



Designation: F 2342 – 05

Standard Specification for Design and Construction of Composition or Quality Constituent Measuring Devices or Systems¹

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1. Scope

1.1 This specification covers the requirements for design and construction of electronic devices or systems for measuring composition or quality constituents of live animals, livestock and poultry carcasses, and individual cuts of meat, or a combination thereof. Examples include, but are not limited, to half and whole carcasses, primals, subprimals, and boxed meat.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F 2463 Terminology for Livestock, Meat, and Poultry Evaluation Systems

3. Terminology

3.1 For definitions relating to livestock, meat, and poultry evaluation systems, see Terminology F 2463.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *electronic device, n*—device operating by the principles of electronics, which may consist of one or more subassemblies and perform a specific function.

3.2.1.1 *Discussion*—Electronic devices may be complete measuring instruments (for example, pH meter, composition measuring device) or part of a measuring instrument (for example, measuring element, indicator).

3.2.2 *electronic system, n*—an electronic device or group of electronic devices used to measure and record composition or quality constituents.

3.2.3 *fault condition, n*—an abnormal condition that may cause a reduction in, or loss of the capability of, a functional unit to perform a required function.

3.2.3.1 *Discussion*—Principally, a fault is the result of an error in the data contained in or flowing through an electronic measuring device or system.

3.2.4 *inch-pound unit, n*—in ASTM standards, unit based on the inch and pound, commonly used in the United States of America and defined by the National Institute of Standards and Technology, including certain other units accepted for use with the units.

3.2.4.1 *Discussion*—Inch-pound, also known as US Customary Units, are one type of non-SI units. Another example of non-SI units is the centimetre gram second (cgs) system.

3.2.5 *indicating element, n*—element incorporated in a measuring device or system by means of which its output, relative to quantity or quality measurement, is displayed or “read” from the device itself as, for example, a digital indicator.

3.2.6 *meat, n*—all edible products and by-products harvested by the meat-packing industry.

3.2.7 *National Type Evaluation Program (NTEP), n*—program administered by the National Conference on Weights and Measures, Inc. (NCWM) in cooperation with the National Institute of Standards and Technology (NIST), state and local governments, and the private sector for determining, on a uniform basis, conformance of a type, with an applicable standard.

3.2.8 *recording element, n*—element incorporated in a measuring device by means of which its output, relative to quantity or quality measurement, is permanently recorded on a tape, ticket, card, electronic storage medium, or the like, in the form

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.