Weed Management in Aerobic Rice (*Oryza sativa* L.) Under South Gujarat Conditions

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ABSTRACT

Increasing water scarcity, there is a need to develop alternative systems that require less water. “Aerobic rice” is a new concept of growing rice. It is high-yielding rice grown in non-puddled, aerobic soils under irrigation and high external inputs. To make aerobic rice successful, new varieties and management practices must be developed. In this study it was determined how different herbicide like, butachlor, pendimethalin, pretilachlor, 2, 4-D (Ethyl ester) and aniloguard were responded to aerobic rice (*Oryza sativa* L.) with regards to growth and yield as well as on weed spectrum. Hand weeding at 20, 40 and 60 DAS (T_{12}) showed significant response to almost all the growth and yield attributes *viz*., plant height, number of tillers plant^{-1}, number of panicles m^{-2} and number of grains panicle^{-1}, ultimate result was reflect in the highest grain (43.83 q ha^{-1}) and straw (57.49 q ha^{-1}) yields of rice crop. Further, application of any herbicide supplement with one hand weeding was found most effective to reduce weed population.

Key words : Aniloguard, Butachlor, 2, 4-D (Ethyl ester),Pendimethalin, Pretilachlor, Rice, Weed management.