

Apple snail: a new invading pest in rice fields in Europe

M.M. Català¹, E. Pla¹, N. Tomàs¹

¹ IRTA, Ebre Experimental Station, Ctra Balada, km 1, 43870 Amposta, Spain mar.catala@irta.cat

Poster presentation

* Special Issue of Biotic Stress

ABSTRACT

The apple snail species from genus *Pomacea*, are native of South America wetlands. They destroy rice paddy fields and represent one of the 100 worst invasive alien species of the world. *Pomacea maculata* was detected in Europe in the Ebro delta, NE of Spain, in 2009. Since then, the pest has continuously been extended to the net of drainage channels to rice fields, to irrigation channels and even to the Ebro River. Preventive and curative actions have been executed in the infested structures and in rice fields: manual collection, containment measures, burning the vegetation, quicklime application, dredging the channels, drying the soil in autumn and fallow land. The fertilization on flooded field with calcium cyanamide before seeding and the use of saponine during plant establishment, are the more common methods used by farmers to control the snail in rice fields. Recent studies on ferric phosphate offer a new possibility to manage the pest. To flood with seawater the paddy fields and the net of drainage and irrigation channels has demonstrated to be highly effectively, however yield has been affected by salinity impact. In this context is carried out the European project Neurice (www.neurice.eu), with the main objective of developing new commercial European rice harbouring salt tolerance alleles to protect the rice sector against climate change and apple snail invasion.

Key words: calcium cyanamide, seawater, ferric phosphate, salinity, molluscicide