

Basic Research, Patents, and Biotech Industry Breakthroughs



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The founding of Genentech fifty years ago marks the birth of biotech-based industry which has revolutionized how we treat disease, prevent disease, diagnose disease, eat, and clothe ourselves. Thanks to biotechnology we now live in a world where pure insulin is easily produced, pandemic-stemming vaccines are rolled out in less than a year, actionable diagnoses are obtained in minutes, and abundant food and fiber is produced at less cost. At this half-century mark, we look back at some of the basic research and patents that have brought us to this point.

Recombinant DNA itself was an outgrowth of basic studies in the early 1960s of how bacteria protect themselves from bacterial viruses by “modifying” their DNA while “restricting” the bacterial virus DNA. By 1970, the bacterial proteins which “restricted” (cut) the bacterial DNA were isolated and characterized. In 1980, the famed “Cohen-Boyer” patent entitled “Process for producing biologically functional molecular chimeras” was granted, acknowledging that the “invention was supported by generous grants of NIH, NSF and the American Cancer Society.” Cohen-Boyer claimed methods for replicating biologically functional DNAs and for producing foreign proteins. A true “technology platform” patent, Cohen-Boyer has since been hailed as “the gold standard” for university technology licensing with estimates of US\$35 billion in sales, 2,442 new products, and \$255 million in licensing income to Stanford University.

The recombinant DNA tools provided by Cohen-Boyer were soon applied to studies of bacteria which caused tumor formation in plants. By the late 1970’s, researchers had established that Agrobacterium DNA was stably integrated into plant DNA, shown that the DNA was active in the tumorous plant cells, and mapped key Agrobacterium genes involved in the tumor formation and DNA transfer process. In 1983, Monsanto filed a patent application which ultimately lead to a US Patent for “Genetically Transformed Plants.” This technology allows foreign genes which provide tolerance to insect pests and herbicides to be transferred to key crop plants including soybean and cotton. At present, at least 94% of US soybean acreage and at least 96% of US cotton acreage is dedicated to crops with insect and herbicide tolerance traits. The Monsanto patent was finally granted in 2012 following a lengthy dispute before the US Patent and Trademark Office as to the party which first invented the technology. As the Monsanto patent application was filed before the “first to file” law established by the America Invents Act that set patent expiration at 20 years from filing, the resultant Monsanto patent will expire in 2029.

Other examples of basic academic research which later lead to patents and significant biotech industry advances have followed. Studies of the worm *C. elegans* in the late 1990s led to the patenting of RNA interference “gene silencing” tools which have found their way to the clinic for disease control and to the field for crop pest control. Non-browning apples based on RNA interference have even found their way to the produce aisle as Arctic® Goldens, Arctic® Grannys, and Arctic® Fujis.

A stunning recent example of basic research resulting in patents and products is found in the CRISPR systems which allow for precise editing of human and plant genes. Unusual arrays of repeated DNA sequences in bacteria were first discovered in the late 1980s, studied throughout the 1990s, and ultimately identified as a bacterial immune system for controlling bacterial viruses in the mid to late 2000's. These studies later led to patents granted to both MIT and the Broad Institute and the Universities of California and Vienna. Many CRISPR generated food products ranging from seedless blackberries to low gluten wheat are currently in or on the path to market. In the clinic, the FDA has approved CASGEVY®, a CRISPR-based treatment for sickle cell disease and transfusion-dependent β -thalassemia with many more treatments in development.

As we mark the half-century mark of the biotech industry, it is fitting that its inception was sparked by basic research in bacterial resistance to bacterial viruses and its most recent breakthrough was sparked by basic research in bacterial resistance to bacterial viruses. We trust that the next half-century will also be marked by astounding advances in how we eat, how we treat disease, and hopefully even prevent disease, all driven by basic biotechnology research, patenting, and the biotech industry.

USPTO Addresses Patentability of Artificial Intelligence/Machine Learning Inventions



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In an area of law that is constantly evolving, recent activity by the United States Patent and Trademark Office (USPTO) has provided some level of clarification regarding patentability of software applications that include artificial intelligence (AI)/machine learning (ML).

On September 26, 2025, in Ex Parte Desjardins, Appeal No. 2024-000567 (PTAB September 26, 2025, Appeals Review Panel Decision), (hereinafter "Ex Parte Desjardins"), the Appeals Review Panel (ARP) vacated a new ground of rejection raised on appeal by the Patent Trial and Appeal Board (PTAB) of several claims related to training machine learning models.



