

Buizer AdviesSustainable agriculture and energy

Plant Pathology Advice Dr. Ir. Kitty de Jager



Report survey and workshop (BioVak Zwolle): "Local varieties; the right variety - location - grower concept" Bertus Buizer & Kitty de Jager, December 2012

Introduction:

Breeding of crops, among other things led to increased production, more uniformity, mechanisation and "global" varieties with outstanding performance. At the same time we face al loss of biodiversity, increased pressure on the environment and higher levels of pests and diseases in our crops.

This leads to great opportunities for example for breeders to breed "local" next to their "global" varieties. Varieties developed in and for a specific region!! These will be better adapted to local conditions (soil, climate, etc.), better to grow in balance with their environment and therefore less polluting. A "local" variety, produced in his own region by organic growers, gives the region its own face. A "local" variety is also attractive to local consumers and strengthens the connections within the region.

From concept to reality:

The implementation of the concept raises some important questions:

- How do we fill in this beautiful picture and make it reality?
- How can this be achieved efficiently and with limited resources?
- How can we combine organic farming experience, new breeding techniques and knowledge, genetic resources and consumer's wishes?
- How can a grower determine which variety suits best in his situation?
- How can a breeder obtain data about his varieties under many varying conditions in different areas?

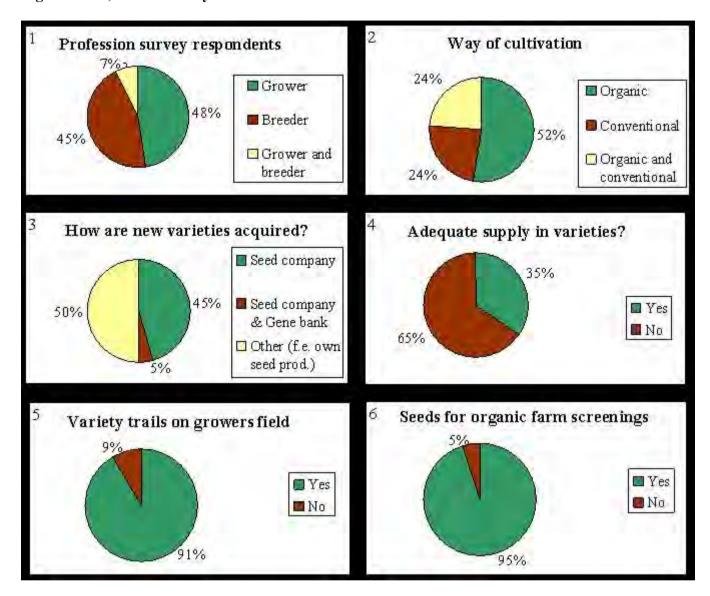
About all this, Kitty de Jager and Bertus Buizer exchanged ideas with growers, breeders and consumers. First this has been done by a survey, which was held in November and December 2011. Secondly, everyone could give their feedback during their workshop, during the BioVak, the 18th and 19th of January 2012 in Zwolle.

Results of the survey:

At the beginning of 2011 the survey had been send to both organic and conventional growers and breeders. They were asked to fill in some questions about the availability of varieties and their willingness to participate in trails. In figures 1 and 2 the profession and the way of cultivation of the respondents is shown. How new varieties are acquired by growers is plotted in figure 3. For sixty-five percent of the growers the supply in varieties is not adequate to make a good choice for their own (local) situation (figure 4). Even more growers (91%) are interested to carry out variety trails on their own field under guidance of experts and in collaboration with other growers and breeding companies (figure 5). On the other hand also a high percentage of the breeding companies (95%) is willing to cooperate by supplying seeds in exchange for information on the test results (figure 6).



