



NDLTAP/UGPTI

North Dakota Department of Transportation Evaluation of Snow Plow Blade Systems - Experimental Study MR 2010-03

This is a brief introduction to the completed experimental study. Please click on the link provided after the introduction to view the entire experimental study.

The safe and efficient removal of snow and ice from highways and structures is a critical task for the NDDOT. The public relies on the Department to provide safe traveling surfaces in a timely manner. The efficiency of snow and ice removal depends on the experience and expertise of the NDDOT's District Employees, and on the use of the latest technology for snow and ice removal.

The workhorse of the NDDOT's snow and ice removal fleet is the truck mounted snow plow. These plows are equipped with replaceable blade systems whose service life is determined by a number of variables, e.g. pavement type, number and type of snow or ice events, snow plow speed, snow plow operator technique, blade durability and quality, etc. The replacement frequency of the blade systems has an impact on the cost of operation, hours of availability, and down time for maintenance.



The current NDDOT standard blade replacement is carbide steel. Several new blade systems have become available. The NDDOT evaluated three of these new blade systems in an effort to reduce costs and improve efficiency.

The objective of the project was to evaluate the field performance of three snow plow blade systems during the 2010-2011 fall through spring snow and ice season. The current NDDOT standard carbide blade system served as the control product for the project.

Experience of District Maintenance Employees operating and maintaining the equipment was used to compare the service life, general effectiveness and efficiency, and cost of operation for the blade systems.

[Please Click here for the Experimental Study Document](#)

This news bulletin produced by NDLTAP will be emailed on a regular basis to keep you informed of new transportation-related issues. Please share this publication with anyone who may benefit from this information.

If you have any comments or suggestions for this publication please contact NDLTAP.

Thank you,

Denise Brown

Administrative Assistant, NDLTAP

denise.brown.1@ndsu.edu

515 ½ E Broadway, Suite 101

Bismarck, ND 58501

Office: 701-328-9855 Cell: 701-220-0101

Websites: [NDLTAP](#); [UGPTI](#); [Learning Management System](#)



NDLTAP is a program within the Upper Great Plains Transportation Institute, North Dakota State University.

North Dakota State University does not discriminate on the basis of age, color, disability, gender identity, marital status, national origin, public assistance status, sex, sexual orientation, status as a U.S. veteran, race or religion. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701)231-7708.