received criticism from thousands of veterinary professionals. Despite the AVMA's recommendation that VSD and VSD+ be used only as a last resort, analysis of USDA data found that 73% of culls in the U.S. in February and March 2022 involved VSD or VSD+.

Proper Planning Should Be Used to Reduce or Eliminate Depopulation

There are many reasons to eliminate depopulation: The practice causes animal suffering and food waste, damages the environment with water pollution, and creates significant risk of physical injury and psychological harm for farm workers. Proper planning can help

reduce the need to depopulate animals. Generators can be installed to maintain temperatures and ensure animal health in the event of power outages, vaccines and other biosecurity measures can be employed to prevent exposure to and the spread of disease, and alternate water sources and food stores can be acquired and provided in extreme weather events that would otherwise limit access to food and water. Many of these preventative methods are outlined in detail in Canada's Code of Practice for farmed animals—however, in the U.S., farmers' incentive to prevent depopulation is undermined by compensation they receive for depopulating animals.

During the COVID-19 pandemic, one reason for depopulation was insufficient space in barns to accommodate the animals' continued physical growth while waiting for available slaughterhouses. As a countermeasure, farmers can reduce stocking densities when there are indications of likely supply chain disruptions or natural disasters to ensure that their growing activities are proportional to supply chain capacity. Alternatively, they can reduce their herd and flock sizes as a matter of standard practice, thereby reducing the number of animals that would be killed through depopulation, should disruption or disaster strike.

Federal Funding Should Not Finance Depopulation

Currently, the Livestock Indemnity Program reimburses farmers up to 75% of the market value for animals lost or killed due to "eligible losses," such as adverse weather events or disease. Additional financial support is available from the Dairy Indemnity Payout Program for dairy farmers who have removed milk from commercial markets due to

chemical contamination, and the Animal Health Protection Act compensates producers of birds and eggs that must be destroyed during a disease response. None of the existing indemnity payout programs require proof of mitigation efforts or the unavailability of alternative options to depopulation, such as rehoming, evacuation, veterinary care, or euthanasia. Instead, these programs incentivize depopulation unlike efforts to prepare for disasters or treat existing contamination or disease.

As the Climate Crisis Results in More Natural Disasters, At-Risk AFOs Must Adhere to Meaningful Disaster Mitigation Plans

The U.S. is teeming with concentrated animal feeding operations (CAFOs), where tens of thousands of animals are intensely confined, often indoors. With natural disasters becoming more and more prevalent with the climate crisis, it is imperative that farmers, especially those in control of CAFOs, have disaster mitigation plans in place. Hurricane Florence served as an example of how devastating just one disaster can be, as it wreaked havoc on the North Carolina coast in 2018, leading to significant flooding and infrastructural damage. All in all, 4.1 million chickens and turkeys; 5,500 pigs; and countless fish perished, and manure lagoons leaked millions of gallons of waste into local



Endnotes

1 Full citations available upon request.

