

CURRY INDUSTRIES LTD.

CURRY CROP CIRCLES®

CATTAIL BIO-PLATFORM HARVESTING SYSTEM

An Eco-Friendly Floating Wetland

With Canadian and US Patents



This new Curry innovation allows cattails to grow hydroponically in wastewater stabilization ponds to naturally remove nutrient overloads. Bio-Platforms are constructed with recycled plastic and can withstand all weather. Once cattails reach their peak absorption they are harvested. Harvested cattail can be used as a biofuel or fertilizer to keep the recycling process ongoing. This process has never been done before allowing it to become patented cutting edge environmental technology.

THE PROBLEM

The Manitoba Government has implemented regulations on wastewater leaving some communities facing financial obstacles to meet the criteria.

Current methods of removing toxins from water have proven to be costly, requires many applications, pose potential health hazards, and only neutralize the problem - not solve it.

Contaminants from wastewater then flow into Lake Winnipeg and disrupt the integrity of the water; resulting in harmful algal growth, compromising aquatic life, limiting residential use, and overall tourism.

Getting at the root of the problem requires intervention, but with our help the lake has the power to clean itself and restore the eco-system.

OUR SOLUTION

Curry Industries Ltd. designs and deploys a floating wetland to restore contaminated fresh water naturally.

The Cattail Bio-Platform Harvesting System™ is made from recycled plastic, allowing cattails to grow in deep water where they otherwise would not survive.

Our design results in a one time investment that naturally and continuously restores the water.

Cattails increase in productivity as they mature, consistently picking up more phosphorus and nitrogen. Once they reach peak nutrient uptake they are harvested to remove the contaminants entirely. Harvested cattail can then be used as a fertilizer and biofuel to keep the recycling process ongoing.

FACTS & STATISTICS

- Cattails are a native plant to Manitoba
- Highly productive, rapid growth rate, and naturally dense
- Capable of absorbing some heavy metals and pharmaceuticals in addition to nitrogen and phosphorus
- Lab testing has shown cattails potential to remove up to 45% of phosphorus from wastewater
- Our design is 70% lighter than other floating treatment beds
- Bio-Platform is constructed with recycled plastic
- Harvested cattail tissue can be used as fertilizer or as biofuel
- Platforms take up substantially less space than constructed treatment wetlands





FREQUENTLY ASKED QUESTIONS

How can cattails be beneficial when they are required to be removed from lagoon sites?

Vegetation growing in the soil around the lagoon needs to be removed because their roots can loosen the compacted liner resulting in seepage issues. Diversion ditches also need to be free and clear of vegetation to prevent localized flooding.

The Cattail Bio-Platform Harvesting System™ allows cattails to grow hydroponically in wastewater without the roots ever penetrating the bottom sediment. Cattail roots typically grow 6-12 inches long. This product provides the benefits of a natural water filtration system without compromising the structural integrity of the liner and without causing flooding.

Do the cattails attract rodents and waterfowl?

The Cattail Bio-Platform Harvesting System™ has been designed and tested to prevent infiltration by rodents such as muskrats, and are housed in bird netting, preventing birds from nesting on the Bio-Platforms

Does this project have government support?

To enhance the efficiency of the Cattail Bio-Platform Harvesting System™, this project has received support from Federal and Provincial governments, as well as support from Post-Secondary Institutions.

How are cattails beneficial for nutrient reduction, decreasing algae, scum mats, and suspended solids?

Cattails are proven to be very efficient at absorbing nitrogen and phosphorus and storing these nutrients in their tissues. Cattails on the Bio-Platform take up these excess nutrients from the water which decreases the availability of nutrients for the growth of scum and algae. Cattails have specialized cells containing air spaces which allows oxygen to travel from the leaves down to the root system. The oxygen travelling down to the roots dissipates into the water stimulating aerobic bacteria to break down organic matter and promote growth of nitrifying bacteria.

Cattail roots also trap suspended particles and provide an environment for microbes to grow. The ability of cattails to store nutrients, trap suspended soils, and promote growth of good bacteria that break down organic matter greatly increases water quality.

The Cattail Bio-Platform Harvesting System™ is a Canada and US patented, "Made in Manitoba Solution" for water remediation, providing the only technology capable of removing nutrient overloads completely through harvesting.

QUESTIONS? CONTACT US!

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