Mathys&Squire

Agri-tech intellectual property rights in Europe

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About Mathys & Squire

Dedicated to protecting and defending your future.

Mathys & Squire is an intellectual property (IP) powerhouse that puts its specialist knowledge to work for clients, to strengthen and secure what most modern businesses today treat as one of their most valuable strategic assets - intellectual property.

The firm's agile teams of attorneys, scientists and strategists are steeped in experience, working with IP-rich and high-growth industries to leverage complex technologies and sophisticated commercial models across a broad range of industry sectors.

A full-service IP firm, Mathys & Squire has unrivalled expertise in patents, trade marks, design protection and litigation. Highly ranked in leading legal and IP directories, and leading the field with insight, innovation and quality, Mathys & Squire will be celebrating its 115th Anniversary this year, testament to its proven track record in the protection and commercialisation of IP rights.

The firm has a broad spread of clients, ranging from start-ups to major UK and global corporations, many of which are household names. Clients of the firm value its commitment to professional excellence and technical expertise.

Mathys & Squire has over 100 attorneys (both training and qualified) and a dedicated IP consulting team across offices in London, Birmingham, Cambridge, Manchester, Newcastle, Oxford, Luxembourg, Munich and Paris, as well as teams based in China and Japan. The firm's attorneys and trainees have a mix of scientific degrees extending from chemistry, biochemistry, pharmacology, genetics, microbiology, plant sciences and zoology through to physics, electronics, telecommunications and engineering.

We are passionate about creating and delivering innovative, high-quality, client-focused services and building close and longstanding relationships with clients in order to establish defensive and offensive IP portfolios that generate commercial value. We are proactive when working with clients and valued for our integrity, honesty and collegiate approach.

We protect, so that you can invent the future.

Agri-tech intellectual property rights in Europe

Primary food production is the largest industry in the world, and ensuring the stability and integrity of national and international food supply chains is crucial.

The challenges faced by the food sector are greater than ever, as the world population increases and the effects of climate change are felt. Technology is increasingly used to address these challenges, often involving collaboration between multiple disciplines.

As a result, agricultural technology (agri-tech) is one of the fastest-growing industries as research in this area gains momentum. Indeed, the importance of agri-tech is appreciated by governments across Europe, with both UK and EU funding streams available for research and development in this sector (typically with a requirement for the good management of any resulting intellectual property rights (IP)).

In the face of the challenging and rapidly developing commercial landscape, it is more important than ever for agri-tech businesses to obtain protection for all their IP.

Technical innovations may be protected via patents. Designs can protect aspects of a product's appearance, shape or configuration that may not be patentable.

New plant varieties can be protected via plant variety rights. Trade marks can be used to identify the source of a product or service and provide brand recognition.

Our agri-tech expertise

Our team has extensive experience in the agri-tech field. For example, we have particular expertise in pesticide and herbicide chemistry, food chemistry and processing, stress tolerance, plant developmental biology and transgenic plant technology.

We also have considerable experience in plant variety right matters, and our highly capable supplementary protection certificate (SPC) team can assist with matters relating to SPCs for plant protection products.

Our team has significant expertise in engineering, electronics, telecommunications and software, including in respect of automated control systems, as applicable to agricultural vehicles and storage and processing facilities. In addition, we have experience in large-scale food processing techniques, such as in the dairy industry.

Patents protect technical innovations that are new and non-obvious relative to anything that has already been made available to the public. Accordingly, if you are considering filing a patent application to protect an invention, then it is essential that the patent application be filed before you disclose the invention to anyone outside of confidence.

Our team would be happy to discuss how best to protect your innovations to provide commercial benefits to your business.

IP protection for biotech and plant-related innovations

Plant and plant-related technology is central to the agri-tech sector, with a significant proportion of public agri-tech spend in the UK on crop research and development. Although commercially highly significant, the intricacies and exclusions under the relevant legislation can create obstacles to obtaining IP protection, making professional guidance essential.

