

DUCKWEED PONDS



Categorization of Technology

BIOLOGICAL → AEROBIC/ FACULTATIVE → SUSPENDED GROWTH
Engineered Natural Treatment Systems using 'Phytoremediation'

Technology Brief

The use of aquatic species such as duckweed is suggested for treating wastewater from small communities. The introduction of duckweeds to algal ponds improves nitrogen removal while reducing algae concentrations. Duckweed species grow rapidly and hence achieve a faster coverage on the water surface, creating a unique environment facilitating the adaptation of microbial population. The duckweeds have varied advantages such as high protein content, high productivity, significant nutrient uptake, easy handling and harvesting, low fiber content. The harvested duckweed is rich in proteins and can be used as fish feed or poultry feed. Duckweed ponds can generate revenue to pay for its own operation and maintenance. Moreover, duckweed is capable of thriving and proliferating in swine wastewater due to its preferential uptake of ammonium ions.