

# THE WELFARE OF BIRDS AT SLAUGHTER IN THE UNITED STATES

2017 Update

This report presents the findings of a review of federal food inspection documents produced by the USDA dealing with the humane handling of poultry at slaughter. The records cover the period 2015-2016, and were obtained from the USDA through multiple requests by the Animal Welfare Institute (AWI) under the Freedom of Information Act (FOIA). AWI used the records to compile a list of poultry slaughter plants that have been cited most frequently by the USDA for violating federal regulations and/or the poultry industry's good commercial practices for animal handling. In April 2016, AWI published a comprehensive report on the subject that covered the years 2006 through 2014. This document offers an update to that report.

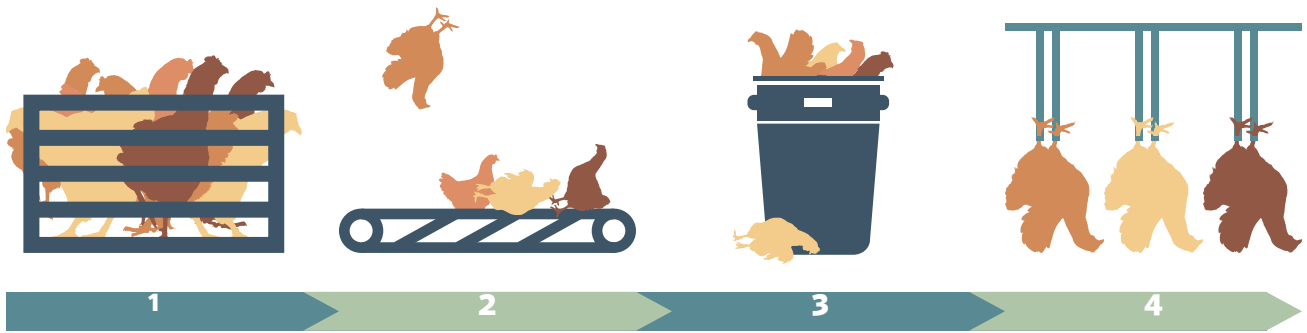
## Overview of Poultry Slaughter in the US

In 2016, nine billion chickens, turkeys, and ducks were slaughtered in the United States under federal inspection. Approximately 300 poultry slaughter plants operate under federal inspection, and these establishments slaughter a vast majority of the birds killed every year for meat.

Birds are typically slaughtered by throat-cutting to induce blood loss. To keep birds immobile for cutting, most poultry slaughter plants in the United States employ electrified water baths (see Figure 1). Alternatives to electrical stunning include stunning with different gas mixtures or low atmospheric pressure, which are generally considered more humane because the birds are rendered unconscious (or dead) before being shackled and inverted for bleeding purposes. All but a handful of US chicken slaughter plants use electrical stunning, but gas stunning has become more common at turkey plants over the past two decades.

Poultry slaughter is regulated by the US Department of Agriculture (USDA) Food Safety and Inspection Service, under the authority of the federal Poultry Products Inspection Act. Birds are killed for human consumption at slaughter plants inspected by the USDA or state departments of agriculture. Birds may also be killed at custom-exempt plants, which are inspected only once or twice each year.

Figure 1. How Most Poultry Is Killed in the US



**Arriving at Slaughter Plant**

Birds arrive crammed inside crates loaded onto large trucks. There are no legal limits on the duration of transport, or how long birds wait at the plant before slaughter. There are also no requirements that birds be protected from extreme heat or cold, or provided with adequate ventilation.

