

CONFERENCES AND SEMINARS

The Czech – Slovak Workshop Utilization of Molecular Markers in Plant Biology, Plant Breeding and Conservation of Plant Genetic Resources

Šumperk, 4th–6th November 2002

The workshop was dedicated to the 60th anniversary of research and breeding of fibre crops and grain legumes in AGRITEC Ltd. Šumperk (founded in 1942) and covered a broad spectrum of the uses of protein and DNA markers in various fields of plant research and breeding practice. The aim of the organizers from AGRITEC Ltd. was (1) to create a platform for critical exchange of knowledge and experience on plant molecular markers between academic laboratories (basic research) and laboratories of applied research and practical plant breeding in the Czech Republic and Slovakia, (2) to support scientific communication and collaboration between Czech and Slovak research groups, (3) to support the transfer of advanced technologies from academic to commercial level. More than 80 scientists and plant breeders both from the Czech Republic and Slovakia participated in this event and presented 30 oral contributions (no poster session was organized). The agenda of the workshop consisted of six sessions, each of them followed by a round-table discussion: Session 1 – Protein markers in plant cultivar discrimination and genetic resources collection characterization; Session 2 – Protein markers in taxonomic studies and marker-assisted selection; Session 3 – DNA markers in plant cultivar discrimination and genetic resources collection characterization; Session 4 – DNA markers in genetic mapping and marker-assisted selection; Session 5 – DNA markers in phytopathogen diagnostics; Session 6 – DNA markers in the studies of plant genome, plant development *in planta* and *in vitro*, and in genetic transformation.

General plenary lectures summarized the recent state of the use of protein and DNA markers including basic techniques and their modifications. Specific plenary lectures were concentrated e.g. on fungal pathogen diagnostics, genetic mapping in *Arabidopsis*, sex determination in plants, construction of BAC libraries and their characterization by DNA markers, and various approaches how to analyse molecular data. As relates to the crops involved, protein markers (both storage proteins and isozymes) were discussed in barley, wheat, potato, flax and linseed, winter rape, lettuce and wild *Lactuca* species, Kentucky bluegrass, maca (*Lepidium meyenii*) and yacon (*Smallanthus sonchifolius*). Development of various techniques of DNA analysis and use of various types of DNA markers were presented in wheat, barley, triticale, maize, pea, hop, apricot, peach, Norway spruce, grapevine as well as in model plant species *Arabidopsis thaliana* and *Silene latifolia*.

Full texts of all presentations were published in representative Workshop Proceedings (243 pages) in the Czech or Slovak language; selected papers (reviews, regular papers and short communications) will be published (after regular review procedure) in English version in the *Czech Journal of Genetics and Plant Breeding* in the course of 2003 (Vol. 39).

MIROSLAV GRIGA (Šumperk)