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In 2005, few would have predicted the current revolution in global agriculture that is being driven by a sudden rise in the price of petroleum and a rapid expansion of global biofuel production from grain, sugar, and oilseed crops. The result has been a convergence of valuation between petroleum and agricultural commodities such that food prices are likely to rise substantially. While countries with adequate resources to support an expansion of biofuel crop production will benefit from this convergence, developing countries and regions that consistently experience food shortages or rely on food imports will face greater food insecurity. To avoid an excessive rise in food prices and increased numbers of undernourished will require a rapid response to improve global targeting of research and development funds to assure an acceleration in food production capacity while protecting natural resources and environmental quality. © 2007 Society of Chemical Industry and John Wiley & Sons, Ltd

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