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**TESTING THE FIRST VARIETY IN A SPECIES AND THE IDENTIFICATION OF  
VARIETIES OF COMMON KNOWLEDGE**

*Document prepared by experts from New Zealand*

## TESTING THE FIRST VARIETY IN A SPECIES AND THE IDENTIFICATION OF VARIETIES OF COMMON KNOWLEDGE

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### Introduction

New Zealand has experienced a number of problems in the DUS testing of the first variety in a species. In particular, a variety belonging to a species that is not present in New Zealand. When a variety is claimed as a first variety in the species, it is assumed that there are no varieties of common knowledge. This probably will be correct from a national view, however from an international view there may be varieties of common knowledge. The problem then is should the overseas varieties be considered and if yes, how can they be accurately and practically utilized as varieties for comparative DUS testing? In the course of tackling this problem in New Zealand, more general problems associated with the identification of varieties of common knowledge for all varieties under test were identified.

From reports at the TWO, other countries are encountering similar problems. This document is intended to generate discussion and perhaps some practical solutions that would be useful to all UPOV member States. The increasing international incidence of DUS testing of a first variety in a species and the associated difficulties could be partly caused by the 1991 UPOV Convention. Article 3 requires that the whole plant kingdom be open for protection.

### Testing the First Variety in a Species

#### The First Assumption

The UPOV Convention requires that the candidate variety be established as distinct from any other known variety at the time of application. In order that the term variety is clearly understood it is useful to define what is a variety.

The 1991 UPOV Convention defines a variety as a plant grouping within a single botanical taxon. Such a grouping can be:

- defined by the expression of the characteristics resulting from a given genotype or combination of genotypes
- distinguished from any other plant grouping by the expression of at least one of the said characters
- considered as a unit with regard to its suitability for being propagated unchanged

The definition of a variety is particularly important in DUS testing the “first variety in a species” because the first assumption is that there are no other varieties for comparison. If this assumption is correct then an inter-varietal comparison would not be possible and the variety would be distinct. What if this assumption is not true?

To help answer this question and in the determination of varieties of common knowledge it is useful to look at how the first variety originated. The following examples demonstrate how a first variety in a species could have originated.

- Clonal reproduction from an individual seedling in the general population. In this case the new variety would have uniformity and all other forms of the species would be variable seedlings. There would probably not be any varieties of common knowledge.
- Clonal selection for a desired attribute or form. It is possible that other clonal forms exist in the general population. These other clonal forms would be varieties of common knowledge under the 1991 UPOV Convention.
- Seed propagated variety selected for a particular character from the general population. In this case it is possible that varieties of common knowledge would exist.

Each of the above examples has a feature which gives some indication as to the likely existence of varieties of common knowledge. This information helps in deciding whether or not a variety really is the first variety in the species.

### Newness

The determination of distinctness is not the only unusual part of applications for first varieties in species. The question of newness may have to be examined with extra care, especially for discoveries. A candidate variety could be not new if it had been commercially available as an unnamed selection then later named and an application for protection lodged. The application for protection may not have occurred in the variety's country of origin. Many first varieties in species are discoveries from the wild or the garden. For these varieties the national authority must have sufficient evidence to prove that variety development has occurred. The 1991 UPOV Convention requires that discoveries must have an element of development.

### The First Variety in a Species from a Taxa not Present in your Country

A variety from a species completely new to your country adds an additional factor to the problems of testing a first variety in the species. This is a practical problem experienced by many national authorities carrying out DUS testing. Varieties of common knowledge must be determined in the usual manner, but a comparative growing trial cannot be undertaken in any form, even to reference the variety against other type species. How can a testing authority be certain that this variety is distinct and not well known in its country of origin?

A theoretical solution is the use of published descriptions of the species and a growing trial of the variety. Such a growing trial is not part of the UPOV testing system and this

method is not really useful. Any DUS decision should be based upon side by side comparative growing trials. If this is not possible, what other options do we have?

A solution that New Zealand is considering for the testing of these types of varieties, is for the applicant to provide the plant material for any varieties of common knowledge and/or species material for reference. This is in accordance with Article 12 of the 1991 UPOV Convention where the authority may require the breeder to furnish all the necessary information, documents or material. This plant material would have to be imported and used for the DUS trial. All costs involved with the importation would be paid for by the applicant. The applicant may be asked to maintain this imported material as it could be needed again for the DUS testing of subsequent varieties. One applicant involved with these types of varieties has not raised any real objections to this suggestion. This would allow a useful and meaningful comparative growing trial in New Zealand.

