

UNITED STATES DEPARTMENT OF AGRICULTURE
FOOD SAFETY AND INSPECTION SERVICE
WASHINGTON, DC

FSIS PHIS DIRECTIVE	6170.1	4/11/11
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RATITE ANTE-MORTEM AND POST-MORTEM INSPECTION

I. PURPOSE

This directive instructs inspection program personnel (IPP) on how to perform ante-mortem and post-mortem inspection of ratites. In addition, this directive provides direction on how to make dispositions for some ratite diseases post-mortem and how to document the findings. Finally, this directive provides information about the compliance guidelines for the proposed performance standards for the production of processed meat from ratites. This directive provides documentation procedures under the Public Health Information System (PHIS).

KEY POINTS:

- *Ante-mortem inspection for ratites*
- *Post-mortem inspection for ratites*
- *Disposition determinations*

II. [RESERVED]

III. [RESERVED]

IV. REFERENCES

Poultry Products Inspection Act (PPIA) 21 U.S.C. 455
9 CFR Parts 381 and 500

The PHIS User Guide is available via the FSIS Intranet on the PHIS page under Resources.

V. BACKGROUND

A. Since April 26, 2001, United States (U.S.) establishments slaughtering or processing ratites for distribution into commerce as human food have been subject to the requirements of the Poultry Products Inspection Act (PPIA) and the poultry regulations, 9 CFR Part 381. IPP under the PPIA perform ante-mortem and post-mortem inspection on all ratites to determine whether the birds or carcasses are fit for human food (21 U.S.C. 455).

B. In addition, IPP verify that ratites showing signs or conditions of disease on ante-mortem inspection are slaughtered separately or condemned. Ante-mortem and post-mortem inspection together provide the overall information required to make accurate inspection and disposition decisions under the PPIA. Product that is wholesome and not adulterated, and is passed for human consumption, may bear the marks of inspection.

VI. ANTE-MORTEM INSPECTION

A. Performing Ante-mortem Inspection

1. IPP are to perform ante-mortem inspection (9 CFR 381.70(b)) on the day of slaughter.
2. To perform ante-mortem inspection, IPP are to observe all ratites:
 - a. At rest; and
 - b. In motion.
3. When viewing each ratite during ante-mortem inspection, IPP are to observe:
 - a. The overall condition of the ratite, the head; including the eyes, nostrils, beak, and neck; the legs; the wings; and the body of the bird;
 - b. The degree of alertness, mobility, and breathing; and
 - c. The ratite for any unusual swellings or any other abnormalities.
4. When IPP find ratites showing signs of abnormalities or diseases on ante-mortem inspection, IPP are to have the establishment segregate all affected ratites (e.g., suspect pen) for further examination by the Public Health Veterinarian (PHV) (9 CFR 381.72(a)).

NOTE: Ratites with signs of abnormalities or diseases may present with the following: dirty, ruffled feathers; swollen sinuses; eye or nostril discharge; diarrhea; swellings; lameness; ascites (distended abdomen); or emaciation (thin).

5. IPP are to pass for slaughter ratites that do not show signs of diseases or abnormalities and that are fit to slaughter for human consumption.
6. If an establishment fails to present birds for ante-mortem inspection (9 CFR 381.70(a), 21 USC 455), the off-line IPP are to:
 - a. Condemn the carcass;
 - b. Notify the Inspector-In-Charge (IIC) immediately; and
 - c. Issue a noncompliance record (NR) under the 03J01/2 procedure code using the monitoring trend indicator.

B. Suspect Ratites

1. PHVs or IICs are to:
 - a. Designate as “U.S. Suspect” ratites that may have any disease condition requiring condemnation of all or part of the carcass and parts on post-mortem inspection; and
 - b. Identify as “U.S. Suspect” all seriously crippled and non-ambulatory ratites (9 CFR 381.72(b)).
2. PHVs are to:
 - a. Perform an additional examination, if needed;
 - b. Identify all “U.S. Suspect” ratites by having the establishment place on them a serially numbered metal or plastic leg band or tag bearing the term “U.S. Suspect” (9 CFR 381.72(b));
 - c. Segregate and handle ratites with readily detectable conditions on post-mortem inspection as “U.S. Suspect” (9 CFR 381.72(b));
 - d. Not identify ratites affected with conditions that can be readily detected on post-mortem inspection (e.g., a mass on the side of the bird’s leg or a swelling on the joint) with an individual tag;
 - e. Handle as “U.S. Suspect” and segregate separately ratites affected with leg deformities from a cause other than trauma;
 - f. Record the condition (e.g., leg deformity) and the number of birds in the specific production affected with the condition on FSIS Form 6150-1, Identification Tag – Ante-mortem;

- g. Complete FSIS Form 6150-1, Identification Tag – Ante-mortem, for each suspect;
- h. Contact the Policy Development Division (PDD), through supervisory channels, if the IIC has not received a slaughter permit when an establishment presents for ante-mortem inspection ratites used in a research investigation involving an experimental biological product, drug, or chemical (9 CFR 381.75). The PDD issues the slaughter permit to the IIC, DO, and the researcher based on information provided by the researcher; and
- i. Follow the instructions in FSIS Directive 6000.1, Responsibilities Related to Foreign Animal Diseases (FADs) and Reportable Conditions, for ratites suspected of having a contagious disease transmissible to humans or a reportable disease (9 CFR 381.73).