**Dumping onto Conveyor Belt**

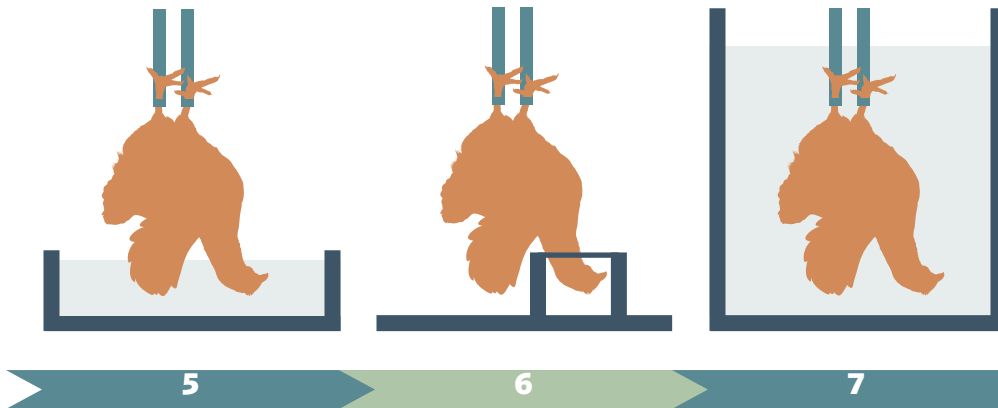
Workers toss or dump birds out of their cages onto conveyor belts. Injuries to the birds, including bruising and broken bones, may occur during this step.

**Sorting Dead and Live Birds**

Workers separate living and dead birds. Workers sometimes toss live birds onto the floor where they may be stepped on, or into garbage bins where they may become buried under dead birds and eventually suffocate.

**Shackling on the Line**

Workers hang live birds by their legs from the slaughter line. Sick and previously injured birds may be shackled and hung. Workers struggle to keep pace with the rapidly moving line, and if they use excessive force, injuries to the birds such as broken or dislocated legs and wings may result.



**Stunning in Electrified Bath**

The birds' heads are dragged through an electrified water bath. There are no legal minimum current levels, and it is unknown whether birds are rendered unconscious and insensible to pain or are merely immobilized. Birds who raise their heads to avoid the bath fail to get stunned.

**Bleeding After Cutting**

The birds' necks are cut by an automated blade. Birds who were not properly stunned in the last step may raise their heads to avoid the knife. Workers assigned to manually cut birds who miss the blade may not be able to catch all uncut birds due to the rapid speed of the line.

**Entering the Scald Tank**

Birds who are not adequately bled in the last step will be alive and conscious when they are dunked into a tank of scalding water (designed to loosen feathers from the carcass). Birds drowning in the scald tank are referred to as "red birds" or "cadaver birds."

## Reports of Abuse at Poultry Plants—And the USDA's Response

Between 2003 and 2006, animal protection organizations conducted several undercover investigations at US chicken and turkey slaughter plants. These investigations revealed egregious and intentional abuse of birds by workers at the plants that outraged the public and public officials alike. In the aftermath of these investigations, several members of Congress expressed concerns regarding the humane treatment of poultry at slaughter. The USDA confirmed receiving over 20,000 letters and 13,000 email messages from the public expressing concerns about the level of humaneness of poultry slaughter practices in the United States.

The USDA response to the documentation of animal abuse at slaughter was to issue a Notice in September 2005 that reminded poultry slaughter establishments that “under the Poultry Products Inspection Act (PPIA) and Agency regulations, live poultry must be handled in a manner that is consistent with good commercial practices, which means they should be treated humanely.” The Notice stated that “under the PPIA, poultry products are more likely to be adulterated if...they are produced from birds that have not been treated humanely, because such birds are more likely to be bruised or to die other than by slaughter.”

The USDA decided not to include humane handling requirements in the regulations and, as a result, compliance with good commercial practices is only voluntary. That is, with one exception: poultry plants are prohibited from allowing live birds to drown in the scalding tank. However, this regulation has been interpreted by the USDA to apply only to groups of birds entering the tank while still breathing. According to the USDA, adherence to good commercial practices (GCP) is “a process control issue and not a bird-by-bird performance standard issue.” **Therefore, not one USDA regulation currently requires that individual birds be handled humanely.**

Following publication of the 2005 Notice, USDA inspection personnel started conducting verification procedures for GCP. According to USDA records, these humane handling checks are conducted roughly every day at every federally inspected plant. In early 2006, the USDA began documenting violations of GCP on Noncompliance Records (for multiple birds drowning in the scald tank) and Memorandums of Interview (for nonregulatory violations).

