

Book Review

Law of Plant Varieties Protection

by Elizabeth Verkey

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CHAMUNDEESWARI KUPPUSWAMY¹

*Law of Plant Varieties Protection*² is a monograph by Elizabeth Verkey who is based in Kerala, India. It is a comprehensive overview of legislation and case law regarding protection of plant varieties in different jurisdictions, both national and international. It also provides the reader with an overview of legislation in this area in advanced developed countries such as the United States and the United Kingdom and rapidly developing countries such as India. It is divided into five chapters and contains four annexures.

Chapter 1 is a generic introduction, quite well written, about plant breeding and its importance to agriculture. Agriculture has now moved from land to laboratory, and plant breeding is evidence for that. Plant breeding has advantages and disadvantages, and legislation is needed to protect against the disadvantages. In order to feed the world population, we will be faced with the issue of decreased land area and will require improved plant varieties with high yield which can be achieved through modern breeding programmes and biotechnology. On the other hand, biotechnology destroys genetic diversity, as it breeds uniformity, declares the author, and wild strains are raw materials for biotech and gene engineering.

Some basic and very helpful definitions are introduced. Genetic modification can be understood as “the process by which genes are introduced into organisms in a different way than that found in nature”. A plant variety is a “plant of a very specifically defined group, a sub-division within the species of the lowest known rank”.

The reader is introduced to the tensions involved in granting patent type protection to plant varieties and issues such as the non-patentability of life and the sidelining of farmers and other traditional actors in plant breeding are discussed. The author succinctly explains this. Gaining benefit from new technology, including DNA recombinant techniques, is expensive. Work begins in the laboratory and moves on to green houses before entering field trials. It requires skilled manpower, supported by state of the art equipment, thus making the whole process capital-intensive. The investment also involves high risk, making it less attractive for governments. The private sector is becoming involved increasingly in plant breeding. High risk and high investment requires that some form of incentive be put in place for the activity. The granting of temporary exclusive protection to new plant varieties promotes agricultural progress and rewards the plant breeder. Plant improvement through breeding is of great economic importance. Until recently, plant varieties developed through national or international breeding programmes were considered a public good, and were freely available to farmers.

Verkey concludes that plant varieties protection regimes and patent regimes seek to provide an incentive for inventors and innovators, and thus bring benefits for society. While the patent system functions well by laying out criteria for novelty, non-obviousness and industrial applicability, it is felt that these requirements should not be stringently applied. Protection of plant varieties through legislation that ensures all the necessary exceptions are made, and due recognition is given to farmers who play an important role in plant breeding, is the desired ideal.

Chapter 2 deals with the European Patent Convention, Plant Varieties Protection Certificates and the Biotechnology Directive. Verkey points out that the European Patent Office Guidelines are different from the provision in the Strasbourg Patent Convention that stipulates that “the Contracting States shall not be bound to provide for the grant of patents in respect of plant varieties”. So while the EPC directs a certain approach, the Strasbourg Convention leaves it open for states to decide. An interesting array of case law is discussed in this chapter starting from the *Propagating Material/Ciba-Geigy* case (1984). The author concludes the chapter on the positive note that Europe harbours a unified approach to the issue of protection of plant varieties. One is left in doubt about the usefulness of this unified approach in achieving the goals of protecting various interests. Perhaps it is a good first step.

Chapter 3, the “legal system of the United States”, starts with an historical account of how seeds had to be bred locally in order to suit the climate and environment of the US and the origin of its seed industry. The most interesting early case of *Latimer ex p.*, 1889 is discussed. In this case the Commissioner of patents rejected a patent application to cover a fibre identified in the needle of the pine tree, stating that it would be “unreasonable and impossible to allow patents upon the trees of the forest and the plants of the earth”. Contrast this with the plethora of case in the US relating to plant varieties and how they meet the patentability criteria. Very often courts have decided on a tenuous basis that these criteria have been satisfied. The US offers different routes for plant varieties protection - the Plant Patent Act and the Plant Variety Protection Act - and it is clear that despite difficulties there are clear economic advantages in applying for patents on plants.

