



Designation: F 2342 – 03

# Standard Specification for Design and Construction of Composition or Quality Constituent Measuring Devices or Systems<sup>1</sup>

This standard is issued under the fixed designation F 2342; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 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, live-stock 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 or inch-pound units are to be regarded separately 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:*<sup>2</sup>

F 2343 Test Method for Livestock, Meat and Poultry Evaluation Devices

## 3. Terminology

3.1 *Definitions:*

3.1.1 *carcass, n*—the harvested animal, whether eviscerated or not.

3.1.1.1 *Discussion*—A carcass may or may not be split into separate sides, one or both sides may be measured or evaluated.

3.1.2 *carcass primal, n*—basic major cuts into which carcasses and sides are separated.

3.1.3 *carcass subprimal, n*—smaller cuts derived from primal cuts.

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

3.1.4.1 *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).

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

3.1.6 *evaluation device, n*—equipment designed to measure composition or quality constituents used to determine value of live animals, carcasses, and individual cuts of meat.

3.1.7 *evaluation system, n*—a device or group of devices used to measure and record composition, or quality constituents used to determine value of live animals, carcasses, and individual cuts of meat.

3.1.8 *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.

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

3.1.9 *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.

3.1.9.1 *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.

3.1.10 *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.

3.1.11 *livestock, n*—cattle, sheep, swine, and other domestic meat animals.

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

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F10 on Livestock, Meat, and Poultry Evaluation Systems and is the direct responsibility of Subcommittee F10.10 on Design Specification.

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<sup>2</sup> 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.