

ACT for Bees

Submission on Draft Review of Import
Conditions:
Brassicaceous crop seeds for sowing

19 April, 2018.



ACT for Bees is an organisation dedicated to raising awareness of the importance of bees for the health of the environment and food security. We have just released an Australian curriculum aligned [‘Love Food? Love Bees!’ Food Security and Sustainable Agriculture -Years 9 & 10 curriculum](#) with Cool Australia which focuses on the importance of sustainable agriculture for healthy and productive soils which in turn support healthy plants, pollinator health and the overall health of the ecosystem.

We teamed up with Cool Australia in 2016 to create the [‘Love Food? Love Bees!’ Year 5/6 curriculum](#) which explores the importance of bees for much of our food, threats to bees and ways students can take bee friendly action in their community. This has been very successful and reached over 55,000 Australian students within a year of its release.

As a part of our Vision for ACT for Bees we are working towards the ACT becoming a ‘Bee Friendly’ Territory by 2020, where government, education, business and community practices and behaviours support and encourage healthy bees.

- 2. Raise awareness with the ACT and regional community and key stakeholders about the importance of healthy bees and bee-friendly practices that enhance agricultural and honey productivity, food sustainability/security and public and environmental health.*
- 3. Promote bee-friendly plant propagation, gardening and environmental practices in home gardening, farming, workspaces, public recreation parks, gardens, open spaces and beekeeping.*
- 4. Develop curriculum materials and resources for schools and other educational organisations about the importance of bees and bee-friendly practices.*
- 5. Promote the importance of bees and bee-friendly practices in the wider Australian and Global community.*

Thank you for considering our submission that outlines potential unintended economic, social and ecological impacts of the measures proposed in the draft review.

We were very concerned to hear of the proposed treatments of a broad range of imported brassica seeds with fungicide because of its effect on soil health and the effect on the Australian Organic Agriculture Industry.

The broader economic, social, health and ecological implications of mandatory seed treatments have not been considered in the draft review and need to be accounted for. It is in Australia's national interest for this review's scope to be expanded, and greater consideration given to appropriately assessing the broader impacts of the draft review's recommendations.

The final report needs to consider a full cost benefit analysis of a much broader selection of potential measures than what is included in the draft report. This should be informed by a comprehensive international comparison of best practices globally and in close consultation with all industry stakeholders including the organic industry. This is needed to help minimise unintended negative impacts of policy and ensure the Minister and government has sufficient information to implement a policy that delivers on biosecurity while supporting Australian jobs and growth in the conventional and organic agriculture sector, and protects the wellbeing of Australian consumers and the productive capacity of our soils.

The delay in providing a media release (April 6, 2018) and the resultant short time frame for consultation on the proposed import conditions is a concern. We note there is a public petition that upon finalising this submission has close to 30,000 signatures requesting the deadline for submissions be extended, as so few people who will be impacted by this change are even aware of it.

Importantly the draft review does not give Australian's another opportunity to comment on the final report before it is published. We request the review's final report be released for public comment and is adequately publicised to ensure all Australians who will be impacted by proposed measures are given a real opportunity to comment. This will important to assist the government in delivering a best practice, world leading, innovative bio-security policy.

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1 The draft review does not consider the broader economic, social, health and ecological impacts of proposed measures, and the potential unintended impacts on Australian businesses, jobs, consumers, health and essential ecosystem services

The draft review does not consider the unintended impacts of the proposed 'blunt' measure to impose mandatory spraying of a 'broad spectrum' fungicides on all imported vegetable seed for *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus* as a means of controlling for risk of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphani*.

This submission seeks to outline some potential economic, social and ecological impacts of the measure proposed in the draft review which are not addressed in current draft due to it's very narrow scope. This includes potential negative impacts on the growth of Australian conventional and organic businesses, job losses, limiting consumer choice, reduced market competition and less diversity in Australia's seed markets, potential negative health impacts and increased risks to essential ecosystem services.