The new ground of rejection was based on lack of subject matter eligibility under §101 wherein the PTAB asserted that the relevant claims were directed to non-statutory subject matter.

In vacating the new ground of rejection under §101 and holding that the relevant claims meet the standard for subject matter eligibility, the ARP made several key points. First, Ex Parte Desjardins seems to indicate that an improvement in training a machine learning model and/or an improvement in the operation of a machine learning model constitutes an improvement to computer technology, which has long been held by the courts as being favorable to patentability in terms of subject matter eligibility.

Second, Ex Parte Desjardins found the relevant claims to achieve subject matter eligibility under §101, at least in part, because the relevant claims reflect specific improvement(s) in the training and/or operation of the machine learning model wherein said specific improvement(s) are described in the specification.

Third, Ex Parte Desjardins dismisses the idea of categorically excluding AI/ML inventions from patent protection. Rather, Ex Parte Desjardins makes clear that AI/ML-focused inventions can be patentable.

Fourth, interestingly, Ex Parte Desjardins, notes that the statutory provisions related to novelty (35 U.S.C. §102), non-obviousness (35 U.S.C. §103), and specification/written description (35 U.S.C. §112) are “the traditional and appropriate tools to limit patent protection to its proper scope. These statutory provisions should be the focus of examination.” Notably, the ARP does not list §101 (governing subject matter eligibility) as a traditional tool to limit patent protection/scope.

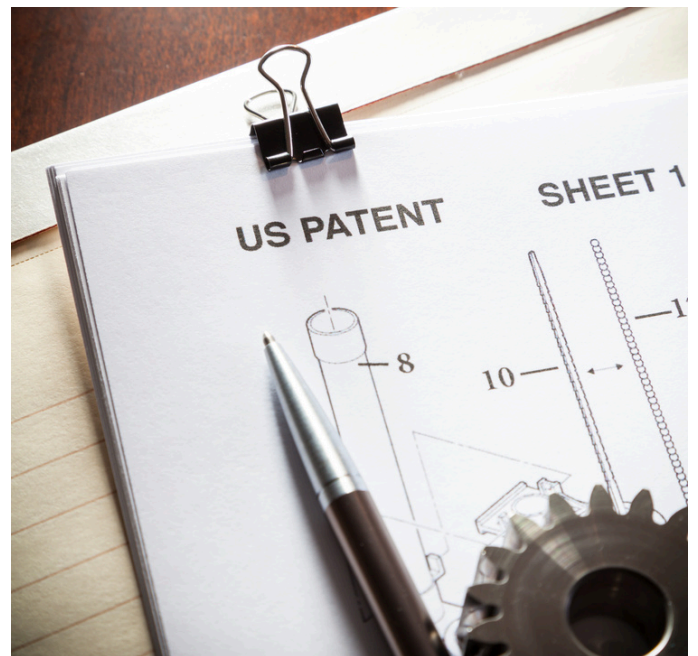
Then, on November 4, 2025, the USPTO designated Ex Parte Desjardins as precedential. Further, on December 5, 2025, the USPTO announced that sections of the Manual of Patent Examining Procedure (MPEP) will be updated to reflect Ex Parte Desjardins.

On December 31, 2025, in Ex Parte Carmody, Appeal No. 2025-002843 (PTAB December 31, 2025), the PTAB reversed a final rejection raised under §101 of several claims related to AI-based orchestration of marketing, sales, and customer lifecycle strategies.

In its decision, the PTAB notes that “the claims recite an improvement in training of models ...” and that “[t]he Specification explains the improvement achieved by these claim limitations ...”. Therefore, the PTAB concluded that the relevant claims were patent eligible under §101.

It seems that the recent activity will provide a boost to patentability of AI/ML-focused inventions. By making Ex Parte Desjardins precedential and updating the MPEP accordingly, patent practitioners now have explicit guidance with which to: (1) draft patent applications related to AI/ML model(s), and (2) to craft arguments to overcome a potential rejection of AI/ML-focused claims raised under §101. Patent practitioners/applicants have explicit support to argue that claim language reflecting an improvement in the operation and/or training of a machine learning model constitutes an improvement in the functioning of a computer, thereby rendering such claim language to be patent eligible.

