



Field experiments with avena genetic resources – an european project (AVEQ)

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In a cooperative project with fifteen partners from nine European countries, in 2008, genebank material and current commercial varieties (323 cultivated and 17 wild accessions) were evaluated for traits related to quality in human consumption, mycotoxins and cold tolerance. The work is done in 10 work packages: 1) Project anagement and coordination; 2) Selection and multiplication of a project working collection; 3) Field experiments and sampling seeds for quality analysis; 4) Field experiments with artificial Fusarium inoculation; 5) Fusarium and mycotoxin analysis; 6) Analysis for protein – including Avenins, fat and minerals; 7) Analysis for dietary fibre and β -glucan; 8) Analysis for antioxidants, including Avenanthramides; 9) Analysis for cold tolerance; 10) Project documentation and internet portal. In Work package 3, "Field experiments and sampling seeds for quality analysis" were involved seven countries distributed all over Europe (Bulgaria, Estonia, France, Italy, Poland, Romania and Sweden). The activities from WP3 were coordinated by Romanian partner. Field experiments were laid out as augmented block designs with 11 standards (Argentina, Auteuil, Belinda, Evora, Genziana, Jaak, Krezus, Mina, Mures and Saul) in five replications. Plot size ranged, from 2.0m² to 3.0m². The descriptors observed by all partners were: days to heading, days to maturity, crop height, lodging at immature stage, lodging at mature stage, panicle shape, occurrence of diseases, lemma colour, yield, seed weight and test weight, Harvest results (yield, seed weight, test weight, moisture) were put on line into a project information system (<http://eadb.bafz.de/aveqprod/>). All data will be made available with the end of the project in the European Avena Database (<http://eadb.bafz.de>) Acknowledgements: This project is funded by the European Commission, DG AGRI within the framework of council regulation 870/2004 and co-funded by Peter Kölln KGaA, Elmshorn, Germany, Emco spol. s. r. o., Prague, Czech Republic, and Gemeinschaft zur Förderung der privaten deutschen Pflanzenzüchtung e.V. (GFP), Bonn, Germany.