

This is my submission to the PVR Regulations: Proposal to amend quantities of seed required with the application proposed by the Ministry of Business, Innovation and Employment (MBIE) to seek feedback on this draft of the proposed new Plant Variety Rights (PVR) regulations. Accordingly, the Intellectual Property Office of New Zealand.

I am focusing my submission on the procedures, specifically the quantities of seeds required to be provided with a PVR application. I have looked into the PVR application proposed revisions to these seeds' quantities. I have also suggested some other sources to be taken into account for such revision on the quantity of seeds for PVR applications which could alter in a significant fashion the results of the conduct of tests for distinctiveness, uniformity and stability.

Please see below the *PVR Regulations: Proposal to Amend quantities of seed required with an application* as presented for public comments and my further observations after reading this draft and other NZ PVR legislation pertinent to this submission. My sources were described at the end of this submission.

PVR Regulations: Proposal to amend quantities of seed required with an application

Current situation

The Plant Variety Rights Act 1987 requires the prescribed quantity of seed to be provided with certain PVR applications. These quantities are set out in Schedule 1 of the PVR Regulations 1988.

The PVR Bill carries over this requirement and seed quantities will be set out in in Schedule 4 of the new PVR Regulations.

Background

In recent years the current seed quantities have been found to be insufficient to meet the needs of testing and the variety collection, particularly in the longer term. Going back to breeders to request relatively small quantities is inefficient on the part of the PVR Office and for many breeders simply irritating. Some have expressed the view that they would much prefer being asked for more at application. Sourcing seed of a variety after application or within a few years of grant has a risk in that the new seed supplied may not be true to type and not be truly representative of the variety. The seed sample in the collection for a single variety would be from a number of generations and possibly have reduced uniformity. This also has potential implications on the quality of grant decisions, where comparison varieties cannot be adequately relied on as being true to type.

The variety collection has been a topic of discussion at the annual Technical Working Group for Pasture Varieties, with passing discussion around quantity of seed required. The broad consensus from that Group is that the PVR Office should just request what it needs with the size of any likely increase in quantity of no significance to the applicant.

Reason for change

The seed sample is used for two main purposes.

- Provides representative seed of the variety for longer term holding in the PVR Reference Collection of Agricultural Varieties
- Provides seed for DUS testing of the variety and if granted, seed as a similar or reference variety for future DUS testing.

The current seed schedule for certain species is insufficient to meet the above purposes.

Consultation with users

The proposal below was circulated to members of the PVR Technical Focus Group for Pasture Species in mid-March 2019 with a single positive response. As stated earlier the amount of seed to be supplied has come up previously and no user raised any objection to providing more.

Proposal

The table sets out the current and proposed quantities

Species	Existing seed (g)	Proposed seed (g)	Change
Allium, Amaranthus, capsicum, chicory, phacelia, radish	50	50	
Forage Brassica	50	200	+150
carrot, lettuce, parsnip, tomato	30	30	
Brassica (other than forage)	30	30	
Evening primrose	10	10	
Grasses; brome, ryegrass	500	500	
Grasses: crested dogs' tail, Koeleria, paspalum	50	50	
Grasses: cocksfoot	50	100	+50
Grasses: fescue	50	500	+450
Grasses: bents, Phalaris, Yorkshire fog	10	20	+10
serradella and Sulla	100	100	
Lotus, Lucerne, plantain, red clover	50	50	
yarrow	25	25	
White clover	10	10	

Peas	3000	3000	
Barley, oats, rye corn, triticale, wheat	2000g + 100 ears	2000g +120 ears	+ 20 ears
Beans, lentils, lupins, maize	2000	2000	
Linseed	1000	1000	
Beets	500	500	
Sunflower	1000	1000	
Asparagus, borage	100	100	
cucurbits	100	100	

SUBMISSION

My comments to the draft above and accompanying documents are related to the quantity of seeds necessary for an effective test to occur. Having this in mind, I investigated historic documents from UPOV to see whether this aspect has been covered efficiently. Also, I have looked at Plant Variety Rights Act 1987. These are my conclusions below.

