Challenge of the “three reductions” program in Vietnam: the potential role of biofertiliser technology

Tran Thanh Be
Mekong Delta Development Research Institute
Can Tho University, Vietnam

Abstract

High rates of fertiliser and pesticide applications are commonly used on rice in the Mekong Delta. Since 2002, Vietnam has promoted the concept of “three reductions” for “three gains” (3R3G) in rice production, which was developed by the International Rice Research Institute and has been promoted by a range of international and government agencies. This concept requires the use of “less seed, less pesticides and less fertilizer” for “increased income, lowered exposure to pesticides, and environmental benefits”. The program has been found to have had success in reducing seeding rates, but less success reducing farmers’ use of fertiliser. Biofertiliser technology, using the product BioGro, has been used successfully in both north and south Vietnam to replace 50% of chemical nitrogen on rice crops, while maintaining yield. There is great potential for further work with farmers to integrate this technology into the 3R3G program to help achieve reduced fertiliser use. However, further work is needed to establish commercially viable production of BioGro in the Mekong region, continue research of the product under farm conditions, and extend the technology to farmers.