It is in Australia's national interest for the review's scope to be expanded before this review is finalised to include:

- a full assessment of full costs and benefits of proposed measures including the broader economic, social, health, and ecological impacts of the proposed mandatory spraying of fungicide on all seeds imports of *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus*;
- a survey of international experience in close consultation with Australia's conventional and organic vegetable industries to assist with developing a broader, better targeted set of innovative solutions;
- a more rigorous assessment of the specific evidence for biosecurity risks of brassicaceous crop seeds for sowing by conventional and organic growers including what specific factors have occurred to change current risk profile of brassicaceous crop seeds and how much that risk is currently managed by industry;
- a comprehensive assessment of alternative measures to control the biosecurity risk that can be targeted for conventional and organic growers to ensure that potential economic, social and ecological unintended policy impacts are minimised;
- consideration of what is needed for the organic vegetable industry to develop the capacity and capability to create a viable domestic organic vegetable seed supply industry.

The final review offers a unique opportunity to put in place a process that will deliver a more economically efficient and effective policy framework for biosecurity that can deliver to Australian's a best practice, world leading, innovative bio-security policy. One possible option for Government to consider is to refer this review and all other vegetable seed reviews to Australia's Productivity Commission which may be better placed and have greater capability to deliver a broader review of Australia's vegetable seed imports that fully accounts for broader economic, social and ecological impacts.

2 The draft review does not consider the economic, social and ecological impacts of proposed measure of mandatory fungicide spraying for Australia's Organic Vegetable Industry

There is no mention of Australia's organic food industry in this draft review.

The proposed measure of forced coating of all imported seeds with a broad spectrum fungicide will likely cripple Australia's burgeoning organic vegetable industry – as farmers will be unable to source the organic seeds from overseas which they have built their businesses upon. This will potentially lead to job losses across the organic industry and significant loss of current and future export earnings.

The number of organic vegetable seeds that will be banned from importing is significant and represents a large portion of a typical organic grower's product portfolio. This will significantly reduce organic vegetable growers ability to earn a living and derive sufficient cash flow to run their businesses. As a result, these organic farmers are likely to shut down their organic growing business which puts at risk all organic vegetables currently grown in Australia.

The proposal to ban the organic industry from importing organic vegetable seed, will directly undermine the security of thousands of organic small businesses who have invested millions of dollars in establishing this growth sector including growers, sellers, manufacturers of organic vegetable products, organic restaurants, cafes and retailers. This draft policy will impact negatively on this growing industry which has grown exponentially over the last decade and is expected to continue to grow strongly in the years to come.

According to the latest [Australian Organic Market Report\(AOMR\) 2017](#), the organic food, beverages and supplements sector is growing worldwide. For example, the number of certified-organic operations in Australia grew by a robust five percent between 2015 and 2016 (AMOR, 2017 p.6). In 2016, AMOR 2017 estimates across Australia there was:

- 2,075 certified-organic producers;
- 1,163 certified processors; and
- 513 certified handlers. (AMOR, 2017 p.6)

In financial year 2015-2016, AOMR 2017 estimates Australia's domestic market for organic products to be worth over \$1.4 billion to the economy, with value of Australia's organic market sector estimated to be worth \$1.72 billion to the economy (AMOR, 2017 p.8).

No consideration is given by the draft review to the potential for the organic food industry to be granted time to adjust and develop their own domestic seed industry before organic vegetable seed for varieties outlined are effectively banned by the proposed measure.

3 The review does not consider current baseline level of risk mitigation by conventional and organic vegetable growers of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphani*.

What is the current baseline level of risk mitigation by the conventional vegetable industry and organic vegetable industry to control for this commercial risk to their product? This is important as it will give an indication of the potential marginal benefit of the proposed mandatory measures.

