

New Zealand Plant Protection

Opportunities and Pitfalls
Implications for New Variety
Development



Plant Protection

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Opportunities and Pitfalls

Introduction

The development of any new variety of plant, especially a fruiting one where the fruit has commercial potential, is often a long and costly exercise, and one not undertaken lightly.

The opportunity to gain some form of protection to allow a plant breeder to recoup his costs and make a profit from his breeding investment would provide the necessary incentive to undertake such work.

In fact it could be argued that it is fundamentally right and necessary that breeders are given this protection. The benefits that accrue not only to the breeder, but also to the wider community and the country of origin through successful commercialisation of a new variety, are such that they should be protected. This is even more relevant if the plant produces a unique fruit.

Some form of protection for newly bred cultivars would provide the incentive and therefore encourage investment and effort into plant breeding in New Zealand.

The fact that this need is already recognised and a Plant Variety Rights Act exists in New Zealand would therefore come as no surprise to most.

But how aware are we of -

- The effectiveness of that Act?
- The pre-requisites it places on plant breeders?
- The process and time frames which must be followed?
- What existing fruits marketed in New Zealand are protected?

Logic then says that we must be asking whether New Zealand breeders are being given the same degree of protection as breeders from other countries. It would seem pertinent to draw comparisons with both Australia and America.

We must then look at the issue of international protection. The opportunity for commercial profit through the successful development of any new product is considerably enhanced if the protection given to it by New Zealand Law is carried over into the International marketplace.

Is such a concept a dream or reality?

If such protection is available, how is it gained, and maintained?

Finally one must examine the question of life after protection. As with any regimented environment there is usually a sunset clause. This is reality with Plant Protection. What steps then should owners of a variety right take to ensure continued exclusivity of their product?

The objectives of this report could therefore be summarized as being –

1. To gain an appreciation or knowledge of New Zealand's plant protection structure.
2. To compare that structure with countries to which we are closely aligned, with particular emphasis on any weaknesses or strengths of the relative legislations.
3. To critically examine international plant protection in order to identify risks to plant breeders in commercializing across borders.
4. To investigate ways in which plants and/or their byproducts, particularly fruit, can continue to create demand without legislative protection.

It is with these objectives in mind that this project was undertaken.

The New Zealand Convention

New Zealand's Plant Protection Structure

Plant breeders may obtain protection for their unique new varieties under the Plant Variety Rights (PVR) Act 1987 in a similar way as the developers of new computer software gain protection of their intellectual property and a return on investment under copyright law.

A grant of Plant Variety Rights gives the breeder the exclusive right to sell seed or reproductive material of the new variety, or he or she may license others to do this. The breeder is also entitled to collect royalties on the sale of seed or reproductive material.

In the case of vegetatively-propagated fruit varieties Plant Variety Rights gives the holder the additional exclusive right to propagate the protected variety for the purpose of the commercial production of fruit.

The holder of a grant of Plant Variety Rights may license others to produce for sale and to sell propagating material of the protected variety. Holders of rights commonly collect royalties from the commercialisation of their protected varieties.

This is no better typified than by using the Hort Research model. This State Owned Enterprise has an extensive breeding programme, from which it selects the most promising new varieties and protects them using a PVR.

It then licenses the propagating and marketing rights to relevant agents which may include nurseries, industry bodies, and marketing organisations.

Apples and kiwifruit provide a good example of the way in which this works. Hort Research holds the PVR but licenses Enza and Zespri for the exclusive worldwide marketing and distribution of its new varieties of apples or kiwifruit.

Both Enza and Zespri use Enza's specialist propagating and development subsidiary, the Fruit Industry Plant Improvement Agency (FIPIA) for the propagation and distribution of a variety.

Hort Research retains the PVR, and collects royalties from Zespri and Enza based on commercial sales.

As is the case with other types of proprietary rights, the holder of a grant may bring civil action against persons infringing his rights. For example the holder of a PVR would be entitled to seek an injunction against, or if appropriate claim damages from, another person who without permission from the holder deliberately sold seeds or plants of the protected variety.

While the protection given to a breeder by a grant of a PVR is somewhat similar to that given to an inventor by a patent grant, there are significant differences between these two forms of intellectual property rights. The term patent is not used when referring to plant protection.

While it may appear that any association with a plant protected under a PVR would automatically lead to prosecution, there are limits or exceptions to the rights of a grant holder. Other persons are free to grow or use a protected variety for non-commercial purposes. These most commonly would be for home cultivation and or consumption, or for the purpose of plant breeding.

