

How Can We Make Breeding for Organic Agriculture Financially Feasible? A case study on spring wheat in The Netherlands

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Abstract

Organic crop production and food quality could be further improved when better-adapted varieties are developed. However, so far, discussions on plant breeding for the Dutch organic sector always resulted in a deadlock, as both breeders and farmers did not see possibilities to generate sufficient financial resources. Western European plant breeding is financed through a levy on the seed price, and this makes breeding for relatively small acreages, which is the situation for most organic crops, economically unattractive. Alternative ways of dividing costs over the whole production and consumption chain could offer a solution to this deadlock. The major challenge would be to motivate the key stakeholders to financially participate in a collective breeding project.

At the end of 2006, we organized a workshop with the stakeholders to discuss different scenarios for sharing breeding costs between partners in the wheat production chain. Economic calculations confirmed that to finance breeding, a considerable increase in seed price would be required. However, for the consumer the effect on the price of the end product – a loaf of bread – would be marginal (less than one eurocent). Presenting these figures to the main stakeholders made them realize that supporting wheat breeding is financially feasible. While some millers and bakers were hesitant to burden consumers with extra costs, other bakers and shopkeepers are convinced that the price increase is so small that it will not put-off consumers. In addition, the story of investing in the future of organic production can possibly be exploited as unique selling point. Furthermore, especially farmers and the main trader shared the conclusion of the problem analysis we presented: the sector needs new varieties, but without special action, these will not be generated by the current breeding programs. Conventional breeders participating in the workshop felt that it would be possible to find ways to collaborate with the organic sector, if their costs could be covered by financial means generated in the chain.

The positive reactions of different stakeholders stimulated a small group of interested key-players to volunteer in elaborating an action plan to make wheat breeding for the organic sector possible. This action plan is currently executed, and it consists of further exploratory discussions on possibilities of collaboration between breeders, and that milling and baking industry about setting up a fund for this purpose. If these discussions are successful, the organization of such a new collaboration will be designed.

Initially, stakeholders perceived it to be economically unfeasible to invest in the necessary innovation – a wheat variety with a better baking quality. This perception was based on assumptions. Making these assumptions visible and using real data to calculate the consequences of different approaches to finance this innovation helped to pull the discussion out of its deadlock. A shared awareness of all stakeholders of the necessity to improve baking quality motivated them to look for ways to collaborate.

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