EU Commission published directive on vegetable conservation varieties

On 26 November 2009 the EU Commission published the COMMISSION DIRECTIVE 2009/145/EC providing for certain derogations, for acceptance of vegetable landraces and varieties which have been traditionally grown in particular localities and regions and are threatened by genetic erosion and of vegetable varieties with no intrinsic value for commercial crop production but developed for growing under particular conditions and for marketing of seed of those landraces and varieties.

One of the considerations points out that the purpose of the directive is to ensure that in situ conservation and the sustainable use of plant genetic resources, landraces and varieties which have been traditionally grown in particular localities and regions and are threatened by genetic erosion (conservation varieties) should be grown and marketed even where they do not comply with the general requirements as regards the acceptance of varieties and the marketing of seed. In addition to the general aim of protecting plant genetic resources, the particular interest of preserving these varieties lies in the fact that they are especially well adapted to particular local conditions.

In 2008 the COMMISSION DIRECTIVE 2008/62/EC which is agricultural counterpart of this directive has already been published.

Links to the directives:
2009/145/EC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:312:0044:0054:EN:PDF
2008/62/EC: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:162:0013:0019:EN:PDF

By Klaus-Peter Wilbois

Greenpeace: GMO myths debunked with Marker Assisted Selection (MAS)

A new Greenpeace report released in Manila effectively puts genetic engineering where it belongs—into the dustbins of history. The report “Smart Breeding: Marker Assisted Breeding, a non-invasive biotechnology alternative to genetic engineering of plant varieties” focuses on the technical possibilities of Marker Assisted Selection or MAS and its strengths compared to genetic engineering. Particular attention is given to rice crops, drought tolerance, harnessing of biodiversity and breeding for better nutrition. The report shows how MAS renders genetic engineering—which is expensive and unsafe—obsolete and completely unnecessary.

For whole press release and links to the full report see:
http://www.greenpeace.org/seasia/en/press/releases/gmo-myths-debunked-with-marker

New organic potato breeding program “Bioimpuls” in the Netherlands

In the Netherlands there is an urgent need for better adapted varieties including resistance against late blight as no copper sprayings are allowed and a national rule forces farmers to burn the foliage as soon as 7% is infected. This situation caused a decrease of 20% of the organic potato area over the past 7 years.

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The Louis Bolk Institute has received funding from the Ministery of Agriculture for a long term organic potato breeding program, called “Bioimpuls”. In this project Louis Bolk Institute collaborates with Wageningen University, six breeding companies and farmer-breeders are engaged. The program started in 2008 with a breeding course for farmers. Currently eight farmer-breeders are now actively involved in the selection of clones from crosses made by one of the breeding companies or from the central breeding program “Bioimpuls”. This program builds up on a pre-breeding program that Wageningen University has conducted for many years to introgress new late blight resistance genes from new wild relatives to develop new genitors as a long term activity. At the same time also crossings are made with cultivated resources and readily available advanced resistant breeding material to come to appropriate varieties for the organic farming systems on a short term.

For more information: Edith Lammerts van Bueren

Developing a contamination-management for field nurseries to breed loose smut resistent spring barley under natural infection

At Cereal Breeding Research Darzau spreading of loose smut (*Ustilago nuda* (Jens.) Rostr.) was observed during three vegetation periods in a breeding area under organic farming with segregating generations of spring barley up to F9 including lines with resistant parents and extended with susceptible varieties and genetic resources. Seed stripes with loose smut infection were implemented for a better spreading of the disease in some parts, which was proved to be suitable. Plots with non-infected seeds of a susceptible variety were implemented in between the segregating lines to detect degrees of spreading. Selected lines without infection were inoculated with a loose smut suspension into the flowers of single ears starting in F5. From F5 to F7 most of the susceptible lines were identified by natural infection. One generation under natural infection was not enough to get a sustainable result about susceptibility, but only one out of ten inoculated ears gave additional information. For this reason it was suggested only to use seed stripes for disease spreading during three generations from F4 to F6 and artificial inoculation only for a check of resistance in F7 and for new accessions to test. With this method different origins of resistance can be handled in parallel and it is possible to develop quantitative resistance on a low budget scheme additionally.

