



## Water Hyacinth Scrubber Technical Library

**2005. S-154 Pilot ATS™ - WHS™ Aquatic Plant Treatment System Final Report.** HydroMentia, Inc., Contract C-13933 prepared for the South Florida Water Management District, Florida Department of Environmental Protection and Florida Department of Agriculture and Consumer Services.

A pilot investigation of a two-stage nonpoint source water treatment system in the Lake Okeechobee watershed consisting of a first stage Water Hyacinth Scrubber followed by a second stage Algal Turf Scrubber®. Two operational procedures were assessed: (i) concentration reduction optimization, and (ii) nutrient load removal optimization. During the concentration reduction period, 117 million gallons of water were treated, with total phosphorus levels reduced by 83.7% from 476 ppb to 79 ppb.

**1990. Water Hyacinths (*Eichhornia crassipes*) grown in municipal waste water as a source of organic matter in Rabbit Food.**

Moreland, A.F and B.R. Collins. Department of Small Animal Clinical Science, College of Veterinary Medicine, University of Florida, Gainesville, Florida, USA.

Diets containing dried water hyacinths were fed to rabbits for two generations. The diets were palatable and all animals thrived on the diets. Survivability, fertility, survival of offspring, and teratogenicity were not affected by the diets. Based on data obtained from this study, water hyacinths grown in municipal wastewater which completely or partially replaced alfalfa as a source of organic matter in a commercially formulated rabbit food were satisfactory as an ingredient of the food.

**1988. Florida Department of Agriculture and Consumer Services.** Development and marketing alternatives for cattle feed produced from water hyacinths. Jones J.D., D.V.M. and B. McAdams D.V. Project 1-DA1. Tallahassee, Florida

Beef cattle feed trials were conducted. Cattle found the hyacinth feed product palatable, and there were no detrimental effects of the hyacinth feed in relation to toxicity.

**1987. Review of operations and performance data on five water hyacinth based treatment systems in Florida.** Stewart E.A, D.L. Haselow and N.M. Wyse. 279-288 in Aquatic Plants for Water Treatment and Resource Recovery edited by K.R. Reddy and W.H. Smith. Magnolia Press, Orlando, Florida, USA, ISBN 0-941463-00-1

Operational data are reviewed from five water hyacinth based treatment systems in Florida. Discussions are presented regarding impact of crop growth and viability upon system performance. A model developed around the Monod relationship is presented.

**1984. A practical model for water hyacinth based wastewater management, design and operation.** Stewart, E.A., D.L. Haselow and N.M. Wyse. 679-702 in Future of Water Reuse. Proceedings: Water Reuse Symposium III. San Diego, California.

A model is presented that provides a mechanism by which hyacinth based treatment systems can be evaluated by practicing engineers.

HydroMentia, Inc. 3233 S.W. 33rd Road, Ocala, Florida, 34474. Phone: (352) 237-6145