My benchmark document to suggest some observations that I have proposed below is the draft from 2002- 08-23, *UPOV Guidelines for the Conduct of Tests for Distinctiveness, Uniformity and Stability*, available at https://www.upov.int/edocs/mdocs/upov/en/twv_36/tg_13_8_proj_2.pdf

Upon reviewing the benchmark document, I could attest that it is very useful to establish some gaps I might have found in the *proposal to amend quantities of seed with a PVR application*, hereinafter, the proposal. One problem I can identify upfront is that this proposal does not address choices for seed proposed seeds quantity from the aspects of test consistency. I am looking into the benchmark *UPOV draft Test Guidelines*, which clarifies to the public policymaker why disease resistance is an important characteristic for establishing distinctiveness.

Having the historical value of this benchmark document stated upfront, the TC / Council of 1994, clears out the path to consider that the PVR applicant needs to have information about Resistance or "the ability of a variety or a mono-specific population to limit activities of a given pest or pathogen throughout the whole or part of a growing cycle" which is decided by disease and by species not on a general understanding, for all plants. It is not clear if this approach has been looked at for those plant species above mentioned from their individual aspects, related diseases and taxonomic identity instead of a general approach. This information might not be available to the public for good reasons, like the integrity of the Examination process, but it is not clear to me in reading this proposal.

Another aspect is Susceptibility or "zero-resistance level of a variety of a variety of populations with respect to a given pest or pathogen". It is not clear whether this item is considered here, and it must be of utmost importance for guidelines tests so that stability is clear evidence for the plant variety to be considered a variety with stability.

Another element of analysis is Tolerance, or the "Ability of a variety or population to tolerate the development of a pest or pathogen whilst displaying disorders that are without serious consequences for their growth, appearance or yield."

Therefore, it comes to me a logical step to consider that *the standard of purity and germination* must be acceptable by the Commissioner, so the law must give space for the technical staff at the IPONZ to perform technical tests and protocols. I think it might be that the legal document will not be able to address these tests from the step-by-step protocol due to the expertise necessary in the area of Guideline Tests for new plant varieties. In short, the quantity of the propagating material for a PVR to

be provided for the applications must be verified by the Commissioner. Obviously, quality and quantity can be stated on the minimum quantity that can be established as in the benchmark draft is outdated as 20 g in 2002. However, the seeds' quality to be found as eligible for distinctiveness, uniformity and stability in a new plant variety are still necessary, and the seeds' quantity and quality need to be ratified by the Commissioner to conduct the tests efficiently. The fact that users have been contacted as stakeholders in the process is always a positive initiative, but the technical examination is pursued and carried on by the PVR Examiners, not the users or PVR applicants.

Again, I would expect all these matters to have been addressed in the Plant Variety Rights Regulations 2022 mentioned in *Guidance to the Proposed New Plant Variety Rights Regulations 2022* below:

"Provisions relating to PVR application (Regulations 35-44 and 48) Regulations 35-41 prescribe what (in addition to the requirements of clauses 36, 38 and 46 of the Bill) must be provided in relation to a PVR application, and associated timeframes. This includes provisions relating to information, denominations, colour photographs and propagating material. Regulations 42-44 prescribe matters relating to growing trials and should be read alongside clauses 47 and 48 of the Bill. They set out the conditions the Commissioner can set for growing trials and prescribed that trial and examination fees must be paid within two months of a request, with extensions only being granted in exceptional circumstances. Regulation 48 sets out the prescribed times for supply of propagating material or information by third parties (either other PVR applicants or PVR holders) under clause 69 in the Bill."

In the Plant Variety Rights Regulations 2022, we have focused on the sections of interest for the quantity of seeds provided for the conduction of tests.

"16. Number of plant variety right application or plant variety right must be given when all information or documents filed under Act or regulations All information or documents given to the Commissioner under the Act or these regulations must contain, or be filed with, the number of the plant variety right application or plant variety right (if any) that is the subject of the application, request, assertion, opposition, or other matter in respect of which the information or document is given."

I think it is missing to express for the reader the seed quantities necessary for each species submitted in each PVR application, so there is no gap in understanding and no misunderstanding that quantities are of extreme importance to the PVR application.

