

# "ISF puts its strategic priorities into practice"

Looking back on his first year as ISF President, Jean-Christophe Gouache highlights the Federation's focus on industry-critical areas, as outlined in ISF's strategic plan 2020. ISF Secretary General Michael Keller explains how the reshaped Secretariat team is bringing the strategic plan to life, and strengthening cooperation with its members and partners along the way.

## **Innovation in plant breeding**

*"Plant breeding should contribute significantly to help farmers around the world to solve the challenges that they face on a daily basis", according to ISF President Jean-Christophe Gouache who makes the case for plant breeding innovations that are usable under a consistent, national regulatory oversight. "The regulatory costs of using these technologies shouldn't be such that they would limit the number of stakeholders who can access them. These costs should also allow for a reasonable return on investment for projects aiming at diverse and multiple species and markets that are smaller in size and value, says Jean-Christophe Gouache. Unfortunately, this was not the case for transgenic products about 20 years ago which could have been launched across a multitude of pro-*

*duct/market segments and could have resulted in hundreds of innovative products!"* ISF President points out that transgenesis is currently only used on around 15 product/market combinations, and that regulatory costs imply that this method is used mainly on major product/market segments: "Our work involves creating awareness about these regulatory costs which should be affordable and should allow for return on investment – even for smaller product/market segments that are linked to more diverse and segmented markets. Consistent regulations are essential".

As part of its remit, ISF promotes the use of consistent criteria for the scope of regulation in implementing the regulatory framework while working on aligned governmental cooperation on the issue. ISF upholds the following principles: if there is no DNA



**Jean-Christophe Gouache:**  
**"The regulatory costs of using plant breeding innovations shouldn't be such that they would be limiting the number of stakeholders who can access them."**

transfer in the end product, or if this end product could be created using a conventional crossing method or by stemming from a natural variation or using a mutagenic method, then it should not be classified as a GMO.

At this year's World Seed Congress, ISF will be presenting a range of public relations resources as part of its globally coordinated internal



**Michael Keller : “At this year’s World Seed Congress, we are presenting public relation material on plant breeding innovations (PBI). This is in order to explain what these innovations are, where they come from and all the opportunities they provide”**

and external outreach around plant breeding innovation.

*“These materials will explain what these innovations are, how they evolved and the opportunities they provide,” says Michael Keller, ISF Secretary General. “What’s our objective? That the latest breeding methods will not be hindered*

*in their development as was the case with transgenesis.”*

### **Promoting the Treaty, but not at any price**

Another of ISF’s strategic priorities is promoting the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). That

said, apparently the treaty isn’t working, partly due to lack of funding. *“Discussions are currently centered around financing the benefit-sharing fund which is lacking funds, notes Jean-Christophe Gouache. However, let’s not forget that the member states are the signatories of the treaty and that 85% of the funding should come from them. What’s more, they should be contributing their national collections. These objectives are still far from being met.”*

We must highlight that ISF doesn’t have control over the matter as member states are the ones who negotiate. However, in order to lead the way and demonstrate the importance of genetic resources to its members, ISF has made a voluntary contribution to the International Treaty and to the Global Crop Trust so as to deliver a clear message to both organizations: conserving genetic resources either in situ or ex situ, along with access to them is a priority for ISF and

***“Our objective? That the latest breeding methods will not be hindered in their development as was the case with transgenesis.”***



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its members.

In autumn, the governing body of the International Treaty will convene and could make development proposals on the legal form of the standard material transfer agreement (SMTA). ISF is working on an acceptable model regarding contribution methods. The federation advocates maintaining several options in the future MTA: *"The great diversity of stakeholders requires that the MTA should not be restricted to a single model, so that genetic resources can be used by anyone involved in plant breeding and are spread as much as possible for the broadest use."*

### Raising awareness of orders of magnitude

Using genetic resources is part of a breeder's routine. *"Breeders will use genetic resources via the ITPGRFA, only if monetary contributions towards benefit sharing make economic sense for companies. If the amount requested is too high, the result will be counterproductive: companies will not use these genetic resources. As such, we would like to make treaty stakeholders aware of the orders of magnitude, which can sometimes vary between 1 and 20 in expectations among certain organizations*

*that are not closely linked to the industry,"* said Jean-Christophe Gouache.

