## **ABSTRACT**

This study aims to determine the growth of agronomic characterization and the results of several local rice strains in Aceh due to different water administration, this research was conducted in ruma kasa and Agroecotechnology Laboratory, Faculty of Agriculture, Malikussaleh University. This study used Divided Plot Design (DPD) in a 2-factor Group Randomized Design (GRD). The first factor is the Aceh local rice strain which consists of 7 levels, namely UC 77 (Unsyiah Cakep), US 20 (Unsyiah Seumeulu), CBD 08 (Cot Bada), SG 02 (Sigunca), UA 12 (Sigupai), CBD 04 (Cot Bada), Rajasa. The second factor is the interval of water administration which is divided into 2 levels, namely once every 1 day and 2 days. With 3 repetitions so that 42 experimental units were obtained and further tests using DMRT 0.05. The observed variables include: Plant Height, Number of Saplings, Root Length, Leaf Area, Shoot – Root – Ratio, Leaf Scoring, Number of Productive Mali, Panicle Length, Number of Grains, Percentage of Empty Grain, Percentage of Grain Contains, Weight of 1000 Seeds, Grain Yield Tons / Ha. The results of this study showed that the treatment of rice strains had a significant effect on: plant height 57, 64, and 71 DAP, number of saplings at 57 and 64 DAP, leaf area at 57, 64, 71 DAP and harvest, number of panicles, panicle length, number of grains, percentage of grain contained, weight of grain gathering, and grain yield ton/ha. The interval treatment of water application has a significant effect on: plant height at the time of harvest, leaf area at the age of 71 DAP and harvest, the amount of grain, the percentage of the amount of grain contained, grain weight and grain yield ton/ha. The interaction of rice strains and water delivery intervals has a significant effect on: plant height at harvest age, leaf area at the age of 71 DAP and harvest, number of panicles, panicle length, number of grain piles, percentage of grain content and weight of grain piles.

Keywords: Local rice, Srain, water inter