

CURRENT ASABE STANDARDS PROJECTS

April 3, 2024

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.
*X642.1	Recommended Methods for Measurement and Testing of LED Products for Plant Growth and Development
	This revision will establishing recommendations for: test methods for actively cooled products, the use of portable spectroradiometers to make irradiance and SPD measurements, and far-field modelling using existing data format.
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-23/3, 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, Agricultural trailers and trailed equipment — Drawbar jacks — Part 1: Design safety, test methods and acceptance criteria. 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, Agricultural trailers and trailed equipment — Drawbar jacks — Part 2: Application safety, test methods and acceptance criteria
X4254-16:2018	Agricultural machinery — Safety — Part 16: Portable agricultural grain augers
	Identical adoption of ISO 4254-16:2018, Agricultural machinery — Safety — Part 16: Portable agricultural grain augers, and withdrawal of ASAE S361.3 APR1990 (R2020) Safety for Portable Agricultural Auger Conveying Equipment.

MS-23/4/5, Tractor Implement Interface/PTO	
*X625.2	Drawbar Pin Dimensions and Requirements for Towing Machine with Clevis
	Add Category PA drawbar 1-inch pin. Updated the endurance strength and impact strength test to a straight pull. Moved the calculations for endurance strength and impact strength to an informative annex. Updated the “drawbar pin keeper” and “drawbar pin secondary keeper” definitions.
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
	Sections 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-23/6/1, Liquid Application	
X665	Crop Protection Equipment – Test methods for the evaluation of targeted spray application systems
	The scope of this work will define performance standard(s) for targeted spray application for row crop boom type sprayer configurations. These performance standard(s) will provide guidelines of plant protection product usage for registrants and regulators, e.g. EPA, when using this technology.
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-23/7/3, Cotton Engineering	
*X615.3	Cotton Module Cover Material Performance
	This revision is to include updates to laboratory-based material performance testing thresholds listed in table 4 of S615.2 in addition to minor changes to the text in several sections to provide more clarity in regard to sampling and testing of round cotton module covers.
MS-48, Specialty Crop Engineering	
X664	Direct to Consumption Specialty Crop Equipment Sanitary Design Requirements
	The purpose of this project would be to establish industry consensus sanitary design standards for specialty crop equipment that is used in direct to consumer specialty crop production. Direct to consumer is defined as any crop that bypasses any form of kill step and is sold to the consumer in the same form that it was harvested. Specialty Crops is defined in accordance to the USDA definition as appointed by the 2014 Farm Bill with the exception of

	any horticulture, annual bedding plants, trees, shrubs, or flowers.
MS-49, Crop Production Systems, Machinery, and Logistics	
*X497.8	Agricultural Machinery Management Data
	Update coefficients for some machines in Tables 1-3.
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.
NRES-03, NRES Standards Oversight	
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-07, Nomenclature	
*X526.5	Soil and Water Terminology
	This project's scope involves developing and refining a nomenclature framework of soil and water engineering. This framework will be subject to adjustments based on the suggestions and recommendations of the NRES-2X committee. Definitions of terminology will be modified, added, or removed per the committee's guidance and expertise to ensure clarity and precision in our field's language and terminology.
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	
*X260.6	Design and Construction of Subsurface Drainage Systems on Agricultural Lands in Humid Areas
	This revision will update the standard based on recent research in the area, as well as updating the terms used in the standard to align with the newly approved ASABE drainage terms.
*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:

	<ul style="list-style-type: none"> 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 <p>Other figures refer to NEH which has recently undergone a revision</p>
*X407.3	Agricultural Drainage Outlets—Open Channels
	<ol style="list-style-type: none"> Update with new definition of Drainage Coefficient Potentially add criteria for two-stage channel design Minor editorial corrections
*X511.1	Drain Restoration After Utility Construction
	<p>This would be determined by committee, however below are the main items suggested. Some are revisions to out-of-date things in the current standard, and some are additions to the standard.</p> <ul style="list-style-type: none"> Provide guidance for field wetness conditions suitable for construction. Update Table 2 to current materials Consider updates and additions to figures 10 & 11, to reflect current construction practices Addition of pipe bedding and backfill requirements, to protect the drain during construction and for years after. Include requirement of coordination and/or permitting with drainage district, where applicable.
NRES-244, Irrigation Management	
*X632-2	Precision Agriculture Irrigation Language: Observations and Measurements
	<p>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.</p>
NRES-245, Microirrigation	
*X405.2	Design and Installation of Microirrigation Systems
	<p>This standard needs to be reviewed for consistency/accuracy in definitions, updating current terminology and practice, and updating any standards applicable to the practice.</p>
PAFS-20/4, Bulk Solids Handling and Storage	
X636	Bulk Material Physical Properties
	<p>To consolidate physical properties of bulk materials required for design of storage and handling facilities for bulk materials in one location.</p>
X652	Wind Loads on Circular Grain Bins
	<p>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.</p>

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-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.
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.
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.