Furthermore, ISF has always sought to extend Annex 1 of the treaty to all species. For example, soybean and the majority of vegetable seeds are not covered by the international treaty at this time. ISF would also like the multilateral system to be recognized for fulfilling all of the Nagoya Protocol's criteria.

### Strengthening cooperation

The International Seed Federation currently comprises 52 ordinary members, all from national or regional seed associations. *"Last year we welcomed national associations from Colombia, Bolivia and Uganda,"* recalls ISF Secretary General Michael Keller. *In 2017, the Ivory Coast and Algeria submitted membership requests, which we regard as recognition of our work and increasing representation."* These 52 ordinary ISF members represent almost 97% of the international seed trade. A few areas, such as West Africa, are not yet represented. *"One of our priorities is to engage with national seed associations who have yet to become ISF member,"* says Michael Keller. *We could help structure their*

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*associations and provide assistance in governmental relations, for example, to create an environment for growth and consequently develop the market."* In conjunction, it is vital for ISF to have national partners that can support outreach on industry priorities. Last year ISF welcomed the International Rice Research Institute (IRRI) among its affiliated members. IRRI is an independent organization linked to Consultative Group on International Agricultural Research (CGIAR). *"ISF must remain open to work and cooperate with other organizations on areas they have in common,"* says Michael. *With this sense of openness in mind, ISF has revitalized the cooperative union between itself and UPOV, OECD and ISTA under the banner of the "World Seed Partnership" with the aim of supporting the seed industry and ensuring farmers in all areas of the world have access to new varieties".* There will be an exhibition stand dedicated to the World Seed Partnership at the World Seed Congress.

## VEGETABLE SEED

# New quality management guidelines for seed companies

ISF has recently developed two guidelines to improve the operations of smaller vegetable breeding and seed production companies that may not have a proper quality management system place. The guidelines are based on the experiences and best practices of the current market leaders, and are packed full of handy hints and tips on how to get the best out of your business.

## ***GUIDE FOR MAINTAINING PLANT GENETIC INTEGRITY OF CONVENTIONAL VEGETABLES***

Maintaining plant genetic integrity and avoiding adventitious presence (AP) of GM plant material is the main focus of this guide, produced with Excellence Through Stewardship<sup>1</sup>,

"There are no major issues at the moment, because most of the companies are diligent in their breeding and production processes. However, to maintain the status quo, companies need to regularly identify and assess the potential factors that may contribute to AP-related incidents", says Szabolcs Ruthner, ISF Regulatory Affairs Executive.

The guide deals with quality management systems and risk management for the full life cycle of vegetable breeding and seed production to address AP that could be present. It is relevant at every stage of the plant product life cycle, from R&D to commercialization and post-market activities.

It assesses the potential factors that may lead to an AP-related incident, and how organizations can mitigate the impact of such an incident by proactively broadening their scope of activities, quality management systems and stewardship practices.

The Guide works alongside ISF's GM database that includes information on current and former GM vegetable field trials, GM vegetable commercialization, and GM activities of species crossable with particular vegetables species. This database is accessible only for ISF members upon request.

(1) ETS is a not-for-profit global industry-coordinated organization that promotes the universal adoption of stewardship programs and quality management systems for the full life cycle of biotechnology-derived plant products.



**Szabolcs Ruthner, ISF Regulatory Affairs Executive.**



## VEGETABLE SEED PRODUCTION GOOD PRACTICE GUIDE

The result of a fruitful collaboration between ISF's Working Group for Vegetable Seed Production and the Asia Pacific Seed Association's Vegetable Group, the good practice guide is designed to assist stakeholders, seed companies and seed producers, who are engaged in vegetable seed production and sales, to ensure the integrity of the production chain from stock seed to commercial seeds.

"Intellectual Property (IP) infringements and loss of genetic material are still huge problem in many areas of the world", says Szabolcs Ruthner.

"We developed this guide with a view to safeguarding IP rights and other rights of the parental lines in general. Our aim was to provide practical suggestions to help companies protect IP rights to limit/eliminate the loss of any genetic material in the seed production process."

