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Revolution Biopolibag System Based on Water Hyacinth's Fiber as a Solution for Environmental Friendly Seeding and Seedling

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Abstract : Polybag is a plastic that is used to seed plants. The common type that used for polybag is a synthetic that made from petroleum such as polyethylene. Beside the character of the raw material that are non-renewable and limited, synthetic polybag ability to disintegrate in the environment is very low. According to that situation, we need a solution to overcome these problems by creating an environmentally friendly polybag. In this research, using the water hyacinth plant fibers (Eichornia crassipes) as a major component in manufacturing the environmentally friendly polybag, the water hyacinth (Eichornia crassipes) contains approximately 60% cellulose. The research method used is an experiment by testing the mechanical characters and biodegradability bio-polybag water hyacinth fibers (Eichornia crassipes) on three medium that is dissolved in water, river water and buried in soil. The research shows bio-polybag of hyacinth fibers can rapidly degraded. This study is expected to be the beginning of the creation bio-polybag of water hyacinth fiber (Eichornia crassipes) and can be applied in agriculture.

Keywords : revolution, biopolybag, renewable, environment
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