## Cruelty at Poultry Plants Continues

As mentioned above, investigations by animal advocacy groups in the mid-2000s prompted the USDA to encourage slaughter plants to comply with industry GCP for bird handling. Recently, animal protection groups resumed undercover investigations, which are documenting the same type of abuse uncovered a decade earlier, demonstrating that the USDA strategy of allowing the poultry industry to police itself has failed.

In a one-year period, from November 2014 through October 2015, animal advocates conducted undercover investigations at seven chicken and turkey plants: Koch Foods in Chattanooga, TN; Butterfield Foods in Butterfield, MN; Wayne Farms in Dobson, NC; Mountaire Farms in Robeson County, NC; Foster Farms in Fresno, CA; Tyson Foods in Carthage, TX; and Tyson Foods in Carthage, MS. Video captured during these investigations suggests that intentional abuse of birds is common practice, at least at some slaughter establishments.

Some poultry companies have suspended or fired workers shown on undercover video intentionally abusing birds. In addition, animal protection groups conducting the investigations typically request that slaughter plant personnel be prosecuted under state animal cruelty laws. Of the seven investigations cited above, charges were brought in only one: the investigation of the Carthage, MS, Tyson plant, where a total of 33 animal cruelty charges were brought against plant workers.

To AWI's knowledge, this is the first time cruelty charges were filed for mistreatment of animals at a poultry slaughter establishment. The USDA claims that it refers incidents of intentional mistreatment of birds to state officials, and in fact AWI has reviewed USDA records that caution plant management that such action may be taken. However, AWI has uncovered no evidence that any incidents have been referred to state agencies for follow-up, or that any state agency has ever taken action against a slaughter establishment for mistreatment of birds.

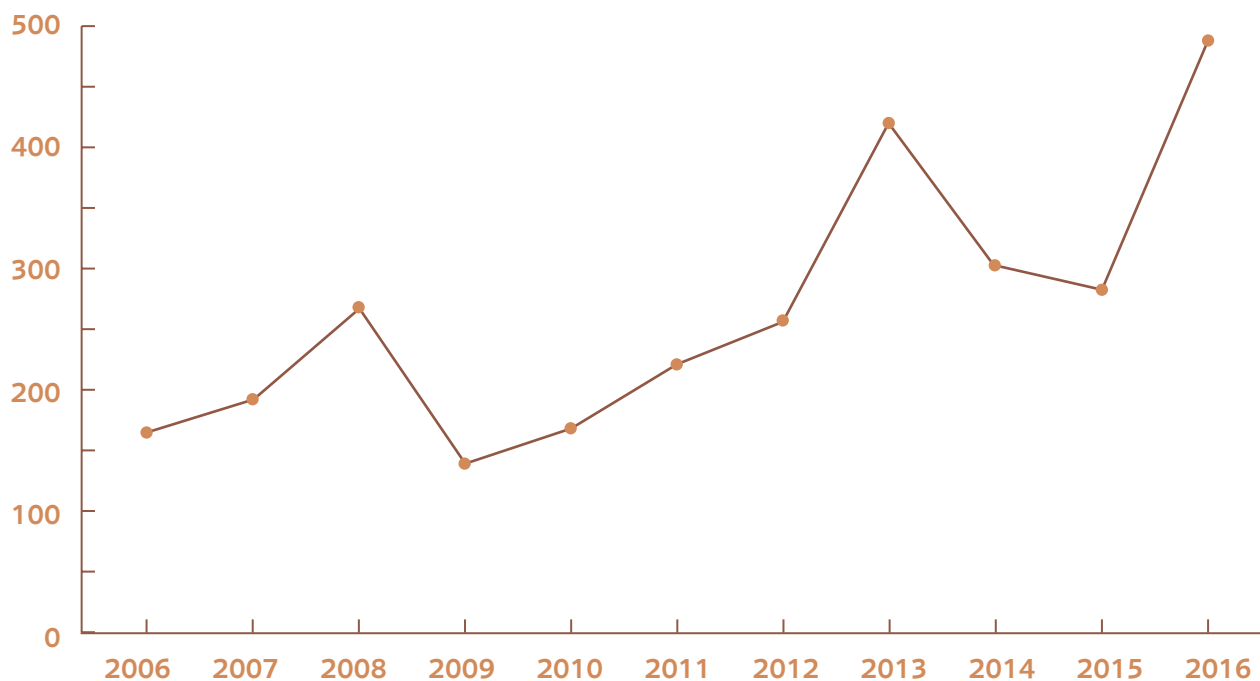
## Number of Humane Handling Violations Cited at Poultry Plants

