[P1] Field Crop Production

2021年9月9日(木) 12:15 ～ 14:00 Room 1 (Poster) (Field Crop Production)

12:15 ～ 13:00

[P1-01]Seed Size Evaluation of Rice Genotypes for Direct Seeding Development Cultivar

*Nominated for Presentation Awards

○Ahmad Rifqi Fauzi[1], Ahmad Junaedi[2], Iskandar Lubis[2], Munif Ghulamahdi[3], Hajrial Aswidinnoor[4]
(1.Graduate School of Agronomy and Horticulture Study Program, Bogor Agricultural University, Indonesia, 2.Division of Plant Production, Agronomy and Horticulture Department, Faculty of Agriculture, Bogor Agricultural University, Indonesia, 3.Division of Plant Ecophysiology, Agronomy and Horticulture Department, Faculty of Agriculture, Bogor Agricultural University, Indonesia, 4.Division of Plant Genetic and Plant Breeding, Agronomy and Horticulture Department, Faculty of Agriculture, Bogor Agricultural University, Indonesia)

Direct seeding of rice (DSR) system would be potentially giving more efficient rice production which less labor and saving water. An appropriate DSR cultivar will improve DSR systems through early vigor trait that may relate to seed size. This research has objective to evaluate the relationship among seed observed variables, i,e.: seed (whole grain), endosperm and embryo size (area, length, width, perimeter, and length-to-width ratio (LWR)) and its early vigor test. The rice germplasm consists of 55 rice genotypes (50 genotypes originating from the IPB University breeding program and 5 national varieties). Description of rice germplasm indicated that the size of seeds, endosperms, and embryos among tested genotypes are significantly different, and the seed and endosperm size (length, perimeter, and LWR) are positively correlated with 1000-grain weight and length of endosperm and seed have given direct effect by path analysis (R^2 = 42.6%). The rice genotypes are continuously observed for early vigor characters by seed germination test and will be evaluated its relationship with seed size traits. Further evaluation on the growth and development performance in the greenhouse and field experiment of selected potentially rice germplasm will be performed to confirm the early vigor character with agronomical goal of this DSR cultivated system.