Figure 1 to 6, results survey:



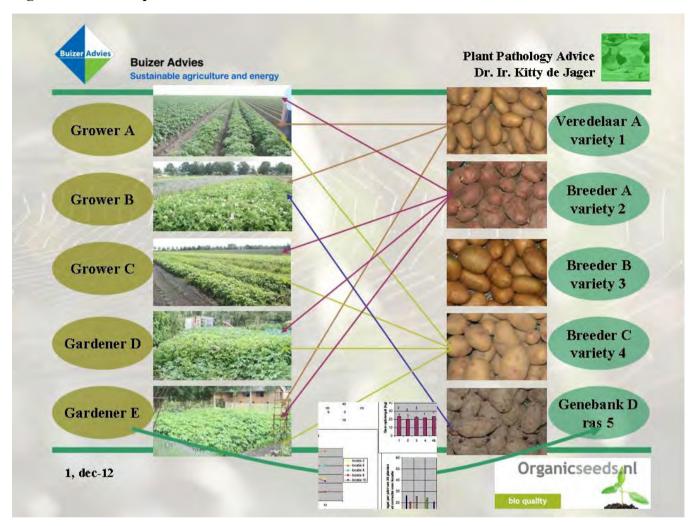
Results workshop:

After a short presentation the attendees of the workshop were asked to give their opinion about the concept by writing on yellow notes the strong points, points of attention and their suggestions. Some points of the feedback received you will find here below the figure of the concept.





Figure of the concept:



Some strong points:

- Interactions among farmers and breeders; cross pollination, this is a chance for vice versa feedback and understanding. Brings qualities together;
- Increasing biodiversity which will decrease pathogen and pest pressure;
- Valuable information from the field collected. Creates much more phenotypic information for the breeder to be related with the genetic information;
- Grower can get to know new varieties, make his own choice, differentiate and become more aware of differences among varieties. Resulting in more erected variety choice;
- It is good and cheap to compare varieties this way; it generates many data;
- There will be more attention to specific characteristics of the variety in relation to the environment;
- Potentially there is a large geographic spread creating a wide range of environmental conditions;
- This can result in many locations where local varieties are grown. And, if preserved, also good to have seed that is adapted to local;
- Independence of this initiative. Promote also the independence of grower;
- Especially interesting for small growers, which also have more possibilities for preservation;





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- We will all benefit from varieties adapted to local circumstances:
- The way the "local varieties" project is started; first stock-taking then search for possibilities and try these:
- Growers can experience the value of organic plant material them selves. Also to get an impression of the economic value;

Some points of attention:

- A treat can be the protection of varieties (breeders right, intellectual property, patents);
- Communication, logistics and crop reviews:
- Variety trails are very labour intensive and require skills and experience;
- Time investment necessary by grower and breeder;
- Variety trial at a biological farm doesn't transform a global variety to local; therefore selection is needed:
- Miss the use of old varieties and a specific link with local;
- How about the risk of crop loss?;
- Costs are unclear, can be to high for the farmer?;
- Relative small market, expensive for breeding company;
- To much competition can discourage companies to join the initiative;
- Open begin;

Some suggestions:

- Stay independent!;
- A breeder will not breed only for the local market. Growers can make selections and register it as amateur variety:
- Include old (forgotten) varieties from a particular region. Investigate the availability of regional seeds:
- Good to include in the trails: the contribution of the varieties to the soil and biodiversity;
- Inform growers about breeding:
- Join existing initiatives:
- Contribute to independence growers (open pollinated varieties);
- Money: Use return in order to produce seeds;
- Open source registration of varieties!;
- There is a demand for knowledge about organic seed production; this could be partly solved by sharing information (online?) among farmers. There are more farmers interested in seed production for their own farm;
- This is also an interesting concept for other countries;

Some questions:

- How many growers can join the "local varieties" project?
- How about the rights and the costs?
- Who will harvest the seeds?
- How big is local?
- Will it be an open gene pool or only for project attendees?





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• Where lies the initiative?

Conclusions:

From both the survey and the workshop can be concluded that the initiative can count on support from breeders and growers. Both breeders and growers can benefit from more intensive contacts during the process of breeding for organic varieties. Besides there will be an environmental benefit. To our opinion there is a basis to start a first pilot project with interested breeders and growers. In which we will go on improving the concept, working on the points of attention and suggestions.

Thanks again for your input! Let's go from concept to reality!! Sincerely, Bertus Buizer and Kitty de Jager.