After AWI became aware that the USDA was citing GCP violations, the organization started submitting FOIA requests for USDA records related to the humane handling of poultry. AWI has received PPIA humane handling records dating from the initiation of GCP audits in January 2006 through December 2016.

The number of humane handling violations cited by the USDA has varied considerably over the past decade (Figure 2). The reason for this is unknown. One possible explanation is that the USDA has not provided AWI with all relevant records in response to its FOIA requests.

Based on the records AWI has received from the USDA, the agency cited more poultry humane handling violations in 2016 than in any previous year since the GCP program was initiated.

Figure 2. Number of GCP Poultry Slaughter Records Generated by USDA 2006–2016



The number of humane handling records issued per slaughter plant also varies widely. For the years 2015 and 2016, half of all US poultry plants received no write-ups for humane handling, while 6 percent of plants received more than 10 write-ups each, and four plants each received more than 25 (Figure 3).

## Types of Poultry Humane Handling Violations

AWI has organized the records received from the USDA by type of humane handling violation. The most common violations are birds drowning in the scald tank and improper disposal of live birds (types of humane handling violations are listed in Figure 4). Many of the incidents reported by the USDA involve more than one bird; in some cases hundreds, or even thousands, were affected. The types of violations typically involving the largest numbers of birds are high dead-on-arrival (DOA) rates and mechanical problems resulting in injury or death.

Many of the incidents cited in GCP records resulted in profound animal suffering. Yet, under current USDA regulations no enforcement actions are possible in any of these situations, except for birds drowning in the scald tank, and only when large groups of birds are involved.

## Poultry Plants with the Most Humane Handling Violations

### Chicken Plants

According to WATT Poultry USA, there are 35 major chicken companies in the United States, as of 2017. The five largest are Tyson Foods, Pilgrim's Pride, Sanderson Farms, Perdue Farms, and Koch Foods. Both Pilgrim's Pride and Sanderson Farms have one or more plants on the current list of plants with the most humane handling violations (see Figure 5). While Tyson Foods had two plants on AWI's list of plants with the most humane handling violations for 2011 through 2014, no Tyson plants are on the current list. Perdue Farms

and Koch Foods—the fourth and fifth largest chicken companies in the country—had no plants on the current list, and had no plants on the 2011–2014 list.

**Figure 3. GCP Records per Poultry Slaughter Plant 2015–2016**

Number of Enforcement Records	Number of Plants	Percentage of Plants
0	143	47.7
1	45	15.0
2	29	9.7
3–5	41	13.7
6–10	23	7.7
11–15	13	4.3
16–25	2	0.7
25+	4	1.3