Can the final review provide in detail what measures conventional farm businesses currently employ to control for this risk to their bottom line? i.e Does the Department have data or can data be sourced to show the current risk measures used by the conventional growers to gain an understanding of how much does the industry already use 'fungicide treated seed' vs other measures?

Can the final review provide evidence of what measures do the organics vegetable industry currently employ to manage this risk?

4 The review does not explore what non-fungicidal measures could be implemented to reduce the ALOP from the assessed Low Risk to the required Very Low Risk.

The pathway to reducing the risk of *Colletotrichum higginsianum* and *Fusarium oxysporum* f.sp. *raphani*. is considered by the draft report only for conventional growers, with no consideration given to designing a targeted measure for organic growers.

The final review needs to identify the most effective strategies to address reducing the ALOP without the use of fungicides and make this option available to both conventional and organic growers.

The final review needs to offer cost effective solutions for both conventional and organic growers.

5 The draft review does not consider the economic, social and health impacts of proposed measure of mandatory fungicide spraying on wellbeing of current and future Australian consumers

Organic food is a choice for many reasons and that choice is a freedom that Australian's value.

The draft policy measure of mandatory fungicide spraying will impact negatively on current and future consumer welfare of all Australians who will be denied the opportunity and freedom of choice to purchase locally grown or grow themselves organic varieties of *Brassica oleracea*; *Brassica rapa*; *Eruca vesicaria*; and *Raphanus sativus*.

The organic industry in Australia is a valuable and growing segment of the Agriculture sector in Australia and has been driven by increasing demand from Australian's seeking out chemical free health food. Consumer demand for organic vegetable produce has grown exponentially over the last decade and has been assisted by the increase in organic vegetable ranges supplied by the major retailers of Woolworths and Coles. Demand for organic produce is projected by the industry to continue to grow strongly in the years to come if this draft measure is not enacted.

The review does not consider the impact of their proposed measure on the welfare of vulnerable Australians with chronic health conditions who are advised to consume chemical free organic vegetables by medical practitioners. This measure removes from these Australian's the option to purchasing organic vegetables grown locally – and will impose upon these families either a significantly reduced choice of food or much higher costs of living as likely more expensive imported organic vegetables will replace Australian produce in supermarkets.

The review does not consider the impact of this measure on wellbeing of families and households, community groups and schools that value being able to grow their own organic vegetables. The loss of organic seed supply and of organic certification for many businesses along with a reduced range of open pollinated pesticide free seed will dramatically impact the growth in local urban agriculture, market gardens, school and community gardens and young families and backyard growers' choice of organic and chemical free seeds. Organic home growing has been a choice available for all Australians regardless of whether you are fully organic or not. This draft review proposed measure will take this choice away for all Australians.

The review does not consider the implications for small growers and backyard growers from potential exposure to fungicides from the handling of fungicide sprayed seed. This risk to health from the mandatory spraying of all imported seeds of *Brassica oleracea*; *Brassica rapa*; *Eruca vesicaria*; and *Raphanus sativus* needs to be better understood and considered as part of the final review's assessment of potential measures.

6 The review does not consider the economic impact of mandatory fungicide spraying on market dynamics including its likely negative impact on competition in seed markets

The final review needs to undertake an assessment of the potential economic impact of the proposed measure. It is highly likely the proposed measure will lead to increased market power of a small number of large international seed suppliers, resulting in less competition and choice in seed varieties for Australian growers and reduced choice for Australian consumers.

The final review would benefit from understanding the potential market implications of the proposed measure to restrict all imported seed to only fungicide treated seed?

- For example, does this policy effectively 'lock in' monopoly price setting power and result in homogenisation of seeds sold in Australia by a few multinational conglomerates that dominate this market at the expense of Australian conventional growers and consumers?

The final review needs to consider the potential market dynamics that will result from the proposed measure which could have a detrimental effect on conventional seed growers, as a mandated market for fungicide seed may remove any other competition from smaller heirloom seed suppliers that would otherwise not be produced in bulk for mainstream supply.