It is interesting to note that the Act is very prescriptive in its definition of entitlement for a grant. Some examples of this are –

- A new variety is new if there has been no sale of the variety with the agreement of the owner in New Zealand for more than twelve months before the date of application, and overseas for more than six years in the case of a woody plant, and four years in all other cases.
- A new variety must be distinct, homogeneous, and stable.

Distinctness is further examined by stating that in order to be distinct it must be distinguishable by one or more characteristic from any other variety, and stability refers to the plant remaining true to type after numerous cycles of reproduction or multiplication.

With respect to being homogeneous, uniformity would be an adequate alternative description.

The Plant Varieties scheme is administered by the Commissioner of Plant Variety Rights. The PVR Office is determined by government, and is currently located at Lincoln in Canterbury.

Different plants have different procedures for determining their eligibility for a PVR grant. However in all cases candidate varieties are tested or evaluated in ground trials. With most types of fruit arrangements for the testing to occur at specified test centres. The Hort Research centres are the most common evaluating centres for fruit trees.

The period of evaluation could rightly be regarded as one of extreme risk. Here is a fruit for example, which has gone through rigorous selection processes before reaching the point where it is considered to have commercial value. What is to stop theft and sale between that point and the granting of a PVR?

The Act recognises this problem and overcomes it by granting Provisional Protection while an application is under consideration. It automatically applies once application is made and terminates either if the request is refused, or a grant issued.

As can be seen from this description, we have in New Zealand a mechanism endorsed by Government and set in Statute which offers protection to breeders of new and exciting cultivars.

However it must also be recognised that that is all it offers. It does not protect his interests. It provides the necessary legislation under which he or she can protect their investment. It does not do it for them.

It is up to the holder of the grant to issue licenses, and to take action against infringers of the Rights.

This is an important consideration for those wishing to commercialise a new variety, particularly if it is to extend into the sale of fruit.

A further consideration is the need to act early. It is important from any analysis of the Act, that any delay in making application could seriously compromise one's ability to obtain robust and defensible legislative protection. The control and management of sales, or the availability of fruit or propagating material and disclosures of information must be strictly managed.

To better understand how the New Zealand convention evolved, and to further the understanding of the strengths and weaknesses of the New Zealand system, some form of comparison needed to be undertaken.

For the purposes of this study, Australia and the United States were chosen.

When investigation commenced into the Australian system it quickly became apparent that striking similarities existed between the New Zealand and Australian systems. This similarity suggested some form of consultation on the blueprint. Further investigation revealed that this was partially correct.

UPOV - An International Convention

The blueprint comes in the form of an International Convention called UPOV, or the International Union for the Protection of new Varieties of Plants.

This is an intergovernmental organisation with headquarters in Geneva and was established after adoption of the Convention by a Diplomatic Conference in Paris in 1961. The Convention was called the International Convention for the Protection of New Varieties of Plants. The Convention entered into force in 1968, was revised in Geneva in 1972, 1978, and again in 1991. The 1991 Act entered into force on April 24 1998. The fact that this Convention has been modified and adapted over time is an important consideration. The differences between the 1978 and the 1991 Conventions will be examined in detail later in the paper for reasons which will be outlined.

The purpose of the UPOV Convention is to ensure that the member states of the union acknowledge the achievements of breeders of new plant varieties, by making available to them an exclusive property right, on the basis of a set of uniform and clearly defined principles. To be eligible for protection varieties have to be

- Distinct from existing commonly know varieties,
- Sufficiently uniform,
- Stable and
- New in the sense that they must not have been commercialized prior to certain dates established by reference to the date of the application for protection.

Both the 1978 and the 1991 Acts set out a minimum scope of protection and offer member States the possibility of taking national circumstances into account in their legislation.

UPOV has established a detailed set of general principles for the conduct of the examination of plant varieties for distinctness, uniformity and stability, and more specific guidelines for some 160 genera and species. These normative documents are progressively updated and extended to further genera and species. Their use is not limited to plant variety protection but extends to other areas such as national listing and seed certification.

The most intense co-operation between member states concerns the examination of plant varieties. It is based on arrangements whereby one member State conducts tests on behalf of others or whereby one member State accepts the test results produced by others as the

basis for its decision on the grant of a breeder's rights. Through such arrangements member states are able to minimise the cost of operating their protection systems and breeders are able to obtain protection in several countries at relatively low cost.

