

Giant Salvinia – An Invasive Alien Aquatic Plant in Thailand ^{1/}

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Abstract

Giant salvinia (Salvinia molesta) is an introduced floating aquatic fern native to Brazil. It can reproduce vegetatively and under ideal growing conditions can double its biomass every 3-5 days. It can form mass on the water body, blocks out the sun's rays from penetrating through, thereby inhibiting photosynthesis of submerged aquatic plants. Water quality is impaired under these masses, especially in areas with restricted water movement. Although the Act banning its introduction and cultivation has been promulgated since 1978, there is still a problem in controlling its distribution as well as in eradicating it. At present, however, only two areas, in which giant salvinia creates some problems, are in restricted areas in the Central and Southern parts of the Thailand. Luckily, the local administrative officers were effective in controlling its widespread distribution through people's participation program in eradicating the giant salvinia. Chemical control is by the use of paraquat herbicide, but not officially recommended, except for use directly on the plant, or in turbid water. Although not at present troublesome for the waterways, awareness through surveillance should be done by notifying the public to be aware of its danger and not cultivating it.

Keywords: Plant introduction, noxious aquatic weed, rapid multiplication, impaired water quality, herbicide spray.

1. Introduction

It is well known that plant introduction plays a key role in development. In an agricultural country like Thailand, plant introduction has contributed significantly to agricultural development. Numerous varieties of many species of cultivated plants have been widely accepted by the growers. Many have made Thailand the world's largest exporter of commodities derived from such introduced plants, e.g. cassava (*Manihot esculenta*), pineapple (*Ananas comosus*) and para rubber (*Hevea brasiliensis*) introduced from South America.

Introduced ornamental plants have also enriched Thai growers with their numerous species and varieties. Orchids introduced from various lands, after hybridization and selection, have made Thailand the world's largest exporter of orchid cut flowers.

An endless list of plant species and varieties can be made to show that such introduced plants have made significant economic progress of Thai agriculture such that Thailand becomes one of the few countries that feed the world, not only of foods, but various other commodities such as ornamentals as well as cosmetic, pharmaceutical and industrial products.

The negative side of plant introduction is its role in dealing with noxious weeds which have created a lot of problems in their eradication, most of which are nowhere close to complete winning the war in fighting with these alien invasive plants.

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