

INTELLECTUAL PROPERTY RIGHTS, ENHANCING THE GROWTH AND ITS CONSORTIUM IN HORTICULTURE SECTOR

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ABSTRACT: Intellectual property (IP) refers to creations of the mind inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. Intellectual property is the creation of human mind, human intellect and hence called “Intellectual property”. The intellectual property is created by incorporating information intangible objects capable of multiplying in an unlimited number of times at different locations anywhere in world. The property is basically in the concept, idea thought and thereafter in the actual product work or process etc.

Keywords; Intellectual Property, Scientific, Industrials

INTRODUCTION

Intellectual Property Rights (IPRs) is legal rights, which result from intellectual activity in industrial, scientific, literary and artistic fields. These rights safeguard creators and other producers of intellectual goods and services by granting them certain time limited rights to control their use. Protected IP rights like other property can be a matter of trade, which can be owned, sold or bought. These are intangible and non exhausted consumption. The term "intellectual property" denotes the specific legal rights which authors, inventors and other IP holders may hold and exercise, and not the intellectual work itself (Chadha, 2013). Intellectual property rights are essentially territorial in nature so, where registration is necessary, for patents, registered designs and trademarks, these will not exist in other countries unless registration has been sought and obtained there.

WHAT IS INTELLECTUAL PROPERTY?

Intellectual property (IP) refers to creations of the mind inventions, literary and artistic works, and symbols, names, images, and designs used in commerce. Intellectual property is the creation of human mind, human intellect and hence called “Intellectual property”. The intellectual property is created by incorporating information intangible objects capable of multiplying in an unlimited number of times at different locations anywhere in world. The property is basically in the concept, idea thought and thereafter in the actual product work or process etc.

WHY HAS INTELLECTUAL PROPERTY?

Intellectual property rights are justified on the grounds that they give creators and innovators an opportunity to make a return on their investment and provide incentive for creative or innovative activities. However, there is debate about the scope of intellectual property protection with particular concerns about the tension between:

- The need to promote and reward innovation and creativity, and
- The need to ensure freedom of expression, the flow of information and access to technology.

INTELLECT PROTECTION IN HORTICULTURE: A RATIONALE

Horticulture sector is playing an important role as the key to initiate the revolution in national and international commerce. Still the sector needs development and up-gradation in the issue of applied research. It is also ensuring the economy growth and creating employment opportunities and also upliftmen of the small and marginal farmers. India is the lead producer of many commodities like mango, banana, acid lime, coconut, areca nut, cashew, ginger, turmeric and black pepper. Further, it is the largest producer, consumer and exporter of spices and also called as "land of spices". Almost all the States in the country grow one or more spices. Presently, it is the second largest producer of fruits and vegetables in the world next to China. India has also made noticeable advancement in the production of flowers. Horticulture sector is growing as an organized sector. There is a strong need to strengthen the research on horticultural crops as well as protection of intellectual property. Without the protection of intellectual property no industry would invest in this sector (Clark and Jondle,2010).

ROLE OF IPRs IN HORTICULTURE

- ✘ IP protection in horticulture can take the form of patents, trademarks, geographical indications, copyrights, plant variety protection, and trade secrets. Each of these different types of statutory IP protection protects a different type of intellectual property and grants different rights to the owner. By using statutory IP protection strategically organizations can make the most of their own IP assets.
- ✘ Geographical indication is also giving a new dimension by providing incentive on international level. Darjling tea, Assam tea, Neelgiri tea, Dashehri and Bangenpalli Mangoes, Coorg orange, coffee, Kerala Nendarn Bananas, Cardamom from Kerala, Nagpur Oranges etc. are some of the examples which bring laurels to the country on one hand and uplifting the livelihood of the native of that area.
- ✘ Development of a new plant cultivar or variety, either by "traditional" breeding methods or by "modern" molecular modification, requires a lot of time and effort. To recover the costs of this

research and development, the breeder may seek to obtain exclusive marketing rights for the new variety.

- ✘ Keeping it a trade secret is one way to do this, as well as obtaining a plant patent, utility patent, or plant variety protection. The method chosen depends on the specific benefits and limitations of the protection, and the costs involved. Plant variety protection is a good choice for many breeders. Plant Variety Protection (PVP) is a patent on a sexually propagated plant variety.

✘ IP IS USUALLY DIVIDED INTO TWO BRANCHES

- ✘ Patents, Designs, Trade Marks and Geographical Indications which is also termed as **Industrial Property**. Writings, Musical works, Dramatic works, Audiovisual works, Paintings and Drawings, Sculptures, Photographic works, Architectural works, Sound recordings, Performance of musicians, Actors & singers and Broadcasts which is also termed as **Copyright and Neighboring Rights**.

