

Measurement of Stress and Strain distributions Beneath Wheels

B.G. Blunden#,*, C.R. Trein and J.M. Kirby

CSIRO Division of Soil, PO Box 639 Canberra 2601

*** Current address: Environment Protection Authority, PO Box
498 Grafton 2460**

INTRODUCTION

The objective of this study was to examine the distribution of tyre imposed stresses, soil displacements and soil mechanical properties as function of the soil surface geometry. The study was performed using the advanced soil bin facility at Silsoe College (Cranfield University), England. Valuable experience was gained in using this type of equipment (which is not available in Australia) and several new links with overseas soils and agricultural researchers were established. The following report outlines the experiments that were performed and briefly discusses some of the outcomes from this research. Further analysis of data from these experiment is taking place at CSIRO Division of Soils.