

MAIZE (ZEA MAYS L.) IMPROVEMENT STUDIES

Pál PEPÓ¹

Abstract. *Plant regeneration via tissue culture is becoming increasingly more common in monocots such as maize (Zea mays L.). Pollen (gametophytic) selection for resistance to aflatoxin in maize can greatly facilitate recurrent selection and the screening of germplasm for resistance at much less cost and in a shorter time than field testing. In vivo and in vitro techniques have been integrated in maize breeding programmes to obtain desirable agronomic attributes, and enhance the genes responsible for them and speed up the breeding process. The efficiency of anther and tissue cultures in maize and wheat has reached the stage where they can be used in breeding programmes to some extent and many new cultivars produced by genetic manipulation have now reached the market.*

Keywords: *Zea mays L.*, callus induction, aflatoxin, grain yield

¹Title: Prof., Institute of Plant Sciences, Faculty of Agricultural and Food Sciences and Environmental Management, Debrecen University (e-mail: pepopal@agr.unideb.hu)
