

VS Updates Surveillance and Data Standards

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Veterinary Services has updated two sections of the *Surveillance and Data Standards for USDA-APHIS-VS*.

The updates to the surveillance and data standards manual provide standardized lists of values for terms that are used to describe animal taxonomy (including commodity groups, species, and breed) and animal descriptions (including color) in VS information management systems. These types of standardized terms and lists of values allow for the exchange of information among VS IT systems and between VS and other Federal or State IT systems.

Standardized information helps to support automated data processing. Automated data processing based on a computable, common understanding of the information minimizes human data processing tasks, such as manually classifying and aggregating bovine study subjects based on species and breeds. Animal species and breed information often must be manually processed due to differences in naming conventions (e.g., Murray Gray vs. Tasmanian Grey cattle breed), misspellings, or differences in spelling conventions (e.g., Flamand vs Flamande for the Flemish cattle breed). Relationships that link all cattle breeds to the cattle commodity group are useful for automatically aggregating animals in either cattle or bovine groups based on either breed or Linnaean taxonomy information.

A new version of Appendix B (formerly titled "Species codes") has been renamed "Subject (animal) taxonomy." The new appendix provides value sets and guidelines for standardizing animal taxonomy concepts such as animal groups, species, breeds, and strains. The majority of the taxonomy concepts have been standardized based on SNOMED CT® standardized concepts (Systematized Nomenclature of Medicine) with assistance from the Veterinary Medical Informatics group at the Virginia Polytechnic Institute and State University (<http://snomed.vetmed.vt.edu/>). SNOMED standardized concepts provide a high level of quality and useful attributes for data processing. Quality of these concepts is improved with a knowledge-based assessment of validity by

biomedical terminologists (e.g., the Argentine Criollo was assessed as a valid cattle breed and added to SNOMED because it is one of the Criollo type cattle found in the Americas and includes the Texas Longhorn, among others).

Appendix C, formerly “Species Breed Codes,” is now titled “Subject (animal) descriptors.” This section provides value sets and guidelines for standardizing subject descriptors including polled status, color, color patterns, breed purpose, and size. These descriptors provide a means to describe the animal’s general appearance for purposes of visual identification, including traceback activities. They also may be used in place of the breed if the breed is not apparent (e.g., cow is coated in mud) or unknown.

The *Surveillance and Data Standards* are an essential element of the National Animal Health Surveillance System. The standards establish a foundation for building surveillance and data management systems that will better ensure integration and aggregation of surveillance data to facilitate accurate estimates, address pertinent issues and inform decisionmakers.

The data standards documents are available online at <http://www.aphis.usda.gov/vs/nahss/resources.htm>.