



ADVISORY COUNCIL ON INTELLECTUAL PROPERTY

Consideration of the exclusion of plant and animal subject matter from the innovation patent

Differences between
an innovation patent
and other forms of IP

Subject Matter Protected

Plant Breeders' Rights	Innovation Patent	Standard Patent
<p>“Plant variety”</p> <ul style="list-style-type: none"> • inc. fungi and algae <p>But <u>not</u>:</p> <ul style="list-style-type: none"> • bacteria • bacteroids • mycoplasmas • viruses • viroids • bacteriophages 	<p>“Manner of manufacture”</p> <p>But <u>not</u>:</p> <ul style="list-style-type: none"> • human beings • biological processes for generation of humans • plants/animals (ex. from microbio process) • biological (ex. microbio.) processes for generation of plants/animals 	<p>“Manner of manufacture”</p> <p>But <u>not</u>:</p> <ul style="list-style-type: none"> • human beings • biological processes for generation of humans

Requirements for Protection

Plant Breeders' Rights	Innovation Patent	Standard Patent
Distinctiveness Uniformity Stability	Novelty Innovative step Usefulness	Novelty Inventive step Usefulness

Examination and Grant

Plant Breeders' Rights	Innovation Patent	Standard Patent
<p>Acceptance</p> <ul style="list-style-type: none"> • upon compliance with formalities • can't sue until grant <p>Examination</p> <ul style="list-style-type: none"> • compulsory (within 12 months of acceptance) <p>Grant</p> <ul style="list-style-type: none"> • upon successful examination 	<p>Acceptance</p> <ul style="list-style-type: none"> • upon compliance with formalities • can't sue until certification <p>Examination</p> <ul style="list-style-type: none"> • optional (upon request or order of court) <p>Certification</p> <ul style="list-style-type: none"> • upon successful examination 	<p>Acceptance</p> <ul style="list-style-type: none"> • upon successful examination • can't sue until grant <p>Examination</p> <ul style="list-style-type: none"> • compulsory (on request within period) <p>Grant</p> <ul style="list-style-type: none"> • upon acceptance and no (successful) opposition

Exclusive Rights

Plant Breeders' Rights	Innovation Patent	Standard Patent
<p>Re “propagating material of the variety”:</p> <ul style="list-style-type: none"> • produce/reproduce • condition for propagation • offer for sale • sell/import/export • stock for above 	<p>Re product “invention”:</p> <ul style="list-style-type: none"> • make • use • offer to make/sell • hire/sell/import • keep for above <p>Re process “invention”:</p> <ul style="list-style-type: none"> • use • exploit a resulting product 	<p>Re product “invention”:</p> <ul style="list-style-type: none"> • make • use • offer to make/sell • sell/import • keep for above <p>Re process “invention”:</p> <ul style="list-style-type: none"> • use • exploit a resulting product

Scope of Rights

Plant Breeders' Rights	Innovation Patent	Standard Patent
<p>“Plant variety”</p> <p>“Essentially derived variety”</p> <ul style="list-style-type: none"> • predominantly derived • retaining essential characteristics • no important (non-cosmetic) differences <p>“Dependent variety”</p> <ul style="list-style-type: none"> • not clearly distinguishable • reproducible only by repeated use 	<p>“Invention”</p> <p>“Essentially the invention”</p> <ul style="list-style-type: none"> • retaining essential integers of invention • no important differences 	<p>“Invention”</p> <p>“Essentially the invention”</p> <ul style="list-style-type: none"> • retaining essential integers of invention • no important differences

Exceptions to Infringement

Plant Breeders' Rights	Innovation Patent	Standard Patent
Private and non-commercial use Experimental use Breeding other plant varieties Farm saved seed Compulsory licence	Compulsory licence Prior use	Compulsory licence Prior use

Duration of Rights

Plant Breeders' Rights	Innovation Patent	Standard Patent
20 years 25 years for trees and vines	8 years	20 years

The innovation
patent so far

As at May 2003

- 2021 innovation patent applications applications (1.3 applications per applicant).
- 70% from individuals.
- 30% from organisations.
- This compares with about 15% individuals, 85% organisations for standard patents. (The innovation patent was targeted at SMEs).