The UPOV member States and the UPOV Secretariat maintain contacts with and provide legal, administrative and technical assistance to the governments of a growing number of States expressing interest in the work of the Union and in the idea of plant variety protection. Regular contacts are also maintained with many intergovernmental and international non-governmental organisations.

The Council of UPOV consists of the representatives of the members of the Union. Each member that is a State has one vote in the Council. Under the 1991 Act, certain intergovernmental organisations may also become members of the Union. The Council is responsible for safeguarding the interests and encouraging the development of the Union and for adopting its programme and budget. The Council meets once a year in ordinary session. If necessary it is convened to meet in extraordinary session. The Council has established a number of Committees which meet once or twice a year.

By becoming a member of UPOV, a State signals its intention to protect plant breeders on the basis of principles that have gained worldwide recognition and support. It offers its own plant breeders the possibility of obtaining protection in other member States and provides an incentive to foreign breeders to invest in plant breeding and seed production on its own territory.

It has the opportunity through membership of UPOV to share in and benefit from the combined experience of the member States and to contribute to the worldwide promotion of plant breeding. A constant effort of intergovernmental co-operation is necessary to accomplish such an aim and this requires the support of a specialised secretariat.

The main activities of UPOV are concerned with promoting international harmonization and co-operation, mainly between its member States, and with assisting countries in the introduction of plant variety protection legislation. A smoothly operating international trade requires uniform, or at least mutually compatible rules.

The fact that the UPOV Convention defines the basic concepts of plant variety protection that must be included in the domestic laws of the members of the Union leads, in itself, to a great degree of harmony in those laws and in the practical operation of the protection systems. Such harmony is enhanced, firstly, through specific activities undertaken within UPOV leading to recommendations and model agreements and forms and secondly, through the fact that UPOV serves as a forum to exchange views and share experiences.

The Convention not only requires member states to provide protection for new varieties of plants, but also contains explicit and detailed rules on the conditions and arrangements for granting protection. It furthermore contains rules on the scope, the possible restrictions and exceptions, and the forfeiture of protection. It establishes, subject to

certain limitations, the principle of national treatment for plant breeders from other member States; this means that in any member State nationals or residents of another member State enjoy the same treatment as nationals or residents of that State. Finally it introduces the right of priority.

1978 verses 1991 – Important Differences

As indicated above, it is the difference in the provisions contained within the 1991 Act compared to the 1978 Act that is of most interest to this study, and therefore where appropriate these are highlighted and discussed further. The reason for this more rigorous examination is that while Australia has adopted the 1991 Act in its own legislation, New Zealand is yet to follow suit. Reasons for this, and accompanying implications, will be examined later in the paper.

Persons Entitled to Protection

The first point of difference is the definition of breeder. Under the 1978 Act, the breeder is entitled to protection whatever the origin, artificial or natural, of the initial variation from which his variety is derived. Accordingly, he may be the “discoverer” of his new plant variety. Under the 1991 Act, mere discovery is not sufficient. The breeder must also have developed his variety in order to secure protection.

Exclusive Right

The basic right of a breeder of a new plant variety which parties to the 1978 Act are required to recognise, is that his authorisation is required for:

- (i) the production for the purposes of commercial marketing of the propagating material, as such, of the new plant variety
- (ii) the offering for sale of the propagating material;
- (iii) the marketing of such material;
- (iv) the repeated use of the new plant variety for the commercial production of another variety; and
- (v) the commercial use of ornamental plants or parts thereof as propagating material in the production of ornamental plants or cut flowers.

It follows from the above, and is in fact expressly stated, that the use of a new variety as the initial source of variation for creating other new varieties and marketing them, is free.

Therefore the 1978 Act does not give the breeder any rights in the genes, the underlying genetic resource, which is contained in the variety.

The approach of the 1991 Act is quite different from that of the 1978 Act. Seven acts of exploitation are identified for which the breeder’s authorisation is required.

- (i) production or reproduction;
- (ii) conditioning for the purpose of propagation;
- (iii) offering for sale;
- (iv) selling or other marketing;
- (v) exporting;
- (vi) importing;
- (vii) stocking for any of these purposes.

The Act specifies two classes of material to which the above acts must relate, namely the propagating material, and the harvested material.