**Figure 4. Types of Humane Handling Violations at Federal Poultry Plants 2015–2016**

- ✎ Transport cages in disrepair/improper unloading of birds/loose birds
- ✎ Excessive number of DOA or injured birds/inhumane holding conditions
- ✎ Improper sorting of DOAs/placing live birds in trash
- ✎ Improper handling of birds by workers/excessive use of force
- ✎ Mechanical problems resulting in injury or death
- ✎ Improper shackling/stunning/cutting, not resulting in birds drowning in the scalding tank
- ✎ Improper shackling/stunning/cutting, resulting in birds drowning in the scalding tank

Figure 5. Chicken Plants with the Most Humane Handling Violations

Company Name	Plant Number	Plant Location	Number of GCP Records (2015–2016)
Simmons Prepared Foods	P550	Decatur, AR	40
Case Farms Processing	P419	Morganton, NC	33
Pilgrim's Pride	P7091	Mt Pleasant, TX	30
Case Farms of Ohio	P15724	Winesburg, OH	26
Sanderson Farms	P51179	Palestine, TX	20
Tecumseh Poultry	P20251	Tecumseh, NE	16
Pilgrim's Pride	P843	Marshville, NC	15
Wayne Farms	P519	Laurel, MS	15
Pilgrim's Pride	P1353	Chattanooga, TN	14
House of Raeford Farms	P687	West Columbia, SC	13
Southern Hens	P17766	Moselle, MS	13

### Simmons Prepared Foods

Simmons is a smaller poultry company, ranking 18<sup>th</sup> on WATT Poultry USA's 2017 list of the largest US chicken companies. Simmons' sales break down as 39 percent export, 30 percent foodservice, 19 percent industrial, and only 12 percent retail. Simmons offers 600 products under the Simmons name and a few other brands. Simmons operates two slaughter plants in the state of Arkansas. Its Decatur plant was cited for a variety of humane handling problems during 2015–2016.

On October 8, 2015, a USDA inspector wrote the following when citing the plant for having 358 cadavers (carcasses of birds who drown in the scald tank) recorded on its poultry condemnation certificate: *"The establishment failed to comply with its Animal Welfare Program which states, as human beings it is their responsibility to ensure if an animal's life is to be taken, it is to be done with dignity and*

*respect, making the death as painless and distress free as possible."*

Other examples of humane handling violations at Simmons Prepared Foods (plant P550):

- ✎ On 10/14/2015, a USDA inspector observed a number of birds hung in the shackle by only one leg. In one case, three birds were seen hung in a single shackle. The inspector also noted that some birds were not being stunned adequately.
- ✎ 1/10/2016, a USDA inspector observed that one of the conveyor belts was not moving and the living birds were piled on each other. By the time the belt was repaired, 50-60 had died of suffocation.
- ✎ On 3/7/2016, a USDA inspector observed that approximately 20 birds had died from suffocation on a transport belt that was not being operated properly (too many birds had been dumped on the belt at one time).

- On 6/27/2016, a USDA inspector observed an employee kick a bird multiple times.
- On 6/30/2016, a USDA inspector observed multiple loose, live birds in the live hang area and sick, dying, or dead birds too numerous to count piled on the floor. The disabled birds were so numerous that it was difficult to walk through the area. Two employees were seen kicking living birds beneath their feet. The employees made no effort to pick up and euthanize the birds.
- On multiple occasions in August 2016, USDA inspectors cited the plant for the presence of dozens of bird carcasses showing evidence of severe bruising. Some carcasses also had fractured wings, legs, and/or joint dislocations. The USDA convened meetings with plant management on August 10 and August 15 to identify a cause of the injuries.

### Case Farms

Case Foods ranks as the 14<sup>th</sup> largest chicken company in the country. Case Foods' sales break down as 50 percent foodservice, 31 percent industrial, 12 percent export, 5 percent retail, and 2 percent institutional. Case Foods has 560 chicken products; however, with only 5 percent retail sales, its company brands, Case Farms and Tasty Eight, are not well known to US consumers. Case Farms operates slaughter plants in Morganton and Troutman, NC, and in Winesburg and Canton, OH. The two Ohio plants were at the top of AWI's previous list of chicken companies with the most humane handling records in 2011-2014. The Morganton, NC, plant is in the second spot on the current list, and the Winesburg, OH, plant ranks fourth.

