



Animal Welfare Institute

900 Pennsylvania Avenue, SE, Washington, DC 20003

Commercial Bird Depopulations for Highly Pathogenic Avian Influenza (HPAI)

February – October 2022

The Animal Welfare Institute has analyzed the depopulation of commercial flocks for HPAI for February through October 2022 using two sources: 1) USDA-APHIS online list of 2022 HPAI confirmations in commercial and backyard flocks.¹ This list includes HPAI confirmation date, state, county, type of production, operation release date, and the number of birds affected. 2) APHIS depopulation lists for February through October 2022 released through Freedom of Information Act.² These lists include state, county, type of production, virus detected, “euthanasia” method, and “euthanasia” completion date.

1. Total Number of Depopulated Commercial Flocks

Commercial flocks depopulated

256

2. Total Number of Birds Killed

Commercial flocks

46,670,600

3. Number of Commercial Depopulated Flocks by Species

<u>Bird species</u>	<u>Number of flocks</u>
Turkey meat birds	166 (64.8%)
Table egg layers	24 (9.4%)
Turkey breeder hens/toms	15 (5.9%)
Chicken meat birds (broilers)	11 (4.3%)
Broiler breeders/pullets	11 (4.3%)
Gamebirds	8 (3.1%)
Duck breeders	7 (2.7%)
Duck meat birds	6 (2.3%)
Table egg breeders/pullets	5 (2.0%)
Other	3 (1.2%)

4. Number of Commercial Depopulations by Method

<u>Method³</u>	<u>Number of depopulations</u>
CO ₂ cart or container only	10 (3.9%)
CO ₂ whole-house gassing only	2 (0.8%)
Foam only	105 (41.0%)
Foam and other method ⁴ (other than VSD+ heat)	12 (4.7%)
Other method ⁴ only	11 (4.3%)
VSD+ heat only	44 (17.2%)
VSD+ heat and CO ₂ ⁵	15 (5.9%)

VSD+, CO ₂ ⁵ and other method ⁴	3 (1.2%)
VSD+ heat and foam	45 (17.6%)
VSD+, foam and other method ⁴	2 (0.8%)
VSD+ heat and other method ⁴	7 (2.7%)

5. Number of Commercial Depopulations Exceeding 48 Hours

Twenty-one of 29 depopulations (72.4%) involving more than 200,000 birds exceeded 48 hours from time of test confirmation to completion of “euthanasia.” These depopulations involved 33.6 million birds, with an average of 1.6 million birds per depopulation. Eight depopulations—all involving over 1 million birds—took 10 days or longer to complete.

6. Number of Birds Killed by Method

<u>Method³</u>	<u>Number of birds</u>
CO ₂ cart or container only	539,300
CO ₂ whole-house gassing only	112,200
Foam only	4,410,900
Foam and other method ⁴ (other than VSD+ heat)	466,800
Other method ⁴ only	87,600
VSD+ heat only	9,420,400
VSD+ heat and CO ₂ ⁵	23,465,500
VSD+, CO ₂ ⁵ and other method ⁴	4,677,100
VSD+ heat and foam	2,733,500
VSD+, foam and other method ⁴	277,200
VSD+ heat and other method ⁴	480,100

7. Number of Commercial Depopulations by Size of Operation

<u>Size of Operation</u>	<u>Number of depopulations</u>
1 – 99,999	211 (82.4%)
100,000 – 499,999	27 (10.5%)
500,000 – 999,999	5 (2.0%)
1,000,000 – 4,999,999	11 (4.3%)
5,000,000+	2 (0.8%)

Notes

¹ USDA-APHIS, 2022 Confirmations of Highly Pathogenic Avian Influenza in Commercial and Backyard Flocks.

² Source of data is responses to a series of Freedom of Information Act requests submitted to the USDA, Animal and Plant Health Inspection Service by the Animal Welfare Institute: APHIS FOIA Request Nos. 2022-APHIS-02403-F, 2022-APHIS-02981-F, 2022-APHIS-03427-F, 2022-APHIS-03876-F, 2022-APHIS-04627-F, 2022-APHIS-04840-F, 2022-APHIS-05330-F, 2023-APHIS-00166-F, and 2023-APHIS-00497-F.

³ More than one method is often used to kill birds in large depopulations, meaning that birds in one barn may be killed by one method, while birds in another barn are killed by a different method. For depopulations using multiple methods, the USDA does not break down numbers of birds killed by the different methods. Consequently, it is not possible to determine the number of birds killed by any individual method, such as ventilation shutdown plus heat.

⁴ Other methods include captive bolt, manual cervical dislocation, and mechanical cervical dislocation (KEDS).

⁵ For incidents involving the use of CO₂ and another method, the USDA does not indicate whether the CO₂ was used with a cart or container, or as whole-house gassing.