The most interesting section of the book is chapter 4, on the law relating to plant varieties in India. The Protection of Plant Varieties and Farmers’ Rights Act, 2001 seeks to fulfil requirements laid out by the Trade Related Intellectual Property Rights (TRIPS) agreement for member states to enact *sui generis* system of protection. The Act seeks to recognise plant breeders and farmers’ rights and aims to establish an effective system for the protection of plant varieties. In a broader sense it sets out the legal framework established centrally by Parliament that conforms to the political agenda to alleviate poverty and make India self sufficient in food. As the author rightly points out, the Act would fulfil its purpose if it aids in the agricultural development of the country and also succeeds in protecting the rights of vulnerable groups such as farmers whose contribution in conserving, improving and making available plant genetic resources for development of new plant varieties is often ignored and sidelined.

The author touches upon changes in the legislative trend pertaining to seeds. The National Seeds Corporation came into existence in 1963, followed in 1966 by the

enactment of the Seeds Act in 1966, the express purpose of which was to regulate the quality of seeds that went on sale to farmers. Seed breeding was a public sector activity in India managed by national and state farm corporations in order to ensure that seeds are freely available for agriculture. The Indian Patent Act passed in 1970 specifically excluded seeds from being patented, but all that changes under the new regime where plant varieties are subject to proprietary rights. The author refers to the status of seeds in India prior to TRIPS as adhering to “the old principle of common heritage”, but there is no indication of what this means, and in the absence of any pointers (by way of footnotes or further explanation) as to how the common heritage concept should be understood, the reader is left to vaguely assume that it would mean seeds should not be considered as capable of being handled in a proprietary manner.

The chapter presents a clear discussion of important provisions in the 2001 Act and refers to numerous relevant cases from other jurisdictions such as the US, Australia and the UK. The Seeds Act and the broader political agenda is not taken up later in the chapter, and it would have made for a richer discussion if the objectives that brought about the Seeds Act were revisited and an assessment made as to how recent legislation lives up to those goals. For example, in the section discussing the prohibition of terminator and genetic use restriction technology in the 2001 Act, the author alludes, albeit briefly, to the health, environmental and developmental hazards posed by such technology. Similar evaluation could have been extended to other provisions. The discussion on farmers’ rights, traditional knowledge and benefit sharing, although highly relevant in this context, are left hanging loose from other sections in the chapter. While it is to be commended that India is the first country which included farmers’ rights in its protection of plant varieties law, it is unclear as to whether these are effective or even comprehensive. The author lists provisions relating to farmers’ rights without following it up with sufficient analysis.

Chapter 5 discusses the UPOV Convention, the International Treaty on Plant Genetic Resources for Food and Agriculture, the Trade Related Intellectual Property Rights Agreement and the Convention on Biological Diversity. A good descriptive account of these instruments forms the mainstay of this chapter and emphasis is laid on the global nature of the enterprise that is plant breeding and development of new plant varieties. An account of the political machinations behind these treaties is thought provoking, but brief. Terms such as benefit sharing are taken at face value without any probing into the so-called benefit sharing provisions. Passing remarks such as “The TRIPS Agreement and the CBD should be implemented in a mutually supportive and consistent manner” arouse the reader’s interest, but one is left wanting for at least a little bit more.

I was surprised that the author did not draw on a single reference to secondary material in the literature on law, politics and history relevant to land, agriculture and plants. Indeed, I found the whole volume very thin on secondary referencing. There is plenty by way of international, regional and national law and policy, all of them being legislation or case law. Primary sources have been well used, but the lack of reference to analytical work on primary sources casts a shadow on the whole work. This highlights another fact, that there is much less written directly on the subject matter, and in that sense, this book fills a void. But does it really?

The book is well stocked with annexures which contain the full text of Indian laws covering the Protection of Plant Varieties and Farmers' Rights Act, 2001, Protection of Plant Varieties and Farmers' Rights Rules, 2003, Biological Diversity Act, 2002 and Biological Diversity Rules, 2004.

All in all, Verkey's work is a good source book for information on laws on plant varieties in different jurisdictions and does a pretty good job of comparing some of this legislation, but it lacks critical observations supported by existing literature in the field. However, it is a brave attempt to write a book in an academic environment, particularly the legal academia where the culture of research and writing is meagre.

The book is 367 pages long; page 206 onwards is occupied by Annexes. It contains a well laid out table of cases and a good subject index. Published by Eastern Book Company from Lucknow in India, and priced at INR 450, it is not expensive, but readers outside India will not be able to easily access the book through local book stores.

¹ School of Law, University Of Sheffield, UK C.Kuppuswamy@sheffield.ac.uk

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