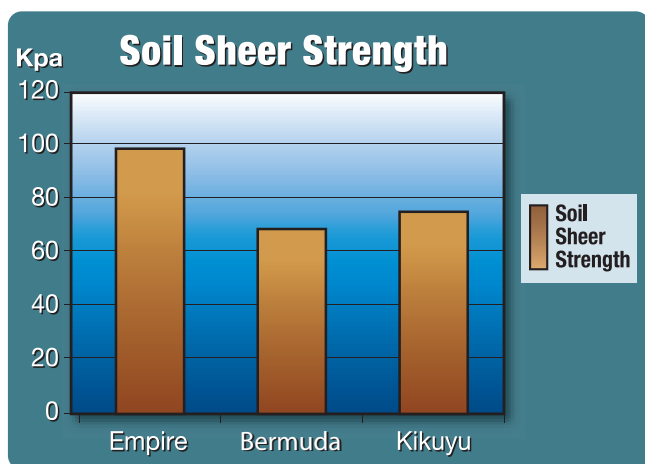


## Empire Turf Strengthens Soil almost 40% more than Bermuda and Kikuyu

Recently, Ian Paananan, lead scientist at Crop and Nursery services was contracted to test the strengthening effect that Empire Turf has on soil compared to Bermuda and Kikuyu. He used a recently calibrated Controls T174 Shear Vane

tester, on 30 randomly selected sample areas of each of the varieties. The test results were taken from 6 replicated plots of each variety. All plots were grown using the same conditions, and at the same time.



The soil was a clay type soil, and was saturated prior to testing. The results found that there was significant difference between the results at the 1% level. This simply put, means that the results are statistically valid. The bare soil had an undrained shear strength of 66Cu. The Bermuda only strengthened the soil to 68.1Cu and the Kikuyu to 72.4Cu. The Empire Turf strengthened the Soil to 97.9Cu on average. These readings were taken at a depth of 5cm below the ground. As a result, Empire Turf is the logical choice for soil stabilization. In Engineering circles, it is well known that Kikuyu is better for erosion than bermudagrass. Now we have proof that Empire is a far better soil stabilizer than Kikuyu.

## Empire Turf has more rhizomes than Bermuda and Kikuyu. This is one reason why it strengthens the soil more.

Crop and Nursery services, the independent consultant that tested Empire's soil strength, also took samples of the 3 turf types, with the aim of finding out which turf type has more rhizomes. The top parts of the turf (above ground parts), mainly leaf and stem were removed with a shear. Then 30 cm squares were taken at a depth of approximately 18

cm. The soil was then washed off the samples. Once this was done, each sample was weighed. Only rhizomes and roots were left.

**Results:** The Empire had underground roots and rhizomes weighing 290 grams, while Kikuyu had 220 grams, and Bermuda had 200 grams per 0.9 of a square metre. The extra amount of underground mass explains why Empire strengthens the soil more.

