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The EUnited Spreader Performance Test – as from 2014 also for liquid thawing material

The manufacturers of spreading machines associated in EUnited Municipal Equipment and the Engineering Center Bygholm which is part of the University of Aarhus in Denmark have developed an agreed test method with the main intention: One common test procedure making spreading quality comparable and providing repeatability and reliability, independent from road and weather conditions.

Until now tests are carried out with solid thawing material only, but the test procedure currently is subject to further development in order to consider the distribution quality with liquid thawing material, too. Until IFAT 2014 the first spraying machines should be tested accordingly.

When spreading thawing agents such as salt or brine on traffic roads, the objective is always: To apply as much thawing agent as necessary in order to ensure the safety of road traffic under the current weather conditions, but also to minimize the amount of thawing agent in order to limit the environmental impact and to reduce the costs.

Therefore, it is a common interest of manufacturers and users to operate spreading machines - also referred to as spreaders or gritters - in such way, that a homogeneous distribution of spreading material is achieved within the set spreading dosage, width and spreading pattern track.

The test is carried out inside a hall which guarantees to evaluate the spreading pattern and to compare different spreading machines excluding any wind and weather influence. The repetitions of test runs with one and the same spreader show nearly identical results which attest a high degree of reliability to this test procedure. For other tests in Europe which are mainly carried out outdoors with unstable conditions the results are widely spread in principle. The efficient determination method which was developed by the experts of the Engineering Center Bygholm immediately provides the results after each test run. Therefore, this test supports manufacturers at the development of new spreading machines to evaluate technical modifications or settings immediately.

Until now AEBI-Schmidt, Epoke, Giletta, Gmeiner, Küpper-Weisser and Rasco tested various spreader machine models according to the EUnited spreader performance test. These spreader models can be identified by the 'EUnited Spreader Test'- label. A list of tested spreading machine models is published on the EUnited Website.

Since this distribution performance is the most important quality feature of a spreading machine, manufacturers and users have created their own test procedures separately from each other in order to obtain information about the distribution quality. This has resulted in a high variety of different test methods all over Europe. Later on an expert group of the European Committee for Standardization (CEN) started to work out a common test procedure for verifying the distribution quality of spreaders in a European Standard.

As a first result, EN 15597-1 has been published defining a static test method to verify the accuracy of set spreading dosages of thawing material brought out with a spreader in a defined time period.

Subsequently this CEN expert group tried to develop a common dynamic test for verifying the distribution quality during driving and as close as possible to real operating conditions. But these experts could not agree on standardised test conditions. Due to the different kinds of thawing materials used throughout Europe and the lack of experience in determining the exact quantity of thawing material spread on the road, this group decided to publish a Technical Specification instead of a European Standard. This has led to the situation that all operators choose different methods to determine the precision of the spreading pattern. Until today the test methods have not been specified in detail. The new EUnited spreader performance test is a new approach towards a harmonised European test procedure.

For further information, see www.eu-nited.net or get in touch with the Secretariat of EUnited municipal equipment (carmen.simon@eu-nited.net, phone: +49 (69) 66 03-1301).