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## MEMORANDUM

TO: National Council on Weights and Measures

FROM: Dr. Judd Michael  
Professor

RE: NIST Handbook 133: proposed change for measurement of mulch products

I am writing with respect to the proposed changes in mulch measuring procedures seen in the NIST 133 Handbook. Several entities are apparently attempting to change the procedures such that it will be easier for short-filled bags to pass inspection due in part to limitations on how measurements can be made.

There are several places that the NIST procedures are slated for change. One objective of the proposed changes appears to be making it more difficult for the operator to ensure a free-flowing product which in our experience will result in more "void volumes" (i.e., air pockets) within the sample. This would make the volume of product appear to be more than it actually is. The proposal also restricts the number of times the operator may touch the bag while trying to loosen the mulch inside, and recommends "quickly dumping" the contents into the test measure. These changes would most likely also lead to inaccurate readings (that favor the producer).

As you know, we have recently tested bags of mulch that were packaged for retail sale. Eighty-percent of the bags we tested were significantly short of the stated volume. This makes it appear that there may be a nationwide problem where some producers are consistently shorting the consumer.

The proposed changes to the NIST procedures will make it harder for Weights and Measures personnel to accurately measure the true volume in the bags. Based on our test results we believe that more testing of mulch producers and their packaging is needed, not less. It will be in the best interest of the public to have additional testing using proper procedures that allow an accurate measurement of volume. It is certainly not in the best interest of the public to change the NIST procedures in a way that will restrict regulators and others from the most accurate methods.

In summary, we believe that the changes proposed to the NIST Handbook 133 are not warranted and will in fact make it more likely producers will be able to fill retail bags with less than the advertised amount of product. We would hope that NCWM would not support these changes.