



Auditing Tools and Animal Welfare Indicators for Broiler Chickens

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Introduction

Animal welfare audits evaluate whether a hatchery, farm, or processing plant is meeting the specific animal welfare standards of a certification program. Audits may be internal to a certain company, or they could be a requirement for animal welfare certification. Certification programs have their own set of standards and audits, which are typically created in collaboration with producers, veterinarians, industry professionals, and scientists. Audits in the United States are generally voluntary, as producers can decide which program and audit standards to follow, if any.

Audit standards incorporate science-based animal welfare measures that mainly focus on housing and management conditions, which refer to what is provided to them in their environment. Audit standards also include animal-based measures, which refer to the experiences of the animal. Animal-based measures are direct measures of welfare based on the animals' responses to housing and management conditions. Audits are typically performed annually and assure customers and consumers that animal welfare standards are being met.



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Audit Types

Three types of audits are commonly performed. First-party audits are internal and performed by a hatchery, producer, or processor at their own integrated site. These audits are useful for self-evaluation, allowing a company to make continual improvements within its organization. Second-party audits are performed by a company's customer. The goal of a second-party audit is to ensure that the customer's requirements are being met. Third-party audits are performed by an audit organization independent of the supplier-customer relationship. The goal of a third-party audit is to ensure that animal welfare standards are being met for a certain certification. Various certification programs for broilers exist in the United States (see PEC article vol. 22). For information about them, see [Volume 22 of the Poultry Extension Collaborative Poultry Press](http://bit.ly/4jxX6jc) (<http://bit.ly/4jxX6jc>).

The Audit Process

During an audit, animal welfare standards are measured using inputs (resource-based measures) and animal-based indicators (animal-based measures). Inputs are aspects related to the environment the birds are raised in, including the resources and management that poultry are reared with. These inputs can impact animal welfare, but do not give direct insights into the welfare state of an individual animal. Some examples of inputs include stocking density, litter quality, handling techniques, and veterinary care practices.

While these inputs are valuable in assessing the animals' living conditions and identifying potential risks and opportunities for animal welfare, they should be used in conjunction with direct measures of welfare, based on the animals' responses to their housing and management conditions. Animal-based indicators focus on the health, behavior, and affective experiences of an animal, which more directly reflect their actual animal welfare state. These indicators give us insight into how animals survive in the conditions they are provided with. To identify a welfare problem and its associative risk factors, both animal-based indicators and inputs

need to be collected. This information can then be used to determine corrective or preventive actions needed within the flock.

Examples from U.S. Broiler Welfare Certification Programs

Tables 1-3 show examples of animal welfare certification programs and the animal-based indicators for broilers recorded during their audits (American Humane Certified 2019; Certified Humane, n.d.; Farm Animal Care Training and Auditing, n.d.; and Global Animal Partnership 2025). Each indicator includes the sample size, scoring method, and pass/fail threshold (tables were adapted from: Better Chicken Commitment, 2023. The National Chicken Council (2022) auditing guidelines with specific compliance standards are also included in the tables. Producers can use this information to evaluate different certification programs to see which might be the best fit for their operations.

Table 1. On-farm and pre-slaughter animal-based animal welfare indicators for five common U.S. audit tools.

Animal-based indicator	Audit detail	American Humane Certified	Certified Humane	Farm Animal Care Training and Auditing	Global Animal Partnership (G.A.P.) Level 1	National Chicken Council audit guidelines
Footpad dermatitis	Sample size	Flock	Flock	Flock	Flock	Flock
	Scoring system	Not specified	Any bird found dead	Not specified	Any bird dead, missing, or culled	Not specified
	Pass/fail threshold	>1.5%/24h requires investigation	>6% total requires investigation	<5% total	<4% total	None
Gait score (lameness)	Sample size	25 birds/flock	Not specified	Whole flock	≥100 birds/flock	Not specified
	Scoring system	3-point scale (Webster et al. 2008)	6-point scale (Kestin et al. 1992)	3-point scale (Webster et al. 2008)	3-point scale (Webster et al. 2008)	3-point scale (Webster et al. 2008)
	Pass/fail threshold	>85% of birds with a score of 0	No more than a few overtly lame birds	<5 birds with a score of 2	Weighted sum ≤20	None
Dead on arrival	Sample size	Flock	Flock	Flock	Flock	Flock
	Scoring system	Any bird that died during transport to slaughterhouse	Not specified	Not specified	Any bird found dead at the time of unloading	Not specified
	Pass/fail threshold	>0.2%/3 months investigated	>0.3%/3 months investigated	>0.5%/weekly requires correction	<0.5%	>0.4%/weekly requires investigation
Shackling effectiveness	Sample size	500 birds	Not specified	Not specified	500 birds	500 birds
	Scoring system	Ineffective shackle: shackled by one leg	Ineffective shackle: shackled by one leg	Not specified	Ineffective shackle: shackled by one leg	Ineffective: shackled by one leg or paws from previous birds in shackle
	Pass/fail threshold	<2/500 birds shackled by one leg; <5/500 birds high on shackle	None	None	No birds shackled by one leg	<4/500 birds shackled by one leg or paws from previous birds in shackle