When drafting a patent application related to an AI/ML invention, it is important that patent practitioners/applicants ensure that any improvement(s) in the operation and/or training of AI/ML model(s) is adequately described in the specification and that the claim language reflects such improvement(s). To accomplish this effectively, it is important to understand how such improvement(s) are achieved.



Fan Fiction in the Age of Digital Fandom: Navigating Copyright and Fair Use



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Fan fiction, abbreviated as “fanfic” refers to creative works produced by a fan that builds upon existing stories, characters, or universes from books, movies, television shows or other media. This genre has exploded in popularity with the rise of online platforms like Archive of Our Own (AO3), Wattpad, and FanFiction.net, where fans share stories featuring beloved characters in new scenarios. Fanfic has evolved from a niche hobby into a mainstream and culturally significant form of storytelling, with a major surge during the 2020 pandemic. AO3 alone features more than 77,090 fandoms, 10,230,000 users, and 17,010,000 works.

Fanfic exists in a legal gray area, as it often uses copyrighted material without permission, making it technically copyright infringement. Copyright law protects original works of authorship fixed in a tangible medium, such as literary works and films. In the United States, protection automatically applies upon creation and lasts for the author’s life plus 70 years, or longer for anonymous, pseudonymous, or works made for hire. The core tension between fanfic and copyright owners is the conflict between the owners' exclusive legal right to control, adapt, and profit from their original, copyrighted creations and the fan community's desire for creative expression, community building, and transformation of those works.

Fanfic typically qualifies as a “derivative work,” which is based on preexisting material that recasts, transforms, or adapts it. For example, a story based on Harry Potter, but told from Hermione’s point of view. Copyright holders have the exclusive right to make and authorize derivative works, meaning unauthorized fanfic could infringe on these rights if it reproduces substantial elements like character traits, settings, or plot points.

Assessing if a derivative work infringes copyright involves determining if it is substantially similar to the original’s protected expression. One test is whether an “ordinary observer” would recognize the new work as taken from the original. Even without verbatim copying, similarities in character personalities or visual elements can trigger liability. Importantly, ideas, facts, or general concepts (a wizard school) are not copyrightable, but their specific expression (Hogwarts) is. This distinction allows some leeway, but most fanfics cross into protected territory by directly referencing copyright elements. Fanfic is meant to expand on or reimagine existing works, fix unsatisfactory plot points, or continue discontinued storylines, necessarily using copyrighted elements.



Some fanfic may fall under the Fair Use doctrine. This doctrine permits limited use of copyrighted material without permission for purposes like criticism, commentary, news reporting, teaching, scholarship or research. Fair Use is assessed based on four factors: 1) the purpose and character of the use, including whether the use is of a commercial nature or is for nonprofit educational purposes; 2) the nature of the copyrighted work; 3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and 4) the effect on the potential market for or value of the original. Transformative works, those that add new expression, meaning or message, fare better under fair use. Non-commercial fanfic such as stories shared for free on fan sites like AO3, are more likely to qualify if it parodies, critiques, or explores themes not in the original.

A major flashpoint occurs when fanfic turns commercial. Selling fanfic or monetizing it through ads or publishing deals heightens infringement risks as it directly competes with the original's market and undermines the "non-commercial" Fair Use factor. Additionally, it gets the attention of the author. For example, the Star Trek fan film Axanar utilized crowd funding to produce a professional-quality film and then faced litigation from CBS and Paramount.

Attitudes toward non-commercialized fanfic vary. Creators can request removal of fanfic they assert is a derivative work by directly contacting the publishing site or through a cease-and-desist letter. Xing Li, editor of FanFiction.net, said it is their longstanding policy to respect the wishes of original writers and will remove or ban fanfic categories at their request. Furthermore, FanFiction.net maintains a list of authors who have requested that fanfic based on their work be removed. In contrast, AO3 (created by the non-profit Organization for Transformative Works) will not take down a work simply because the original author of the source material asks them to.



Some authors, like J.K. Rowling, seemingly enjoy fanfic. Rowling's literary agency said that she is flattered by the fact that there is such great interest in her Harry Potter series and that fans take the time to write their own stories. Her only concern is that the fanfic remains non-commercial and is not obscene. Others, like George R.R. Martin, author of A Song of Ice and Fire fantasy series, have publicly stated "I'm not a fan of fan fiction." Even though Martin dislikes fanfic, he doesn't actively police it. "My understanding of the law is that if I knew about it I would have to try and stop it, so just don't tell me about it and do what you want there."

