

Symposium on Sunflower Genetic Resources in Turkey October 16-20,2011

Conclusions

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The Kusadasi Symposium on Sunflower Genetic Resources (GR) was a great success, with 90 participants from 22 countries. After introductions by the organisers, in particular Yalcin Kaya, and by Carlos Feoli, President of ISA, who suggested that the demand for sunflower demand is increasing in Argentina, Felicity Vear and Gerald Seiler presented general papers respectively on cultivated resources and wild *Helianthus*. The following two days were then divided into 5 sessions, dealing with breeding methodologies and characters of agronomic importance studied in sunflower G R.

Whether by traditional or molecular methods, the characters given most attention were drought and broom-rape resistance and oil quality (high oleic, tocopherols, phytosterols).

For drought resistance, Maria Pacureanu (Rumania) discussed use of *H. argophyllus*, T.K.Nagarathna, (India) presented a study of carbon labelling in roots and K.Saensee (Thailand) studies of drought response of local varieties. There are 40 000ha of sunflower in Thailand...

Concerning *Orobanche* resistance, *H. maximilliani* is of interest, together with *H. petiolaris*, *H. praecox*, and *H. neglectus*. Terzic (Serbia) suggested that some resistances are recessive. Mihail Christov (Bulgaria) presented interspecific crosses interesting for resistance not only to broom-rape but also downy mildew and phomopsis.

Yakov Demurin (Russia) presented a genetic collection concerning high oleic acid, with many variants, mid oleics without the mutation, mutation suppressors and maternal effects.

Zoltan Ay (Hungary) presented analyses of tocopherol contents of hybrids presented for registration and suggested that a minimum of 500mg/kg should be required. José Fernandez-Martinez (Spain) presented studies on phytosterols in wild *Helianthus* (*H. praecox* and *H. hirsutus* of interest). The method they have developed for measurement on single seeds or half seeds could be of great interest in breeding programmes.

More generally, for yield improvement, Yalcin Kaya (Turkey) discussed the possibility of branched varieties or sessile leaves to increase density. Leonardo Velasco (Spain) presented a Spanish – Moroccan study to determine the reciprocal interest of oil and confectionary sunflowers. One of the interesting conclusions was that, although the seeds of confectionary types are much larger than oil seeds, kernels of both types are quite similar in size.

The only presentations of collections and their maintenance were from Russia (Vera Gavrilova) and Turkey (Ayfer Tan), perhaps this subject is not considered as a new research result. There was little discussion on international collaboration for maintenance and information on the GR collections in different countries. It might be a good idea to allow some time for this at the Conference in Argentina.

A number of posters were also presented during tea breaks (in Turkey, tea is the basis of conviviality).

The Symposium finished with a display of belly-dancing and a visit to Ephesus and we would like to thank the organisers for an interesting and agreeable 3 days in Turkey.