Seeds and International Strategies

May 13, 2026
Conference held in person and online

Highlights

Speakers:

- Rachel BLUMEL, Director, Union française des semenciers (UFS)
- Basile DE BARY, CEO, Sakata Vegetables Europe
- Fan-Li CHOU, Vice-President, Scientific Affairs and Policy, American Seed Trade Association (ASTA)
- Marie-Cécile DAMAVE, Head of Innovation and International Affairs, Agridées
- Régis FOURNIER, Strategic Advisor, Limagrain Field Seeds
- Laurent GUERREIRO, President, RAGT SA
- Hélène GUILLOT, Director, Agricultural Crop Licensing Platform (ACLP)
- Luc JACQUET, Farm manager, Vice-President, Fédération nationale des agriculteurs multiplicateurs de semences (FNAMS), Member of the Seed Section COPA COGECA
- Michiel KLOMPENHOUWER, Director, Plantum
- Ged MANNING, Agricultural Attaché, Embassy of the United Kingdom, in Paris
- Charles MEAUDRE, Farm Manager, President, Agridées
- Carl-Stephan SCHÄFER, Director General, Bundesverband Deutscher Pflanzenzüchter e. V.

Watch the video of the event here:
https://youtube.com/playlist?list=PLUjMWXcgUxX4VELXj1KaOqaS5uVmtpfnE&si=7A5ayjhBPbexThAQ

The conference was moderated by Marie-Cécile Damave, Head of Innovation and International Affairs, Agridées, and author of the report "Seeds thrive in a risky environment", published in February 2026.

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THE INTERNATIONAL DIMENSIONS OF THE SEED INDUSTRY: A STRATEGIC SECTOR

The seed industry is globalized, as seeds and seedlings are transported in accordance with companies' breeding strategies (off-season production, access to a professional and affordable labor force) and market demands.

The seed sector is a strategic pillar of the major agricultural economies represented in this conference (France, Germany, the Netherlands, the United Kingdom, and the United States), but it is not always recognized as such by public authorities, industry stakeholders, or society.

The European and American markets account for nearly half of the global seed market, with €15 billion and $20 billion, respectively, according to Euroseeds and the American Seed Trade Association (ASTA). The United States and Europe maintain close trade ties, as they are each other's leading export markets. Furthermore, Euroseeds and ASTA share 30 member companies.

Certain countries, such as the Netherlands, France, and the United States, are major exporters, with annual exports totaling €5 billion, €2.2 billion, and $1.7 billion, respectively. Michiel KLOMPENHOWER noted that the particularly high volume of Dutch exports places the sector at the top of the strategic political agenda in the Netherlands. Exports from this country account for more than 60% of the global trade in potato seeds. This figure rises to 40% for vegetable seeds.

As for France, it also holds a strong position in the European market, accounting for approximately 25% of the seed and seedling sector's revenue. Half of its exports are destined for countries outside the European Union.

EXPANDING GLOBALLY TO FOSTER INNOVATION AND ENHANCE COMPETITIVENESS

The development of Limagrain (the world's fourth-largest seed company), RAGT (a French company operating in some sixty countries), and Sakata (a Japanese company whose European, Middle Eastern, and African headquarters for vegetable seeds is located in France) illustrates the deeply international nature of the seed industry. This internationalization is not solely commercial; it is intrinsic to the process of variety development, which relies on the mobilization of a broad and diverse germplasm (a collection of genetic resources from varied ecological environments). For Régis FOURNIER, "the wealth of seed companies lies in their germplasm."

Companies therefore maintain global networks of research stations and seed production facilities. This allows them to **access a wide range of agricultural, soil, and climatic conditions** essential for testing variety performance in environments representing target markets, selecting adaptive traits, and anticipating the effects of climate change, as closely as possible to the local conditions faced by farmers.

Furthermore, internationalization is driven by a strong economic rationale. Plant breeding R&D requires **significant investment over long cycles** (about ten years of selection, regulatory approval, and commercial distribution). Geographical diversification of markets makes it possible to **spread these fixed costs and secure revenue**, which is essential for sustaining innovation efforts.

