

Toward improved effectiveness: weed hygiene regulation within Australia

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Summary Weed spread, and more specifically weed hygiene regulation in Australia is complex. Within Australia, weed hygiene regulation differs substantially between jurisdictions.

Through the Australian Weeds Committee (AWC) jurisdictions have agreed to determine the effectiveness of weed spread regulation nationally.

Biosecurity laws in many jurisdictions have recently undergone, or are currently undergoing, significant change.

A snapshot of the legislative situation across jurisdictions is revealing on trends influencing weed hygiene regulation. For example, the more contemporary legislation (and bills) encompasses pest regulation more generally under a 'biosecurity' umbrella, and/or seeks to regulate 'carriers' of pests. Older legislation focuses on regulation of pests themselves.

AWC has also committed to build national protocols, guidelines and other tools for weed hygiene. Ideally, these might be adopted by jurisdictions for a regulatory (or similar) role. Progress has been made on similar national initiatives for biosecurity. The progress of these is useful to inform planning for national weed hygiene tools.

Keywords Weed hygiene, weed spread, legislation, regulation, biosecurity, jurisdiction, carrier, national standard, national consistency.

INTRODUCTION

Weed hygiene policy and regulation within Australia operates under a national biosecurity umbrella. Australia's *Intergovernmental Agreement on Biosecurity (IGAB)* came into effect in January 2012. Australian governments agreed to 'a national management framework to ensure that nationally significant pests and diseases established in Australia are contained, suppressed or otherwise managed'. Governments also agreed that decisions and investments in this regard will be guided by 'consistent and complimentary regulatory and operational systems to avoid unnecessary duplication and maximise effectiveness and efficiency' (COAG 2012).

Australia's national weed strategy *The Australian Weeds Strategy* recognises prevention of new weed problems as its number one goal. This refers not just to preventing the entry of new plant species with

weed potential into Australia, but also to reducing the spread of weeds to new areas within Australia (NRMMC 2007).

Guided by *The Australian Weeds Strategy* goals, the Australian Weeds Committee (a body made up of representatives of all Australian jurisdictions) developed a *National Weed Spread Prevention Action Plan* (Action Plan). This recognises the need for weed spread pathways to be identified and addressed, and for effective, consistent and complementary measures to be developed to prevent weed spread (AWC 2010).

The Action Plan includes as one of its actions, the determination of effectiveness of compliance and enforcement procedures for weed spread used in Australia (and overseas) (AWC 2010).

This paper seeks to contribute information toward this endeavour, providing a brief review of the current legislative situation in each Australian state or territory jurisdiction.

Also, an outcome sought by the Action Plan is to achieve agreed national best practice hygiene and spread prevention guidelines, standards, protocols, codes of practice and facilities (AWC 2010). Two existing examples of national standard/best practice biosecurity tools are briefly considered in this paper, shedding some light on potential ways forward.

AUSTRALIAN JURISDICTIONS WEED LAWS

Existing weed hygiene policy and regulation varies significantly within Australia. Each of the eight jurisdictions has their own weed legislation. An overview of the situation in each jurisdiction follows.

Australian Capital Territory Weed management in the ACT is regulated under the *Pest Plants and Animals Act 2005*.

Section 10A of the Act relates to 'reckless importation' of pest plants and regulates various aspects of importation including things 'contaminated by a prohibited pest plant'. Section 11 deals with commercial supply of pest plants, and section 12 deals with 'reckless supply' of prohibited pest plants directly or through contamination. Also, 'reckless use of vehicle or machinery' which relates to several practical aspects of weed hygiene for vehicles or machinery, is covered under section 13.

New South Wales New South Wales' primary weed legislation is the *Noxious Weeds Act 1993*. However, New South Wales is in the process of developing broader biosecurity legislation that will likely result in the revocation of the existing weed legislation (Charlton pers. comm. 2014 and Johnson pers. comm. 2014).

The spread of parthenium (*Parthenium hysterophorus* L.) from Queensland into New South Wales since 1982, in large part by contaminated vehicles and machinery, resulted in significant focus on vehicles and equipment related weed hygiene. Enhanced inspection and cleaning standards for grain harvesters entering NSW from Qld was legislated in 1997. In the period following, infestations of parthenium appearing on private property in NSW declined significantly (Blackmore and Johnson 2010).

