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DRAFT REPORT

on plant breeding: what options to increase quality and yields?
(2013/2099(INI))

Committee on Agriculture and Rural Development

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MOTION FOR A EUROPEAN PARLIAMENT RESOLUTION

on plant breeding: what options to increase quality and yields?
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The European Parliament,

– having regard to the 2009 report 'How to feed the world in 2050' of the UN Food and Agriculture Organisation (FAO),

– having regard to the report 'Headed for 9 billion' by Ivar Virgin/Stockholm Environment Institute, Timbro, April 2013,

– having regard to the 1993 report 'Harvest nature's diversity' of the UN Food and Agriculture Organisation (FAO),

– having regard to the website on the Svalbard Global Seed Vault, http://www.regjeringen.no/en/dep/lmd/campain/svalbard-global-seed-vault.html?id=462220,

– having regard to the Commission Communication of 27 March 2001 'Biodiversity action plan for the conservation of natural resources' (COM(2001)0162),

– having regard to Regulation (EU) No 1829/2003[1] on genetically modified food and feed,

– having regard to Regulation (EU) No 1830/2003[2] on the traceability and labelling of GMOs and the traceability of food and feed produced from GMOs,

– having regard to Rule 48 of its Rules of Procedure,

– having regard to the report of the Committee on Agriculture and Rural Development (A7-0000/2013),

A. whereas its Committee on Agriculture and Rural Development aims, by means of this report, to launch a thorough debate and inquiry concerning the whole situation with regard to plant-breeding in European and global agriculture;

B. whereas, according to reports primarily from the UN bodies the FAO and the WHO, as well as the UN Panel on Climate Change, the world population is expected to grow from 7 bn today to around 9 bn between 2040 and 2050, and the figure could, moreover, be as high as 10-11 bn;

C. whereas this population growth will make extreme demands on agriculture, particularly as regards increasing productivity, in order to meet the substantial increase in demand for food: the FAO estimates that yields need to increase by 70% over the next 30-40 years;

[1] OJ L 268, 18.10.2003, p. 1.
[2] OJ L 268, 18.10.2003, p. 24.

D. whereas part of the increased need for food can probably be met by means of a significantly more efficient food industry in the rich part of the world in conjunction with substantially enlarged storage and distribution systems in developing countries;

E. whereas the main problem still remains how we will be able to feed the global population as the cultivable land area steadily declines while opportunities to increase the area under cultivation are extremely limited, since in most parts of the world it is thought to be quite unrealistic to bring new agricultural land into use, inter alia out of a concern to preserve biodiversity;

F. whereas the FAO estimates that it will be possible to obtain some 10% of an increase in agricultural production from cultivating new farmland, which means that around 90% will have to be obtained by increasing yields from existing farmland, while at the same time products must remain of a high quality;

G. whereas over-exploitation of farmland could impoverish the soil and, in the worst case, bring about erosion and desertification; whereas the same applies to wooded land, because converting wooded land to farmland would affect both the climate and water management, as well as biodiversity, so seriously that it is an inconceivable option with a view to increasing food production;

H. whereas, as well as the area of farmland being reduced, agricultural productivity has also levelled off, and worrying trends even towards falling productivity are perceptible, which will have a seriously adverse impact on agriculture in the future and on human food requirements;

I. whereas food production does not only depend on having a sufficient area of land: factors such as climate, water, sunshine and access to plant nutrients are other important components; whereas in future, however, there will not be more basic resources such as water, nutrients and energy; whereas increased agricultural production in the future therefore will not have either more land or more water and energy available to it;

J. whereas major changes in the climate are likely in the future; whereas for Europe this means a significantly drier climate in the southern regions, where there are areas of great importance to the production of fruit and vegetables; whereas in central and northern latitudes within Europe winters are expected, rather, to be milder while summers are distinctly rainier than at present; whereas the consequences are very likely to include an increase in animal and plant diseases and a need for new farming techniques;

K. whereas it is undoubtedly the case that European agriculture faces enormous challenges: with more extreme weather conditions, such as drought and floods, farming needs to adapt in order to safeguard production; whereas the crops that we see in the fields today cannot remain the same in the future if we are to be able to meet the increased need for food;

1. Stresses that, in order to respond to forthcoming challenges, such as both future food supply and climate change, it is exceptionally important to have an effective plant-breeding industry;

2. Stresses how important it is to develop new varieties which can cope with the conditions

we expect to encounter in the future, for example increased precipitation and new plant diseases; notes that, at the same time, it is important to preserve and develop the existing diversity in Europe;

3. Notes that crops are needed which, for example, absorb nitrogen and phosphorus effectively, are more tolerant of drought and heavier precipitation, are resistant to pests and can withstand changes in temperature; observes that it is also necessary to develop perennial crops, i.e. multiannual crops; observes that, with multiannual crops, the land need not be tilled every year, which makes farming environmentally sounder;

4. Stresses that, as it takes at least 10 years to develop a new variety, from the research stage to the finished seed, there is even now a need to substantially increase investment in order to meet future food needs and cope with climate change;

