

ชื่อเรื่อง

Vetiver in a Southern African Context

ชื่อผู้วิจัย

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Specialized Soil Stabilization, SOUTH AFRICA

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Abstract

Vetiver grass has been promoted and researched extensively in Southern Africa with considerable success. As a consequence it is being used in a range of applications including; combating of soil erosion, in farming and forestry, commercial planting for generation of essential oil, slope stability on engineering sites, and most significantly as stabilisation hedges on slimes dams in the gold and diamond industry.

South Africa has numerous very large slimes dams which represent a by-product of deep level gold mining. These dams consist of an extremely sterile, highly acidic rock flour which becomes encrusted with salts in the near surface layers. Aside from being hostile to plant growth, the slimes dams present severe dust, aesthetic, and acid mine drainage environmental problems. These dams are also located in harsh climatic conditions including low rainfall and temperatures which range from -5 degree C in winter to plus 30 degree C in the summer. Trial survival planting has shown that Vetiver represents an ideal plant material for stabilisation of gold mine and slimes dams. Vetiver has survived successfully for nearly 4 years on slimes dams in Welkom with minimal maintenance. Its use as a stabilisation medium is now accepted by the Gold Mining Industry, and aside from the above other commercial aspects (e.g. mulching, thatch grass, weaving material) and applications are being widely considered in the new South Africa.