Most importantly however the 1991 Act specifies four subject matters to which the breeder's rights extend. They are:

- (i) the protected variety itself;
- (ii) varieties which are not clearly distinguishable from the protected variety;
- (iii) varieties which are essentially derived from the protected variety;
- (iv) varieties whose production requires the repeated use of the protected variety.

Finally the Act establishes three compulsory exceptions, namely acts done privately for non-commercial purposes, acts done for experimental purposes, and acts done for the purpose of breeding and exploiting other varieties.

Essential Derivation

A further issue of particular note to New Zealand breeders concerns essential derivation. Under the 1978 Act, any protected variety may be freely used as a source of initial variation to develop further varieties and any such variety may itself be protected and exploited without any obligation on the part of its breeder and users towards the breeder of the variety which was used as a source of the initial variation. These rules have, with certain exceptions, worked well in practice and have been reaffirmed in the 1999 Act.

However the rules did not prevent a person finding a mutation within a plant variety, or selecting some other minor variant from within a variety, from claiming protection for the mutant or variant with no authorisation from or recognition of the contribution to the final result of the original breeder. The lack of recognition of the contribution of the original breeder in such circumstances was generally considered to be unfair. Modern biotechnology has greatly increased the likelihood of such unfairness; it may take fifteen

years to develop a new variety but a mere three months to modify it by adding a gene in a laboratory. Under the 1978 Act the addition of a single gene could enable the biotechnologist responsible for the modification to claim protection for the modified variety without recognising any obligation to the original breeder.

The 1991 Diplomatic Conference considered that this situation could be a disincentive to the continued pursuit of classical plant breeding. The concept of essential derivation embodied in the 1991 Act is designed to ensure that the convention continues to provide an adequate incentive for plant breeding. Under that Act a variety which is essentially derived from a protected variety and which fulfills the normal protection criteria of novelty, distinctness, uniformity, and stability, may be the subject of protection but cannot be exploited without the authorisation of the breeder of the protected variety.

The issue of sports or beneficial mutations arising from their varieties is an important one for New Zealand breeders. The New Zealand PVR Act does not provide any rights over such essential derivations to the breeder of the initial variety. A grower who discovers a distinct mutation of a variety may therefore claim outright ownership of such a mutation. New Zealand variety owners are forced to contract under common law (licenses, trial and non- propagating contracts) to ensure their ownership of such a mutation is asserted. This is not however supported by New Zealand's current PVR legislation.

If propagating material of a protected variety is exported without consent, New Zealand variety owners also have no recourse under New Zealand PVR legislation. For this reason contracts under common law do generally include contractual provisions prohibiting export. For other parties not in legitimate possession of this plant material and not bound by contracts with the variety owner the only recourse is to prove that a theft has occurred which can prove difficult.

Right to National Treatment

One of the rights which States parties to the 1978 Act and/or the 1991 Act must recognize is the right that is known as national treatment: each member State must, as far as the protection of plant breeder's rights is concerned, give to the nationals and residents of all the other member States, and to legal persons having their headquarters there, the same treatment as its laws provide for its own nationals. Naturally, the conditions and formalities prescribed by the said law must be complied with.

A member State may, however, under the 1978 Act, limit the right to apply for protection of a variety to nationals or residents of those other member States which also apply that Act to the genus or species to which the variety belongs, in other words States in which varieties of that genus or species are also eligible for protection. A similar reciprocity rule may also be applied by a member State granting more exclusive rights to the basic rights envisaged under that Act, e.g. by granting exclusive rights in respect of the marketed product.

Neither of these reciprocity rules is included in the 1991 Act which requires the application of the national treatment principle without qualification.

Right of Priority

A further right which States parties to the 1978 and/or the 1991 Act must recognize is the so-called right of priority. The conditions under which it comes into existence and its effects are as follows.

Any breeder may file his first application for protection of a given plant variety in any of the member States. If he files an application for the same variety in any other member State within twelve months of the filing of the first application, this 'later' application will benefit from the right of priority. There are two main effects:

- (i) an application benefiting from a right of priority must be examined as if it were filed on the priority date, and
- (ii) the examination of the application may usually be deferred for two years.

Right to the Protection of the Denomination (Name)

Another right which States parties to the 1978 Act and/or the 1991 Act must recognize is the breeders rights to the protection of the denomination (name) of the new plant variety. This denomination is registered at the time the title of protection is issued and is destined to be the generic designation of the variety.

