

Euro-Mediterranean Network on Research and Innovation for Food Security

Priority 2:

Quantitative and qualitative enhancement of crop products

White Paper Abstract

The world's human population will reach rather over 9 billion by 2050, placing considerable strains on agricultural production, which depends largely on smallholder farmers. Although food production in aggregate is enough to feed the current population of about 7.1 billion, the existence of around 870 million people who are undernourished demonstrates that, on its own, it is not sufficient to ensure food security for all. Two reasons for this are that about one third of food is wasted and one third is fed to livestock (Tscharntke et al., 2012). Other drivers of food insecurity are lack of entitlement and poor access to markets. However, in this paper we will focus on constraints to quantitative and qualitative enhancement of crop production. Quantitative constraints include pests, diseases and inappropriate farm management practices: qualitative constraints include contamination of food, for example, by mycotoxins. The paper concludes with suggestions for the safe and sustainable use of resources for the increased production of high quality food.