



AWMS POSITION STATEMENT

Development and Use of Genetically Modified Organisms (GMOs)

Background

Manipulation of the genetic code of living organisms is common practice now and the technology is developing rapidly for use in human and animal health, agriculture and silviculture, management of pest animals and for exploitation and management of the environment. Research and development in these fields has resulted in rapidly expanding capabilities and an increasing rate of planned release of genetically modified organisms.

Genetic manipulations may be capable of affecting wildlife populations directly, or GMO's may affect them secondarily, or more probably, release of GMO's may affect wildlife indirectly through effects on economics of agricultural production systems and through effects on ecosystems.

GMO's may also be useful for direct management of wildlife problems, that may be presently intractable, or through being more cost-effective than current methods, or improving efficacy or cost-efficiency of existing methods. The effects on wildlife populations may be beneficial or detrimental, or they may impinge differently on various sectors of society.

As is the case with any human endeavor, risks may attend the production and use of GMO's. Some elements in society consider genetic manipulation to be dangerous on the premise that risks outweigh the benefits and they oppose the conduct of one or more of research, development, release and use of GMO's. Other social elements consider the benefits to be paramount. Between these polarised views is the opinion that the benefits and risks need to be assessed for each product of genetic manipulation and that products arising from genetic manipulation should not be excluded from release or use solely because of the process by which they were generated (Anon. 1992).

Recognition of potential risks and concern among scientists and the public has resulted in a system of regulation in many countries including Australia and New Zealand, but these are lacking in some developing countries at present, including Papua New Guinea. Concerns have been expressed that the lack of regulation in some developing countries may make them vulnerable to exploitation and adverse effects of GMO's that may be released without due safeguards or care by parties from developed countries. Furthermore, GMO's would not recognise many national boundaries and may spread by natural processes among jurisdictions or nations.

In recognition of the potential problem of unintended transfer between nations or deliberate transfer without appropriate information for safe handling or use, processes are in train to develop an International Biosafety Protocol as part of the International Convention on Biodiversity to regulate transfer of GMO's across national boundaries (Anon. 1995).

In adopting a position on these issues, AWMS needs to take account of:-

- realities with respect to development and use of GMO's;
- regulation of their development and use;
- likely increased rate of release of GMO's;

- perceptions of risk among scientists and the public;
 - concerns about international issues relating to use of GMO's.
-

Based on the above, THE AUSTRALASIAN WILDLIFE MANAGEMENT SOCIETY:

RECOGNISES that some management objectives for some wildlife populations or ecosystems, although desirable, may be difficult to achieve for reasons including inaccessibility, lack of suitable techniques and high cost, and alternative methods should be sought;

RECOGNISES that techniques for genetically manipulating living organisms may assist in the achievement of some management objectives for some wildlife populations or ecosystems;

ADVOCATES the use of techniques, including genetic manipulation of living organisms, that are acceptably humane, effective, cost effective and present acceptably low risk of unintended or undesirable effects to achieve objectives in managing wildlife;

ADVOCATES the conduct of research into methods of achieving objectives for managing wildlife, including research into techniques and effects of genetic manipulation of some living organisms, where the methods may prove to be acceptably humane, effective, cost effective and low in risk of unintended or undesirable effects;

RECOGNISES that development of genetically-manipulated organisms and their release into the environment has potential also to cause unintended or undesirable effects in target and non-target wildlife populations and in managed and unmanaged ecosystems;

RECOGNISES that the public perceives development of genetically-manipulated organisms and their release into the environment as potentially capable of producing effects ranging from great benefit to harm to human society, living organisms and ecosystems, and that scientists involved in such research should make all reasonable effort to ensure that all relevant information flows freely to the public;

ADVOCATES that all Australasian research into genetic manipulation of living organisms for purposes of achieving wildlife management objectives, while attempting to maximise the benefits of such research, should minimise the risk of undesirable or unintended effects on human society and agricultural and wildlife ecosystems. This is to be achieved by adhering strictly to the relevant principles, guidelines or regulations, whether voluntary or mandatory, pertaining to the containment and release of genetically manipulated organisms, that the governments of Papua New Guinea, Australia and New Zealand respectively proclaim or adopt;

ADVOCATES mandatory regulation of containment and release of genetically modified organisms and that such regulation be standardised among Papua New Guinea, Australia and New Zealand; and

SUPPORTS in principle the endeavor to establish an international biosafety protocol for regulation of movement of genetically modified organisms across international boundaries.

References

Anon. (1992). Genetic Manipulation: the threat or the glory. Report of the House of Representatives Standing Committee on Industry, Science and Technology, The Parliament of the Commonwealth of Australia. February 1992. Australian Government Publishing Service, Canberra.

Anon. (1995). Consideration of the need for and modalities of a biosafety protocol under the Convention on Biological Diversity. Department of Foreign Affairs and Trade. Unpublished draft discussion paper, June 1995. Prepared by the Biosafety Sub-group of the Commonwealth Interdepartmental Committee on International Environment Issues. Australian Government Publisher, Canberra.

This position statement reflects the content of cited papers and the opinions of the authors. While the views expressed in this position statement have been circulated for comment within the Society, they do not necessarily reflect the views of the AWMS committee or all AWMS members. AWMS makes no claim as to the accuracy of this document and any party using this information does so at their own risk.