On February 3, 2016, a USDA inspector wrote the following about a meeting called to discuss humane handling concerns at the Morganton, NC, plant: *"The topic of discussion was the trend in GCP (good commercial practice) mistreatment. There have been six GCP incidents since 12/1/2015. Three of these involved mistreatment: one live bird went into the scalding, one bird was run over in the truck/trailer yard and one live bird was found in the condemned barrel in live hang and would have been covered with dead birds. There were three potential mistreatment with*

*the birds being thrown. None were hurt, but could have. There is a pattern/trend of improper handling of poultry that is unacceptable to FSIS. This must stop and be brought under control."*

Other examples of humane handling violations at Case Farms (plant P419):

- On 7/11/2015, a USDA inspector observed 14 barrels of DOA chickens and numerous DOAs on the floor of the live hang area. The heat and humidity may have contributed to the large number of DOAs, as well as the holding over of a large number of birds who were not slaughtered during the first shift.
- On 8/7/2015, a USDA inspector noted that one of the employees hanging chickens was grasping the birds by the neck and throwing them. The same employee behavior had been reported on 7/21/2015.
- On 3/3/2016, a USDA inspector observed three chicken carcasses on the ground in the trailer bays that appeared to have been run over by a truck.
- On 7/8/2016, a USDA inspector noted dead birds covering a 20 foot by 10 foot section of the floor. A live bird was found buried among the dead birds.
- On 9/30/2015, a USDA inspector observed approximately 45 birds drowned in the stunner due to a power outage. The inspector ordered the living birds removed from the line, but 30 minutes later these birds were still hanging upside down in shackles. Some of the inverted birds were moribund, while others were dead.
- On 10/10/2016, a USDA inspector observed the intentional mistreatment of a live bird being prepared for shackling. An employee threw the chicken to the ground and then proceeded to kick it forcefully multiple times. The bird was pinned against the wall, allowing no escape.

Examples of humane handling violations at Case Farms (plant P15724):

- On 1/8/2015, a USDA inspector noted outside temperature was below zero, with a wind-chill watch in effect. As a result of the weather, birds were cold and stiff, which led to birds being shackled by only one leg. Improperly shackled

birds increase the risk of being drowning in the scald tank.

- ✎ On 7/18/2015, a USDA inspector observed DOAs too numerous to count forming a pile on the floor approximately 10 feet long and 4-5 feet wide. Three live birds were observed buried by the dead birds.
- ✎ On 11/17/2015, a USDA inspector observed a live bird struggling to extract himself from a large pile of DOA birds. Before the live bird could be removed, one of the live hang employees stepped on the back of the bird. Another live bird was found buried on the bottom of the pile.
- ✎ On 6/13/2016, a USDA inspector observed that the person positioned after the automatic knife, who served as a back-up killer, failed to cut the throats of no less than five birds. Personnel were unable to remove the birds before they entered the scald tank and drowned.
- ✎ On 10/17/2016, a USDA inspector observed that an employee was dumping more birds on the belt than the system could accommodate, resulting in birds being crushed by the dumping system. When the carcasses were examined, marks from the dumping system could be seen, and one bird had been subjected to crushing that resulted in its intestines being herniated through the cloaca.

### **Pilgrim's Pride**

Pilgrim's is the second largest chicken company in the country. Approximately 75 percent of its common stock is owned by JBS, the world's largest protein company. Pilgrim's sales break down as 33 percent retail, 30 percent foodservice, 23 percent industrial, and 14 percent export. Its 2,500 products are sold under the Pilgrim's, Pierce, and Gold Kist Farms brands. Pilgrim's operates 24 slaughter plants in approximately a dozen southern states. Pilgrim's had three plants on AWI's 2011–2014 list of the chicken plants with the most humane handling violations, and three of its plants are on the current list. Of the three Pilgrim's plants, the one in Mount Pleasant, TX, was cited the most in 2015-2016.

