

ชื่อเรื่อง

**Effects of Some Adverse Soil Conditions on the Growth of *Vetiver*  
*Zizanioides* L.**

ชื่อผู้วิจัย

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#### **Abstract**

It has been widely reported that vetiver grass can be established and flourish under a wide range of conditions including some very hostile environments. However very few quantitative data have been reported to support these anecdotal observations.

In a series of glasshouse and field experiments, it was show that vetiver can thrive under a wide range of pH, it is highly tolerant to saline and sodic soil conditions, and Al and Mn toxicities.

When adequately supply with N and P fertilisers, Vetiver can flourish between pH 3.3 and 9.5.

The saline threshold level is  $EC_{se} = 8$  dS/m and for 50% yield reduction,  $EC_{se} = 17.5$  dS/m. These results include vetiver in a group of highly salt tolerant crop and pasture species grown in Australia. Its growth was also not adversely affected by soil with exchangeable sodium percentage of 33%.

With adequate moisture, N and P supply vetiver can flourish at soil Al and Mn higher than 68% saturation percentage and 578 ppm respectively.

These results support observations that vetiver can be established under highly hostile environment and indicating that it is highly suitable for land stabilisation and reclamation of extremely hostile environment such as mining and industrial wastes.