On November 2, 2005, the Laws and Metric Group at NIST hosted a meeting to discuss ways to improve the communication of tare information between packers and retailers when meat products are packaged at a plant, but weighed and labeled at the retail store. Representatives from the meat packing industry, the retail food industry, and several weights and measures agencies attended the meeting.

The Problem
There is a fundamental change occurring in the retail food marketplace. Retail food stores are shifting from having in-store meat cutters to purchasing already-packaged meat from an outside plant. The supplying plant provides the retail store with packaged meat (including tray, soakers, and overwrap), and the store is then responsible for weighing and labeling the package. In order to weigh and label these products properly, the retail store needs to know the weight of the packaging materials used by the plant (i.e., the tare weight). While this may sound simple and straightforward, it is not.

Retailers
Many retail food chains manage their tare weights from a central location. Tares are maintained at the central or regional office and downloaded to the individual stores on a routine basis. While individual stores may have the ability to override the tare provided in a download (e.g., when an official from weights and measures informs them that they are using an incorrect tare), this correction will be erased when the next download occurs.

Several retail food chains believe that the centralized management of tare information is critical to the overall success of their meat departments. With little cutting and packaging being done at the retail level, stores rarely have experienced, professional staff in their meat departments. Without significant expertise at the store level, food retailers are reluctant to leave decisions regarding the use and amount of tare to individual store management.

Weights and Measures Officials
When weights and measures officials find inaccuracies in tares being used, often these inaccuracies are not being communicated to the food retailer’s central or regional offices. If the food retailer’s central or regional office is not informed that a tare value is inaccurate, then the tare value will not get changed in the next download. While some retail food chains require their store managers to submit copies of inspection reports to the central or regional office, many do not. Some chains leave that decision to the discretion of the individual store manager. Individual store managers may be reluctant to forward disparaging information about their store’s performance to the central or regional office. As a result, when weights and measures officials find an inaccurate tare being used in a store and only notify store management of the correction necessary, that information may not be communicated to the people who really need to know—the people at the central or regional office who set the tares values for the entire chain of stores.
**Packers**
The weight of tare materials used at a meat packing plant varies regularly. Whenever the plant changes suppliers, whether it is suppliers providing soakers, trays, or overwrap, the tare must be reevaluated and changed. Whenever suppliers change the materials used in their products, the tare must be reevaluated and changed. Most meat packers monitor tare continuously and regularly make small adjustments to ensure their packages are accurate. While tare information is routinely shared with retailers, it is difficult to ensure that the correct tare goes on the correct package. Packers may ship individual packages from several different production lots (lots which may have been packaged using different tare materials) in a single shipment to a retailer’s warehouse. The retailer’s warehouse then further breaks up these package groups to distribute packages to individual stores. Even if accurate tare information for all packages is provided to the retailer’s central or regional office, the retailer has difficulty using this information effectively since not all packages of the same product at the same location will necessarily have the same tare. In addition, new tare information provided to a retailer may only apply to packages still in the retailer’s warehouse (and not those presently in the store). This means retailers must coordinate the updating of tare data with the placement of new packages on the store shelves.

**Is There a Solution?**
The question remains: How do you effectively ensure that the tare information for a particular package “travels” with the package from the point of production to the final retail destination? One suggestion has been to print tare information directly on individual packages. However, packers and retailers all agree that printing tare information on packages, shipping cases, or shipping invoice forms would not be effective. Packers order packaging materials and shipping containers months in advance and at that point could only guess as to what amount of tare would need to be preprinted on these materials. In addition, if tare information were provided on individual packages, shipping cases, or shipping invoices, that information would only be available at the retail store and would never reach the retailer’s central or regional office in time to be included in the next download. Most retail food chains do not want individual stores making independent decisions about what tares to use.

Ultimately, the key will be for packers and retailers to communicate more frequently and more effectively. To that end, the American Meat Institute (AMI) has agreed to contact other trade associations representing the retail and meat packing industries to ask for their help in reiterating to their members the importance of accurate net weight labeling at retail. AMI will encourage their packer and processor members to communicate tare values to retail customers whenever changes in tare values occur.

**How Can Weights and Measures Officials Help?**
Weights and measures agencies can help by sending copies of test reports (especially from failed inspections) to the corporate or regional office of the retailer. While ideally the corporate or regional office will receive this information from the retail store, retailers at this meeting stressed they would rather receive duplicate reports (from the weights and measures agency and the store) than none at all. Retailers consider it absolutely critical that weights and measures officials contact, communicate, and work with the corporate and regional offices early and often. Retailers specifically asked that weights and measures agencies not wait for problems to escalate before they get the corporate or regional offices involved.
Weights and measures officials should conduct package inspections in full compliance with NIST Handbook 133. Inspectors are encouraged to properly clean tare materials during inspections to avoid imposing tares larger than they should be. According to Handbook 133, Used Dry Tare is “tare material that has been air dried, or dried in some manner to simulate the unused tare weight.” Before adding this definition to Handbook 133, members of the NCWM and NIST did extensive testing to compare the weights of Unused Dry Tare (which the packer uses), and Used Dry Tare (which the inspector uses). If Used Dry Tare is dried and cleaned properly, its weight should not vary significantly from the Unused Dry Tare weight. In addition, NIST strongly discourages the use of microwave ovens when drying tare materials, particularly soaker pads. Past tests have shown that excessive heating of soaker pads and other tare materials can significantly alter their weight, and even start a fire as some officials have learned.

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