- The final review needs to consider if the market for mandated fungicide treated seed imports is likely to be dominated by only a couple of conglomerates who could be expected to corner the market and over time extract monopolistic rents?
- In terms of conventional growers' demand for seed, can the final review provide data on composition of demand for seed across different varieties ie. how much of this demand is fungicide treated seed, how much is niche heirloom varieties?
- Is there data on who the suppliers of seed are to Australia including break down between fungicide and non-fungicide seed to gauge an understanding of the current market concentration of seed suppliers? This is important as it will give an insight into the potential impacts of this measure on market dynamics.

7 The draft review does not consider the potential impacts of reduced competition for seed supply on small farm businesses

The final review needs to consider the potential impacts of measures on diversity of seed supplies and potential impacts on small family owned farms and potential reduced diversity of conventional vegetable supplied to consumers.

There may be cases where small family run farms have survived by diversifying into niche markets and supplying unusual varieties from small seed suppliers that would otherwise not be produced in bulk for mainstream supply. It is unclear if these same varieties will be available under the proposed measure of mandatory fungicide spraying of all seed, as it is likely that the large suppliers of fungicide seeds who will have market power and dominance internationally in the market for broad spectrum fungicide treated seeds will dominate the supply of seeds.

This could potentially restrict smaller farmers ability to source heirloom seed supply which would not be produced in bulk for large Agribusinesses. As a result, these smaller farms may be forced by lack of options to purchase the same fungicide treated vegetable seed varieties as the larger Agribusiness which they will be unable to compete with on price as the much larger Agribusiness farms can produce far more product and at a much lower cost. This could likely result in job losses and closure of small farms across the sector which could have significant regional, and social impacts.

8 The final review would significantly benefit from an international comparison of other countries biosecurity procedures/measures – including New Zealand.

What processes and measures do other countries use to manage bio-security risks of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphani*. for imported seeds of *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus*?

- What biosecurity measures do other countries use for imports of organic seed?
- Are there more effective measures other than mandatory spraying which are employed by other countries for both conventional and organic growers?

Do other countries ie New Zealand also share this same assessment provided in this draft review and do other international bodies also agree with the assessment of the Department that risk profile of quarantine pests *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphani*. infiltrating seed supply of conventional and organic *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus* seed imports has increased?

9 The draft review does not consider the impacts of mandatory fungicide spraying on reducing competition and diversity of supply of seed varieties and associated increase in biological and food security risks from a limited genetic pool.

The potential market dynamics discussed above are also likely to deliver a significantly limited range of seed varieties due to likely dominance of a few sellers and increase market share of large Agribusiness.

The final review needs to provide analysis of the associated risks from a reduced diversity of seed varieties grown in Australia to determine the potential impacts of the proposed draft measure on long term biosecurity of Australia's agriculture sector and the nation's food security.

10 The final review needs to consider the impact of proposed measure of mandatory fungicide spraying on the health of Australia's soils

The final review needs to examine evidence on what is the impact of long-term widespread use of fungicide sprayed seed on the health of soils to ensure this policy does not unintentionally damage the productive capacity of soils. For example, the draft review does not address if widespread use of fungicide seeds treatments across the entire conventional vegetable industry that produces *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus* will have a negative impact on beneficial soil fungi, bacteria and consequently may undermine the productivity of Australia's soils used in vegetable production?

There is increasing evidence that coating seeds with broad range fungal treatments can destroy the beneficial fungi which are vital for healthy plant growth. For example Hoggan (2013) assessed seed-applied fungicides for their effects on mycorrhizal development and found:

- Systemic fungicides restricted mycorrhizal colonization and host growth;
- Contact fungicides had minimal effects on mycorrhizal colonization and host growth;
- Fungicidal effect on AMF development depends on specific fungicide-AMF interactions; and
- Pyrosequencing analysis revealed AMF community composition changes by fungicides.