These creators seem to acknowledge that fanfic can be a benefit by building a dedicated, passionate community that keeps the original work relevant, often acting as free marketing that boosts engagement and longevity. Fanfic can keep a series popular long after its release as fans continue to create content and discuss the work. For authors who also write fanfic, it serves as a low-stakes way to practice writing skills, experiment with new styles, and build confidence.

Engineering Gold: The Science Beneath Olympic Ice



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The grace and daring of athletes at the winter Olympics only arrives every four years, but the science behind the ice has been developing for decades. Much of that science is embodied in patented technologies designed to create the precise ice conditions elite athletes depend on.

While many of us have made ice, used ice, and even played on it, not all ice is the same. Physics and chemistry significantly impact ice conditions, and the speed of the ice depends on several carefully controlled factors.

Speed skaters desire hard, cold ice that allows for both powerful thrust and smooth glide enabling them to achieve an average pace of 35 miles per hour. Ice friction is key. Low friction reduces drag, to increase glide, but there must be some friction to allow adequate thrust. Many factors affect ice friction, including ice temperature, air temperature, humidity, and water purity.

Technically, a speed skater is skating directly on ice, but rather on a thin layer of water on top of the ice. At the molecular level, surface ice molecules behave more like liquid water than solid ice.

A skater's blade applies pressure to the ice, creating frictional heating which then melts the surface and creates a microscopic liquid layer. That layer of water is 1-3 microns thick. Anything thicker increases friction, thus reducing skating speed.

Grip and glide are inversely proportional. More grip means less glide, and visa versa. To achieve a proper balance of grip and glide, ideal ice temperature for speed skating is 15-17°F, with optimal air temperature of 59-61°F. Colder ice reduces grip, while warmer ice reduces glide.



Water quality also impacts the ice conditions. Interestingly, pure water is not used for speed skating ovals. Rather, water with some impurities helps the ice hold. However, impurities also lower the freezing temperature, and may disrupt the crystal lattice of the ice, to change the ice density and increase ice brittleness. Air humidity is also controlled, since too much humidity can create frost crystals on the surface of the ice, increasing friction and reducing speed.

In comparison, figure skating ice is softer, with a preferred temperature of 24-29°F. This warmer surface provides enhanced grip by the skater's blade edge and increases friction which is critical for jumps, spins, and landings. Figure skating rinks prefer to use pure water. Mineral-heavy (hard) water increases drag and will dull the blade edge. Ideal air temperatures range from 50-60°F, with humidity levels between 40-55%.

Hockey rinks maintain ice at 22-25°F to strike a balance between speed and blade control. Colder ice helps reduce chipping, which is important for the aggressive play of hockey. The ideal ice thickness for hockey is 1-1.5 inches, whereas figure skating ice is 1.5-2 inches, and speed skating ice is 1 inch. Surprisingly, thinner ice generally stays colder and is harder, while thicker ice can be warmer for impact absorption and safety.

Curling ice is different than speed skating, figure skating and hockey, in that the ice is sprinkled with purified water mist to create tiny, raised droplets that freeze into textured pebbles. Different size spray nozzles are used to form different size pebbles on the ice sheet. Similar to twisting the tip of a household spray bottle to shift from a mist to a stream, adjusting the nozzle

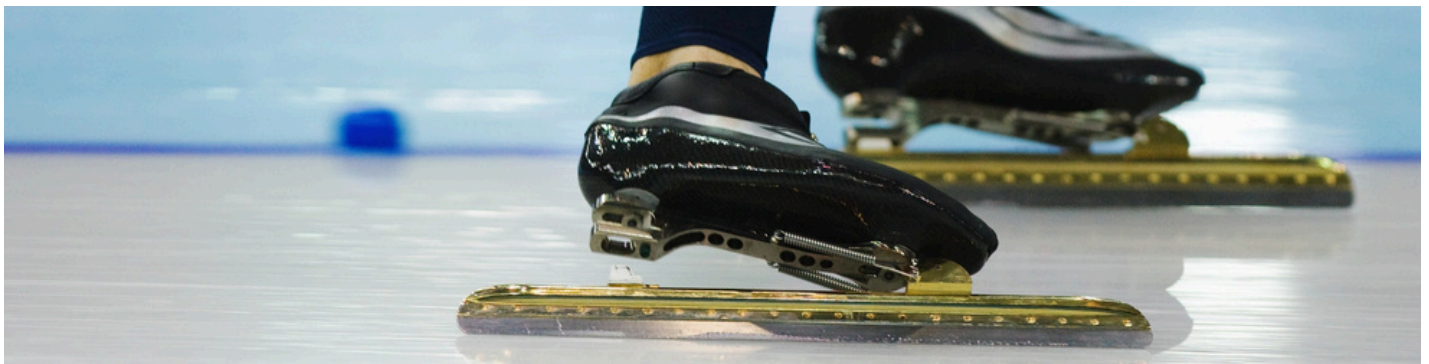
changes the droplet size, which ultimately determines the texture and performance of the pebbled ice surface. These pebbles reduce surface contact, allowing the 40-pound stones to slide further along the ice and curl predictably. The ice is scraped and re-misted after each game is completed.

