Arthropod Diversity in Various Planting Patterns of Sticky Maize (Zea mays ceratina) and Edamame Soybeans (Glycine max L.)
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ABSTRACT

Indonesian farmers usually apply a monoculture cultivation system because the cultivation technique is easy, but pests and diseases easily develop. One way to break the life cycle of pests and pathogens is to implement a polyculture planting pattern that provides habitats for various arthropods. This study aims to compare the diversity of arthropods in monoculture and polyculture fields with glutinous corn as the main crop. This research was conducted from June to September 2024 in the Kebonsari agricultural land, Jember, East Java. This research is an experiment using four treatments, including monokulture sticky corn, polyculture corn – soybean, polyculture corn – soybean with lemongrass borders, and polyculture corn – soybean with basil borders. Data analysis used biological indices including the diversity index (H'), evenness index (E), and dominance index (C). The research results show that the polyculture of sticky corn with lemongrass borders has a higher recap of diversity index (H'), evenness index (E), and dominance index (C) compared to other treatments.

Keywords: Arthropod diversity, biological index, planting patterns.