Finally, in a globalized competitive environment, internationalization has become essential to **survival**. It enables companies to remain competitive against rivals while gaining access to growing markets. It also serves as a means of **attracting talent and building partnership networks** that foster innovation.

LEVERAGING KEY DRIVERS OF INNOVATION TO STAY COMPETITIVE

Seed companies allocate a very high proportion of their sales revenue to research and development. While the average is estimated at 16% in Germany, according to Carl-Stephan SCHÄFER, and 13% in France, according to Rachel BLUMEL, this figure can reach as high as 40% for some companies, according to Michiel KLOMPENHOWER.

Strengthening ties between private and public stakeholders

Organizing public and private stakeholders into effective ecosystems fuels the momentum of innovation. Michiel KLOMPENHOWER presented the **Dutch model**, the "Dutch Diamond", a framework for close cooperation between government, academic research, businesses, and civil society that fosters trust and information sharing. The SeedNL partnership reinforces this approach by bringing together the Ministries of Agriculture, Foreign Affairs, and Trade, the agricultural sector, and the diplomatic network to support innovation and internationalization.

Unfortunately, the situation is not the same in France, regretfully noted Rachel BLUMEL: the challenges facing companies are better understood by the Ministries of the Economy and Foreign Affairs than by the Ministry of Agriculture. Seed companies are less involved in public-private research partnerships with public research organizations in France than they were ten years ago. However, Carl-Stephan SCHÄFER emphasized that close ties between companies and public authorities are essential to affirm the strategic nature of the seed sector.

According to Ged MANNING, **innovation clusters** involving research centers, universities, and companies are the main drivers of R&D in the seed sector in Scotland and the south of the United Kingdom.

Private-private partnerships are also important, according to Fan-Li CHOU, who noted that an increasing number of ASTA members are tech companies working with data and artificial intelligence, alongside seed companies, to expand the scope of possibilities in plant breeding. This approach to outsourcing innovation is particularly relevant for smaller crops (such as cover crops or service plants).

Fan-Li CHOU raised a point of concern regarding the **decline in public research budgets at agricultural universities** in each U.S. state (Land-Grant Universities), while in China and Brazil—the main global agricultural competitors—public funding for agricultural research is on the rise. ASTA has alerted U.S. government authorities, as the decline in public funding is undermining innovation in the United States. Indeed, the breeding of specialty crops (especially vegetables) begins at universities and continues in the private sector. Strawberries are a well-known example: all varieties on the U.S. market have been developed and patented by the University of California, Davis, and are licensed for use by private companies. The revenue generated from these patents is then reinvested by the university to continue its breeding efforts.

Intellectual property instruments to enable and protect innovation

Breeding innovation relies on a **dual intellectual property framework** comprising the Plant Variety Protection Certificate (PVP) and the patent. Companies adopt different strategies for protecting their innovations (using one, the other, or both instruments) across different regions of the world. Hélène GUILLOT noted that in the United States, it is possible to patent a variety, whereas this is not the case in Europe, where a variety can be protected by the PVP. It is possible to patent certain genes in Europe, but not “essentially biological” products (found in nature). Régis FOURNIER noted that, under the breeder’s exemption principle, the PVP allows breeders to use a commercialized variety in their research programs and farmers to grow their own seeds.

Since **access to genetic resources is central to breeding**, it has become essential to bridge the gap between plant variety protection and patents, so that the latter does not act as a blocking factor. That is why two licensing platforms have been created: the Agricultural Crop Licensing Platform (ACLP) and the International Licensing Platform (ILP). The ACLP brings together most seed companies holding patents on field crops, ornamental plants, fruit trees, and forest trees

within the jurisdiction of the European Patent Office (Europe expanded to 41 countries), while the ILP brings together companies producing vegetable seeds and covers the entire world.

Membership in these platforms, established by the industry itself, **ensures transparency and facilitates access to patented genes** for companies through licensing. Member companies of the platforms are required to contribute all their varieties that contain patented traits. They cannot keep certain patents for themselves or grant exclusive licenses to another company, explained Hélène GUILLOT[1]. Under the ACLP, breeders can incorporate a patented trait into their breeding program free of charge (**limited breeder exemption**). Finally, when marketing a variety containing a patented trait, member companies are **guaranteed a marketing license at a reasonable price** through a transparent arbitration system if the two parties cannot agree on the royalty amount.