The final review needs to assess different fungicides impacts on mycorrhizae to ensure that fungicides are not chosen which may compromise the essential roles that mycorrhizae play in food production. In addition, the appropriate type of fungicide needs to be specified in the final review, to ensure unintended impacts are fully understood and managed to ensure an acceptable form of protection is provided without compromising the essential roles that mycorrhizae play in food production.

11 The final review needs to provide more evidence to support the assertion the risk profile for Brassica oleracea, Brassica rapa, Eruca vesicaria and Raphanus sativus seed imports from the identified quarantine pests Colletotrichum higginsianum and Fusarium oxysporum f. sp. raphanin. has increased.

The reasons currently provided in the draft review (quoted below) to support the position that the risk profile has increased are spurious, with the draft review acknowledging that the globalisation of vegetable seed trade being only “part linked” to an observed increase of pathogens being reported outside their previous known distribution.

- Being only ‘part linked’ is not a causal relationship. For example, the increased observation of pathogens outside previous known distributions may simply be due to increased sampling whereby pathogens have not spread but simply are now being more easily identified and reported and may have nothing to do with the seed trade or may be due to other causal factors.

“In recent years, seed-borne pathogens have increasingly been reported outside their previously known distribution, in part linked to the increasing globalisation of the vegetable seed trade. Seed industry production practices are also changing, and seed lots are now commonly produced and multiplied in various countries, instead of a single country. This has increased the likelihood of the seeds’ exposure to pathogens and the introduction of pathogens to new areas” (Page 5, Draft review of import conditions: brassicaceous crop seeds for sowing).

The final review needs to provide data to support the draft review’s assertion that there is a causal link between the globalisation of seed trade with the generalised observation that there may have been an increase in reports of seed related pathogens outside previously known distributions?

The final review’s risk assessment would benefit from:

- Providing an analysis of the transmission mechanisms whereby the pests *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphanin*. could potentially infiltrate the seed production supply for both organic and conventional seed supply of *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus* seeds;
- examining industry data on the locations for seed production/processing for both conventional and organic *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus* seed suppliers and mapping this against geographical areas where *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphanin* are currently distributed;
- detailing what specific evidence is there that quarantine pests *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. *raphani*. have infiltrated the seed supply of both conventional and organic *Brassica oleracea*, *Brassica rapa*, *Eruca vesicaria* and *Raphanus sativus* seed imports and at what geographic locations has this occurred?

12 The final review would benefit from analysis of the potential measures available for industry to mitigate the economic cost and spill-over effects from *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. raphani. on both conventional and organic vegetable growers

The final report would benefit from considering the options available to conventional and organic growers to manage a potential outbreak of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. as part of accessing the full costs and benefits of proposed measures.

For example the final review needs to examine in detail:

- Measures conventional and organic farmers can employ (and at what cost) to neutralise and control for *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. if it is released?
- Does *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. raphani. impact on crops over a single season, or are there legacy effects where the outbreak damages production indefinitely or does the impacts decline over a number of years?
- What are factors that ensure impacts of *Colletotrichum higginsianum* and/or *Fusarium oxysporum* f. sp. raphani. remain localised?
- Are there measures conventional and organic growers can employ to have an impact on the legacy effects over time (ie can these pests be eradicated or are they permanently in the soil once they have been introduced)?
- Are there measures farmers can employ to neutralise potential spillover and contagion effects?
- What is the experience of possible control measures in other countries when there has been outbreaks of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp.?
- What are the factors that could lead to *Colletotrichum higginsianum* and/or *Fusarium oxysporum* f. sp. being spread via spillover effects and what is the likely geographical size of the spillover from an outbreak?
- What has been the experience of other countries in terms of the scale and impact of the risk being realised when there has been historically an outbreak of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. raphani.?

13 The review does not consider the long term likely efficiency of the proposed measure of mandatory broad spectrum fungicide spraying on all seed imports?

