ABSTRACT

NURUL HIDAYATI. Impact of Eggplant Hybrid Seed Adoption to Local Germplasm Diversity and Farmer’s Income, the Case Study in North-Part of West Java). Under direction of HARIYADI and SRI MULATSIH.

Eggplant is one of the most importance vegetable crops in Indonesia with high diversity either in fruit shape, size, color, and other plant characters. Hybrid seed is one way to increase the productivity to fulfill the need of fresh product with the chances of increasing or decreasing of diversity in Indonesia. This study was conducted in Karawang, Indramayu and Cirebon with the purposes: analyze the impact of the hybrid seed adoption to the local germplasm; analyze factors influenced the adoption of hybrid; and analyze the economic benefit of hybrid seeds to the farmer’s income. Identification and characterization of germplasm collected before and after year 2000 conducted at the research farm of PT East West Seed Indonesia and farmer’s field. The germplasm diversity in Indramayu and Cirebon are decreasing, while in Karawang is increasing as the impact of using hybrids seeds with the coming out of color and shape variation. The local germplasm of round eggplant is available. Brand image (X₈), high selling price of fresh product (X₁₀), the easiness of the fresh product to be sold (X₁₁) and diseases resistant (X₁₃) are the factors influenced the adoption of eggplant hybrid seeds, with the logit function Y = -1.329 + 2.863X₈ – 5.159 X₁₀ + 3.049 X₁₁ + 3.026 X₁₃. Market share of hybrid seeds around 80% on the periods 2004-2011, dominated by hybrids long eggplant type, and 16% of the total local germplasm (20%) dominated by round type. Hybrid seed increase the farmer’s income 2.16 times comparing to the using of local germplasm, with 3.85 of R value on partial budget analysis and 113.9 of Quality Seed Multiplier value.

Keywords: hybrid, eggplant, solanum, adoption, quality seed multiplier, diversity, partial budget analysis