The prevalence and distribution of Fusarium species in Norwegian cereals: a survey

In the period 1994-1996 a post-harvest survey was conducted in wheat, barley and oats to assess the occurrence and geographic distribution of Fusarium species in Norwegian cereals. The number of samples investigated was adjusted proportionally to the production of each cereal species within the regions. A total of 695 grain samples were analysed. The amount of Fusarium infection varied with cereal species and region of origin. The most frequently isolated Fusarium spp. from all samples were F. avenaceum, F. poae, F. tricinctum and F. culmorum. Other important toxigenic Fusarium spp. were F. graminearum, "powdery F. poae ", F. equiseti and F. sporotrichioides . A north-south gradient was valid for F. tricinctum, F. poae and in 1994 for "powdery F. poae ". In 1994 "powdery F. poae " was the most abundant potential producer of HT-2 and T-2 toxins in Norwegian cereals. Distribution of F. graminearum and F. culmorum demonstrated in this study, corresponded to previously reported DON-distribution, although DON seems to be produced by different species in different regions. Distribution of the isolated Fusarium species and comparison between cereals and locations are discussed.