Protection for Biological Inventions: The Limits of Patents In South Africa
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I. Introduction

The South African Patents Act No. 57 of 1978 (hereinafter referred to as The Patents Act) governs the law of patents in South Africa. The Patents Act has been amended several times, in 1979, 1983, 1986, 1988, 1996, 1997, 2001, and most recently in 2002. This e-brief will discuss patent law in South Africa. Specifically, this e-brief will focus on the following: the patentability of plants and animals in South Africa, the requirements of applying for a patent, examination of the patent application, publication and grant of a patent, and application for revocation of a patent.

II. Patentability of Plants and Animals

A patent is described as “a certificate in the prescribed form to the effect that a patent for an invention has been granted” in South Africa. The Patent Act of 1915 allowed the patenting of plant varieties. This provision was removed in 1979. The amended Patents Act denies patentability to inventions for any variety of animal or plant or any essentially biological process for the production of plants or animals, not being a microbiological process or the product of such a process. This language recognizes protection for both microbiological processes and microbiological products. Therefore microbiological processes and microbiological products of such processes resulting in plants and animals that are not confined to a single variety are patentable under South African law.
Conversely, varieties of plants and animals and essentially biological processes are not patentable in South Africa. The Patents Act does not define “microbiological processes” or “essentially biological.” Since South African courts have not interpreted “microbiological process” or “essentially biological” guidance can be obtained from other jurisdictions with similar language.

South African Intellectual Property law has traditionally been based on British law and recently on European law. Therefore insight can be obtained from looking at the European Patent Convention (EPC) to interpret the undefined terms in South African law. The European Patent Office Guidelines for Examination is a commonly used source to interpret these undefined terms. These guidelines define “microbiological process” as any process involving or performed upon or resulting in microbiological material. Additionally, the EPC defines "biological material" as any material containing genetic information and capable of reproducing itself or being reproduced in a biological system.

Under the EPC, inventions are patentable if they contain biological material, which is isolated from its natural environment or produced by means of a technical process even if it previously occurred in nature. This means simply because an invention exists in nature, does not mean that it cannot be patented if it is isolated from its natural environment.

Additionally, inventions are patentable if they pertain to plants or animals if the technical feasibility of the invention is not confined to a particular plant or animal variety. Plant and animal varieties receive no protection under patent law but are protected under the South African Plant Breeder's Rights Act. Under this act, variety is defined as:
any plant grouping within a single botanical taxon of the lowest known classification, which grouping, irrespective of whether or not the conditions for the grant of a plant breeder’s right are fully met, can be

(a) defined by the expression of the characteristics resulting from a given genotype or combination of genotypes;
(b) distinguished from any other plant grouping by the expression of at least one of the said characteristics; and
(c) considered as a unit with regard to its suitability for being propagated unchanged.\textsuperscript{xv}

In other words, inventions regarding plants and animals can be patented as long as the application for invention is not technically confined to a single plant or animal variety.\textsuperscript{xvi}

Finally, inventions are patentable if they contain microbiological or other technical processes, or a product obtained by means of such a process other than a plant or animal variety.\textsuperscript{xvii} Here, microbiological processes are defined as any process involving or performed upon or resulting in microbiological material.\textsuperscript{xviii}

Examples of non-patentable inventions in South Africa include: a variety of plant, a variety of animal, a biological process for the production of an animal, and a biological process for the production of a plant.\textsuperscript{xix} Examples of patentable inventions include a microbiological processes and products of microbiological processes.\textsuperscript{xx}

\textbf{III. Requirements of Patent Application}

Patent rights grant limited monopoly rights for a period of time.\textsuperscript{xxi} The duration of a patent is 20 years from the date of filing the patent application.\textsuperscript{xxii} In South Africa, an invention shall be patentable for an invention that:

1) is new\textsuperscript{xxiii}
2) involves an \textit{inventive step},\textsuperscript{xxiv} and
3) is capable of \textit{useful application}\textsuperscript{xxv}
An invention shall be considered *new* if it does not form part of the state of the art immediately before the priority date of that invention. State of the art is defined as all matter, which is made available to the public, in South Africa, or elsewhere by written, or oral description, by use, or in any other way. Therefore, any publication, public lecture, or broadcast of the invention anywhere in the world will destroy the novelty of an invention in South Africa. An *inventive step* shall be deemed to exist when “it is not obvious to a person skilled in the art, having regard to any matter which forms, immediately before the priority date of the invention, part of the state of the art..."

