



## Implementation of a Scale-Tec Calibration Scale

**Project Number** 2008-09

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**Problem** During the winter months, Olmsted County uses 17 tandem-axle snowplow trucks to maintain 530 miles of roadway. The county was unable to verify the amount of salt and sand being applied to the roadway by these vehicles because it lacked a uniform method for calibrating the sanders on each truck. It was difficult to determine if the amount of salt and sand applied was sufficient or if the county was overspreading the material.

**Solution** Olmsted County used a Scale-Tec Calibrator IV to correctly calibrate the amount of salt and sand being applied by each truck. The device measures the spread of the material to an exacting level of 99.5 percent.

**Procedure** The county used the Scale-Tec Calibrator on each of its Force America 5100 spreaders. The spreader was set to scale mode, and the calibrator was placed under the spreader discharge. The dump body of the vehicle was raised, the auger filled, and the spreader turned on to allow the salt and sand material to fall into the scale. By measuring the weight of the material, the calibrator helped the county determine the appropriate settings for each spreader to ensure the correct and consistent application of salt and sand.

**Results** Since the calibration of all 17 vehicles, the county has saved money by using less salt during the past two winters. The correct calibration has also allowed the county to save fuel, labor, and materials by avoiding a second trip on the same road because of an insufficient first application. The county now knows that its trucks are applying at an identical rate and not spreading too much or too little material.

**Approximate Cost** \$3,000

**OPERA Funding** \$3,000

**Implementation** To ensure continued accuracy, the county plans to complete calibrations once a year before the start of each winter season. Spreaders will also be calibrated if work has been performed on the sander systems or if an operator is questioning the amount of material being applied.

**Status** Complete

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