Saving Diversity

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For over twenty years the ProSpecieRara Foundation has been working to preserve, expand and promote the diversity of crops and livestock breeds in Switzerland and Germany. During its more than thirty-year history, the organisation has prevented 29 endangered animal species from dying out, alongside collecting and protecting thousands of crop species. It now preserves these in various collections in private gardens and on farms. This form of protection of genetic resources is generally referred to as *in situ* conservation, i. e. preservation in either the wild, in the environment of the species' origin, or on the farm or in the garden, whilst so-called *ex situ* conservation involves the preservation of plants in the form of seeds or plant parts and of animals in the form of sperm, eggs or embryos kept in a frozen state in gene banks. The *in situ* preservation enables animals and plants to adapt to new circumstances, but also to remain visible and tangible to human beings.

How ProSpecieRara Got Cooking

When it comes to conservation work in the garden and on farms, sooner or later you inevitably discover that it can only be sustainable if the purpose of the fruits, crops or animals are part of the conservation strategy. Thus, alongside reaching enthusiastic gardeners and farmers, there is an increasing need to appeal to consumers so that they can understand the close correlation between their consumer behavior and the preservation of diversity in our crops and livestock. This is not always an easy task. How do you make it comprehensible that an endangered species can only survive if we eat its meat or use its products? An apparent paradox, but something that can be easily explained with a change of perspective: Why should the farmer rear cattle if nobody is interested in their milk or meat? Products marketed under the ProSpecieRara label frequently stem from varieties or breeds whose use and processing in the kitchen are not immediately apparent to the general consumer. These products do not always speak for themselves on the store shelves, and require further product information alongside normal labelling, for example on their processing and cooking characteristics. So who better to convey such information than a chef?

The professional angle a chef takes – with regard to preparation, taste and the composition of a huge variety of factors in creating an overall experience to be served on a plate – should actually be part of product development and thus also a part of the breeding or cultivation work. Despite this, no practical examples where a chef has been involved as an expert in a specific breeding program spring to mind. Cooking characteristics and taste-related properties are still tested by the same research institutions that also examine the agronomic properties of a breed. If these scientific processes are however linked to excessively rigid specifications, there is a risk that the creativity of chefs will not be taken into account. If, for example, we take the carrot variety known as 'Küttiger Rüebli' and judge it merely on its taste properties as a raw food or test it for sweetness as a cooked food only, then we fail to do it justice. A creative chef very quickly comes to the conclusion that its highly accentuated carrot taste develops best in combination with other flavor components. In aiming to achieve a satisfying culinary experience it is not the individual vegetable components on the plate that are crucial, but rather their combination with other vegetable varieties.

One can assume that most of today's tomato, pepper and zucchini varieties never encounter a chef throughout the ten-year process of development they have to undergo. They are therefore never able to prove their culinary advantages before being eliminated from the cultivation process altogether.

The Way out of the Breeding Dilemma

Before breeding programs concentrated merely on transferring individual properties from one plant to another, there was a prevailing notion that the breeder must develop a particular approach whereby he or she gradually formed an idea of what the result of his or her breeding activity should ultimately be. If we are to look at the tremendous diversity that this now seemingly outdated concept of breeding facilitated, then it becomes obvious that it was geared towards satisfying aesthetic and culinary interests rather than purely agronomic ones. One thing that has not changed since: the breeder always has a specific objective in mind and his outlook is always directed forward towards this objective (greater yields, better resistance to disease, longer storage life etc.). Anything new that develops in the field during the course of the breeding work and does not correspond precisely to this objective is then selectively bred out. It is rejected. This procedure is part of the very essence of breeding work and is called selection. That which has been bred out is irretrievably lost if the rejected plants are not preserved in the meantime. If one now assumes that during the breeding process crucial selection criteria have been forgotten, then one has to argue the case for a reversal, and re-examine the former local and traded varieties developed in previous centuries using new selection criteria. This is only possible, however, if these are still available in various private and public collections. It can be assumed that here and there hidden culinary treasures are still to be found. So why continually search for new, exotic experiences when there is so much that is new and undiscovered in the old?

This not only relates to a loss of taste diversity, but also applies to varieties of plants for garden or balcony use, and thereby also for all purposes away from the mainstream, meaning those not related to large-scale commercial cultivation. It is to be feared that many potential market segments, primarily in the specialty area, no longer play a role in the selection of new varieties and therefore are not taken into consideration. If we want to bring more variety and diversity in terms of flavor to the plate once again, then various interest and user groups should be consulted into the breeding process. Breeding should not merely be a task for specialist breeders, farmers and processers, but should involve representatives of various social groups. Breeding work that is consistently participatory in nature could go far beyond the close cooperation between farmers and breeders considered progressive today. Breeding, i. e. the pursuit of a vision, represents a broad-based social task (community breeding).

To put it in different terms: social "shared cooking" should be much more broadly defined and ought to go far beyond the conventional framework of eating together. It should begin as early as the field or even in the breeding laboratory. Who sits at the dining table during development is crucial to quality of the result in terms of flavor and variety.

How Can Variety Be Brought to the Plate?

Bringing biodiversity to the plate is a challenge, because today's production conditions tend towards the opposite direction. If one wants to offer vegetables of appealing quality and at a reasonable cost and price, then it is essential to produce a certain quantity. When we talk about the production chain, we initially think about the producers who grow, harvest and sell the vegetable for the market. The seeds the producer uses for this, however, generally do not come to mind. Yet this constitutes the crucial bottleneck in terms of a varied, regional and authentic range of varieties. The producer must be able to make up for investments in both infrastructure and in the work involved in preserving variety and in the production of the seeds entirely through the sale of such seeds. This can only be achieved where a critical quantity of seed can be sold per variety. It is worth considering here that generally, for any specific variety, the market volume of the whole of Switzerland is too small for all this work to be refinanced through the sale of seed. It may be that the reality and the chef's desire for exclusivity stand in each other's way here. However, a good chef will be capable of compensating creatively for the practical constraint that leads to a finite range of varieties in the market.

So what contribution can art make to the improvement of variety on the plate? None, if we are to assume that artistic creativity cannot be exploited for a specific purpose. Yet this is precisely what is frequently done. Art works are exhibited in restaurants in order to create a pleasant environment. Skillfully executed craftsmanship, good taste and styling are equated with artistic creativity. Restaurant critics elevate chefs to the level of artists and talk about the high art of cooking. The terms 'art' and 'cooking' are currently excessively used in connection to the extent that they are now almost inextricably linked. This absorption doubtless lies in the essence of art, and yet time and again it is artists and philosophers who manage to position themselves against the flow of economic and results-oriented pressures and dependencies and thus to develop a new view of things.

For me personally, it would be lovely if the result of a coming-together of producer, chef and artist were not the achievement of any product whatsoever (new variety, new breeding strategy or a new menu), nor mutual exploitation to serve a particular purpose, but rather that each gain insights for their own area of work from the communication taking place here. A shared meal would then become a symbol of the exchange of a huge range of philosophies that enrich and inspire one another on the basis of a shared experience. Here it is both chef and artist who nourish the source of inspiration with their ideas and their creativity.