Act	Rules	Ministry/Department
The Copyright Act, 1957 (amended in 1999)		Higher Education
The Patents Act, 1970 (as amended in 2005)	The Patents Rules, 2003 (amended in 2006)	Industrial Policy & Promotion
The Designs Act, 2000	The Designs Rules, 2001	Industrial Policy & Promotion
The Trade Marks Act, 1999	The Trade Marks Rules 2002	Industrial Policy & Promotion
The Geographical Indications of Goods (Registration and Protection) Act, 1999	The Geographical Indications of Goods Rules, 2002	Industrial Policy & Promotion
The Protection of Plant Varieties and Farmers' Rights Act, 2001	The Protection of Plant Varieties and Farmers' & Rules 2003	Agriculture and Cooperation

TRADE RELATED ASPECTS OF IPS AGREEMENT

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement administered by the World Trade Organization (WTO) that sets down minimum standards for many forms of intellectual property (IP) regulation. Specifically, TRIPS contains requirements that nations' laws must meet for: copyright rights, including the rights of performers, producers of sound recordings and broadcasting organizations; geographical indications, including appellations of origin; industrial designs; integrated circuit layout-designs;

patents; monopolies for the developers of new plant varieties; trademarks; trade dress; and undisclosed or confidential information. The TRIPS Agreement is part of that package. Therefore it applies to all WTO members.

WHAT IS WORLD IP ORGANIZATION?

The World Intellectual Property Organization (WIPO) was established by a convention of 14 July 1967, which entered into force in 1970. It has been a specialized agency of the United Nations since 1974, and administers a number of international unions or treaties in the area of intellectual property, such as the Paris and Berne Conventions. WIPO's objectives are to promote intellectual property protection throughout the world through cooperation among states and, where appropriate, in collaboration with any other international organization. WIPO's also aims to ensure administrative cooperation among the intellectual property unions created by the Paris and Berne Conventions and sub-treaties concluded by the members of the Paris Union.

WHAT IS A PATENT?

A patent is a protection given to a patentee for an invention for a limited term by the government for disclosing the invention.

- ✓ Right to exclude others from using your invention.
- ✓ Owner has a qualified right to use the invention.
- ✓ A conditional grant.
- ✓ Balance of rights and obligations.
- ✓ Subject to other laws of land.
- ✓ Granted to owner of invention/assignee.
- ✓ Period of patents - 20 Years.

CONDITIONS OF PATENTABILITY

Novelty: Invention not known to public prior to claim by inventor

Inventive Step: Invention would not be obvious to a person with ordinary skill in the art

Industrial Application: Invention can be made or used in any useful, practical activity as distinct from purely intellectual or aesthetic one

PATENTABILITY FILTER

- ✓ Prior use/ prior publication/ prior disclosure
- ✓ Industrial applicability
- ✓ Novelty
- ✓ Non-obviousness: inventiveness
- ✓ Section 3 - Not patentable
- ✓ Written description/enablement: requirements

- ✓ Application/specification/claims
- ✓ Patent prosecution
- ✓ Maintenance / Defense after grant

WHAT IS COPYRIGHTS?

Copyright is a legal term describing rights given to creators for their literary and artistic works. Copyright subsists in a work by virtue of creation; hence it's not mandatory to register. However, registering a copyright provides evidence that copyright subsists in the work and creator is the owner of the work. Creators often sell the rights to their works to individuals or companies best able to market the works in return for payment. These economic rights have a time limit, (other than photographs) is for life of author plus sixty years after creator's death. India's Copyright Act protects computer programs, among other "works of authorship". India has one of the most modern copyright laws in any country. In keeping with international copyright principles, the Indian Copyright Act provides that the copyright in an original book, including any "derivative work", will be owned by the individual who created it. This individual will enjoy the "economic rights" in the work, in addition to "moral rights", such as the right to attribution.

WHAT IS TRADE MARK?

A name of an enterprise or a mark capable of being represented graphically, distinguishing the goods or services of one person from those of others.

Trade Mark can be

- o Sign , words, letters, numbers,
- o Drawings, pictures, emblem,
- o Colours or combination of colours,
- o Shape of goods,
- o Graphic representation or packaging or
- o Any combination of the above
- **Service Marks include** banking, education, finance, insurance, real estate, entertainment, repairs, transport, conveying news and information, advertising etc.
- **Certification Trademarks:** Certified by the Proprietor as having characteristics like geographical origin, ingredients, quality e.g. Agmark, Woolmark Certification Mark cannot be used as a Trade Mark.