Intellectual property rights available for plant-related technologies vary from country to country. Although plant-related innovations can be patented in many countries, plant variety rights can provide protection for plant varieties that are excluded from patent protection. SPCs can be used to extend the term of patent protection for plant protection products.

Biotech and plant-related patents

The extent to which patent rights may be obtained for biotech and plant-related and agri-tech subject matter varies from country to country. Indeed, some countries are markedly more favourable than others.

In Europe, it is possible to obtain patent protection for a wide range of plant-related and agri-tech subject matter, such as transgenic plants, herbicides/pesticides, farm equipment, and microorganisms (e.g. silage inoculants).

After more than a decade of controversy and changing practice, in 2020 it was confirmed that it is not possible to obtain European patent protection for a plant variety or plants exclusively obtained by an 'essentially biological process' for the production of plants (such as a breeding or crossing method).

Plants not exclusively made by essentially biological processes, such as transgenic plants, remain patentable in Europe.

Plant varieties per se cannot be protected by European patents. However, this exclusion of patent protection is interpreted narrowly. In practice, this means that a granted patent claim may encompass one or more plant varieties, but the patent claim may not be directed to a plant variety per se.

It is often possible to obtain patent protection for plant products, either in unprocessed form (such as fruit, seeds or tubers, etc.) or processed form (such a soil or meal, etc.). In the case of processed products, it is necessary to demonstrate that the processed product retains the same inventive characteristics as the plant of the invention.

Our biotech and plant-related patents expertise

Our team has significant technical expertise and experience across the full scope of biotech and plant-related technologies within the agri-tech sector. We can provide guidance regarding the legal complexities in this field to help you maximise patent protection for your innovations.

IP protection for chemistry-related innovations in the agri-tech sector

Chemistry-related innovations extend their reach across the entire breadth of the agri-tech sector, and patent protection in Europe offers the means to protect such innovations effectively.

Chemistry-related patents

Small molecule chemistry and formulation chemistry underpin much of the herbicide and pesticide technologies that exist today. As the biological understanding, particularly in relation to the mechanisms for deterring fungi, insects and rodents and the like has developed, so too have the chemical innovations that have been relied upon for improving herbicide and pesticide activity and selectivity. Not only is this based on developing improved synthetic chemical compounds, it also extends to formulation chemistry to ensure targeted and effective delivery of the active agent.

Our chemistry-related patents expertise

Our team is experienced in obtaining patent protection and advising on freedom to operate issues with respect to new herbicidal and pesticidal compounds and formulations, as well as new delivery mechanisms and methods.

Another area of our team's expertise is in the processing of harvested food products and ingredients. For example, in edible oil processing, a number of chemical processing techniques are relied upon, including degumming, neutralising, bleaching, deodorising and dewaxing, which continue to be a rich source of innovation.

Our team has drafted and prosecuted applications directed to new processes for removing, as well as preventing heavy metal ion, free fatty acid and carcinogenic contaminants in vegetable oils intended for human consumption.

A further area of chemical innovation within the agri-tech sector which has been attracting a lot of attention relates to the protection of new food products and beverages. Our team has accumulated significant experience in prosecuting applications directed, for instance, to the extraction of natural products for use in nutraceutical compositions and functional foods, and to those directed to sweetener compositions and formulations in the beverage industry. We also have substantial experience of drafting and prosecuting applications directed to new food product innovations in the fast food and confection industries.

Plant variety rights

A plant variety right (PVR) is an intellectual property right designed for plant varieties that are commercialised, or from which material is produced and commercialised. PVRs are known as 'plant breeders' rights' in the UK and Europe, and 'plant variety protection' in the USA.

In Europe and other countries where patent protection is restricted for plant-related inventions, PVRs provide a mechanism for obtaining protection for plant varieties. PVR protection in Europe may be sought nationally in each country of interest, or via a community plant variety right (CPVR), which is a unitary EU-wide right.

