CURRENT ASABE STANDARDS PROJECTS

April 16, 2023

The following projects to develop new ASABE standards and to revise existing ASABE standards are being undertaken by various ASABE committees shown below. Updates can be found at the following link:

https://www.asabe.org/Publications-Standards/Standards-Development/National-Standards/Standards-Updates

ES-310, Agricultural Lighting Group	
*X344.5	Lighting Systems for Agricultural Facilities
	Correction of recommendation that is leading to over lighting of Dairy housing and vegetable sorting facilities.
ES-311, Electromagnetic Radiation Application for Plants	
X644	Performance Measures of Electromagnetic Radiation Systems for Plants
	This standard is intended to establish appropriate performance criteria of optical radiation devices designed for horticultural applications and installed systems that use such devices. This standard recommends minimum and advanced criteria (including specific values where appropriate). This standard provides plant spectral response characteristics. This standard also provides methodologies to compare the plant growth and energy performance between alternative devices and installed systems when applied to diverse horticultural operations.
MS-23/2/1, Environment within Agricultural Vehicle Enclosures	
*X613-1.1	X613-1.1, Tractors and Self-Propelled Machinery for Agriculture — Air Quality Systems for Cabs — Part 1: Terminology and Overview
	The Pre-reaffirmation review of the standard identified the need to update/revise the standard to address current practices, references, and make editorial corrections.
*X613-2.2	Tractors and self-propelled machinery for agriculture—Air quality systems for cabs—Part 2: Cab & HVAC design
	Development work done by NIOSH scientists have found issues with the wording of this part of the standard in several sections; therefore it is proposed to review the verbiage and resolve any issues.
MS-23/3, Agricultural Machinery – Safety and Comfort and US TAG for ISO/TC 23/SC 3	
*X12140-1:2020	Agricultural trailers and trailed equipment — Drawbar jacks — Part 1: Design safety, test methods and acceptance criteria
	Identical adoption of ISO 12140-1:2020. Will replace ASABE/ISO 12140:2013 JUN2014 Agricultural machinery – Agricultural trailers and trailed equipment – Drawbar jacks
X12140-2:2020	Agricultural trailers and trailed equipment — Drawbar jacks — Part 2: Application safety, test methods and acceptance criteria
	Identical adoption of ISO 12140-2:2020.
X4254-16:2018	Agricultural machinery — Safety -— Part 16: Portable agricultural grain augers
	Identical adoption of ISO 4254-16:2018.
MS-23/6, Application Systems and US TAG for ISO/TC 23/SC 6	
*X327.5	Terminology & Definitions for Application of Crop or Forestry Production & Protection Agents
	3.22 and 3.23 are titled same but define two different concepts. The examples in 3.23 all happen to be 'median' droplet sizes, but this ‘0.5’ fraction is only one special instance of droplet diameter when defining cumulative distribution. S572 references Dv0.5, etc, but never uses the term Volume Median Diameter. Volume Median Diameter is a critical concept, frequently used as a shorthand for nozzle classification. It should have its own definition rather than being one example within another, miss-titled definition.

MS-23/6/2, Aviation	
*X641.1	Droplet Size Classification of Aerial Application Nozzles
	Nozzle and pressure settings need to be revised so that this standard harmonizes with the recent updates to S527.3, which significantly altered the boundaries of the coarsest droplet size categories. The focus will be only on adjusting the nozzle tips and pressures for the coarsest categories to bring the boundaries curves into alignment with those established by S527.3.
MS-23/6/3, Dry Materials	
*X341.6	Procedure for Measuring Distribution Uniformity and Calibrating Granular Broadcast Spreaders
	Change the purpose of the standard by adding in "<18.3 m (60') spread width".
*X573.1	Procedures for Evaluating Variable-Rate Granular Material Application Accuracy of Broadcast Spreaders
	Update the normative references to include S660.
MS-49, Crop Production Systems, Machinery, and Logistics	
*X497.8	Agricultural Machinery Management Data
	Update coefficients for some machines in Tables 1-3.
X658-1	Singulating Seeding Equipment Test Methods Part 1: General Information
	The scope of this part of the S658 standard series is to provide normative references, definitions/terminology, and general testing requirements for monitoring system performance and seed spacing of singulated seeding equipment for the ASABE S658 standard series.
X658-2	Singulating Seeding Equipment Test Methods Part 2: Monitoring Systems Performance
	The scope of this part of the S658 standard series is to define a test method of the monitoring system from the row unit's seed sensing point to the end user interface display or farm management system.
X658-3	Singulating Seeding Equipment Test Methods Part 3: Seed Spacing Performance
	The scope of this part of the S658 standard series is to define a test method for measuring the predicted performance of seed placement within the in-ground state (seed furrow) just after seed is dispensed from the row unit without accounting for the various dynamic effects after release from the seed delivery system.
MS-54, Precision Agriculture	
*X579.2	Yield Monitor Field Test Engineering Procedure
	Standard lacks rigor in performing weight accuracy tests. For example: if minimum block length were used to perform weight accuracy tests, a total of about 20 bushels of corn would be harvested with a 12 row head at 200bu/acre. Unload cleanout and scale accuracy should be considered when performing weight accuracy tests. For weight accuracy tests on a combine, the minimum harvest should be somewhere around 1/3 grain tank.
X611	Collecting, Processing, and Visualizing Geographic Harvest Data
	Develop a standard to improve the processing and utilization of data files containing geospatial yield, moisture content (MC), and quality data with respect to information content, units, and interoperability between different software products and measurement systems. Standard will cover the issues of data acquisition, data processing, and data representation in map form.
NRES-03, NRES Standards Oversight and US TAG for ISO/TC 23/SC 18	
X643	Putting Green and Sports Field Design and Construction
	Design and construction of base layers of material for golf course putting greens and sports fields. It will not include specific discussions of construction techniques and methods, but will provide direction on slopes, drainage, soil/gravel/material types (performance factors, root zone mixtures, organic matter, etc.), and seed bed preparation.