Animal-based indicator	Audit detail	American Humane Certified	Certified Humane	Farm Animal Care Training and Auditing	Global Animal Partnership (G.A.P.) Level 1	National Chicken Council audit guidelines
Electric water bath stunning effectiveness	Sample size	500 birds	Not specified	Not specified	500 birds	500 birds
	Scoring system	Effective stun: neck arched, head vertical, open eyes, wings close to body, body tremors	Effective stun: neck arched, head vertical, open eyes, wings close to body, body tremors	Not specified	Not specified	Not specified
	Pass/fail threshold	<5/500 ineffectively stunned	All birds effectively stunned	990/1,000 birds effectively stunned	495/500 birds effectively stunned	495/500 birds effectively stunned
Controlled atmosphere stunning effectiveness	Sample size	500 birds	Not specified	1,000 birds	500 birds	500 birds
	Scoring system	Ineffective: eye, wing, or leg movement	Ineffective: eye, wing, or leg movement	Not specified	Not specified	Not specified
	Pass/fail threshold	0/500 birds ineffectively stunned	All birds effectively stunned	990/1,000 birds effectively stunned	495/500 birds effectively stunned	495/500 birds effectively stunned

Table 2. Animal welfare indicators recorded during slaughter for five commonly used audit.

Animal-based indicator	Audit detail	American Humane Certified	Certified Humane	Farm Animal Care Training and Auditing	Global Animal Partnership (G.A.P.) Level 1	National Chicken Council audit guidelines
Slaughter effectiveness	Sample size	500 birds	Not specified	1,000 birds	Not currently recorded	500 birds
	Scoring system	Ineffective: uncut carotid arteries	Not specified	Ineffective: uncut blood vessels	Not currently recorded	Ineffective: uncut blood vessels
	Pass/fail threshold	<5/500 birds ineffectively slaughtered	None	990/1,000 birds effectively slaughtered	Not currently recorded	495/500 birds effectively slaughtered
Scalding effectiveness	Sample size	500 birds	Not currently recorded	1,000 birds	Not specified	500 birds
	Scoring system	Not specified	Not currently recorded	Not specified	Not specified	Red carcass and uncut arteries
	Pass/fail threshold	0/500 birds enter the scalding live	Not currently recorded	0/1,000 birds enter the scalding live	No live birds enter the scalding	0/500 birds enter the scalding live

Table 3. Animal welfare indicators specifically related to injuries, which are recorded during slaughter for five commonly used audit tools in the United States.

Animal-based indicator	Audit detail	American Humane Certified	Certified Humane	Farm Animal Care Training and Auditing	Global Animal Partnership (G.A.P.) Level 1	National Chicken Council audit guidelines
Broken wings	Sample frequency	Annually	Not currently recorded	Annually	Every 15 months	Annually
	Sample size	500 birds		500 birds	Not specified	500 birds
	Scoring system	Not specified		Not specified	2-point scale (AAAP, 2017)	2-point scale (AAAP, 2017)
	Pass/fail threshold	<15/500 birds with broken wings		<15/500 birds with broken wings	<1% of birds with broken wings	≤15/500 birds with broken wings

Broken legs	Sample frequency	Annually	Not currently recorded	Not currently recorded	Every 15 months	Annually
	Sample size	500 birds			500 birds	500 birds
	Scoring system	Not specified			Any bird with a broken leg	2-point scale (AAAP, 2017)
	Pass/fail threshold	<2/500 birds with broken legs or hemorrhaging			0/500 birds with broken legs	≤2/500 birds with broken legs
Leg bruising	Sample frequency	Annually	Not currently recorded	Annually	Every 15 months	Annually
	Sample size	500 birds		500 birds	Not specified	500 birds
	Scoring system	Not specified		Not specified	Not specified	2-point scale (AAAP, 2017)
	Pass/fail threshold	<2/500 birds with bruised legs		<2/500 birds with bruised legs	<1% of birds with bruised	≤2/500 birds with bruised legs
Footpad dermatitis	Sample frequency	Annually	Annually	Annually	Every 15 months	Annually
	Sample size	500 birds	Not specified	200 paws	≥100 birds	200 paws
	Scoring system	3-point scale (AAAP, 2015)	5-point scale (Welfare Quality, 2009)	3-point scale (AAAP, 2015)	3-point scale (Berg 1998)	3-point scale (AAAP, 2015)
	Pass/fail threshold	<50/500 birds with a score of 1	All birds with a footpad dermatitis score more than 1	95/200 paws with a score of 0	Total footpad dermatitis sum ≤20	180/200 paws with a score of 0 or 1

Farms or processors may pass or fail an audit based on how they scored for all indicators assessed. This pass/fail threshold differs between programs. For American Humane Certified, the audit is passed when the score is $\geq 832.15/979$ points, or 85% compliance. For Certified Humane and G.A.P Level 1, the audit outcome needs to comply 100% with the audit standards. For Farm Animal Care Training & Auditing, the audited companies need a score of $\geq 888/1,110$ points, or 80% compliance. When audited with the National Chicken Council audit guidelines, the audit needs to have $\geq 985/1,160$ points, or 85% compliance to pass.

Summary

Third-party animal-welfare audits are used in the poultry industry to ensure integrated hatcheries, farms, and processing plants are meeting certification standards of a program. These audits incorporate animal-based indicators and inputs that can help producers identify welfare issues and their associated risk factors.

Comparisons of animal-welfare indicators between certification programs shows that there are different methods of scoring and sampling, as well as different compliance standards. Poultry producers should consider comparing these animal welfare certification programs to determine which is the best fit for them.

Additional Resources

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