

Center for Profitable Agriculture

WEIGHTS AND MEASURES CONSIDERATIONS FOR DIRECT FARM MARKETERS IN TENNESSEE

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Introduction

Value-added agriculture entrepreneurs and direct farm marketers are often required by Tennessee weights and measures regulations to sell products by net weight rather than by count or dry measure. For example, raw meat products sold in Tennessee must be sold according to their net weight and not by the piece, box, etc. The allowable units of retail sale (i.e., method of sale) for fresh produce vary by product. Certain types of fruits and vegetables, such as grapes, must be sold by net weight, while most other types of fresh produce can be sold by weight, count, and/or dry measure.¹

The Tennessee Department of Agriculture, or TDA, has adopted the method of sale standards outlined in the National Institute of Standards and Technology's Uniform Laws and Regulations, Handbook 130² to implement weights and measures regulations for food and nonfood products sold in Tennessee. Chapter IV, Part B, Section 1 of Handbook 130 provides guidelines for the acceptable units of sale for value-added food products, meats and seafood. Chapter VI,

Section 2.3.2 indicates the acceptable units of sale for fresh fruits and vegetables.

For products sold by net weight, the TDA Consumer and Industry Services, Weights and Measures Section, abbreviated here as TDA WM, stipulates that producers must weigh or measure the products using a "legal for trade" scale certified by the National Type Evaluation Program³ and inspected and permitted by TDA WM staff. This publication provides producers with information to help them meet TDA WM requirements, including the definitions of net weight and legal for trade scales, considerations for purchasing legal for trade scales, scale permitting processes and fees, and violations of weights and measures regulations.

Definitions of Net Weight and Legal for Trade Scales

All products sold by weight must be sold by net weight. A product's net weight is the weight of the product alone and does not include the weight of the label, carton, box, container or wrapper.

¹ Producers can familiarize themselves with the allowable units of retail sale for fruits and vegetables by referring to CPA Info #167 at <https://ag.tennessee.edu/cpa/Information%20Sheets/cpa167.pdf>.

² National Institute of Standards and Technology (NIST). 2018. *Uniform Laws and Regulations, Handbook 130*. Available at <http://doi.org/10.6028/NIST.HB.130-2018>.

³ The National Type Evaluation Program (NTEP) is the authority that evaluates and certifies weighing and measuring devices manufactured for commercial use in the United States. For more information, visit: <https://www.nist.gov/programs-projects/national-type-evaluation-program-ntep>.

Producers selling products by weight must use legal for trade scales that have been permitted by TDA's Weights and Measures staff. Legal for trade scales follow the standards and requirements specified in the National Institute of Standards and Technology, or NIST, publication, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, Handbook 44" (H44),⁴ and have been evaluated and certified by the National Type Evaluation Program, or NTEP. NTEP-approved scales are often marked with the NTEP logo and include a "Certificate of Conformance Number" and the scale's associated accuracy class on the manufacturing tag. Accuracy Class III is the industry standard for weighing and measuring food products in point-of-sale commercial transactions. Scales marked "not legal for trade" are not acceptable for retail use in Tennessee.

Considerations for Purchasing Legal for Trade Scales

NTEP-certified legal for trade scales can be found at local scale dealers and through online vendors. In choosing an appropriate scale for their business, producers should verify that the scale is NTEP-certified and that the scale is suitable for weighing the products they plan to sell. TDA's WM does allow producers to utilize used or refurbished scales as long as they are NTEP-certified and pass inspection.

Scale Permitting Processes and Fees

All measuring and weighing devices used for commercial transactions in Tennessee must be permitted annually by TDA WM

inspectors. This includes scales used by farmers to weigh products at farmers markets or other market locations and scales owned by farmers markets used by vendors to sell their products. The initial process for scale permitting is outlined in the following four steps:

1. Producers desiring scale permitting should contact TDA WM staff by phone (615-837-5109) to request and schedule a scale inspection. Farmers market leadership or another group representative may also request an inspection for a group of scale owners. Group inspections allow TDA WM inspectors to evaluate multiple scales during a single inspection visit.
2. A TDA WM inspector will determine whether each scale meets NIST's H44 requirements. The inspector will verify the scale's accuracy by testing the scale using NIST-traceable calibrated mass standards, which are certified weight sets calibrated to meet the national standards for mass measurements (Figure 1).
3. If the scale meets requirements, the inspector will apply a certification sticker indicating the year and month of inspection to the approved scale and register the scale with TDA (Figure 2). After the inspector applies the certification sticker, the producer may begin to use the scale in commerce.
4. TDA will mail an invoice for the permit fee to the scale owner. Upon payment, the scale is officially permitted for the fiscal year (July 1 to June 30). TDA will mail a copy of the permit to the scale owner, upon request.

⁴ NIST. 2018. *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, Handbook 44 (H44)*. Available at <https://doi.org/10.6028/NIST.HB.44-2018>.



Figure 1. During the inspection process, TDA WM staff use certified weight sets to test the scale's accuracy.



Figure 2. If the scale passes inspection, the TDA WM inspector applies a certification sticker to the scale, verifying that the scale has been officially examined and approved by the TDA.

At the time of publication, the TDA uses a tiered permit fee structure based on the number of scales inspected and the scale's weighing capacity (Table 1). For 1 to 5 scales with a weighing capacity of 2,500 pounds or less, the fee is \$25 per year.

Table 1. TDA Weights and Measures Permit Fees for Commercial Scales with Weighing or Measuring Capacity of 2,500 Pounds or Less	
<i>Number of Scales Permitted</i>	<i>Fee</i>
1-5 scales	\$25
6-20 scales	\$150
> 20 scales	\$250

TDA will mail renewal invoices for the permit fees to the scale owner, typically in mid-June. Permits are issued for the new fiscal year when fees are paid in full.

If the inspector finds that a scale does not comply with WM requirements, the scale owner is given an "Equipment Rejection Notice," which is a two-page repair form explaining the scale's issues. Depending on the issues found during inspection, damaged scales may be immediately removed from commerce by the TDA inspector. If the inspector deems that a scale's issues are repairable, producers may be given up to 30 days to repair or replace scales not in compliance. Only registered service persons licensed with TDA WM may adjust, repair or calibrate scales in Tennessee. Producers can contact TDA WM for a list of registered service persons.

Violations of Weights and Measures Regulations

Common violations of weights and measures regulations include:

1. Using scales that are not NTEP-certified legal for trade scales or that have not been approved and registered by TDA WM staff.
2. Selling products using an unapproved method of sale (i.e., selling items by the piece when they must be sold by net weight).
3. Not listing the net weight on packaging, where required, such as on prepackaged products.
4. Listing a higher net weight on a product label than the actual net weight of the product.
5. Selling items by volume, such as berries and small fruits, in unapproved measuring containers.

If violations are discovered, WM inspectors may issue a stop sale order, and producers must discontinue sales of affected products until the issue is resolved. Producers who make repeated violations may be subject to a warning letter citing the issue and the corrections that must be made prior to resuming marketing activities. Producers who fail to comply with the TDA's method of sale requirements are subject to fines or civil penalties.

Summary

Value-added agriculture entrepreneurs and direct farm marketers should ensure that they meet the TDA's WM requirements, which includes determining the allowable units of sale for each product based on the guidelines provided in NIST's Handbook 130 and labeling and selling products according to their net weight, when appropriate. In addition, producers must weigh products using an NTEP-approved legal for trade scale that has been inspected and permitted by TDA WM staff. Producers can contact TDA WM at 615-837-5109 to schedule a scale inspection or ask additional questions.



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