On July 31, 2015, a USDA inspector wrote the following as part of a lengthy report detailing humane

handling issues at the plant: *"The establishment has been previously asked to consider taking measures to ensure establishment employees are treating animals in a manner than minimizes injury, excitement and discomfort prior to slaughter.... The establishment has been previously asked to consider taking measures to ensure establishment employees are aware of the provisions of the establishment emergency plan (for animal welfare) in the event of an extended line stoppage event. The establishment has also previously been requested to take adequate measures to ensure all establishment employees handling live animals are aware of the need to carefully check all animals for sign of life before they are condemned as dead.... USDA is requesting plant management properly investigate the root causes contributing to the conditions observed at P7091 concerning animal welfare, take the required initiatives to ensure that employees are consciously aware of the need to properly treat animals and to establish effective preventive measures to avoid future occurrences."*

Other examples of humane handling violations at Pilgrim's (plant P7091):

- ✎ On 5/15/2015, a USDA inspector observed a pile of carcasses at least three feet high behind the live hang belt. At least three live birds were seen in the pile.
- ✎ On 7/15/2015, a USDA inspector observed birds too numerous to count in piles along the back wall of the live hang area. The inspector learned that five cages of birds had arrived dead and some of the living birds from other cages were showing signs of heat stress (open-mouth breathing, panting).
- ✎ On 1/25/2016, a USDA inspector observed a piece of intestine wrapped around metal on the outside of a tunnel before the stunner. Upon further investigation, the inspector found a large amount of blood and bloodied feathers outside of the tunnel. The inspector concluded that birds were being caught and pulled apart at the entrance to the stunner.
- ✎ On 5/6/2016, a USDA inspector noted a large number of DOA birds in the previous week (more



than 1,500 birds on 5/19 alone). The inspector discovered that birds had been held at the plant for more than 15 hours before slaughter.

- On 7/7/2016, a USDA inspector expressed concern regarding a large number of DOA birds, which the inspector speculated was due to heat stress and a lack of adequate ventilation in the bird holding area.
- On 10/5/2016, a USDA inspector noted that the plant was not operating for approximately 35 minutes due to equipment failure, and during that time 10 birds drowned inside the stunner.

### **Sanderson Farms**

Sanderson Farms is currently the third largest chicken company in the United States. Sanderson's sales break down as 58 percent foodservice, 35 percent retail, and 7 percent export. It sells more than 1,000 chicken products under the brand Sanderson Farms. Sanderson operates 11 slaughter plants in the southern United States. Its slaughter plant in Palestine, TX, received 20 humane handling reports in 2015-2016, while the Sanderson plant in Kinston, NC, received 22 reports in 2011-2014. The Palestine plant was cited for a variety of bird handling issues, including excessive use of force, improper sorting of DOAs and live birds, and birds drowning in the scald tank.

Examples of humane handling violations at Sanderson Farms (plant P51179):

- On 12/18/2015, a USDA inspector observed an employee at the end of the hanging line tossing a bird over his head toward an empty shackle as it was passing.
- On 3/30/2016, a USDA inspector observed an employee at the end of the hanging line use a "closed hammer fist" on both the leg and thigh areas of a chicken to force the bird into a shackle.
- On 7/15/2016, a USDA inspector noted a very large pile of dead birds at the end of the live hang belt and was told by an employee that the birds had piled up on the belt and the ones at the bottom had suffocated. The inspector also noted live birds among the dead ones.
- On 8/9/2016, a USDA inspector observed a very large pile of presumably dead birds that

measured 3 feet high and two-thirds the length of the live hang belt. Employees were seen tossing DOAs and at least one live bird onto the pile.

- On 8/10/2016, a USDA inspector determined the plant's slaughtering process was "out of control," resulting in multiple birds entering the scald tank while alive and drowning. The inspector noted that similar incidents had been cited on 4/21, 4/29, 5/4, 6/7, 6/21, and 7/8.