The ACLP addresses a key issue: **preventing excessive market concentration** resulting from the ownership of patent portfolios, while maintaining economic incentives for innovation. Limagrain, for example, is a member of both the ACLP and the ILP, and Sakata is a member of the ILP. In contrast, RAGT is not a member of the ACLP, as it considers that "the terms proposed by ACLP member companies are excessive", according to Laurent GUERREIRO. Indeed, licensing fees can be high when multiple patents are held on a single variety.

STABILIZING THE FRAMEWORK: SECURING MARKET ACCESS AND REGULATION

Securing market access and investment

Several speakers expressed concern about the **increasingly limited market access for businesses**. There are multiple causes for this: rising geopolitical tensions and disruptions to international trade, as well as regulatory differences or asymmetries—particularly in the wake of Brexit—which have led to stricter sanitary and phytosanitary requirements. All of these factors hinder the movement of seeds.

Regarding **regulatory divergence**, Ged MANNING presented a compelling example: the sharp decline, since Brexit, in British exports of seed potatoes from the United Kingdom (primarily Scotland) to the European Union—which used to be worth £55 million—due to the sanitary and phytosanitary rules applicable to third countries in the European Union. Current efforts to align the European Union and the United Kingdom on sanitary and phytosanitary matters should help harmonize the frameworks[2].

Fan-Li CHOU also highlighted the regulatory differences between individual U.S. states (regarding access to water, plant protection products, and labor), which hinder the smooth flow of trade within the country.

[1] See the interview of Hélène Guillot for Agridées (April 9, 2026)
[2] See the report of the Cross-Channel Institute and Agridées (February 2026): Food Sovereignty in France and the UK – Smoothing Cross-Channel Trade and Leveraging AgriTech

In this context, **securing investments** requires guaranteeing market access prospects, supporting export-oriented companies (for example, through diplomatic networks and trade agreements), and maintaining conditions that ensure the competitiveness of seed companies and farmers producing seed: access to water, certain plant protection products, and genetic resources (gene banks, breeder's exemption guaranteed by the PVP, balance between patents and PVP) is essential.

Ged MANNING pointed out, for example, that some innovative companies tend to move to the United States or Singapore, where they find better opportunities to scale up their R&D and marketing activities and to export their products.

Stabilizing regulation

Regulatory visibility is a key determinant of the business climate. However, the seed sector is highly regulated, and several regulations are currently being drafted, creating uncertainty, insecurity, and a slowdown in investment.

The use of new tools such as **New Genomic Techniques** (NGTs) is becoming crucial to accelerate breeding cycles and ensure that Europe has access to the same breeding tools as other regions of the world, in a highly competitive environment. "At a time when the world is shaped by the internet, social media, and artificial intelligence, there is no reason why agriculture should be condemned to remain stuck in the Middle Ages," stated Charles MEAUDRE. "NGTs must overcome all ideological, economic, legal, and technical obstacles," according to Luc JACQUET. For Rachel BLUMEL and Michiel KLOMPENHOWER, these tools will not replace but rather complement the current selection tools in farmers' toolboxes. Some thirty countries around the world have already adopted a regulatory framework for NGTs.

Seed companies are calling for **stable, predictable regulations that are harmonized and science based**. They are asking for **excessive restrictions to be reduced** to maintain their competitiveness in a highly competitive global market. Ged MANNING cited an example of an experimental framework (a "regulatory sandbox") that allows innovations to be tested under real-world conditions, which could set a precedent. Since Brexit, the United Kingdom has adopted the Precision Breeding Act, which regulates NGTs. As a result, a barley developed through genetic editing has received marketing notice. This lipid-enriched forage barley reduces methane emissions from ruminants that consume it. It is not yet on the market, but the disparity between UK and EU regulations, if it persists regarding NGTs, would hinder the smooth trade of these plants or seeds between the two jurisdictions.