Protection means essentially that the denomination of a new plant variety registered in one of the member States may not be used, in any member State, as the denomination of another variety of the same or closely related botanical species. Member States also have to ensure that the free use of a registered denomination in connection with the variety is not hampered by other registered rights in the designation even after the protection of the variety has expired.

Genera and Species to Which the Convention Applies

Article 4 of the 1978 Act may be applied to all botanical genera and species. Member States must endeavor to apply it to the largest possible number of such genera and species. Any member State party to the 1978 Act must apply that Act to at least five genera or species when it becomes bound by the said Act, and must subsequently increase that number to at least ten within three years, to at least eighteen within six years and to at least twenty-four within eight years. Member States have tended to go well beyond these minimum numbers.

Article three of the 1991 Act fundamentally changes the provisions relating to the plant genera and species which are protected. Any member State party to the 1991 Act must grant and protect breeder's rights for all plant genera and species after a transitional period of five years when it is also bound by the 1978 Act and ten years when it is only

bound by the 1991 Act. Member States of the latter kind must protect a minimum of fifteen plant genera and species when first acceding to the Convention.

Conditions of Protection, Examination, and Duration.

Article 6 of the 1978 Act and Article 5 of the 1991 Act enumerate exhaustively the conditions to be fulfilled by each new variety for which protection is sought and forbid the imposing of other conditions (except formalities and payment of fees). The said conditions are:

- (i) Novelty. The variety must not – or, where the law of a State so provides, must not for more than one year – have been offered for sale or marketed with the consent of the breeder in the State where the applicant seeks protection, nor for more than four years (six in the case of grapevines and trees, including rootstocks) in any other State. The 1991 Act makes the one-year period of grace compulsory and requires that ‘propagating or harvested material of the variety ‘must not have been’ sold or otherwise disposed of to others.
- (ii) Distinctness. The variety must be clearly distinguishable by one or more important characteristics from any other variety whose existence is a matter of common knowledge.
- (iii) Uniformity. Subject to the variation that may be expected from the particular features of its mode of propagation, the variety must be sufficiently uniform.
- (iv) Stability. Subject to the variation that may be expected from the particular features of its mode of propagation, the variety must be stable in its essential characteristics.
- (v) Denomination. The variety must be given a denomination enabling it to be identified; the denomination must not be liable to mislead or to cause confusion as to the characteristics, value or identity of the new variety or the identity of the breeder.

The 1978 and the 1991 Acts allows protection to be granted only after the competent authority of the member State in which protection is sought has ascertained that the plant variety for which protection is sought fulfils the above criteria.

Article eight of the 1978 Act requires that the period of protection, counted from the date of issue of the title of protection, must be at least eighteen years for grapevines and trees, including rootstocks, and at least fifteen years for all other plants. Article 19 of the 1991 Act extends these minimum periods to twenty-five years and twenty years respectively.

Forms of Protection

The 1978 Act leaves each State party to the Act free to grant protection to new varieties of plants by means of a 'special title of protection', that is, a title specially created for new plant varieties – or a patent. Both forms of protection cannot, however, be provided for one and the same botanical genus or species, unless that was the practice in a State before October 31 1979, and that State wishes so to continue its practice when becoming a member of UPOV.

The 1991 Act contains no provision relating to the form of protection and requires only that adhering States protect all plant genera and species in accordance with the provisions of the 1991 Act.

New Zealand – the odd one out!

So why has New Zealand not adopted the 1991 UPOV Convention?

The primary reason is Waitangi Tribunal Claim 262. This claim deals with questions of ownership, rights or access to, and legislation for the management and protection of New Zealand's indigenous flora and fauna – including intellectual property rights.

Maori made submissions to the Plant Variety Rights Bill 1985. In those submissions a 'prior Maori interest to native genetic plant material resources' was asserted. It was submitted that the Plant Variety Rights Bill 'contravenes the principles of the Treaty of Waitangi and has a fundamental and prejudicial effect on the Maori interests arising under Article Two of the Treaty of Waitangi, to all native genetic plant resources known to and used by the Maori people'. Further it was submitted 'that native genetic plant resources known to and used by Maori people are "taonga" within Article 2 of the Treaty, that the Article guaranteed full exclusive and undisturbed possession, and that Maori interests in native genetic resources had never been voluntarily surrendered.

Enacting the Bill was alleged to have a "fundamental and prejudicial effect on the prior Maori interest".

It would be accurate to claim that little has changed in the way of attitude since that time. The same issues are at stake.