### **Turkey Plants**

According to WATT Poultry USA, there are 23 major turkey companies in the United States, as of 2017, with Butterball, Jennie-O Turkey, and Cargill Turkey being the largest. None of the US turkey companies received enough write-ups for inhumane handling to make AWI's list for the period 2011-2014, or for the current list covering 2015-2016. One possible explanation for this is that many turkey plants use gas stunning, which limits the amount of live animal handling by employees. For 2015-2016, only two turkey companies—Jennie-O Turkey and Turkey Valley Farms—were issued a significant number of humane handling citations.

### **Jennie-O Turkey**

Jennie-O Turkey is the second largest turkey company in the United States, according to WATT Poultry USA. It operates four slaughter plants in Minnesota and Wisconsin. Jennie-O Turkey Store is a wholly owned subsidiary of Hormel Foods. It offers more than 1,500 turkey products that are distributed in more than 40 countries. For 2015-2016, the Jennie-O Turkey plant in Melrose, MN, was issued 16 humane handling reports, the most of any US plant slaughtering turkeys. According to USDA documents, the Melrose plant is the only Jennie-O slaughter plant that uses electrical stunning. The Jennie-O plants using gas stunning received two or fewer humane handling reports each for 2015-2016.

Examples of humane handling violations at Jennie-O Turkey (plant P544):

- On 10/9/2015, a USDA inspector observed an employee pick up multiple live birds from the floor and throw them onto the hanging platform.

- On 7/11/2016, a USDA inspector observed a number of carcasses that showed signs of the turkeys having died from hypothermia. The inspector learned that the turkeys had been transported 130 miles in the rain and informed the plant that the carcasses would be condemned as septic.
- On 7/21/2016, a USDA inspector observed a turkey who had been run over by a truck. The turkey, who had sustained severe injuries, was still breathing when an employee placed the bird in a trash barrel.
- On 12/6/2016, a USDA inspector observed that turkeys in a transport coop were so crowded that the birds were forced to sit on top of each other. One bird on the bottom of the pile was found to be cold and unresponsive.

### **Turkey Valley Farms**

Turkey Valley Farms is the 15<sup>th</sup> largest turkey producer in the country. It operates only one slaughter plant, in Marshall, MN. The company's 50 turkey products are marketed under the Turkey Valley Farms name and several other brands. Its products are sold through retail, foodservice, and export. For 2015-2016, Turkey Valley Farms was issued 11 humane handling

reports, the second highest number of any US turkey company. According to USDA documents, Turkey Valley Farms uses electrical stunning.

Examples of humane handling violations at Turkey Valley Farms (plant P7669):

- On 6/24/2016, a USDA inspector observed three conscious birds enter the scald tank within a five-minute period. The inspector also observed 11 cadavers (birds drowned in the scald tank) on the floor.
- On 7/20/2016, a USDA inspector noted a trend of turkeys being hung by only one leg. For the previous week the average was 12.6 percent of birds hanging by one leg. The inspector associated this finding with an increase in the number of birds drowning in the scald tank.
- On 8/1/2016, a USDA inspector observed several birds showing signs of consciousness (blinking eyes, open-mouth breathing, raised head, and wing movement) as they entered the scald tank.
- On 11/9/2016, a USDA inspector observed a total of 69 cadavers in a short span of time. The inspector noted that similar situations had occurred on 10 occasions since late July.

*\* Poultry market data obtained from WATT Poultry USA's 2017 profiles of leading US chicken and turkey companies.*

## About the Animal Welfare Institute

Since its founding in 1951, the Animal Welfare Institute has been alleviating suffering inflicted on animals by people. AWI works to improve conditions for the billions of animals raised and slaughtered each year for food in the United States. Major goals of the organization include eliminating factory farms, supporting high-welfare family farms, and achieving humane transport and slaughter of all farm animals.