Country of origin - innovation patent

The great majority of innovation applicants are Australian, with an unusually high proportion of Taiwanese:

	Australia	Taiwan	US	Other
Individual	92%	6%	1%	1%
Organisation	82%	6%	4%	8%

Country of origin - standard patent

US	Australia	Japan	Germany	UK	other
50%	15%	10%	8%	7%	10%

Multinationals

Only about 5% of innovation patent applicants from organisations are recognisable multinationals such as: Fuji Xerox, Aristocrat, BHP, Black & Decker, SmithKline Beecham, Speedo, Ramset, Wang etc.

No corresponding figures for Standard patents are available, but it is thought to be much higher.

Public sector research

Less than 1% of innovation patent applicants are public research organisations (eg, government, universities, CSIRO etc).

This compares with about 9% for Standard patents from Australian applicants.

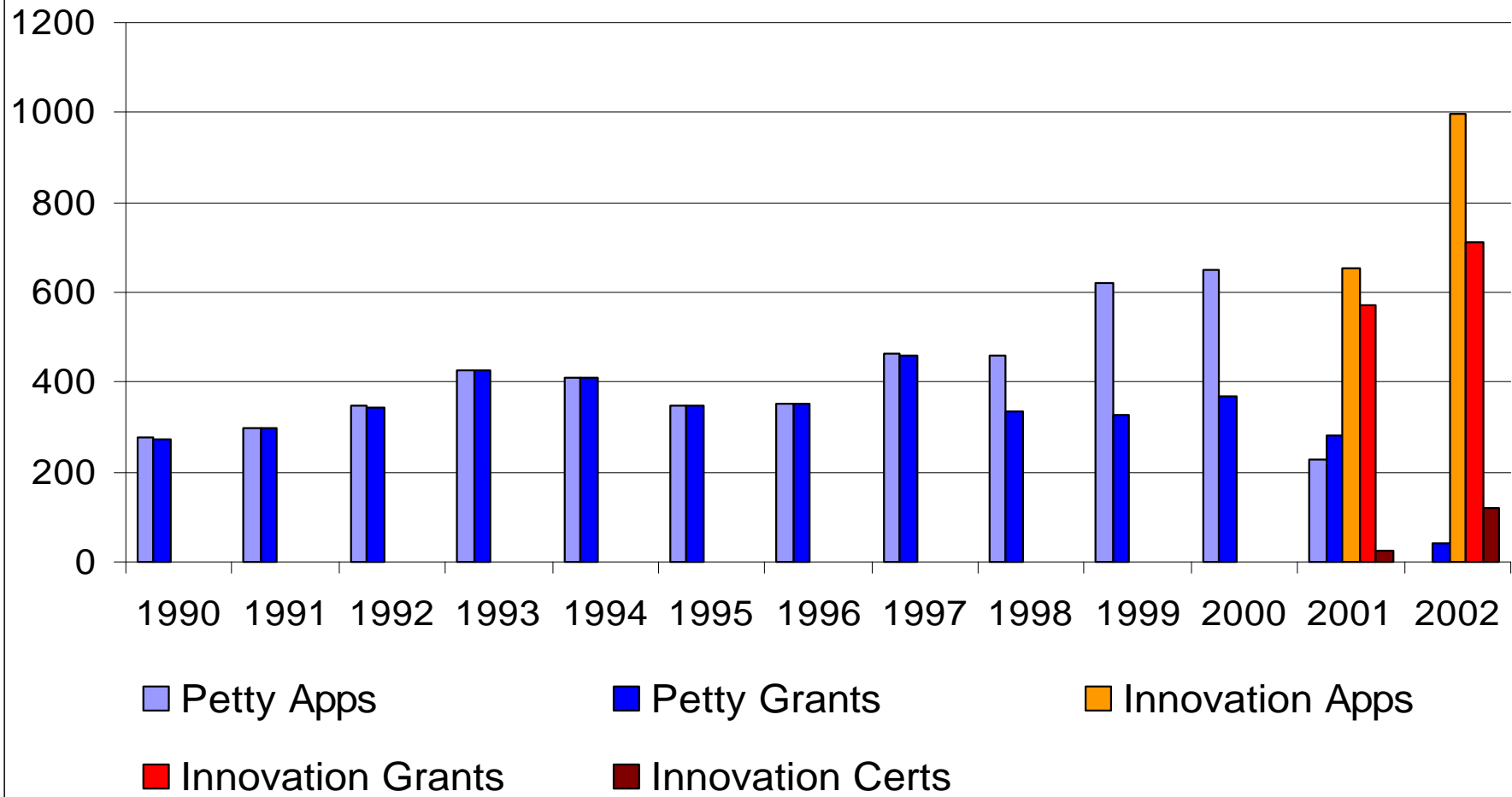
Standard Patent *(excludes PCT designations not entering nation phase)*

- 73% of applications granted.