Therefore until this claim is resolved, it will be difficult to introduce new plant-related intellectual property rights (IRP) legislation in New Zealand.

Active support or championing for such legislative changes would also be required from government ministers in influential portfolios. Such support is unlikely to be forthcoming while Maori objections such as outlined above are predominant. Parliament would quite simply be reluctant to address a controversial issue such as this.

The interest of Iwi to trademark Maori names would have interesting repercussions. Under current New Zealand legislation it is impossible to protect names that are already in common usage. It would require a significant shift to provide for a special case where cultural rights took precedence over current legislation.

This section of the paper set out to investigate alternative plant protection mechanisms from around the world, and commenced with a focus on Australia. The presence of UPOV as the underpinning framework highlighted the similarities between the two countries legislations. Investigation however revealed that each country had adopted different versions of the UPOV Convention – Australia with the latest 1991 Convention, and New Zealand with the 1978 version.

It became necessary then to examine the differences between the 1978 Convention and the 1991 Convention to identify the primary differences between the New Zealand and

Australian systems. This process revealed the deficiencies of the New Zealand system in a changing world environment.

This is starkly brought home, particularly to those who rely on returns from protected plants for their incomes.

Science has now provided the tools with which to make simple modifications to a plants structure in a short space of time – months as opposed to years. The New Zealand law as it exists currently provides no protection for the breeder for this short-cut exploitation. A similar situation exists for one off 'sports' or mutations, which can be proven to contain the fundamental requirements of stability etc to qualify as a new variety.

To allay fears of mass commercial exploitation a cursory examination of the apple and kiwifruit industries was undertaken. Both industries have new and now commercial varieties providing exciting returns to this country. The kiwifruit industry with its new Zespri Gold is furthermore extending its plantings to northern hemisphere countries. How have these industries protected themselves from the dangers revealed?

As stated earlier in this paper, it is neither Zespri, nor Enza, who hold the plant protection rights. These are held by Hort Research. An examination of the contracts which exist between the parties shows that considerable effort has been made to shore up the gaps identified in this study. This is done using intellectual property legislation.

The agreements specify that the one off sports and mutations identified above as putting industries at risk, all remain the property of the original license holder. Furthermore Hort Research in their contract require licenced parties to include these conditions in any contract they have with outside parties involved with the growing of plants concerned. In other words the conditions must run back to back between all contracting parties.

Three examples of the terminology used in such contracts are included to illustrate the lengths it is necessary to go to provide the appropriate protection.

Ownership Rights

3. We (Hort Research) own the plants, and plant material, and anything relating to them. Our ownership rights extend to any and all of the following:
 - Mutations
 - Sucker growth
 - Offspring
 - Plant variety rights
 - Any other improvements
4. The list in clause 8 does not limit our ownership rights. You must sign any documents we reasonably require, and do everything reasonably necessary, to vest, or confirm, our ownership rights.
5. You will not seek any plant variety rights for any other plants, plant material or anything relating to them.

1. The varieties and any essentially derived varieties (as defined in Article 14, 5(b) and (c) of the 1991 text of the UPOV Convention), including sports and mutations, which may arise from the varieties remain the property of Hort Research. The grower shall take all reasonable precautions to protect Hort Research's interests and will immediately notify Hort Research should any essentially derived varieties arise from the varieties.

5. INTELLECTUAL PROPERTY RIGHTS

5.1 Acknowledgement Hort Research is the Owner

5.1.1 The licensee agrees and acknowledges that Hort Research is the exclusive owner of all right, title and interest in the Variety, Plant Material and Fruit, including, but not limited to, any propriety right and PVR, or similar right applied for and granted, in respect of the Variety.

Hort Research and NZKMB further agree and/or acknowledge that any improvements to, or developments (including sports or mutations) of the Variety of which they become aware will be immediately disclosed to the other and become the exclusive property of Hort Research. However Hort Research will either extend this licence or enter into new licence agreements with the licensee for such improvements to, or developments (including any sport or mutation) of the Variety for which Hort Research is able to obtain PVR, on the same terms as this Agreement.

The issue of whether statute might hold sway over such contractual arrangements has not been tested in court. Growers of new varieties protected under such agreements hope it never will be.

It is a fundamentally wrong that in a country that relies so heavily on produce from the land, and which contains within its ranks innovative people with world wide credentials, that flawed legislation gives opportunity for these resources to be in effect stolen.