Certifies that the goods on which it is applied are made of 100% wool. It is registered in 140 countries and licensed to the companies which assure that they will comply with the strict standards set out by the Wool mark company, the owner of the mark. A trademark is a distinctive

sign that identifies certain goods or services as those produced or provided by a specific person or enterprise. It may be one or a combination of words, letters, and numerals. It helps consumers identify and purchase a product or service because its nature and quality, indicated by its unique trademark, meets their needs. The Trade Marks Act 1999 and the Trade Marks Rules 2002 came into force with effect from 15th September 2003. The Act enlarges the definition of "Mark" and "Trademark". It also provides for Registration of "Collective Marks" and "Service Marks" in addition to goods. Article 15 to 18 of TRIPS 185 provides that term of registration should not be for less than 7 years. In the Indian Act of 1999 the term of Registration is for 10 years and for renewal it is for a term of 10 years.

KINDS OF TRADEMARKS

- ✘ Marks on goods
- ✘ Service Marks
- ✘ Certification trademarks
- ✘ Collective Marks
- ✘ Well known marks
- ✘ Trade Names

WHAT IS GEOGRAPHICAL INDICATION?

Geographical Indication is an indication which identifies goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin.

- ✘ Explanation clarifies that GI need not be a geographical name e.g. Alphonso, Banganpalli Basmati
- ✘ Goods include goods of handicraft or of industry and also foodstuff.

Name or sign used on goods originating from specific geographical origin or location and possess qualities, reputation or characteristics that are essentially attributable to that place of origin. India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration & Protection) Act, 1999 has come into force with effect from 15th September 2003.

- Geographical Indications of Goods (Registration & Protection) Act, 1999
- Geographical Indications of Goods (Registration & Protection) Rules, 2002

Function of GIs: Geographical indications perform a variety of economic and other functions, which may depend on how producers use geographical indications and consumers view them.

i)Origin function: Designations operate as indicators of origin from which the products come or are in some other way connected.

ii)Quality Functions: Designations symbolize qualities which certain products have or which consumers associate them with and guarantee that they measure up to expectation.

iii)Investment or advertising function:Designations are ciphers around which investment in the promotion of a product is built and that investment is a value which deserves protection as such, even when there is no abuse arising from misrepresentations either about origin or quality.

iv) Culture protecting function: Designations protect culture by preserving traditional productions methods, habits of consumption and cultural identity.

REQUIREMENTS OF GIS APPLICATION

- ✘ The class of goods to which the geographical indication shall apply.
- ✘ A statement of how the geographical indication serves to designate the goods as originating from the concerned territory in respect of the quality, reputation or other characteristics which are due exclusively or essentially to the geographical environment, with its inherent natural, and human factors and the production or processing or preparation of which takes place in such territory or region or locality.
- ✘ The geographical map of the territory of the country or region or locality in the country in which the goods originate or are being manufactured. The particulars regarding the appearance of the geographical indication as to whether it is comprised of the words or figurative elements or both.
- ✘ A statement containing such particulars of the producers of the concerned goods, if any, proposed to be initially registered with the registration of the geographical indication as may be prescribed; and such other particulars as may be prescribed.

BENEFITS OF REGISTRATION OF GIS

- ✘ It confers legal protection to Geographical Indications in India,
- ✘ It prevents unauthorized use of a registered Geographical Indication by others.
- ✘ It boosts exports of Indian Geographical indications by providing legal Protection.
- ✘ It promotes economic Prosperity of Producers.
- ✘ It enables seeking legal protection in other WTO member countries.

Permissible Prominence of GIs: Geographical indications are, for purposes of the TRIPS Agreement, a type of intellectual property ("IP"). "Geographical Indications," ("GIs") are defined, under Article 22(1) of the TRIPS Agreement, as "indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographic origin.

- ❖ Geographical indications are valuable to producers from particular regions for the same reasons that trademarks are valuable.
- ❖ The registration of geographical indications confers certain rights on the registered proprietor and the authorized user and they can institute suit for infringements of geographical indications.

Table 1. Geographical indications registered of horticulture crops in India

S. No.	Geographical Indication	States
1	Coorg Orange	Karnataka
2	Banana Nanjanagud	Karnataka
3	Allhabad Surkha Guava	Uttar Pradesh
4	Eathomozhy Tall Coconut	Tamil Nadu
5	Laxman Bhog Mango	West Bengal
6	Khirsapati (Himsagar) Mango	West Bengal
7	Fazali Mango (Malda)	West Bengal
8	Virupakshi Hill Banana	Tamil Nadu
9	Sirumalai Hill Banana	Tamil Nadu
10	Mango Malihabadi Dussehari	Uttar Pradesh
11	Vazhakulam Pineapple	Kerala
12	Devanahalli Pomello	Karnataka
13	Appemidi Mango	Karnataka
14	Kamalapur Red Banana	Karnataka
15	Mahabaleshwar Strawberry	Maharashtra
16	Nashik Grapes	Maharashtra
17	Gir kesar Mango	Gujarat
18	Bangalore Blue Grape	Karnataka
19	Banganapalle (Baneshan, Safed) Mango	Andhra Pradesh
20	Darjeeling Tea (word and logo)	West Bengal
21	Kangra Tea	Himanchal Pradesh
22	Mysore Betel Leaf	Karnataka
23	Mysore Jasmine	Karnataka
24	Udupi Jasmine	Karnataka
25	Hadagali Jasmine	Karnataka