#### The Identification of Varieties of Common Knowledge.

Problems in testing a first variety in a species are often caused by how a variety of common knowledge is determined. These problems not only apply to first varieties in species but are common to all varieties. The determination of varieties of common knowledge are important to all variety testing.

The 1991 UPOV Convention does not provide a standard definition for a variety of common knowledge in the same way as it does for a variety. The 1978 UPOV Convention does and there is a clear understanding within UPOV member states as to what a variety of common knowledge means. The broadest definition of a variety of common knowledge would be any variety in commerce, on public display, under Plant Variety Rights, described or included in literature, or generally known to the public.

The following is a New Zealand example of DUS testing a first variety in the species and the identification of varieties of common knowledge.

#### A Case Study of *Lavandula Dentata* Variety “Monet”

This was the first application received for a variety of *Lavandula dentata* L. During the standard process of determining whether or not there were any varieties of common knowledge, a number of unnamed forms of *L. dentata* were identified in commerce. All these forms were propagated vegetatively. Under the 1991 Convention these commercial forms of the species met the definition of a variety and were determined to be varieties of common knowledge. The DUS growing trial was planned to include plants of these forms. There were some problems in the practical identification and supply of representative plant material. Nurseries that maintained stock plants of *L. dentata* did not know where the original material came from or if any selection work was involved. Eventually it was decided to randomly select sample plants from several commercial sources. As a result, two main forms were identified: a darker colored flower form and a lighter colored flower form. The result of the comparative trial found “Monet” to be indistinct from the darker colored flower form of *L. dentata*.

Plants of both colored flower forms were planted in the Plant Variety Rights *Lavandula* reference collection to ensure that the same comparative plant material is used for any future *L. dentata* varieties tested.

Having a complete and accurate set of varieties of common knowledge in any DUS trial is not easy to achieve, particularly if a known similar variety is not cultivated in your country. New Zealand has adopted a working policy for agricultural varieties that defines a variety of common knowledge. This working policy was drawn up with the assistance and approval of breeders. The working policy states:

A variety becomes one of common knowledge:

(a) as soon as it is sold or offered for sale in New Zealand and an acceptable description is supplied to the Plant Variety Rights Office.

(b) when an application for Plant Variety Rights has been accepted by the Plant Variety Rights Office.

A variety ceases to be one of common knowledge when seed is no longer available from the maintainer or merchants, provided also that there is no need under the Plant Variety Rights Act for continued recognition of the variety.

The agreed working policy acknowledges that, although unlikely, there may be situations where the policy conflicts with Plant Variety Rights law. In the case of a conflict, the law must be followed. The law may require a variety not grown or commonly grown in New Zealand or a variety that is no longer commercially available in New Zealand be recognized as a variety of common knowledge.

The above working policy is a compromise between the absolute requirements of the UPOV Convention and the practical realities of DUS testing. The working policy does not routinely include overseas varieties of common knowledge, however their exclusion is not absolute. The regular exclusion of overseas varieties of common knowledge is common practice among member states. When you consider that ornamental varieties move freely from one country to another and one variety could easily be available worldwide, should this practice continue?

One solution is to cooperate with each other and exchange variety descriptions. Unfortunately this practice of growing a candidate variety and comparing the variety with a written description of a similar variety, goes against the UPOV system of DUS comparative growing trials. Perhaps we should go back to the applicants and require them to supply plant material of the similar overseas variety as suggested in the testing of a first variety in the species?

There is not an easy answer to the questions asked. The inclusion of all known varieties of common knowledge worldwide would mean larger more expensive trials. It would also increase time in planning and research, prior to the test trial. The benefit would be a grant of rights for that variety that a national authority could have increased confidence in the result.

Another solution could be found in the increasing crop testing specialization seen in particularly the European UPOV member states. A UPOV member state with a complete collection of varieties of common knowledge for a single genus or species could establish itself as a regional or international test centre. This state could provide test reports for many countries. The sale of test reports could help offset the costs of maintaining the collection and running large trials. The use of another countries test report to replace or reduce your own DUS testing has a number of serious limitations, especially between countries in different climatic regions.

### Conclusion

National authorities who test new varieties should aim to achieve an acceptable compromise between the absolute requirements of the UPOV convention and the practical realities of testing. This ideal balance is tested in cases involving a first variety in a species. In such cases, the testing authority has no experience with the species but is required to make a technically sound DUS recommendation. The experience that a testing authority lacks could be held by the breeder. It is important with first varieties in species that the breeder and the testing authority have some level of working cooperation. There is always a risk that a variety of common knowledge is missed out or that a discovery from the wild is not actually a variety. The ability to later nullify or cancel a breeder's right can correct an earlier error. However, this should only be used as a last option.

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