For the full version see (in German only): Müller KJ 2009 Entwicklung eines Zuchtgarten-Befallsmanagements für die Züchtung flugbrand-resistenter Sommergersten unter natürlichen Befallsbedingungen. Bundesanstalt für Landwirtschaft und Ernährung (BLE) [Hrsg.], Bundesprogramm Ökologischer Landbau, Abschlussbericht (Projekt FKZ 06OE028). http://www.darzau.de/fileadmin/PDF/flugbrandmanagement2009.pdf

For a citable version with English subtitles and tables see: Mueller KJ 2010 Sommergerstenselektion unter Flugbrandbefall mit Infektions- und Trennstreifen statt Marker. IN: Bericht über die 60.Arbeitstagung 2009 der Vereinigung der Pflanzenzuechter und Saatgutkaufleute Oesterreichs, BAL Gumpenstein, 24.-26.November 2009, 6p. http://www.darzau.de/fileadmin/PDF/flugbrandselektiongumpenstein2009.pdf

2nd EUCARPIA Organic and Low-input Section Conference "Breeding for resilience: A strategy for organic and low-input farming systems?"

Paris, 1-3 December 2010: The Eucarpia Organic and Low-Input Agriculture Section will hold a conference in Paris, France on December 1-3, 2010 on Breeding for organic and low-input farming systems with a special emphasis on strategies that allow for more resilience in response to global change. While organic and low-input agricultural systems are more exposed than conventional ones to heterogeneous environments, low nutrient availability and biotic as well as abiotic pressures, global change might increase uncertainty in environmental conditions by producing drastic variation in climate, epidemic pressures, nutrient availability, etc. These changes could be considered an opportunity for the organic sector to develop original and innovative strategies for high level resilience. This conference wishes to take inspiration from the ecological sciences to reconsider the use of biodiversity without ignoring the new tools coming from genomics.

This conference will be jointly organized by INRA (UMR Le Moulon, SAD-Paysage Rennes, Montpellier) and ITAB in a special site in Paris, Le Comptoir Général, which is based on ecological and social responsibility, and supports another view point on today's world. There will be a call for papers for oral and poster presentations. More information will be available on the Eucarpia and ECO-PB website by the end of November 2009.

For more information contact: Isabelle Goldringer, e-mail: isa@moulon.inra.fr or Frédéric Rey, e-mail: Frederic.Rey@itab.asso.fr

An independent organic vegetable seed production and breeding needs a strong network: Annual meeting of the "network for organic and biodynamic seeds and plant breeding"

From November 20th to 22th more than 50 members of the "network for organic and biodynamic seeds and plant breeding", including people showing interest in these subjects, met in Münstertal in the Black Forest, Germany. The Bingenheimer Saatgut AG and Kultursaat e.V., who organized at the same time their General Assemblies, invited to this yearly event. The organic seed company Bingenheimer Saatgut AG, which deals exclusively organic seeds, selling vegetable, herb and flower seeds, supports directly by means of a so-called variety -developing contribution - the non-profit association Kultursaat e.V. in their work, breeding new varieties for organic farming systems. The so called "variety -developing contribution" is a voluntary payment, calculated from the sale of the particular varieties. Kultursaat e.V. coordinates and organizes own breeding programs on about 20 locations. The resulting varieties are solely open-pollinated and get applied by the association into the official registration approval proceedings. Currently, Kultursaat e.V. is leading or cooperative partner in three projects in the Federal organic farming scheme). The participants of the meeting were informed about the current projects and upcoming objectives of the association and discussed the options.

The program contained different professional lectures around the key issue of the Bingenheimer Saatgut AG and the coordination of organic seed production. One inspiring lecture was held about the biology of blossoms. Other reports from seed producers and breeders dealt with their own breeding projects completed the program. The executive boards of the Bingenheimer Saatgut AG, Petra Boie and Kultursaat e.V. Michael Fleck reported about the IFOAM organic breeding conference in Santa Fe, where they took part.

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A live-transmission via internet telephony made it possible to get a direct contact between the whole group of participants and the new overseas co-operation partners “Organic Seed Alliance” and the “Farmer Seed Cooperative”. The lively exchange between the members made the weekend for all participants once again an important component for their activity in organic seed issues and breeding.

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