Persons eligible to apply for a patent include the inventor or inventors or any other person who has acquired from the inventor the right to apply for a patent. The Patents Act allows joint ownership by two or more applicants and indicates that in the absence of an agreement to the contrary, each shall have equal undivided shares in the application. The requirements for a patent application in South Africa include: 1) pay the prescribed fees, 2) supply a provisional specification or a complete specification, and 3) provide an address for service in South Africa.

The patent specification required on an application for a patent must either be a provisional patent specification or a complete patent specification. South Africa is one of a few countries to offer both provisional and complete patent applications. The advantage of a provisional application is that for a small amount of money it protects the invention's novelty during the time that the inventor develops, improves, and tests the invention. The provisional specification must merely fairly describe the invention, and a complete specification must be filed within 12 months of the provisional specification. Conversely, a complete specification must include: 1) an abstract of the invention, 2) sufficiently describe, ascertain, and where necessary,
illustrate or exemplify the invention and the manner in which it is to be performed by a person skilled in the art of such invention, \(^{xl}\) 3) end with a claim defining the invention for which protection is claimed, \(^{xli}\) 4) the claim shall relate to a single invention, be clear, and be fairly based on the matter disclosed in the specification, \(^{xlii}\) and 5) provide a drawing and illustration. \(^{xliii}\)

Complete specifications regarding microbiological processes or products thereof require samples of the microorganism to be supplied if the microorganism is not available to the public. \(^{xliv}\) This requirement recently became mandatory when South Africa acceded to the Budapest Treaty on the International Recognition of the Deposit of Micro-Organisms for the Purposes of Patent Procedure in 1997. \(^{xlv}\) However, even before this was mandatory, it was common practice to deposit such samples to satisfy the patentability requirements. \(^{xlvi}\)

**IV. Right of Priority**

Applications accompanied by a complete specification may claim priority from the following dates: \(^{xlvii}\) 1) date of filing an application for a provisional specification relating to the same subject matter, \(^{xlviii}\) 2) date of filing an application for complete specification relating to the same subject matter, \(^{xlix}\) or 3) the date of an application in a convention country\(^{l}\) relating to the same subject matter. When claiming priority, the prior application must have been filed not more than 12 months earlier, or on payment of the prescribed fee, not more than 15 months earlier than the date of the application claiming priority. \(^{li}\) No right of priority can be granted for previous applications relating to the same subject matter that have been withdrawn, abandoned, or refused. \(^{lii}\) If no right of priority is claimed on an application accompanied by provisional specification, within the 12-month time limit, the application will lapse. \(^{liii}\)
Examination of Patent Application

The Minister of Economic Affairs and Technology must appoint the Registrar of Patents who shall have chief control over the patents office. The Registrar shall maintain a register, which includes the names and addresses of applicants, the names and addresses of grantees of patents, and the subject matter and classifications of inventions. The Registrar examines patent applications for formal requirements only and does not perform a novelty search. This places the onus on the applicant to conduct a novelty search, which reveals prior existing patents for the invention in question. This search is not required but strongly encouraged. Either the applicant/inventor or the patent attorney can conduct such a search for existing patents. If the applicant chooses not to perform a novelty search, there is less certainty about the patent's validity. If the application is formally in order, the Registrar must accept it. A registered patent is considered prima facie evidence that it is valid.