The review does not consider the long-term effectiveness of 'broad spectrum' fungicides sprayed on seed at addressing long term risk of *Colletotrichum higginsianum* and *Fusarium oxysporum* f. sp. raphani?

There is some scientific evidence to suggest that over time the effectiveness of fungicides decline due to resistance. For example see recent studies by Hahn, Matthias (2014), Wyenandt and Maxwell (2011), and Wyenandt, A. (2016).

The final review needs to assess:

- if there are management practices or other organic interventions that may prove more effective in the long term? and
- the need for a fungicide resistance monitoring and management strategy developed in partnership with both conventional and organic growers.

14 The review does not address the clear labelling of seed treatments so all buyers and growers are aware of what fungicides have been applied to seeds.

All growers including community groups and backyard growers and consumers of vegetables grown from seed sprayed with fungicide require labelling to ensure they are able to apply informed consent and choice in their purchase decisions such that the consumer and grower is aware of the fungicide used.

As the interaction between different fungicides and mycorrhiza is specific to each plant and mycorrhiza in many instances (see Hongyan J. 2013), any treated seeds must be specifically labelled with the fungicide used. This would align with the labelling of pesticides. The final review must specify the legislation under which the labelling requirements are decided.

The final review must specify how the government will ensure this important information is available to growers and consumers through labelling of which fungicides have been applied (if the draft measure is adopted). The final review needs to ensure sufficient protections are provided to consumers and growers of fungicide treated seed.

15 The review’s final report needs to be released for public comment again to ensure all Australians that will be impacted by the proposed measures are given a real opportunity to comment to improve the policy.

Importantly the outcomes of this draft review have not been broadly publicised in any way proportional to the extent and impacts that the proposed measures will have on Australian businesses, jobs and consumers. We note the Department of Agriculture and Water Resources only issued a media release on the draft review on the 6 April 2018, just prior to submissions closing on the 19 April 2018. Due to limited media coverage it is very likely the majority of Australians are largely unaware of the magnitude of the impacts of the measures included in this draft report which have not been adequately assessed for their broader economic, social, health and ecological impacts.

The consultation process consisted of establishing the Imported Seeds Regulation Working Group (ISRWG) which was created to consult with industry. Notably the ISRWG did not include representation from any representatives of the Organic Vegetable Growers Industry and associated Organic Industry in Australia. The Department of Agriculture and Water Resources is the only Australian Government agency represented in the ISRWG. As such the scope and focus of the review and policy proposal is very narrowly defined and does not adequately consider wider economic, social, health and ecological impacts of the proposal of mandatory fungicide spraying for Brassica oleracea, Brassica rapa, Eruca vesicaria and Raphanus sativus seed imports. The Working Group had no representatives from any economic organisations that could provide a whole of economy perspective such as the Australian Treasury or Prime Minister and Cabinet, nor did it have representatives from Department of Environment, Industry, Health or Employment.

The draft review stated next steps asks for stakeholders to comment on the outcomes of the review process requests comments from stakeholders to identify any scientific, technical or other matters they believe require comment or attention. Again, the focus only on scientific and technical issues for comment reinforces the draft review’s narrow scope and potential policy failure to minimise broader economic, social, health, and ecological unintended impacts of proposed measures.

Importantly the draft review does not give Australian’s another opportunity to comment on the final report before it is published on the Department’s website, whereby at this point the Department will notify registered stakeholders and the World Trade Organization (WTO) Secretariat of the findings in the final report. Recommendations made in the final report are expected to form the basis of future import conditions. The review’s final report needs to be released for public comment again to ensure all Australians that will be impacted by the proposed measures are given an opportunity to comment to improve the policy and help governments deliver a best practice, world leading, innovative bio-security policy.

The final review offers an opportunity for governments to deliver practical policy measures that serve both conventional and organic vegetable producers and supports Australian business, jobs, consumers and safeguards the productive capacity of our agricultural land.

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