Other regulatory uncertainties are weighing on the business climate in the European Union and domestically: first, the lengthy process of revising European regulations on **Plant and Forest Reproductive Material (PMR)**, which is expected to be completed in two years, and second, the **Omnibus package for food safety**, which addresses the status of seeds treated with plant protection products. The issue of the relationship between national and European regulations is crucial in this case, noted Rachel BLUMEL, since, in France, some wish to align the status of treated seeds with that of plant protection products.

Tax incentives for innovative companies, such as the **Research Tax Credit** in France ("Crédit d'impôt recherche", or CIR) or its equivalent in Germany, must be maintained and stabilized, emphasized Rachel BLUMEL and Carl-Stephan SCHAFER. The CIR covers no less than 25% of the costs undertaken by companies in their R&D efforts in France. For Basile DE BARRY, this program is a significant competitive advantage justifying the choice of France as the location for Sakata's Europe, Middle East, and Africa headquarters for vegetable crops.

STRENGTHENING THE TIES BETWEEN THE SEED INDUSTRY AND ITS PARTNERS

Improving the seed industry's reputation

Even though seeds are an "irreplaceable input" in farming, the sector faces challenges in **raising awareness among economic stakeholders, public policymakers, and the public**. However, as Rachel BLUMEL pointed out, the seed sector and other sectors within the supply chain face the same challenge: providing consumers with the best food at the best price. Consequently, the sector lacks visibility among policymakers in various countries, leading to misunderstandings within the value chains and in society. Michiel KLOMPENHOWER noted that despite the existence of varieties resistant to late blight, the potato processing industry has not adopted them into their value chains. He also highlighted the public's aversion to risk, even though risk is an inherent part of life for both individuals and businesses.

Improving the sector's reputation starts with better **outreach** to this innovative industry: it is difficult to communicate on highly technical topics to the public, which either has a negative perception of the sector or is unaware of it, Rachel BLUMEL emphasized. Next, communication must highlight the **role of seeds in value chains** ("the journey of the seed" developed by UFS), **sustainability**, and the contribution to **food security**. Promoting the **socio-economic impacts in local communities** was also suggested, as these companies often have strong local roots. Finally, communication efforts must be coordinated to foster better dialogue with civil society, according to Michiel KLOMPENHOWER.

Ties between seed companies and farmers for greater sustainability and resilience

Rachel BLUMEL emphasized that seed companies work closely with seed producers, under contract, while considering constraints related to access to water and plant protection products.

Carl-Stephan SCHÄFER presented the results of a survey of more than 600 seed-using farmers in Germany, which concluded that they are satisfied with the seeds available to them and indicated that their primary selection criteria are disease resistance, yield potential, and adaptation to local conditions.

Breeding innovation is now part of a **systemic approach to agronomy**. It is no longer just a matter of optimizing a given species, but of designing integrated solutions at the farm level: crop rotations, intercropping, cover crops, and soil management. This is the strategy RAGT is pursuing, explained Laurent GUERREIRO. According to him, we need to "move from cover crops to functional

crops" and choose resilient "4x4 varieties" rather than "Ferrari" varieties that fail to reach their full potential under real-world conditions on farmers' fields.

This shift reflects a **transition from a strategy of maximizing yields to an approach prioritizing agricultural resilience**. According to Luc JACQUET, "service crops offer promising alternatives for soil health and the nutrition of cash crops, as well as for crop and soil protection, enabling carbon sequestration and improving soil moisture retention." However, the economic model for service crops has yet to be established, as their seeds remain difficult to market to farmers for whom they are not yet an obvious investment, noted Régis FOURNIER.

In addition to commercial crops, some seed companies have joined forces to study the genetics and agronomy of **peas**. Limagrain, Florimond-Desprez, RAGT, Sofiprotéol, and the French government are partners in a joint research project[3]. In addition to commercial crops, some seed companies have joined forces to study the genetics and agronomy of peas. Limagrain, Florimond-Desprez, RAGT, Sofiprotéol, and the French government are partners in a joint research project. Peas are considered a "near-orphan" species because seed companies devote little effort to them, despite their agronomic and nutritional benefits. The issue of return on investment in research on this type of plant was also raised by Carl Stephan SCHAFER, who noted that companies finance their work on orphan species using revenue generated from the most profitable crops.

Marie-Cécile Damave
Head of Innovation and International Affairs

[3] Pea4Ever project