UPPSALA UNIVERSITET

Molecular Biotechnology Programme

Uppsala University School of Engineering

UPTEC X 11 012	**Date of issue 2011-03**

Author

Jenny Spång

Title (English)

Quantification of *Fusarium* species in Swedish Spring wheat by real-time PCR and their correlation with mycotoxin content and region

Title (Swedish)

Abstract

Fusarium is a type of mould capable of producing several diseases in cereals. Infection is a worldwide problem associated with yield losses and the accumulation of toxic secondary metabolites, mycotoxins, which are harmful to both humans and animals. *F. graminearum*, *F. culmorum*, *F. avenaceum*, *F. poae*, and *F. tricinctum*, including corresponding mycotoxins were quantified in wheat samples from 6 distinct areas in Sweden. High levels of both *Fusarium* and toxins were detected; however no samples exceeded current limit values. The most dominant species of *Fusarium* were *F. avenaceum* and *F. graminearum* and the most common mycotoxins were deoxynivalenol and enniatin B.

Keywords

Fusarium, mycotoxins, wheat, real-time PCR, region, climate

Supervisors

Elisabeth Fredlund
National Food Administration

Scientific reviewer

Stefan Bertilsson
Uppsala University

Project name	Sponsors
Language **English**	Security
ISSN 1401-2138	Classification
Supplementary bibliographical information	Pages **39**

Biology Education Centre Biomedical Center Husargatan 3 Uppsala
Box 592 S-75124 Uppsala Tel +46 (0)18 4710000 Fax +46 (0)18 471 4687