Building a Case for Infusion of Biotechnology into the Agricultural Education Curriculum: Implications to International Agricultural Education

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Abstract

Emerging technologies such as biotechnology have changed the way agriculture is practiced. Knowledge in biotechnology can help the agriculturalists use the technology to solve new and real life problems. However, extensive use of biotechnology to improve agricultural productivity is hindered by the public’s lack of understanding of the contribution of these technologies to agriculture (Marshall, 1996). The general public needs to be educated so that people can make informed choices; without information choice has no value (Hatch, 1996). Incorporating the science of biotechnology into the high school curriculum would be a good place to start. Integration of sciences basic to agriculture has been seen by critics of agricultural education programs as necessary not only for improving the academic content of the programs but also to help prepare students for employment in an ever changing world of work (Stasz and Grubb, 1991; O’Neil, 1992). A strong science foundation in agricultural education would also enhance the application of the technology in practical agriculture. However, agricultural biotechnology would only be beneficial to students in agricultural education if both the beneficial and potential challenges and problems were emphasized (Smith, 1989). Critics of biotechnology have cited environmental safety and the potential for the technology to erode biodiversity of species as two of their major concerns. Because the study of biotechnology and the problems associated with it are universal and not limited to one country, integrating biotechnology into the secondary school curriculum has important implications to international agriculture.