This collection of experiences shows how to prevent or minimize the possibility of theft of parental lines. It includes real-life tips and hints on the tiniest details, from what to wear and how to behave when visiting a seed company production site, to how to guard seed production areas.

"The first and most important step", says Szabolcs Ruthner, "is for companies to educate and train their own staff about IP rights. Most of the time it's enough to enhance or fine-tune existing practices."



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NEW TASK FORCE

# “Taking action against illegal seeds”



MARKUS MAINKY/PHOTOLIA

**T**he working group on illegal seeds practices (WG ISP) has been operational for the past six months. “We often talk about illegal or counterfeit seeds without having a clear picture of the impact on the seed market”, notes Michael Keller, Secretary General of ISF. It could be a case of parental line theft, counterfeit

labels, unauthorized use of varieties, as well as non-declaration or unauthorized use of farm-saved seeds. This applies to any seed type. To begin, the WG ISP compiled a questionnaire for ISF members. The idea was to obtain a declaration of the seeds involved, estimated counterfeit levels, actions implemented by companies

or national seed associations to protect themselves, and also the regulatory or even legal framework and its application.

“ISF companies should be more responsible and we must be clearer on the economic and health risks of counterfeits for the industry, farmers, consumers and seed companies”, highlights

Michael Keller. He also notes that the primary aim of the WG ISP is to raise awareness among ordinary and associated members, to support seed associations so that they’ll pressure their governments into implementing an efficient regulatory framework and/or push for current regulations to be enforced.

## MUSHROOM SPAWN

## Protecting innovation

In 2016, an ISF working group on mushroom spawn was created to better protect and remunerate mushroom breeders.

**T**he mushroom spawn industry is working actively on an international level to protect mushroom varieties and a Mushroom Group has been established within the International Seed Federation (ISF) in the past year. The task force is mainly composed of six companies and institutes based in Holland, France and the United States.

Although the varieties developed by the companies fall under legal requirements of the International Union for the Protection of New Varieties of Plants (UPOV), there are still some unauthorised practices taking place. *"All button mushroom varieties stem from a single variety developed in the eighties, but these companies have only made essentially derived varieties (EDV). They are all very similar to each other but the UPOV/EDV rules are not respected"*, states H            , responsible for the group at ISF. As such, new varieties have been placed on the market without permission granted by the initial variety holders, and the latter haven't been paid for their breeding work as a result. *"Companies are relying on ISF to enforce UPOV rules to foster innovation"*, highlights H            .



From left to right: Johan Baars, Pierre Lavrijssen, Anton Sonnenberg, Hubert Hay, Ludovic Hublier, and H            .

Hubert Hay, European Branch Manager of the US-based group, Amycel, who is involved in the task force, admits: *"We are investing in quality improvement but little genetic research has been done in the past 25-30 years."*

### Lack of data on the market

ISF has also recently published its "Good Practice for Essential Derivation of Button Mushroom Varieties". In conjunction with this release, they are working on defining the genetic distance threshold between varieties to class them as EDV. This study is specific to button mushrooms as limits vary depending

on the species. Although creating a task force aims to better protect varieties, it is also useful for promoting a more niche growth market, where few statistics are available.

*"The European agaricus- or button mushroom spawn market stands at around 50 million litres, or 32,000 tonnes, of mycelium. We can't pinpoint the volumes for oyster, shiitake or pholiota aegerita, as these markets are more seasonal. Agaricus represents between 85 and 90 % of the mushroom spawn market"*, notes Hubert Hay. According to various sources and based on the volumes of mushrooms produced, global growth

volumes are hitting around 100 million litres of mycelium. H             highlights that this market features few stakeholders, with leading producers based predominantly in Holland, China, India and the US. According to Hubert Hay, just three companies hold over 70 % of the European market in mycelium production. Moreover, he indicates that the mushroom spawn industry is currently supported by an increasing demand for fresh mushrooms. According to European mushroom growers' group GEPC, 65 % of all the mushrooms produced in Europe were sold fresh versus 35 % in cans in 2015.