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Metabolic Suppression of Water Hyacinth (Eichornia crassipes) Utilizing Amino Acid over- producing mutants of Fusarium oxysporum as a Biocontrol Agent

Eichornia crassipes (water hyacinth) is a free-floating plant native to South America and is described as one of the most thriving noxious weeds to freshwater ecosystems. Introduced in Lake Victoria in the 1980's water hyacinth has significantly impacted local inhabitants health by providing habitat for disease carrying insects diminished local economies dependent on lake access. Symptomatic water hyacinths were assayed for bacterial and fungal organisms. Of the plants surveyed, the most prevalent fungal organism was *Phytophthora*, a relatively host-specific water mold, belonging to the class, Oomycetes. When coupled with exogenous lysine, tryptophan, threonine, and valine treatments, plants displayed visible characteristics of complete metabolic breakdown within 36 hours. Further evaluation of *Phytophthora* is needed to determine whether this fungal organism can be a suitable bio control agent.