

Problems and Control of Aquatic Weeds in the Irrigation Systems of Thailand

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The aquatic plants which cause problems in the extensive irrigation systems of Thailand are usually the exotic species which find conditions in the irrigation channels favorable for growth and proliferation. The most troublesome weeds, as well as some of the control methods used in Thailand, is discussed in this paper.

Key Words : *Mimosa, Hydrilla, Potamogeton, Salvinia, Eichhornia, chemical control, biological control.*

Introduction

Thailand is one of the Southeast Asian countries in the tropical part of the world, located between latitude 6 and 20 degrees north and longitude 98 and 106 degree east. The land area is 51.4 million hectares, of which 23.6 million hectares are farmed. Only 3.32 million hectares are irrigated. All the irrigation and drainage work in Thailand is under the direction and responsibility of the Royal Irrigation Department (RID) of the Ministry of Agriculture and Cooperative.

To provide a proper water control system to the irrigable area, many irrigation structures have been constructed. For example a diversion dam on the main river, Chao Phraya, at Chainat forms a distribution canal system to supply water to paddy fields and many other agricultural purposes. These constructions affected the aquatic ecosystem, often adversely by providing excellent habitat or by stimulating weed growth. The explosive growth of aquatic plants, especially introduced plants, create problems involved with practically all water uses in Thailand.

A recent survey by the aquatic group of the Weed Control and Research Branch, RID, showed that more than 10% of the water area maintained by the Royal Irrigation Department suffers from serious weed problems and requires regular weed control.