The biosecurity bill under development in NSW will likely be similar in many aspects to Queensland's *Biosecurity Act 2014*. With this being the case, there is improved potential for weed hygiene regulation consistency between the two States (Charlton pers. comm. 2014).

Northern Territory Primary legislation regulating weed management in the Northern Territory is the *Weeds Management Act 2001*. A purpose of the Act is 'to prevent the spread of weeds in, into and out of the Territory...'

Section 9 of the Act outlines prohibitions with relation to spreading declared weeds through various means. Section 31 prohibits cutting or mowing of areas contaminated with a declared weed. Section 32 prohibits the moving of animals or vehicles containing or carrying a declared weed.

The NT Government is currently undertaking a review of the *Weeds Management Act 2001*, and developing a weed spread prevention action plan (Barrow pers. comm. 2014).

Queensland In Queensland, the primary weed legislation is currently the *Land Protection (Pest and Stock Route Management) Act 2002*.

Also, Queensland's *Land Access Code* imposes conditions concerning the conduct of activities on private land carried out under a range of mining and energy related legislation. The requirements of the Code go beyond the *Land Protection (Pest and Stock Route Management) Act 2002* requirements, as Code requirements apply additionally to vehicles entering private land and local pest species (pest species declared under local government law) (Hannan-Jones 2014).

The State also has a *Queensland Weed Spread Prevention Strategy* in place.

The regulatory situation is changing in Queensland. Queensland Parliament recently passed the *Biosecurity Act 2014* which on 1 July 2016 will replace the *Land Protection (Pest and Stock Route Management) Act 2002*.

The cornerstone of the *Biosecurity Act 2014* is the 'general biosecurity obligation' which is imposed on persons who 'deal with biosecurity matter or a carrier, or carries out an activity' and 'know or ought reasonably to know' that the matter, carrier or activity 'poses or is likely to pose a biosecurity risk' (Hannan-Jones pers. comm. 2014).

To achieve its purpose, the Act allows for provision of codes of practice relating to a person's obligations under the Act (Hannan-Jones pers. comm. 2014).

South Australia South Australia's primary weed legislation is the *Natural Resources Management Act 2004*. This Act has provisions for prohibition of sale of declared plants, and prohibition of transport on a public road of declared plants, or 'any animal, plant, soil, vehicle, farming implement or other produce, goods, material or thing carrying a declared plant'. It also provides measures for redress of purchasers who are supplied contaminated produce (Cooke pers. comm. 2014).

A problem with implementing aspects of the Act is the difficulty in proving that certain things (e.g. bales of hay) contain propagules of declared plants (Cooke pers. comm. 2014). This is similar to the Victorian experience with measures contained in their *Catchment and Land Protection Act 1994*.

Tasmania The primary weed legislation in Tasmania is the *Weed Management Act 1999*. Weed species are declared under this legislation and statutory weed management plans are drafted for each species.

As Tasmania is an island jurisdiction, the statutory weed management plans have a strong emphasis on quarantine measures to limit the movement of declared weeds into the state. The *Plant Quarantine Act 1997* also contains relevant measures.

Dealing with 'a declared weed or any material or thing containing or carrying a declared weed' in any manner that is likely to result in spread of declared weeds within Tasmania is prohibited by the *Weed Management Act 1999* (section 56).

The Tasmanian Government is currently developing weed and disease planning and hygiene guidelines.

Victoria Victoria's primary weed legislation is the *Catchment and Land Protection Act 1994* and this provides for the state's weed hygiene regulatory coverage. The Act (section 71) prohibits transportation into

or within Victoria of noxious weed seeds and parts of noxious weeds capable of growing.

The Victorian Government has drafted and consulted on an *Invasive Species Management Bill*, which is intended to update measures in the *Catchment and Land Protection Act 1994* and to address its inadequacies. The bill is expected to be introduced to parliament during 2014.

The *Invasive Species Management Bill* has potentially significant implications for weed hygiene regulation in Victoria. If enacted as proposed in the discussion paper, the Bill will provide an enhanced focus on ‘carriers of invasive species’ (i.e. an animal, plant, or any other thing dead, alive or inanimate that is capable of carrying an invasive species from a place to another place).

