

## **POSITION PAPER IN DEVELOPMENT FIRST DRAFT FOR DISCUSSION AND COMMENT**

NOTE: This paper does not reflect an official IFOAM position. It is the first draft in a process to approve an IFOAM position. IFOAM is releasing this first draft to encourage dialogue about the points raised – IFOAM welcomes all critical or supportive comments, indicate what this draft has overlooked or where this draft may have gone too far. Your comments will be taken into consideration during the preparation of a second draft. Thank you for your interest and participation.

### **Seed Diversity in Organic Agriculture**

Organic plant breeding and seed production have been slow to develop. The reason is mainly economic: organic farming is still a small proportion of the agricultural sector, and this has made it difficult to create a separate seed source for organic producers.

With the worldwide expansion of organic agriculture, however, the economic possibilities of producing seeds and varieties catering to the organic sector are improving. In order to facilitate these activities, a number of key issues need special attention and action by the organic movement.

#### **Breeding techniques**

Two general criteria help define organic plant breeding:

- (1) Organic breeding must stay within the limits of natural reproduction.
- (2) It should work primarily on the level of the whole plant and not directly interfere at cell or molecular levels.

However, IFOAM believes the definition of organic plant breeding should be expanded to reflect other principles relevant to the organic movement. For example, organic breeding should be conducted in direct interaction with organic farming, while seeds from organic breeding must always be available for on-farm propagation and for further breeding. The definition must also clarify which techniques should be prohibited and which ones should be allowed or encouraged in organic plant breeding.

#### **Traditional varieties**

The value of traditional varieties and on-farm seed systems cannot be overlooked when considering modern-day organic plant breeding. For example, traditional seeds usually contain a greater genetic variability than modern commercial varieties, and typically they were developed under low input management practices. In addition, the social organization of traditional seed systems provides a useful model for the interactivity between breeding and farming, a key component of organic breeding.

Traditional varieties may be a better choice for organic farming than the modern mainstream varieties, even if this seed is propagated organically. Throughout the organic movement, the existence and value of traditional seeds needs to be better taken into account, and IFOAM proposes that its standards are amended to explicitly recommend the use of traditional seeds as a means of maintaining crop genetic diversity.

#### **Adaptation and evolution in relation to seed legislation**

Unlike conventional breeders, organic plant breeders aim to provide a high level of genetic variability, so that varieties can continue to evolve and adapt to local environmental conditions. National seed laws, however, preclude the sale of anything but a genetically uniform variety, which must be tested and, in turn, registered<sup>1</sup>. This requirement for uniformity makes it impossible to register a variety bred for genetic variability and adaptability, and this will be a major problem for the further development of organic plant breeding.

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<sup>1</sup> In many countries in order to be registered a variety must undergo a test to prove its agronomic value and to demonstrate that it is sufficiently distinct, uniform and stable (DUS) to be reliably distinguished from other varieties on the market.

If breeding for organic farming is to progress, then seed registration should be voluntary, or alternatively allow different classes of registration to accommodate all types of seed. IFOAM, therefore, urges that the necessary changes are made to the legal systems so the use and marketing of varieties bred for adaptability is not blocked.

### **Privatization of genetic information**

In traditional seed systems there is never private ownership of the genetic code in the seed itself. In contrast, modern breeding systems offer plant variety protection as well as industrial patents that legally protect rights of ownership of the plant variety. This protection restricts – to varying degrees in different countries – on-farm seed saving as well as the use of the varieties for further breeding purposes. Additionally, first generation (F1) hybrids, which dominate the market in maize and many vegetable crops, are a further means of restricting seed use.

Privatization of the genetic information in seeds conflicts with core organic principles. It is not a socially or ecologically just management of resources, and it does not respect the integrity of living systems. It also limits the development of organic plant breeding, which depends to a great extent on continuous farm-level selection and exchanges of genetic material between breeders and farmers.

To promote the free exchange of genetic information, IFOAM believe the use of seeds protected by intellectual property rights should be prohibited in organic agriculture. In addition, it believes that this prohibition should be accompanied by opposition to any further strengthening of intellectual property protection legislation for seeds. IFOAM supports all initiatives to remove current legal restrictions on farm-saved seed and access to modern mainstream varieties for breeding.

### **Organisation and financing of breeding**

By its very nature, organic plant breeding will be difficult to finance. This is partly because of its aim to eliminate the privatization of genetic information. Financing organic plant breeding will also remain a difficulty while the organic seed market remains relatively small as the modest seed sales cannot fully finance the necessary breeding work.

At its core, organic plant breeding necessitates an interactive relationship between breeders and farmers. The development of an interactive association makes good financial sense since the farmers can cover some of the breeding costs by contributions in kind. Extending this interaction to include other links in the food chain, such as processors and consumers, also means that costs could be shared among a greater number of beneficiaries. And since sustainable agriculture promotes the public good, there is also a strong argument for government support of organic breeding.

IFOAM will endeavour to promote organic plant breeding in a number of different ways. For example, it proposes to incorporate an interactive social dimension into its Basic Standards, which will help develop new financial models. It will also lobby national governments to accept some financial responsibility.

### **Organic seed propagation**

The IFOAM Basic Standards require that organic crops shall be grown from organically-propagated seed, if available in appropriate varieties and quality. In a broader sense, organic breeding and seed production must go hand-in-hand. To facilitate this association, IFOAM believes the use of the term ‘organic seed’ should be extended to seeds that are both the result of organic breeding as well as the product of organic management regimes.