C. Condemned Ratites

PHVs are to:

1. Have the establishment place a “U.S. Condemned” tag or band on the leg of ratites to identify them as “U.S. Condemned” if they are:
 - a. Dead (died at the establishment);
 - b. Dead-on-arrival (DOA);
 - c. Plainly showing on ante-mortem inspection any disease or condition that, under 9 CFR part 381, would cause condemnation of their carcasses on post-mortem inspection; or
 - d. Affected with any condition not otherwise covered in this part that would preclude the release of the animal for slaughter for human food (9 CFR 381.71 and 381.72(b)).
2. Verify disposal of ratites in accordance with 9 CFR 381.95 or have them set apart and held for further observation or treatment under supervision of IPP (9 CFR 381.71(e)).

NOTE: It is the responsibility of the PHV to verify the identification of the bird so that the bird is neither slaughtered or used for human food.

D. Delayed Slaughter

1. Delayed slaughter is utilized by a low-volume establishment when slaughtering birds on a day other than on the day of ante-mortem inspection (9 CFR 381.70(b)(2)).

2. Off-line IPP verify that the establishment:

- a. Only slaughters ratites that have received ante-mortem inspection within the previous 24 hours;
- b. Does not slaughter ratites designated as “U.S. Suspect” without the presence of IPP; and
- c. Does not slaughter and chill in one day more birds than were inspected on ante-mortem inspection.

NOTE: IPP are to be present during all slaughter operations, other than as described for emergency slaughter.

E. Emergency Slaughter

If an establishment informs the PHV that it was necessary for it to slaughter a ratite because of a serious injury at a time other than normal inspection hours (9 CFR 381.70(b)(1)), then the PHV is to:

1. Verify that the establishment presents for inspection the carcass and all associated parts, including all the viscera held by natural attachments, except for the gastrointestinal tract. The gastrointestinal tract should be present, but it does not need to be held by natural attachments;
2. Determine post-mortem whether there is evidence of an injury present that rendered emergency slaughter necessary. PHVs are to condemn the entire carcass if there is no evidence of a condition that provides a valid reason for the emergency slaughter (9 CFR 381.70(b)(1) and 381.76(a)); and
3. Assess the condition of the bird that underwent the emergency slaughter and make a disposition determination. PHVs are to condemn the entire carcass if he or she finds evidence of a lesion to indicate sickness or disease or any other condition requiring such disposition (9 CFR 311.27).

VII. DOCUMENTATION AND ENFORCEMENT

A. Identification System

1. IPP are to verify that the establishment has a bird identification system that accurately identifies each animal and establishes that IPP have performed ante-mortem inspection on that bird. An example is the pen card system (9 CFR 381.175(b)(1)).

NOTE: An establishment may use the pen card as part of the procedure used to identify animals as having received ante-mortem inspection.

2. Information on the card may include: the date; the pen number; the lot number; the species; the breed; the number of animals; the inspector’s signature; and the

time the inspection took place. Signing of the card by IPP indicates that the animals have received ante-mortem inspection and are ready for slaughter. Usually an establishment employee will take the pen card from the pen and deliver it to the post-mortem IPP prior to or at the time the establishment takes the animals inside the establishment for slaughter. IPP, performing post-mortem inspection, collect all of the pen cards and compare the number of animals recorded on the cards with the number of animals the establishment slaughters. Usually, pen cards remain at the establishment for 1 week.

B. Documentation

1. PHVs are to complete FSIS Form 6150-1, Identification Tag – Ante-mortem, for “U.S. Suspect” ratites following the directions in FSIS Directive 6100.1, Ante-mortem Livestock Inspection.
2. The PHV or designee is to generate Form 6200-16, Summary of Ante-mortem Examination, from the Slaughter Summary Report section of PHIS when directed to do so by the FLS. Refer to the PHIS User Guide. When the PHV has been directed to generate this form, he or she is to do so only on days of slaughter. IPP are to print, sign and retain this form for one year.

VIII. POST-MORTEM INSPECTION

A. Post-mortem Inspection Methodology and Steps

1. When viewing each carcass during post-mortem inspection, IPP are to observe the overall condition of the head, viscera, and carcass looking for inflammation, exudate, swelling, masses, or parasites that indicate disease.
2. More specifically, IPP are to perform post-mortem inspection by:
 - a. Observing and palpating the heart. The establishment incises the heart through the interventricular septum prior to inspection;
 - b. Observing and palpating the lungs on all external surfaces;
 - c. Observing the abdominal and thoracic airsacs;
 - d. Observing and palpating the liver and spleen;
 - e. Observing the kidneys with the carcass, then observing and palpating the kidneys after removal to an inspection tray;
 - f. Observing all other visceral organs;
 - g. Observing the neck, trachea, and esophagus;
 - h. Observing the head, eyes, and sinus openings; and

- i. Observing all internal and external surfaces of the carcass (9 CFR 381.76(a)).
3. When IPP find carcasses showing signs of abnormalities or diseases that may affect the disposition of the carcass while performing post-mortem inspection, they are to retain the carcass for veterinary disposition (9 CFR 381.77 and 500.2). IPP are to attach “retain” tags to carcasses and parts as soon as practical (9 CFR 381.77 and 500.2).
4. IPP are to pass for human food carcasses and parts of carcasses that are not adulterated (9 CFR 381.79).