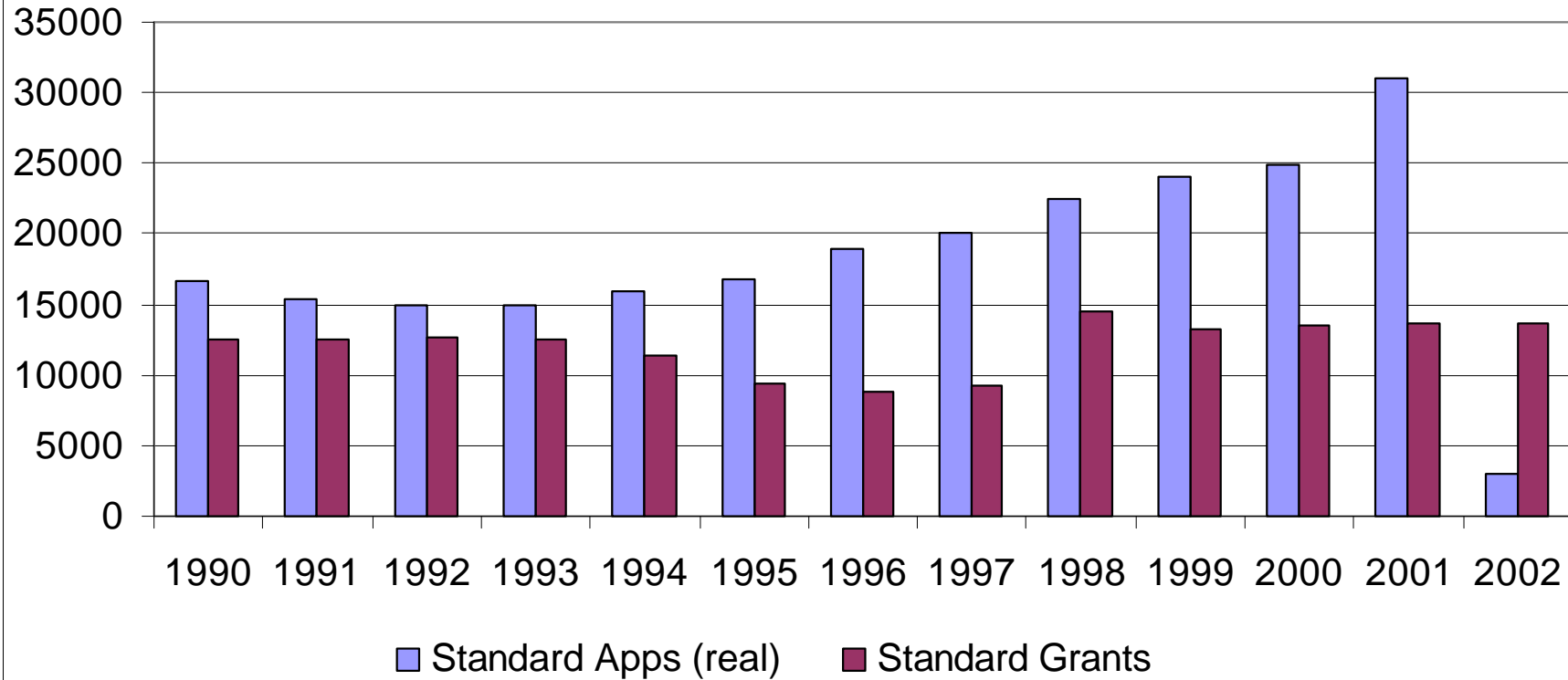
Innovation Patent

- Approx 10% of applications are examined;
- of these, approx 70% certified.