Beyond the ice itself, sophisticated technology plays a major role in maintaining optimal performance conditions. Zamboni machines resurface the ice, filling in minor chips and imperfections to preserve smoothness and consistency.

Additionally, skate blades are specifically designed for each sport to maximize performance. For example, figure skating blades have a deeper groove and smaller radius than hockey skates, which allows for more "bite" onto the softer ice and more body angle for figure skaters. One of the earliest U.S. patents for skates was issued in 1847 to B.F. Shelabarger, #5,138. U.S. patent 508,755 issued in 1893 for an artificial ice-skating rink.

The Zamboni ice machine commonly seen at hockey games was patented in 1959, U.S. 2,64,679. A portable rink was protected by U.S. patent 2,874,549 issued in 1959. U.S. patent 4,953,366 covers chemical additives to water for making ice. Synthetic ice is described in U.S. patent 7344,788 granted in 2008.

Ideal ice depends on who is skating and why. With gold medals at stake, anything less than perfect may affect outcomes. If you have inventions worthy of gold medals, please contact us to assist in protecting your science, technology, and innovations.



Can You Patent Plant Innovation in India? Understanding of Section 3(h) of the Indian Patent Act, 1970



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Most plant innovation begins with a real problem in the field. A disease spreads faster than expected. A pest shows up earlier each year. A drought hits at the wrong time. Or a crop simply does not perform the way it should, even when everything looks right on paper. For companies and researchers working in plant genetics, crop protection, and agricultural biotechnology, these challenges lead to meaningful innovations: better formulations, improved delivery systems, stronger plant resilience, and smarter ways to protect yield. Before filing in India, many innovators ask one key question: **can we patent this in India?** The short answer is often yes, but India has patent eligibility rules that can surprise global applicants. One of the most important is **Section 3(h) of the Indian Patents Act, 1970.**

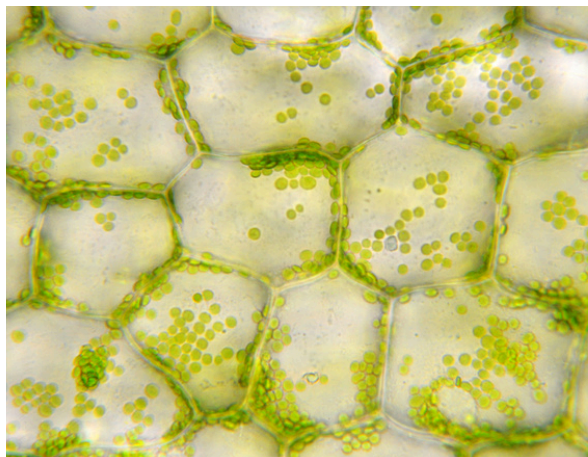
Section 3(h) states that a method of agriculture or horticulture is not patentable in India. The intent behind this exclusion is both practical and policy driven. India's patent system aims to encourage innovation while also protecting public interest, and agriculture is central to India's economy, society, and culture. The fundamental idea is straightforward: basic farming practices should remain available to farmers and the public, not locked behind patent rights. As a result, India generally does not allow patents for inventions that are essentially "how to farm," such as broad methods of growing, propagating, or cultivating plants using routine steps. For innovators accustomed to U.S. practice, where plant-related methods can often be patented if they are novel, non-obvious, and properly supported, this approach can feel unfamiliar. **Understanding this difference is especially important because India is a major global market for agricultural and plant-based innovation,** with crops such as cotton playing a critical role across agriculture and downstream industries. For U.S. innovators in plant genetics, crop protection, and gene-editing technologies, India represents a strategically important jurisdiction for long-term innovation and IP protection. In addition to patents, innovators developing new plant varieties should also be aware that India also provides protection through Plant Breeder's Rights (PBRs) under a separate statutory framework, which may be relevant where patent protection is limited by Section 3(h).

