Ag quick CAST

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Benefits of Controlling Nuisance Aquatic Plants and Algae in the United States

Invasive plants and algae have become major threats to rivers, lakes, wetlands, and riparian ecosystems.

- Once established in their new environment, they easily spread within and between water bodies, infest nearby watersheds, and disrupt the ecological status quo.
- Thousands of acres across the country are being degraded at an annual cost of tens of millions of dollars.
- Every watershed in the United States is at some level of risk.

Aquatic plants can harbor disease-causing organisms that adversely affect human health.

- Aquatic plants have entangled swimmers and caused or contributed to drowning.
- Toxin-producing cyanobacteria are a serious and emerging issue for freshwater resource managers.
- Approximately 50 species of cyanobacteria produce freshwater toxins that are harmful to vertebrates, including humans.

In the United States, invading alien species (plants and animals) cause major ecological damages and economic losses estimated at almost $120 billion per year.

- A major portion of commercial freight moves by water, and nuisance aquatic plants can interfere with movement of those goods.
- Direct impacts of nuisance aquatic plants to hydropower production include clogging turbines and penstocks, which increases costs of electricity to consumers.
- Lakes and reservoirs support a myriad of water-associated recreation.

Nuisance plants and algae have the ability to negatively impact aquatic communities and habitat in primarily four ways:

- Structurally changing habitat through fast growth rates, greatly increasing populations and biomass.
- Dominating the capture of energy from sunlight [outcompeting valuable native plants].
- Stabilizing and limiting water exchange processes [impairing water quality].
- Producing large amounts of dead plant material [which can degrade dissolved oxygen levels].

The detrimental effects of weeds on human water uses can be ameliorated and in some instances eliminated through [proactive and prudent] management.

- Drinking water supplies, water-based recreational activities, agricultural irrigation systems, and industrial water intakes depend on consistent and effective aquatic plant management programs.
- The most widespread management technique involves the use of environmentally compatible chemical herbicides [but other nonchemical techniques can help suppress plant growth].
- It should be noted that rapid-response approaches to eliminate pioneer infestations are becoming more accepted and that there are a few instances of active “eradication” programs.
- People must make the protection and conservation of [freshwater resources] a top priority for the future.

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