An Introduction to the Cady Traffic Simulator. (C05-henderson162635-Poster)

Authors:

- J.J.Henderson* - *Michigan State University*
- J.Lanovaz - *Michigan State University*
- J.N.Rogers, III - *Michigan State University*
- J.C.Sorochan - *Michigan State University*
- J.T.Vanini - *Michigan State University*

Abstract:

Realistic traffic simulation is crucial to the validity of athletic field research. Previously developed athletic field traffic simulators contain studded drums that turn at different speeds creating shear forces at the playing surface. A new traffic simulator (a modified walk behind core cultivation unit) has recently been developed at Michigan State University. The objective of this study was to compare the magnitude and direction of the forces produced by two traffic simulators; the Brinkman Traffic Simulator (BTS), a pull behind unit, and the Cady Traffic Simulator (CTS). Both simulators were operated over an in ground force plate which measured the forces in three directions; front to back, side to side, and vertical. The CTS produced higher peak forces than the BTS in all three directions when operated in the forward direction. However, when the CTS was operated in the reverse direction, the BTS front to back and vertical forces were double that of the CTS. The loading rate of the CTS was higher than the BTS, indicating that the CTS produced dynamic forces similar to that of pushing or running.

Corresponding Author Information:

Jason Henderson
Michigan State University
A162 Plant and Soil Science
E. Lansing , MI 48824

phone: 5173533952
e-mail: hende112@msu.edu

Presentation Information:

Presentation Date: Monday, November 11, 2002
Presentation Time: 4:00-6:00 pm
Poster Board Number: 1123

Keywords:

Athletic field, Traffic simulator