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Non Food Uses of Crops

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INTRODUCTION

Research into the exploitation of so-called ‘novel crops’ and ‘non-food crops’ received a boost in the late 1980s and 1990s. This interest occurred as food surpluses and the introduction of set-aside land led to a desire by policymakers in Europe to find new enterprises for farmers based on growing ‘alternative’ crops. Early work in the UK focussed on field experimentation and demonstration activities for crops which were deemed to be of interest, and for which literature, and/or industry indicated there might be commercial opportunities. However research into crop production and agronomy alone did not address the fundamental problems that the chosen crops and their products, were not meeting end-user requirements, or that the markets were not there in the first place. Hence in the early 2000s there was a switch in government funding more towards supply chain development and meeting market requirements, and agronomic studies took something of a back seat. However there has been a growing realisation in recent years, that growing practices are still important. This is partly because of the low yields of many alternative crops (as well as low contents of the component of interest as a proportion of total biomass) and partly because of the added focus given by targets for biofuel production within Europe, as we approached 2010. There has been a growing appreciation that a large part of the greenhouse gas costs of producing crops, and factors such as yield of biomass per hectare and the levels of agronomic inputs are key to minimising the carbon footprint of renewable raw materials. Thus, while markets are of course critical, additionally, inputs, land use, and crop productivity are all areas which need to be optimised. These are all areas of interest to applied biologists. This conference provided an opportunity for those engaged in development of markets for renewable materials and energy, the agronomy and physiology of crop plants and those with an interest in the environmental impacts of crop production, to hear about the research and policies affecting development of novel and conventional crops, for non food uses.

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