PROTECTION OF PLANT VARITIES

- ✘ Registrable varieties and criteria
 - New Varieties, Novelty, Distinctiveness, uniformity and stability
 - Extant varieties
 - Distinctiveness, uniformity and stability
- ✘ Persons who can Register
 - Breeders, farmers, universities, agricultural institutes
- ✘ Period of protection
 - 15 years for annual crops
 - 18 years for trees and vines

In India, plant variety protection bill titled “Protection of Plant Varieties and Farmers Rights Bill” was passed by the Lok Sabha on 9 August, 2001, is now a PVP Act under Department of Agriculture and Co-operation of ministry of Agriculture, GOI (Gautam *et al.*, 2012). This act “Protection of plant variety and Farmers Rights Act, 2001 was adopted to meet the obligation under Article 27(3) (b) of TRIPS Agreement, to protect rights of farmers and plant breeders and to encourage the development of new plant varieties. Protection of plant varieties in India was started by the Protection of Plant Varieties & Farmers Right Authority with 12 crop species in 2007 and presently, 65 crop species have been covered under PPV & FRA (Srivastava *et al.*, 2015). Out of these, many horticultural crops have been covered under PPV & FRA

Table 2.Horticultural crops covered under the PPV&FRA

Flowers	5	Rose (<i>Rosa</i> spp. other than <i>R. damascena</i>), Chrysanthemum, Bamboo Leaf Orchid or Boat Orchid, Spray Orchid, Vanda or Blue Orchid
Medicinal and Aromatics	5	Isabgol, Menthol Mint, Damask Rose, Periwinkle, Brahmi
Vegetables	9	Brinjal, Cabbage, Cauliflower, Garlic, Okra, Onion, Potato, Tomato, Field pea
Fruit crop	2	Mango, Coconut
Spices	4	Black pepper, Small cardamom, Turmeric, Ginger

WHAT IS DESIGNS?

- Indian Designs Act, 2000 & Rule, 2001 (amended up-to 2008).
- To promote and protect the design element of industrial production.
- Aimed to enact a detailed classification of design to conform to the international system
- To take care of the proliferation of design related activities in various fields.

Licensing of an IP

- Licence is a permission granted by an IP owner to another person to use the IP on agreed terms and conditions, while he continues to retain ownership of the IP
- Licensing creates an income source
- It establishes a legal framework for transfer of technology to a wider group of researchers and engineers
- Creates market presence for the technology or trademark

Licensing Conditions of IPRs

- Owners of IP prefer to transfer technology through licensing agreements only
- All rights or limited rights can be licensed
- Can be exclusive or non-exclusive or sole (owner and licensee)
- Most such agreements provide for royalty payment and non-transfer to a third party.
- Royalties can be upfront, part upfront and part % per production/sale, only % per production/sale
- The particular uses for which the IP can be used are also generally specified
- Needs to be careful about the Competition law

CONCLUSION

Intellectual property rights have never been more economically and politically important or controversial than they are today. Patents, copyrights, trademarks, industrial designs, and geographical indications are frequently mentioned in discussions and debates on such diverse topics as public health, food security, education, trade, industrial policy, traditional knowledge, biodiversity, biotechnology, the Internet, the entertainment and media industries. Geographical Indication is slowly gaining prominence in India. Due to diverse Indian agro climatic conditions we have large number of horticulture cultivars with specially characters which are distinct from other countries. Till date there are 19 registered fruit cultivars and 14 horticultural crops cultivars with Geographical Indication status and many more is follows in year to come. However there is an urgent need to aware the community/formers about the importance of Geographical Indication for their longer benefit. Much progress has been made for the advancement of horticulture sector. Rising investments have resulted in increased production and availability of horticultural produce in the rural and urban areas. Many schemes and policies have been introduced, from time to time, for upliftment and commercialization of the sector. Large number of investors are taking advantage of the existing potentials in the sector, as well as trying to explore the untapped potentials. There is a need to aware the researchers and associates regarding influence of the IPR. Government has introduced many facilitating centers at national

and state level. The need is to take advantage of these centers for the economic prosperity of the nation.

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