B. Post-mortem Disposition Determination Methodology

1. PHVs play a critical role in ensuring that the public health is protected by identifying and addressing ratites affected with disease conditions and ensuring that there is an appropriate disposition of affected carcasses and parts. The final responsibility for disposition determinations rests with the PHV. In making dispositions, the PHV should use a consistent, systematic approach for evaluating the carcass. For example, if a PHV starts the examination with the carcass, follows with the viscera, and ends with the head, then he or she should use this same method every time. PHVs may seek diagnostic assistance from the pathology laboratory. PHVs are to consider the laboratory’s report within the context of ante-mortem and post-mortem findings.
2. PHVs are to:
 - a. Examine all ratite carcasses that show significant abnormalities and that have been retained for examination by IPP at post-mortem inspection;
 - b. Examine all ratites that were identified as “U.S. Suspect” during ante-mortem inspection; and
 - c. On a weekly basis, if time is available, meet with the inspection team to review pathology and regulatory requirements for addressing each condition (e.g., show, explain, discuss, and answer questions).

IX. DISEASES

A. This section provides disposition information for ratite conditions either not found in 9 CFR 381 or supplemental information for conditions that are in the regulations.

B. **Airsacculitis:** PHVs are to:

1. Condemn carcasses with extensive involvement of the airsacs with airsacculitis or with airsacculitis and systemic changes; and
2. Pass for food those carcasses from which the establishment can effectively remove and condemn affected tissues, including exudate. The femur is the only

pneumatic bone in ratites. Pneumatic bones contain large, air-filled medullary canals that are involved in the respiratory cycle. Aisacculitis may spread into the pneumatic femur bone. Condemn the bone if localized posterior aiasacculitis is present (9 CFR 381.84).

C. Kidney and Liver Condemnation: IPP are to:

1. Condemn all ratite kidneys following inspection. The kidneys concentrate heavy metals within their tissues; and
2. Condemn livers with the following:
 - a. Inflammation;
 - b. Granuloma;
 - c. Necrosis, which is death or rotting of tissues;
 - d. Cirrhosis where the liver degenerates and is replaced by hard, tough fibrous connective tissue;
 - e. Tumor;
 - f. One large cyst;
 - g. Several small cysts;
 - h. Abnormal pigmentary condition caused by bile duct disorders;and
 - i. Post-mortem changes.

D. Muscular Inflammation, Degeneration, or Infiltration: PHVs are to:

1. Condemn carcasses with generalized muscle lesions that the establishment cannot trim;
2. Pass for food carcasses with affected parts trimmed and removed; and
3. Pass for use in comminuted cooked product carcasses with visibly affected portions removed if the lesions are slight or of such character as to be insignificant.

E. Parasites: PHVs are to:

1. Condemn carcasses or parts with a generalized infestation of parasites that are not trimmable;
2. Pass for food carcasses with parasitic infested tissues trimmed and removed (9 CFR 381.88); and

3. Segregate ratites with wounds infested with maggots. If necessary, send specimens to the lab for diagnostic confirmation.

NOTE: For ratites suspected of having a contagious disease transmissible to humans or a reportable disease, PHVs are to follow the instructions in FSIS Directive 6000.1, Responsibilities Related to Foreign Animal Diseases (FADs) and Reportable Conditions (9 CFR 381.73).

F. Nutritional

1. The long bones of ratites may exhibit changes because of hormonal imbalance, nutritional deficiency, or nutritional excess.
2. If IPP determine that a carcass is showing the bony changes of hormonal imbalance or nutritional diseases but has no other pathology, IPP are to pass the carcass for food (9 CFR 381.79).
3. Visceral gout is a disease of ratites with chalk-like deposits in joints and pleura.
4. If the PHV determines a carcass has visceral gout distributed in a manner that the establishment cannot trim, the PHV is to condemn the carcass. Otherwise, the establishment is to trim the affected areas, and the PHV is to pass the carcass for food (9 CFR 381.83).

X. DOCUMENTATION

A. IPP are to follow the directions in Section XII, Poultry Post-mortem Documentation, of FSIS PHIS Directive 6100.3, Ante-mortem and Post-mortem Poultry Inspection, when documenting ratite post-mortem inspection results.

Refer questions regarding this directive to the Policy Development Division through askFSIS at <http://askfsis.custhelp.com> or by telephone at 1-800-233-3935.



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