Community plant variety rights

CPVRs may be granted for a plant variety in any botanical taxon, provided the plant variety meets the following criteria, known as the DUS criteria:

- Distinctness – the variety must be clearly distinguishable from any other variety whose existence is common knowledge at the date the CPVR application is filed;
- Uniformity – the variety must be sufficiently uniform in the expression of those characteristics which are included in the examination for distinctness, as well as any others used for the variety description;
- Stability – the expression of the characteristics which are included in the examination for distinctness, as well as any others used for the variety description, must remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each cycle.

For a CPVR to be granted, a plant variety must also be novel. The assessment of novelty for CPVRs differs from that for patents.

To qualify for CPVR protection, a plant variety must not have been commercialised:
a) within the EU more than one year prior to filing a CPVR application; or
b) outside the EU more than four years prior to filing (six years for a tree or vine species).

Once granted, the holder of a CPVR is entitled to prevent third parties from carrying out certain unauthorised acts in relation to the protected plant variety. These acts include:

- production or reproduction (multiplication);
- conditioning for the purpose of propagation;
- offering for sale;
- selling or other marketing;
- exporting from the community;
- importing to the community; and
- stocking for any of the above purposes.

Plant variety rights (continued)

An application for a CPVR must be submitted to the Community Plant Variety Office (CPVO). The application will include an application form and a technical questionnaire, which will include information about the characteristics of the variety in question compared with other known varieties of that species.

The application will be examined by the CPVO. Once this preliminary examination has been carried out, the applicant will be required to submit samples of the variety to an examination office for DUS testing.

There are different examination offices for different plant species. Also, the number and nature of the samples (seed/seedling etc.) required for DUS testing will depend on the variety in question, as will the fee for testing and the number of testing cycles. Ornamental species typically require a single testing cycle. In contrast, some tree species can require multiple testing cycles over several years.

The variety must also be designated a variety denomination, which is the name by which the variety will be known. Although the applicant may propose a denomination, their choice must be approved by the CPVO.

Once DUS testing has been completed, the CPVO will grant a CPVR for the variety. A granted CPVR may be maintained for up to 25 years from the date of grant of the application (30 years for potatoes, vines and trees), upon payment of annual renewal fees.

UK plant variety rights

A national PVR, also known as a plant breeder's right (PBR) is available in the UK and provides protection within the UK only. The UK PBR derives from the same legal framework as the CVPR. Consequently, the overall system, application process and protection afforded are similar to under the CPVR system.

Following Brexit, plant breeders wanting protection for their varieties in the EU and UK will need to file applications for both CPVRs and UK PBRs.

Whilst the application processes for CPVRs and UK PBRs are separate, much of the information required for a CPVR application can be recycled to facilitate a corresponding UK PBR application.

With regards to novelty, to qualify for UK PBR protection, a plant variety must not have been commercialised:
a) within the UK more than one year prior to filing a PBR application; or
b) outside the UK more than four years prior to filing (six years for a tree or vine species).

For plant species where the UK does not have the capability to carry out DUS testing, the CPVO DUS test report may be relied upon for the corresponding UK PBR application. Where the UK can carry out DUS testing for a given plant species, it will do so, even if this replicates the CPVO DUS testing.

Plant variety rights (continued)

National lists and common catalogues

National listing is a legal requirement in the UK for new varieties of the main agricultural and vegetable species. A new variety of a species covered by the National List Regulations must be added to the UK national list before it may be marketed in the UK.

The requirement for national listing ensures that only genuinely new varieties may be marketed. For agricultural crops, it is also necessary to demonstrate that a variety is an improvement over those already commercially available.

The European Commission compiles common catalogues of varieties on member states' national lists. Varieties on the common catalogue are eligible for certification and marketing throughout the European community.

"The people make the team as they say. This team is made with perfection, collaboration is smooth and with a high mind to understand our business. Their knowledge and experience is outstanding for patent drafting, prosecution and also oppositions."