*"36. Colour photographs to be supplied with certain applications (1) This regulation applies to every plant variety that is fruit, an ornamental variety, or a vegetable (including a potato). (2) A PVR application for a variety of plant to which this regulation applies must be accompanied by— (a) a satisfactory photograph of **all or part of a typical plant** of the variety showing the variety's **distinguishing features**; or Plant Variety Rights Regulations 2022 Part 2 r 36 Consultation draft 174 (b) 2 or more satisfactory photographs (each being a photograph of all or part of a typical plant of the variety) that together show the variety's dis- distinguishing features. (3) A photograph is satisfactory if— (a) it is **a photograph based on plants propagated** from the original plant or plant part; and (b) it is clear enough and large enough to enable the subject matter to be easily identified."*

This could be further clarified as it presents legal gaps to controversial interpretation and would delay the process for a PVR application, causing PVR examiners to waste time explaining basic details to applicants. Let us use the benchmark document from UPOV to clarify these points:

- a) The conduct of tests depends on clear, professionally quality taken pictures identifying the material required. Therefore, pictures should identify two independent growing cycles under normal growth conditions in which the size of plots should be uniform.
- b) Each photograph provided should have 60 (sixty) plants for each test conducted if the grouping varieties required a different number of varieties, that should be stated.
- c) If methods and observations are considered, all such events should measure and count the number of plants for each PVFR species. In this benchmark, the document is stated that 20 plants or "parts of 20 plants" for this specific variety. The number of plants to be observed is of utmost importance for a PVR application test aiming for uniformity, distinctiveness, and stability.
- d) I see an absence of disease resistance characteristics for assessing distinctiveness, uniformity and stability on pictures. I refer to *36 Colour photographs to be supplied with certain applications, 1, 2, but specifically on 3*. Back in 2002, as the benchmark document states, there was a discussion in the UPOV Technical Committee to add disease resistance characteristics for establishing distinctiveness, which the expert group accepted. While this might be a detail that a photograph may not be able to clarify by a still image, this may be a record for controlled infection. According to the benchmark UPOV document, "each race should be tested separately, and the results should also be indicated separately." This is one aspect of the disease resistance characteristics, but other assessments may be clarified for the PVR applicant.

Grouping Varieties

If photographs are used as evidence for any present or future oppositions in the process of PVR approval and registration, then grouping varieties by growth type and harvest maturity should be of interest to the PVR applicant. The information may be really useful to avoid misunderstood or misleading interpretations by applicants and their agents. According to the benchmark document, some recommendations that are crucial for the conduction of tests for distinctiveness, uniformity and stability are seeds (e.g. colour), leaf (e.g. shape), time of the beginning of bolting under long conditions as some of the most common characteristics in group varieties including a Table of Characteristics.

*"37. Quantities of propagating material to be provided with applications (1) A PVR application for a variety of a kind of plant described in column 1 of Schedule 3 must be accompanied by the quantity of propagating material specified (opposite the description) in column 2 of Schedule 4, together with the quantity, if any, of seed ears specified (opposite the description) in column 3 of Schedule 4. (2) **The standard of purity and germination of the propagating material must be acceptable to the Commissioner.**"*

Regarding *37 Quantities of propagating material to be provided with applications*, this is one of the sections lacking more clarity, and I will address below my concerns. Then the standard of purity and germination of propagating has considerable discretion from the Commissioner. While this is a positive assessment for the administrative office and the PVR examiners, as technology and biotechnology can affect the purity and germination of propagating material, it must have at least a basis for the PVR applicant to consider as guidance. Perhaps an update will be necessary each time innovative methods and techniques are available, which could be cumbersome for administration, however, it is necessary to keep the process transparent and clear for applicants. That affects directly the quantity of seeds necessary to conduct tests for uniformity, distinctiveness and stability.

"42 Prescribed requirements under section 47(5) of Act, The prescribed requirements under section 47(5) of the Act for a growing trial, are that the Commissioner must impose conditions to be complied with by those conducting the growing trial relating to— (a) the location and timing of the growing trial; and (b) the trial design; and (c) the varieties to be included in the growing trial; and (d) how the growing trial will be overseen and by whom: Plant Variety Rights Regulations 2022 Part 2 r 42 Consultation draft 196 (e) any other conditions necessary to ensure that the growing trial is undertaken in a manner that is satisfactory to the Commissioner."

Reviewing section 47(5) on the Bill, there is not clear to me what is growing trials, and that makes sense because you need a Table of Characteristics for this or to use the UPOV benchmark document to have guidelines for PVR breeders, applicants, assignees and agents. I would suggest that the best place to explain such denominations should also be here in the Regulations. This definition appears to be missing, and its importance must be stressed for conducting tests for distinctiveness, stability and uniformity.

