

Advisory Committee on Intellectual Property
IP Australia
PO Box 200, Woden ACT 2606



1st June 2007

Re: A review of enforcement of Plant Breeders Rights-Issues Paper

Dear ACIP,

We have reviewed the above paper and are pleased to provide the following comments. Other groups in Australia are better placed than us to comment on most of the points raised in the issues paper. However, we have some expertise in the area of identification and therefore our response to the Issues Paper is confined to questions raised in Question 20 on Page 28.

Contrary to the paper's assertion, our understanding is that there is good compliance by growers in declaring seed for the purposes of End Point Royalty collection. Nevertheless, there is certainly *potential* for mis-declaration either deliberately or accidentally.

Molecular technologies provide the potential for identifying different varieties and there have been many tests developed to do just that. Collectors of grain routinely test deliveries but, rather than testing each delivery, statistical sampling techniques are used to only test a proportion of the deliveries.

The main problem is that such tests generally use a PCR amplification method and this is time-consuming. This means that it is not possible to conduct a test whilst grain is being unloaded at a grain receival point. A sample must be taken off site for analysis and the analysis can take up to 2 days. Many groups in the world are attempting to develop faster methods of DNA amplification and it remains to be seen whether this will be possible or not. Ideally, testing would occur at the point of grain delivery within 15 to 20 minutes or so.

The second problem is that it may be difficult to distinguish between varieties because there may be only slight differences in their genetic makeup. As molecular technologies become more sophisticated, multiplexing methods have been developed which allow testing for many varieties at once. Naturally it is possible to only test for varieties where the genetic makeup of that variety is known. This means that, ideally, sequence information would be included in any registration of a Plant Breeders Right if genetic testing was to be the key means of identification.

Where molecular techniques will become very important is in the identification of the presence and type of Genetically Modified Organisms (GMOs). Methodologies for segregating GMOs from non-GMOs, and also for testing for presence of GMOs, are key issues that face legislators, growers and seed marketing companies. Currently, only a small number of different promoters and gene sequences are used in the commercial production of GMOs and tests are well developed for these. A problem will arise when the number of commercially produced GMOs increases and when they use more complex combinations of genes and promoters. Molecular techniques will become increasingly important under that scenario; once again however, the problems will centre on the speed of the test and knowledge of the unique identifying sequence that can be tested for.

Yours Faithfully,

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