This creates a situation where a patent is granted on procedural requirements and only when challenged in the courts is its compliance with the substantive patent requirements determined. Conversely patents have been granted for inventions, including genetically modified microorganisms, plants and animals. Only after these patents are challenged in the courts will their validity be determined. This is further complicated because litigating in South African courts is very costly. Generally the courts take a “pro-patentee approach.”

Publication and Grant of a Patent

As soon as complete specification has been accepted, the Registrar shall give written notice to the applicant. This notice shall include: 1) the date of acceptance of the
specification, and 2) a statement indicating that on the date of publication by the applicant in the patent journal the patent shall be deemed to be sealed and granted. As soon as practicable after the publication, the Registrar shall have the patent sealed with the seal of the patent office and such seal shall be deemed to have occurred on the date of publication in the patent journal. The patent shall have effect as of the date of publication.

Upon the grant of a patent, the patentee has the right to exclude other persons from making, using, exercising, disposing, or offering to dispose of, or importing the invention, as well as the right to enjoy the whole profit and advantage accruing by reason of the invention. Patent rights granted in South Africa are only applicable in South Africa. In other words, use of the invention anywhere other than South Africa does not infringe the South African patent rights.

I. Revocation Procedure of a Patent

As amended, the Patents Act does not allow objecting to the grant of a patent. Under the 1952 Patents Act patent there was a three-month opposition period after notice of acceptance where the grant of a patent could be opposed. The 1978 Patents Act abolished opposition proceedings. However, any person may at any time apply for the revocation of a patent after the patent has been granted. Filing for revocation of a patent must be based on the following grounds.
1. That the patentee is not a person entitled to apply for the patent
2. Fraudulent acquisition of rights;
3. Non-patentable invention;
4. The illustrations or examples in the complete specification being incapable of performance or unable to lead to results and advantages set out in the complete specification;
5. No full description and disclosure of the invention in the complete specification,
6. Claims not being clear or fairly based on matter disclosed;
7. False statement in declaration filed;
8. Invention being frivolous in that it is contrary to well-established natural laws or that the invention would encourage offensive or immoral behavior;
9. In case of microbiological processes or products, that no samples were supplied.

An application for revocation shall be served upon the patentee and shall be filed with the Registrar. The Commissioner of Patents shall decide whether the patent shall be revoked, amended, or upheld. Such decisions can be appealed in South African civil courts. In such cases, the court may affirm the commissioner's decision, vary the decision or set it aside. Additionally the court may take any other course that will lead to a just and speedy settlement of the case.

II. Conclusion

South Africa has created a patents system that provides protection for microbiological products and processes that result in plants and animals as long as these are not varieties of plants and animals and are not essentially biological processes. Patents may have been granted for varieties of plants and animals in South Africa since it is only an examining country. However, anyone can challenge the validity of these patents and request revocation at any time in South African Courts. Since South Africa is an examining patent country, it is in the best interest of an applicant to conduct a novelty search to increase the likelihood of the patent's validity.

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2 The Patents Act/Section 2(xiii)


4 Id.

5 The Patents Act/Section 25(4)(b)

6 Wolson, Rosemary A., Intellectual Property Rights and Biological Resources: Current Policy and Legislative Developments in South Africa in Bellman, Christophe; Dutfield, Graham; and Melendez-Ortiz, Ricardo, Trading in Knowledge: Development Perspectives on TRIPS, Trade and Sustainability, Chapter 28 page 267, [hereinafter referred to as Wolson], 2003

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Convention Country does not refer to one specific convention rather “convention country” is defined as “in relation to any provision of this Act, means any country, including any group of countries and any territory for whose international relations another country is responsible, which the President has with a view to the fulfillment of any treaty, convention, arrangement or engagement, by proclamation in the Gazette declared to be a convention country for the purposes of such provision; and the expressions “convention aircraft”, “convention land vehicle” and “convention vessel” have corresponding meanings.