

Effect of Silicon Nutrition on Photosynthetic Attributes of Rice (*Oryza Sativa* .L)

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ABSTRACT

A field experiment on “Effect of silicon nutrition on photosynthetic attributes of rice (*Oryza sativa* .L)” was conducted during *kharif* season 2017-18 at Agricultural college farm, Bapatla. The experiment was laid out in a Randomized Block Design with eight treatments, each replicated thrice. Of these, four treatments are soil application with silixol granules and other four are foliar application with 1 % sodium silicate including both controls (without silicon and foliar application with water). The results revealed that, at all the three sampling times silicon application either through soil or foliar modes increased the photosynthetic rate, stomatal conductance, leaf area and SPAD value of rice leaves, and this increase was more with soil application. Among the stages, except SPAD value photosynthetic rate, stomatal conductance and leaf area were highest in mid-reproductive stage, irrespective of time and form of silicon application. But in the same manner transpiration rate of rice leaf was decreased with silicon application either through soil or foliar forms and this decrease was more in soil application.

Key words: *Photosynthetic attributes, Rice, Silicon nutrition*