

**EFFECT OF COMPOST AND POTASSIUM ON BRONZING SYMPTOMS
AND YIELD OF RICE GROWN IN IRON TOXIC SOILS IN LOW COUNTRY
WET ZONE**

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ABSTRACT

A field experiment was conducted to study the effect of compost and potassium on bronzing symptoms and yield of rice grown in iron toxic soils in Low Country Wet Zone were conducted at the Regional Rice Research and Development Centre, Bombuwala during the period May to October 2017 with the variety of BW-272-2b.

The experiment was undertaken with five different inorganic and organic fertilizer combinations viz., Control, Recommended rate (organic and NPK), Recommended rate + 25% additional K, recommended + 6 t/ha compost, Recommended + 25% additional K +6 t/ha compost) on growth and yield of iron susceptible variety Bw 272-6b.

The results showed that Fe toxicity had a significant influence on growth and yield of rice. Maximum yield was recorded in T3 i.e. Recommendation by Department of Agriculture + additional potassium 25%. This suggests that the effect of additional potassium increased the yield of rice grown in iron toxic soils. However, application of above treatment did not show any significant effects on reduction of bronzing symptoms and growth increase of rice.

The result suggests that under the conditions in the experiment yield could be increased by 49% by the use of additional 25% potassium in combination with the recommendation of the Department of Agriculture which is the most suitable and beneficial rate for iron toxicity susceptible rice varieties in the Low Country Wet Zone.

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