

## **RESIDUAL EFFECT OF BORON ON QUALITY AND POST HARVEST PARAMETERS OF KNOL-KHOL (*Brassica oleracea* var. *gongylodes* L.) UNDER RICE- VEGETABLE CROPPING SYSTEM OF ODISHA**

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**Abstract**—A field experiment was conducted during 2012-13 at E block of central research station, under AICRP on Micronutrient, O.U.A.T, Bhubaneswar to standardize the dose and frequency of boron application for rice-knol khol cropping system where boron is applied to first crop and knol khol gets residual boron. In the present investigation residual effect of different graded doses of boron and its frequency of application on quality and post harvest parameters of knol khol for the year 2017-18 is studied. The experiment was laid out in a Factorial Randomized Block Design with three replications and four different doses of boron (0.5 kg/ha, 1.0 kg/ha, 1.5 kg/ha and 2.0 kg/ha) at three different frequencies (application of boron once, alternate year and every year) were applied. The results revealed that the maximum values of quality and post harvest parameters (viz., Total soluble solid content of knob (6.7°Brix), Ascorbic acid content of knob (78.2 mg/100g), Firmness of knob (7.9 kgf) , Dry matter content (9.21%), Duration of maximum retention of shelf life of knob (5.03 days), Percentage of marketable knobs (96.1%) were recorded with residual effect of boron @ 1.5kg/ha in every year application.

**Keywords:** Residual, Boron, quality, Post harvest parameters, Knol khol.