DEVELOPMENT OF A MYCOHERBICIDE FOR BIOLOGICAL CONTROL OF ALISMATACEAE WEEDS IN RICE

Eric J. Cother and Ross L. Gilbert
NSW Agriculture, Agricultural Research and Veterinary Centre, Forest Road, Orange, New South Wales 2800, Australia

Abstract In the past decade, the incidence of the aquatic weed alisma (*Alisma lanceolatum*) in rice crops has increased and although it is still present on only a small portion of the total rice production area of New South Wales, its presence is causing concern because it is difficult to control with conventional rates of herbicide. In addition, herbicide resistant populations of a related weed, starfruit (*Damasonium minus*), have been identified on several properties and their occurrence is expected to increase. The New South Wales rice industry has very limited options for management of these increasingly important weeds because of lack of alternative chemical herbicides.

A naturally occurring fungus, *Rhynchosporium alismatis*, is being studied as a potential mycoherbicide for control of these two broad-leafed monocots. The weeds are suppressed, but not usually killed, by the fungus. The potential host range of *R. alismatis* extends to other genera in the family Alismataceae and spray-inoculation of seedlings may cause significant reductions in biomass production.

Some field efficacy has also been demonstrated with this pathogen in Indonesia but more strain selection for tropical conditions is required.