In practice, Section 3(h) can become tricky because the Indian Patents Act does not define "agriculture" or "horticulture". As a result, examiners often rely on guidance documents published by the Indian Patent Office (IPO), including the IPO Manual and biotechnology examination guidance. These materials include examples of subject matter that may fall under Section 3(h), such as methods of producing plants, methods of improving soil, methods of producing mushrooms, methods of cultivating algae, and methods for weed removal. IPO biotechnology guidance also suggests that conventional methods performed on actual open fields should generally be treated as agricultural or horticultural methods.



The practical takeaway is straightforward: **if a claim reads like a cultivation protocol, it is more likely to trigger a Section 3(h) objection.** That does not mean the invention is not innovative, but the claim language may resemble a routine field practice.

The challenge is that modern agriculture is not just “farming better.” It is biology, chemistry, and engineering working together. Today’s plant innovation includes not only crop protection solutions, but also advanced genetic tools that were never part of traditional plant breeding. Researchers are now using **gene editing platforms such as CRISPR and other targeted DNA editing approaches** to develop traits like improved disease resistance, stress tolerance, and better yield stability. These innovations reflect how plant science has evolved into a highly technical space, and why patentability questions today are very different from those that shaped conventional agricultural exclusions decades ago.



In addition, today’s plant innovation often includes technical interventions such as:

- **disease control treatments** with defined active agents
- **insect prevention strategies** with targeted delivery
- **seed treatments** for stress tolerance or improved vigor
- **microbial consortia** designed to support plant health
- **formulations** that improve stability, uptake, or field performance
- **gene regulation technologies**, including RNA based approaches
- **gene editing based trait development**, including CRISPR enabled interventions

Many of these inventions are highly technical and research driven. They are not traditional farming. They are scientific solutions to agricultural challenges. But in India, even technical inventions can face Section 3(h) objections if the claims are drafted in a way that resembles routine field activity. This is why Section 3(h) objections appear frequently in plant related prosecution, particularly when claims are written broadly as a “method of growing, propagating, or cultivating a plant” or a “method of controlling disease by applying” a composition. Sometimes the invention is strong, but the framing invites the objection.

The good news is that Indian courts have begun narrowing the application of Section 3(h). Over the last few years, Indian High Courts have issued decisions that are especially helpful for innovators in plant health and crop protection. The shared message is encouraging: Section 3(h) is not a blanket ban on every invention involving plants. Indian courts are emphasizing that Section 3(h) is meant to exclude traditional agricultural practices and should not be applied indiscriminately to technical innovations. Three recent decisions illustrate this trend and are shaping how innovators and patent professionals think about patenting plant related methods in India.

In *Decco Worldwide Post Harvest Holdings B.V. & Anr. v. The Controller of Patents and Designs* (Calcutta High Court, 2023), the applicant sought protection for a method of treating banana plants affected by Black Sigatoka, a fungal disease, using a fungicidal treatment. The IPO rejected the application under Section 3(h), treating it as a method of agriculture. The Calcutta High Court set aside the refusal, noting that the Controller had not sufficiently explained why a plant disease treatment method should be categorized as an agricultural method under Section 3(h). The Court emphasized that Section 3(h) is intended to cover traditional agricultural methods, and a technical plant treatment method should not be rejected without clear reasoning. The Court also clarified that IPO manuals are guidance tools and cannot override the statute. The matter was remanded for fresh examination. This decision supports the idea that plant disease treatment methods may be patentable and that Section 3(h) should not be applied mechanically.