This will make enforcement of weed hygiene a great deal easier (Ainsworth pers. comm. 2014). For example, spread of a weed species by movement on hay from parts of the state where the weed is present could be prevented by declaring all hay from this area as a carrier. For enforcement purposes it would then only be necessary to prove that a load of hay originated from the specified area, not that it necessarily contained seeds of the particular weed. (DEPI 2013, Ainsworth pers. comm. 2014).

Western Australia Western Australia’s primary weed management legislation is the *Biosecurity and Agriculture Management Act 2007* and the *Biosecurity and Agriculture Management Regulations 2013*.

Western Australia is geographically isolated from eastern Australia by harsh landscapes like the Nullarbor Plain, and this provides the State with a quarantine advantage in preventing entry of pests and diseases. Building on this advantage WA operates a permitted list approach to the import of organisms. This approach allows the State to list species permitted entry to the state (in addition to those that are prohibited entry).

Like Tasmania, Western Australia has a state based quarantine service that regulates the movement of organisms and potential carriers of pests and disease (e.g. agricultural machinery and produce).

Within the *Biosecurity and Agriculture Management Regulations (2013)*, regulations 16 and 17 deal with movement of declared pests and prescribed potential carriers into or within specified areas within Western Australia.

IMPROVED REGULATORY EFFECTIVENESS Western Australia, Queensland, Victoria, and New South Wales currently have either new legislation/regulation, bills pending, or intend to produce new legislation on updated biosecurity approaches.

New and pending biosecurity legislation across the jurisdictions shares a focus on regulating ‘carriers’ of pests without the onus of, in each instance, proving presence of the pest. This appears to represent a contemporary trend in weed hygiene regulation. Older legislation tends to require that for prosecution, the presence of the pest itself can be ascertained.

In terms of non-deliberate weed introductions, Australian research indicates that trade in fodder and agricultural produce (agricultural produce distribution), machinery and vehicles, and livestock movement pose the greatest risk as pathways for weed spread (Sindel and van der Meulen 2008, Coleman *et al* 2010).

The trend to focusing on ‘carriers’, combined with established knowledge on risk levels of different weed spread pathways, could indicate potential needs for development of nationally consistent advice (e.g. guidelines on minimising weed spread through livestock movement).

Production of the *National Post-Border Weed Risk Management Protocol* and certain national consistency promoting initiatives by Plant Health Australia and Animal Health Australia provide examples of potential paths forward on building national weed hygiene tools for incorporation into regulations.

National Post-Border Weed Risk Management Protocol In line with the *Australian Weeds Strategy*, cross-jurisdictional consistency on ‘weed risk management’ has been promoted.

The approach adopted was production of a national standard (*A National Post-Border Weed Risk Management Protocol*) with involvement of Australian jurisdictions and New Zealand. This was published by Standards Australia and others in 2006 (and updated in 2011–12). The foundation of the Protocol was the system developed in South Australia. In addition to South Australia, the Northern Territory and New South Wales now use weed risk assessment systems that are consistent with the Protocol (Auld *et al* 2012). Tasmania is currently considering moving to a Protocol-consistent system.

Plant Health Australia and Animal Health Australia guidelines and operating procedures National biosecurity organisations Plant Health Australia and Animal Health Australia produce guidelines, standard operating procedures, and other documents that promote national consistency. For example, there are Nationally Agreed Standard Operating Procedures for ‘personal decontamination – entry and exit procedure’, ‘decontamination of large equipment’ and ‘stop and search vehicles at checkpoint’. These are developed for use by jurisdictions.

CONCLUSION

Weed hygiene regulation differences between jurisdictions will remain. However, shared tools offer a way forward on building consistency.

Ideally, national standards on weed hygiene matters may, similarly to the *National Post-Border Weed Risk Management Protocol*, be a catalyst into a future of improved weed hygiene regulation effectiveness across Australia.

Another means of promoting improved effectiveness of weed hygiene regulation across jurisdictions is to develop and provide national tools; best practice management, guidelines, standard operating procedures, and/or operational templates.

Trade in fodder and agricultural produce, machinery and vehicles, and livestock movement are priority areas.

Jurisdictions can utilise nationally consistent tools (e.g. codes of practice) relating to biosecurity obligations, potentially giving relevant national tools legal tenure in jurisdictional legislation.

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