

ASAE S327.4 JUL2012 (R2016)

Terminology and Definitions for Applications of Crop or Forestry Production and Protective Agents



**American Society of
Agricultural and Biological Engineers**

**S
T
A
N
D
A
R
D**

ASABE is a professional and technical organization, of members worldwide, who are dedicated to advancement of engineering applicable to agricultural, food, and biological systems. ASABE Standards are consensus documents developed and adopted by the American Society of Agricultural and Biological Engineers to meet standardization needs within the scope of the Society; principally agricultural field equipment, farmstead equipment, structures, soil and water resource management, turf and landscape equipment, forest engineering, food and process engineering, electric power applications, plant and animal environment, and waste management.

NOTE: ASABE Standards, Engineering Practices, and Data are informational and advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. The ASABE assumes no responsibility for results attributable to the application of ASABE Standards, Engineering Practices, and Data. Conformity does not ensure compliance with applicable ordinances, laws and regulations. Prospective users are responsible for protecting themselves against liability for infringement of patents.

ASABE Standards, Engineering Practices, and Data initially approved prior to the society name change in July of 2005 are designated as "ASAE", regardless of the revision approval date. Newly developed Standards, Engineering Practices and Data approved after July of 2005 are designated as "ASABE".

Standards designated as "ANSI" are American National Standards as are all ISO adoptions published by ASABE. Adoption as an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by ASABE.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

CAUTION NOTICE: ASABE and ANSI standards may be revised or withdrawn at any time. Additionally, procedures of ASABE require that action be taken periodically to reaffirm, revise, or withdraw each standard.

Copyright American Society of Agricultural and Biological Engineers. All rights reserved.

ASABE, 2950 Niles Road, St. Joseph, MI 49085-9659, USA, phone 269-429-0300, fax 269-429-3852, hq@asabe.org

Terminology and Definitions for Application of Crop or Forestry Production and Protection Agents

Developed by the ASAE Agricultural Chemical Application Committee; approved by the PM Division Standards Committee; adopted by ASAE December 1969; reconfirmed December 1974; revised March 1980; reconfirmed December 1984, December 1989; revised March 1991; reaffirmed December 1995, January 2001, December 2001, February 2003; revised February 2007; revised July 2012; reaffirmed October 2016.

Keywords: Aerial application, Application, Chemical, Ground sprayer, Pesticide, Spraying, Spreading, Terminology

1 Scope

1.1 The purpose of this Standard is to establish uniform definitions used in the application of crop or forestry production and protection agents. The definitions are adopted from related fields where applicable.

1.2 The terms are appropriate for any agricultural, forestry, or vector control application. Units in parentheses following a definition are meant as typical and do not include all possible units available for the term.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies unless noted. For undated references, the latest approved edition of the referenced document (including any amendments) applies.

ASTM E609-10, Standard Terminology Relating to Pesticides

ASTM E799-03 (2009), Standard Practice for Determining Data Criteria and Processing for Liquid Drop Size Analysis

ASTM E1620-97(2004), Standard Terminology Relating to Liquid Particles and Atomization

ASTM E1102-91(2009), Standard Terminology Relating to Agriculture Chemical Application

ASAE S572.1, Spray Nozzle Classification by Droplet Spectra

ISO 5681:1992. Equipment for crop protection – Vocabulary

3 General chemical terms and characteristic measurements

3.1 Adjuvant: An ingredient added to a pesticide formulation to improve its performance.

3.2 Aerosol: Suspended particles or droplets are of size small enough to move with the air indefinitely, exhibiting little or no settling from the air column as a result of gravitational forces.