NRES-224 Sediment and Associated Pollutants	
*X422.2	Mapping Symbols and Nomenclature for Erosion and Sediment control Plans for land Disturbing Activities
	Revise nomenclature definitions and update use of different practices.
NRES-23, Drainage Group	
*X302.5	Design and Construction of Surface Drainage Systems on Agricultural Lands in Humid Areas
	The scope will have to be determined by a committee. However, based on my assessment and feedback from stakeholders – main objective would be to remove inconsistencies between design process and design guidance given by the standard and those actually being used and suggested by technical service providers. For example: • The current version of standard has charts and equations with poor readability and mixed units. • Figure 1 could be much better than what is included in terms of legend, resolution etc. • Some questions/concerns have been identified about Figure 2 and the labels used for each of the curves that need addressed by a committee of experts Other figures refer to NEH which has recently undergone a revision
NRES-244, Irrigation Management	
*X632-2	Precision Agriculture Irrigation Language: Observations and Measurements
	This (X632-2) part of the standard series presents an object model and reference XML serialization schema to represent observations and measurements of relevance to agriculture in general, and irrigation in particular; it is an agriculture-specific implementation of the ISO 19156 Standard. 560 / 680 space limit.
NRES-245, Microirrigation	
*X405.2	Design and Installation of Microirrigation Systems
	This standard needs to be reviewed for consistency/accuracy in definitions, updating current terminology and practice, and updating any standards applicable to the practice.
PAFS-20/4, Bulk Solids Handling and Storage	
X636	Bulk Material Physical Properties
	To consolidate physical properties of bulk materials required for design of storage and handling facilities for bulk materials in one location.
X652	Wind Loads on Circular Grain Bins
	Wind loading guidance is needed for structural design of grain bins. Standard will provide wind loads on roof and walls of individual circular grain bins and wind loads on groups of grain bins.
PAFS-40, Facilities and Systems Group	
*X270.6	Design of Ventilation Systems for Poultry and Livestock Shelters
	(1) Update heat and moisture production numbers and references in (current) Table 1; (2) Update the descriptions of ventilation system types for modern livestock production systems; (3) Demonstrate how Table 1 and specie-specific environmental needs influence the design for ventilation system types.
PAFS-403, Milk and Dairy Facilities	
*X444.2	Terminology and Recommendations for Freestall Dairy Housing, Freestall, Feed Bunks, and Feeding Fences
	Review recent North American and Western European research and recommendations for dairy cattle freestalls (cubicles) and feeding areas and modify standard as appropriate.

PRS-34/17, Management Systems Food Safety	
X22000	Food safety management systems - Requirements for any organization in the food chain
	Adoption with deviation of the informative annexes of ISO 22000 for better clarification for use.
PRS-701, Physiochemical Properties of Biological Products	
*X241.5	Density, Specific Gravity, and Mass-Moisture Relationships of Grain for Storage
	Data has become dated. Data presented, including figures and tables, needs to be updated.
*X243.5	Thermal Properties of Grain and Grain Products
	Data has become dated. Data presented, including figures and tables, needs to be updated
X631	Machine Vision Method of Forage or Biomass Particle Size and Size Distribution
	Establish alternative methods to determine size, projected area, and particle size distribution of any particulate material.
X662	Moisture Relationship Equations and Moisture Based Calculations
	Moisture relationships (or) moisture equations involved in handling agricultural materials along with web-based ready-to-use moisture calculators.
PRS-702, Crop and Feed Processing and Storage	
*X248.4	Construction and Rating of Equipment for Drying Farm Crops
	Update based on comments from maintenance reviews, also align with relevant ISO standards
*X271.3	Psychrometric Data
	Evaluate and improve the explanation of the charts and equations and add better alternative charts and equations where appropriate.
*X319.5	Method of determining and Expressing fineness of Feed materials by Sieving
	The scope is limited to a specific technical correction/change in 4.4 (300 mm to 300 µm) and minor formatting corrections regarding formulas in 6.2.2, 6.2.3,
X657	Measurement and Rating of Hermetic Storage Bags – Specifications of Gas Barrier Liners
	The focus of this standard development project is on specifying the key engineering properties that will be the basis for measuring and rating hermeticity and strength of gas barrier liners.

*Projects to revise existing ASABE standard documents.