In Mitsui Chemicals Inc. v. Controller of Patents (Delhi High Court, 2024), the invention related to preventing plant disease and insect damage. The IPO refused the application under Section 3(h) and also raised issues around amendments. The Delhi High Court set aside the refusal and remanded the case, emphasizing that the IPO must conduct a nuanced and detailed analysis. The Court stressed the importance of distinguishing between purely agricultural methods and technical or scientific solutions to agricultural problems. **This decision reinforces that India's patent system is not meant to block genuine innovation simply because it is used in agriculture, and it encourages a more balanced, reasoned approach at the examination stage.**

In Syngenta Crop Protection AG v. Assistant Controller of Patents and Designs (Delhi High Court, 2024), the invention involved controlling or preventing infestation of rice plants by a phytopathogenic microorganism. The IPO refused the application under Section 3(h). Syngenta appealed and also proposed amendments. The Delhi High Court allowed the appeal, permitted the amendments, and remanded the matter for de novo examination. The Court aligned with earlier decisions and confirmed that plant treatment inventions should not be excluded simply because they relate to agriculture. **This decision adds further momentum to the view that Section 3(h) should primarily exclude traditional practices, not technical plant treatment inventions.**

For innovators filing in India, these decisions show that **India can support patents in plant innovation but drafting strategy matters.** The Indian Courts appear to be drawing a line between what belongs in the public domain as conventional farming practice and what deserves patent protection as a technical advancement. Applicants can reduce Section 3(h) risk by avoiding claims that resemble routine farming steps. Instead, applicants should emphasize the technical contribution and ensure that the technical features of the invention are clear from the claims and specification.




In practice, a few strategies can improve the chances of smoother prosecution in India:

- **Avoid overly broad “method of growing, propagating, or cultivating” claim language** when possible
- **Highlight the technical features** that distinguish the invention from routine field practice
- **Include composition and formulation claims** as a strong anchor, especially for crop protection inventions
- **Support technical advantages in the specification**, such as improved efficacy, reduced resistance risk, or improved field stability
- For **gene editing or CRISPR related innovations**, clearly define the technical intervention and the claimed output, and avoid framing the invention as a general cultivation method

Section 3(h) is designed to keep traditional farming practices in the public domain, but modern plant science is increasingly technical, and recent court decisions show a trend toward a more balanced interpretation. For innovators, this is encouraging. **Patent protection in India is achievable, but it requires careful claim drafting and clear technical framing.**

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USPTO Required Use by Foreign Applicants and Patent Owners of a Patent Practitioner



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The United States Patent and Trademark Office (USPTO) is implementing a rule affecting foreign applicants and patent owners. The rule requires all foreign-domiciled applicants and patent owners to be represented by USPTO-registered practitioners (including attorneys and patent agents) for all matters before the USPTO. The final rule is set to be published in the Federal Register today, March 20, 2026, with an effective date of July 20, 2026.

Overview

The USPTO now requires all foreign-domiciled applicants, registrants, and parties to be represented by a USPTO-registered practitioner. This removes the ability of foreign applicants and patent owners to file matters pro se before the USPTO. This requirement applies to the filing and prosecution of patent applications, as well as to post-grant proceedings and other matters before the Office.

In practical terms, this means:

- Foreign applicants may no longer prosecute U.S. patent applications pro se or solely through non-U.S. counsel.
- A registered U.S. patent practitioner must be appointed to act on behalf of the applicant or patent owner in all USPTO matters.
- Submissions made without proper U.S. representation may not be accepted or may result in delays.

Rationale for Change

The rule change is intended to align U.S. practice with international norms and to improve the integrity and efficiency of patent prosecution. In particular, the Office has noted that the requirement:

- Treats foreign applicants and patent owners in a manner consistent with how U.S. applicants are required to proceed in many foreign jurisdictions, thereby promoting harmonization.
- Increases administrative efficiency, as the USPTO currently expends significant resources assisting pro se applicants.
- Enables more effective enforcement of statutory and regulatory requirements in patent matters.
- Enhances the USPTO's ability to address false certifications, misrepresentations, and fraudulent filings.

Enforcement

The USPTO has made clear that compliance with this requirement will be enforced procedurally through its existing signature and entry rules. This is expected to include:

- Unsigned or improperly signed papers will not be entered into the record of the application or patent (see, e.g., MPEP § 714.01).
- Submissions such as amendments and other replies, application data sheets, information disclosure statements, and petitions will not be entered unless they are signed by a registered U.S. patent practitioner.

Failure to appoint and act through a proper USPTO-registered practitioner may result in filings being disregarded, with adverse consequences for prosecution and deadlines.

If you have any ongoing matters or upcoming filings before the USPTO, please ensure that appropriate U.S. representation—namely, USPTO-registered patent attorneys or agents—is appointed in compliance with this rule.

The proposed rule was originally published in the Federal Register on December 29, 2025, and, following the comment period, was issued as a final rule on March 20, 2026 ([available here](#)).