

Are biofuels a feasible option?

José Goldemberg^{a,*}, Patricia Guardabassi^b

^a Institute of Eletrotechnics and Energy, University of São Paulo,
Avenue Prof. Luciano Gualberto, 1289, São Paulo, 05508-010, Brazil

^b Brazilian Reference Centre on Biomass, University of São Paulo,
Avenue Prof. Luciano Gualberto, 1289, São Paulo 05508-010, Brazil

Abstract : Recently a number of objections have been raised against the use of ethanol produced from agricultural products such as maize, sugarcane, wheat or sugar beets as a replacement for gasoline, despite some of their advantages such as being cleaner and to some extent renewable. We address these objections in this paper. Topics discussed include the “corn connection” (which was theorized to be a cause of deforestation in the Amazonia), the rise of food prices due to ethanol production and the real possibilities of ethanol in reducing greenhouse gas emissions. It has been shown that such concerns are grossly exaggerated and that ethanol from sugarcane, as produced in Brazil, is the preferred option for the production of fuel not only in terms of cost but also as a favourable energy balance. Finally, the possibility of expanding ethanol production to other sugar-producing countries is also discussed.