The reviewed section 47 (5) is below:

"47 Growing trials (1) A PVR must not be granted for a plant variety unless a growing trial has been 20 undertaken for that variety. (2) The Commissioner must decide whether a growing trial is to be undertaken— (a) by or on behalf of the Commissioner; or (b) by or on behalf of the applicant; or (c) by an overseas testing body approved by the Commissioner; or 25 (d) by or on behalf of an authority of a State that is a member of UPOV and grants plant variety rights."

There is an absence of a proper definition of growing trials. If we consider the benchmark UPOV document, growing trials are a fundamental part of the conduct of tests. However, a definition of what they are is not available in the Plant Variety Rights Act 1987.

To conduct a satisfactory test for distinctiveness, stability and uniformity, a plant's breeder must follow two independent cycles for the variety according to the benchmark UPOV document. Perhaps independent plant growth cycles will vary according to the variety to be tested, but at least two independent growth cycles will be necessary. Nevertheless, technical information is an aspect that should be a guideline for PVR applicants.

"48 Prescribed times for supply by PVR holder of propagating material or further information required by Commissioner (1) The prescribed time for a PVR holder to comply with a request by the Commissioner under section 69(1) of the Act for propagating material is the time set by the Commissioner within the period beginning 1 month after the date of the Commissioner's request and ending on the day that is 1 year after the date of the request, unless that time is extended by the Commissioner under sub- clause (3). (2) The prescribed time for an applicant for a PVR or a PVR holder to comply with a request for information under section 69(2) of the Act for information is the time set by the Commissioner within the period beginning 1 month after the date of the Commissioner's request and ending on the day that is 2 years after the date of the request, unless that time is extended by the Commissioner under subsection (3). (3) The applicant or a PVR holder may before the expiry of the period referred to in subclause (1) or subclause (2), as the case requires, request the Commissioner to extend that period, and if the Commissioner considers it reasonable in the circumstances to do so the Commissioner may— Plant Variety Rights Regulations 2022 Part 2 r 48 Consultation draft 216 (a) in the case of a request relating to the period in subclause (1), extend the time on 1 occasion for a period not exceeding 1 year: (b) in the case of a request relating to the period in subclause (2) extend the time on 1 or more occasions for a further period not exceeding 2 years on each request for an extension."

Section 47 is missing that the quality of the seed must be not below the marketing standard seed that will be commercialised in New Zealand. The way this section is drafted permits seeds to be presented in the growing trials to possibly be of inferior quality as the ones to be commercialised, which is problematic. Another aspect overlooked in this section 48 is that the seeds delivered must have been free of any treatment exception made for the Commissioner or Examiners to have pre-approved such treatment.

"96 Extra information that must be contained in documents filed in proceedings (1) A document, including written evidence, or bundle of documents filed in a proceeding must contain the following information: (a) the name and address for service of the person filing the document; and (b) if that person has an agent, the agent's name; and (c) the number of the PVR application or PVR that is the subject of the proceeding. (2) Every document referred to in regulation 95(a), and every statement of case and counter-statement, that is filed in a proceeding must be signed by the person giving the information or document or on whose behalf the information or document is given (for example, the applicant or the opponent)".

It seems that this section would be clearer if it stated that visual evidence might qualify for evidence as extra information in the proceedings. I may understand that visual evidence such as pictures is not allowed from section 96 and the prior section 63. However, having in mind section 105 that restricts the field of evidence to particulars filed, it would be extremely helpful to have visual evidence for cases in which this kind of evidence can support any parties involved.

ENDNOTES

- <https://www.mbie.govt.nz/dmsdocument/1987-guide-to-the-proposed-new-plant-variety-rights-regulations-2022>
- Plant Variety Rights Act 1987 available at <https://www.legislation.govt.nz/act/public/1987/0005/latest/DLM100578.html>
- 2002- 08-23, *UPOV Guidelines for the Conduct of Tests for Distinctiveness, Uniformity and Stability*, available at https://www.upov.int/edocs/mdocs/upov/en/twv_36/tg_13_8_proj_2.pdf
- Pluto Plant Variety Database, UPOV, https://www.upov.int/edocs/mdocs/upov/en/twv_36/tg_13_8_proj_2.pdf