The Legal 500

Specialist service areas – trade marks

Our trade mark team understands how vital it is to protect your brand from inevitable threats. The effective management of a trade mark portfolio encompasses the delivery of a wide range of services.

Trade mark portfolio management

As part of our portfolio management service, we will routinely advise on renewals and the use of trade marks, changes to and refreshing of brands, protection overseas, the maintenance of IP policies and the implementation of effective IP management strategies.

Dedicated support and reporting

We will assign the management of your portfolio to a dedicated and experienced paralegal, under the supervision of our qualified trade mark attorneys. However you like to work, our team will adapt to your needs. For example, should you require a specific form of reporting or updates, we are happy to accommodate this and provide reports to suit your needs. We can also provide you with access to our records, to assist you in the management and understanding of your trade mark portfolio.

Trade mark availability searches (including brand availability analysis for new products and services)

We work with third party search providers to ensure that our clients receive the most reliable and cost effective method of assessing the state of the trade mark register in the country or countries of interest.

Applications, filing and renewal services

We can file UK, EU and international trade mark applications directly with the UKIPO, EUIPO and WIPO respectively. We work with a network of trusted foreign attorneys, with whom we have longstanding relationships, to file in other countries.

Monitoring and watching services

All trade mark applications located by the watching service would be reviewed by us to screen for those that potentially conflict with your company's trade marks.

"Mathys & Squire is dynamic and exceptional in its service. The team helps clients to adapt their strategies in line with business developments and proactively responds to changing external circumstances. Communication is clear and concise, even in relation to the most highly specialised and technical patent applications."

Chambers and Partners

Team biographies

Anna Gregson
Partner
ALGregson@mathys-squire.com

Anna is a Partner in our biotech team and is based in our Manchester office. She has worked with a diverse range of clients, from university technology transfer organisations to international corporations.

Anna has experience in a wide range of subject matter in the fields of biotechnology and life sciences, including plant biotechnology, therapeutic antibodies, vaccines, diagnostics and biomarkers and stem cells. She also has experience of advising on plant variety rights.

James Pitchford
Partner
JEPitchford@mathys-squire.com

James is a Partner in our IT & engineering team and is based in our Cambridge office. He specialises in patent work in the physics, electronics, engineering and materials science sectors, and works with entrepreneurs, startups and SMEs, alongside large corporations, research institutions and universities.

James has particular experience in the fields of electromechanical devices, power engineering, electronics, optics, imaging techniques and image processing, telecommunications, semiconductor devices, composite materials, surface treatment techniques, computer software and data processing algorithms.

Michael Stott
Partner
MJStott@mathys-squire.com

Michael is a Partner in our chemistry team and has extensive experience of drafting, prosecution and portfolio management, as well as conducting freedom to operate and patent landscape assessments for clients.

Michael has a diverse range of clients which include SMEs, universities and multinational corporations. He has a particular interest in working with technologies across the "farm to fork" innovation space. In addition to agri- tech and food chemistry and processing, Michael also has expertise in pharmaceuticals, chemical processing and catalysis, polymers, and materials chemistry.

Craig Titmus
Partner
CETitmus@mathys-squire.com

Craig is a Partner in our life sciences team and is based in our Cambridge office. He has significant experience of patent drafting and European and international patent prosecution, and he coordinates global IP strategies for a range of clients including startups, SMEs, universities, large corporations and the UK Government. Craig's practice covers a range of biotechnological subject matter, with a particular focus on vaccines, diagnostics, therapeutic antibodies, plant protection products and biofuels.

Craig's PhD was in collaboration with a multinational crop research company, focusing on environmental stress tolerance in plants and interfaces between metabolism and the cell cycle.

Mathys & Squire LLP

T +44 (0)20 7830 0000 // E info@mathys-squire.com // @Mathys_Squire // www.mathys-squire.com