5. Stresses that, as opportunities to take new land into use for farming are very limited, it is vital to facilitate the process of developing new crops characterised by higher productivity and high quality and that it is also important to develop crops which already exist;

6. Stresses that, in order to meet these needs, it is of decisive importance that there should be opportunities to develop various plant-breeding techniques in keeping with the times; notes that it takes at least 10 years to develop a new variety of wheat, rape or any other crop, and that it is therefore absolutely crucial to be open to the technologies available;

7. Stresses that an important element in the solution to the problem is protecting and preserving the European biological and genetic heritage; considers that it is vital to have good variation of genetic diversity; observes that, while the world population is expected to grow in future, the FAO estimates that the diversity of cultivated crops declined by 75% during the 20th century; notes that, of ten varieties of a species, only three may now survive;

8. Stresses that, to make it possible to develop new varieties, it is vital to have many genetic variations available; considers, therefore, that this rapid decline is cause for serious concern;

9. Considers it vital, with a view to Europe's future, to work seriously to preserve our genetic heritage and that it is particularly important to preserve local and regional varieties in order to conserve both genetic and cultural diversity;

10. Notes that, in an attempt to halt the worrying trend towards reduced genetic variety in agriculture and plant-breeding, collections of seed and plant material are being gathered at various gene banks around the world; notes in particular that there is a gene bank on Svalbard with genetic material from all over the world and that this is a very important and ambitious project to safeguard future genetic diversity;

11. Stresses that this and other similar projects are vital to the future of plant-breeding, agricultural production and food supply;

12. Observes that plant-breeding research is decisive for the future of agricultural production, particularly work on the development of existing varieties and of new varieties, in order to

safeguard future food supply;

13. Deplores the fact that it is both too costly and too time-consuming to develop new varieties;

14. Expresses its concern that, as things stand, the global plant-breeding market is dominated by just a few large multinational undertakings which invest only in a limited number of varieties, with the aim of promoting the use of their own chemicals;

15. Considers that large global plant-breeding undertakings have gained an unreasonably strong influence over global agriculture and agricultural policy, particularly as they only produce a few 'major' crops such as maize, soya and cereals;

16. Considers furthermore that the larger undertakings do not exploit plant-breeding techniques to the full, which, if used correctly, could help to solve problems relating to the environment, climate and food supply;

17. Observes that small and medium-sized enterprises have no way of competing at this level;

18. Stresses that it is important for Europe to win back and further develop European plant-breeding research;

19. Stresses the importance of European diversity of species; considers that it cannot be sufficiently stressed how important it is that plant-breeding research should be conducted which focuses on European needs: which plants, cereals and fruits are appropriate to the various local and regional conditions in Europe; notes that this is decisive with a view to being able to give European farmers the freedom they need and to improve the quantity and quality of food;

20. Observes that, as the market is dominated by a few undertakings which invest only in relatively few varieties, we will ultimately be left with a smaller range of varieties; observes that existing varieties are disappearing while no new ones are becoming available, which in turn has the effect of making it impossible to attain the goal of genetic diversity;

21. Stresses that Europe needs a range of diverse actors in the plant-breeding industry and that it should become possible for more smaller undertakings and research centres to carry out research projects and operate in the plant-breeding industry; considers that, under the present circumstances, the smaller actors are too small to be able to compete with large global undertakings;

22. Considers that plant-breeding research requires long-term financial support in order to be able to continue and that it is untenable to grant financial support to a plant-breeding research project only for a relatively short period, as it takes at least 10 years to develop a new variety;

23. Stresses that the EU, with a common agricultural policy, has a duty to shoulder its responsibility for meeting future challenges within agriculture and plant-breeding in Europe; considers it important that the EU should play a leading role in the development

of new plant-breeding techniques and in promoting agricultural and plant-breeding research;

24. Stresses that fundamental plant-breeding research in the EU should be funded by the EU and its Member States; does not consider it possible for small and medium-sized plant-breeding undertakings in the EU to fund much of the research themselves while at the same time being competitive;

25. Calls on the Commission to allocate financial resources and create a coherent structure for plant-breeding research within research programmes, so that European diversity can be preserved and developed; considers it important, in particular, that research projects should be given enough time and funding to achieve results; notes that it is also very important that plant-breeding undertakings should have access to research results and that there should be a range of different research projects, so that failure will have less impact;

26. Stresses that the ultimate aim of legislation on plant-breeding should be to facilitate the application of plant-breeding techniques and facilitate research into agriculture and plant-breeding; considers that it should result in products which produce large yields and are safe to health and the environment;

27. Observes that, with today's technique-based plant-breeding legislation, it is possible for new techniques which ought to be covered to fall outside its scope; notes that it has also proven to be difficult, after the event, to define what technique has been used at the time of plant-breeding, which confirms the difficulties posed by technique-based laws;

28. Calls on the Commission, in view of the challenges and preconditions for the European and global plant-breeding industry which have been described, to examine and analyse the situation carefully and propose effective and practical measures to meet these enormous challenges facing Europe's farmers;

29. Instructs its President to forward this resolution to the Council and the Commission.