

Editor's preface

In the 1960s, space exploration was a prominent 'big science' activity; apart from landing Neil Armstrong *et al.* on the moon, it delivered a package of technological spin-offs (among which, famously, feature velcro fasteners, cordless tools and non-stick frying pans) that impact upon our everyday lives. We might wonder then how, beyond its primary aims, the 1990s big science Human Genome Project (HGP) will alter the way in which we do things, beyond its predicted direct benefits to human health. One thing is clear already, however. The HGP has driven a frenetic and continuing development in the tools of genetic analysis, which, thanks to the universality of DNA as the genetic code for higher organisms, can be applied with equal force and efficacy to microbe, plant or animal. It is these technologies that are facilitating a quantum leap in our ability to conceptualize, annotate, analyse and understand the genetic make-up of the organisms that are so important to our well-being.

Plant genetic resources (PGR) have long provided the foundation for crop breeding and bio-prospecting. Almost any activity involving PGR falls into that happy category of endeavour universally regarded as a 'good thing', and the long history of plant collection expeditions and *ex situ* seed conservation is testament to this. The need to nurture PGR is, if anything, increasing not diminishing. For we are facing imminent environmental change (whether or not induced by human activity), and we profess to promote the betterment of material welfare for all against a background of global population increase. These pressures combine to both reinforce the importance of retaining breadth and depth of crop genetic diversity, and to underline the desirability of extending the range of utilizable plant species.

The early pioneers of PGR—Vavilov in the forefront—would have had little difficulty in relating to the methodology in place before the DNA era. But one cannot help but imagine that they would be astonished and delighted by the unprecedented power for measuring aspects of diversity that the tools of genomics promise to deliver. This is, therefore, an exciting time to be involved in an endeavour that will become ever more interesting scientifically, while at the same time has a clear, pressing and global social value. Our challenge, posed by the potential volume and complexity of genotype data that will be collected, is how to analyse and integrate this information to produce the basis for the difficult decisions as to what and how much to conserve. For although perhaps one can never have 'too much of a good thing', we have to accept that resources—in this context not the plants, but the human and financial!—are not infinite. At the same time, we need to learn how to exploit this newly created resource to best effect for the purpose of plant improvement.

We are launching Plant Genetic Resources: Characterization and Utilization to provide a forum for communicating insights into the understanding of the genetic variation captured in both *in situ* and *ex situ* collections of crop and non-crop plants. We wish to cover both technical issues related to the application and development in technologies which serve to analyse variation and diversity at the phenotypic and genotypic levels, and thereby promote the development of rational germplasm collection, evaluation and conservation strategies, and socio-economic issues which impact upon the exploitation and development of plant genetic resources in both developing and developed economies.

We hope that you, the reader, will be enthused to contribute some of your own vision and energy to this new journal. We wish to create a high-quality and authoritative mouthpiece for our community. We take this opportunity, therefore, to call for the submission of your research results to the journal—without these, *PGR: C&U* will not prosper. We are also looking to extend the reach of the Editorial Board to take in as wide a range of expertise as possible; thus at the same time, we are hereby inviting expressions of interest from colleagues to serve on the Board: please contact us!

PGR: C&U is a 'good thing'. Let us work together to make it live up to its sobriquet.

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