Different Again – An American Perspective

To round out this section of the study and provide a more balanced perspective of the plant protection environment world wide, a look at the American system was undertaken. This is an important country from the perspective of the New Zealand apple and Kiwifruit industries. Both are commercializing plantings of new and protected varieties.

Although the USA is a UPOV member, the Plant Variety Protection legislation offered in the USA does not cover asexually reproduced plants (except tubers). Legislative protection for asexually produced plants in USA is offered in the form of a Plant Patent. One of the conditions the USA placed on its becoming a UPOV signatory was that they could continue to provide protection for asexually produced plants under their existing Plant Patent legislation.

The system is administered by the United States Patent and Trademark Office (USPTO) and has evolved from the Utility Patent system, and some general rules to maintaining novelty apply. A United States Plant Patent will be granted to an inventor (or their assigns) where they have invented or discovered (provided there is an inventive step), and are able to asexually reproduce, a distinct and new variety of plant.

A USPP is granted for a period of 20 years from the date of filing the application, and protects the inventor's rights to exclude others from asexually reproducing, selling, or using the plants so reproduced.

There is a defined process for application and examination of the application before a grant will be made. To be eligible for a grant of a USPP, the novelty of a variety must be maintained prior to the application being filed. The two key elements that can contribute to a loss of novelty are disclosure and availability.

The United States Patent and Trademark Office (USPTO) recently changed its interpretation of the current legislation and announced a new policy which will affect the timeframe within which variety owners outside the USA must apply for US plant patents.

A plant variety is now not eligible for a USPP if:

- There has been a prior grant of UPOV Plant Variety Rights in respect of a variety in any part of the world. The deadline for filing a USPP has effectively become one year from the filing of the first UPOV application for a variety.
- The variety has been described in any printed publication more than one year prior to the USPP filing date, where the plant material is available anywhere in the world.

The USPTO is reluctant to define a 'printed publication'. They have indicated they consider a printed publication to be:

- Any information available on the internet
- Any reference to a variety that specifically identifies it i.e. by breeder code or denomination
- Any reference that allows descriptive information on the variety to be discovered i.e. available publicly, whether that is in the same context as the disclosure of the name or not.

The previous more liberal interpretation by the USPTO meant that a plant patent would be granted within the UPOV time limits (four or six years) from the first commercial sale. A Plant Variety Right was not considered by the USPTO to be a prior patent, and publications relating to varieties were not considered to be enabling disclosures because the 'invention' could not be put into use without the availability of plant material.

The change in interpretation will mean variety owners outside the US will in many cases be making USPP applications when they have no plant material in the USA and where assumptions will have to be made about agronomic performance and potential return on investment in that market.

In Conclusion – Life After Protection

As has been identified in all of the legislation examined, protection of a variety is for a limited period of time. Time frames in the region of 20 years are normal.

What then are the mechanisms available to breeders, or marketers in particular to protect the uniqueness of their product?

There is nothing in common law that does this. The assumption is that after this period of time the variety has either been superseded by a 'new and improved' variety, or has established itself to the extent that no protection is necessary.

The alternative, and probably only other option available is branding. Examples of this strategy abound. One needs look no further than Enza, Zespri, or the most recent Fonterra to identify products in which a strong and ring-fenced identity has sought to protect a unique product.

Kiwifruit probably missed the boat 30 years ago with its Hayward variety, but by establishing Zespri as a strong and widely recognisable brand, and naming its new product Zespri Gold, considerable protection over and above the PVR, which currently exists, was provided.

This was strongly brought home to the author on a recent visit to Italy. In a large fruit market in a major tourist city a very evident sign advertised 'New Zealand Kiwifruit' for sale. Closer inspection revealed that the produce advertised was a 'product of Chile'. The claim was not incorrect – it was New Zealand Kiwifruit, grown from plants exported from New Zealand. But the vital ingredients of taste and quality were missing. A sign advertising Zespri Kiwifruit could not be misused in this manner.

It is not the intention of this paper to examine in-depth the issue of branding. It is simply to identify it as a tool available to protect a product after PVR protection ceases.

The choice of a Brand name is probably the most important ingredient when evaluating the chances of success.

To conclude it is interesting to look at the latest Brand to be launched in New Zealand. How would Fonterra rate as a brand name. Dr Marcus Wilson of Auckland University was scathing, saying Fonterra does not mean anything in Latin!
Is this a prerequisite?

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