Petty and Innovation Activity 90-02



Standard Patent Activity 90-02 (2002 application data incomplete due to PCT delays)



The top 6 subjects of innovation patent applications are :

- 22% Consumer goods & equipment
- 11% Civil engineering, building, mining
- 9% Information technology
- 9% Transport
- 7% Handling, printing
- 6% Agriculture/food machinery.

By comparison, the top 6 subjects for standard patents are:

- 10% Organic fine chemicals
- 9% Pharmaceuticals, cosmetics
- 7% Medical engineering
- 7% Telecommunications
- 6% Biotechnology
- 5% Instrumentation - measurement & control

Responses to
questions asked by
ACIP

1. Is the current "gap" in IP protection for inventions with a lower level of threshold, that involve plant and animal subject matter, seen as an existing or potential problem?

Gap

- innovation patent available for all other technologies;
- incremental improvements (eg, minor genetic changes) can circumvent PBRs;
- plant & animal researchers unable to file a divisional patent application to take prompt action against infringers;
- need to protect short life cycle innovation;
- need to protect biological processes for plant generation.

No Gap

- Some submissions said either that there is not a gap, or if there is a gap, it is less pronounced for plant matter than animal subject matter.

2. Given the existence of the standard patent system and the PBR system, is there a need for those involved with plant and animal subject matter R&D in Australia to be able to protect their research with the innovation patent?

A need for an innovation patent

- innovation patent may complement the standard patent and PBRs (different needs for different R&D outcomes);
- useful for incremental changes, eg, minor genetic changes which may render a PBR inoperative;
- would allow speedier infringement action;
- To encourage R&D by providing IP protection for all subject areas.

No need for innovation patent

- Patent owners should be encouraged to use standard patents to assist the patenting process in other countries.
- A number of parties said that because they would not use innovation patents, there is no need for that particular patent.

3. What, if any, are the national benefits of excluding plant and animal subject matter from the innovation patent?

No benefit from exclusion

- None, other than a problem with lack of farm saved seeds provisions;
- No innovation patent can mean less reward for R&D, and in turn, less R&D;
- Can be a dis-benefit - patenting promotes innovation and public disclosure, which leads to a national benefit.

Benefits from exclusion

- Farmer saved seeds maintained if using PBR;
- Lower threshold for an innovation patent could tie up further R&D;
- PBR offers better protection thereby encouraging R&D

4. What impact would the innovation patent have on non IP right holders were it to include plant and animal subject matter?

Positive

- Unlikely to have a negative impact, particularly given the coverage of a standard patent;
- would be treated the same as other technologies;
- Although an innovation patent could be used to restrict rights of growers to retain seed, so can a PBR coupled with contract law. Given the reliance of end point royalties, the IP owner would not want to restrict adoption of varieties;
- R&D agencies have right to protect their IP, consistent with the user pays principle;

Positive (continued)

- Users of IP can obtain access to material through negotiation with IP owners;
- Patents could assist IP development where access to breeding material rather than commercial varieties is more efficient;
- The shorter protection for an innovation patent when compared to a standard patent may be an advantage to growers;

Positive (continued)

- Innovation patents for plants may increase costs for users, but they may benefit however by further innovation if the innovation patent encourages research;
- While the lack of farmer saved seeds could impact on growers, this could be addressed by amendment of the legislation.

Negative

- non-IP right holders may be denied ability to continue research;
- may lead to an IP right for a discovery rather than an invention;
- lack of farmer saved seed provision.

Other issues raised in submissions

- **Inventive step as opposed to discovery** -
Confusion over whether an innovation patent may be granted for mere discovery.
- **Lower threshold could lock up research** -
Concern that further research will be limited by other parties securing an innovation patent in certain areas (where a standard patent could not have been granted).

Other issues (continued)

- **No automatic examination may result in a lack of clarity -**
Concern that if there is no examination, there may be uncertainty for both the patent owner and other parties as to whether the patent would survive a challenge.
- **Constitutional doubts -**
Claims that there are reservations by some about the constitutional validity of the innovation patent.

Other issues (continued)

- **The limitations of PBR -**

Competitors can make minor genetic changes to circumvent PBR, whereas an innovation patent could still provide protection to the party which invested in R&D.

- **Micro-organisms -**

Call for at least a limited exclusion for micro-organisms from the innovation patent system.

Other issues (continued)

- **Biological processes -**

It would be acceptable for the innovation patent to cover biological processes leading to new plant genotypes.