

# AERIAL AGRICULTURAL ASSOCIATION OF AUSTRALIA LTD.

ABN 13 002 501 886 • ACN 002 501 886



## **Submission to the Agriculture Green Paper**

**December 2014**

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## ***Recommendations***

1. Reconsider how the Commonwealth can play a stronger role in supporting the maintenance of local aerodromes and how it can strengthen the protection of local aerodromes for aviation use.
2. Direct the Commonwealth Department of Infrastructure, in collaboration with CASA, to develop a national real-time low level hazard database, based on a GIS system such as Google maps, accessible by all legitimate low-level pilots and which mandatorily requires the reporting of all hazards that pose a threat to low level aviation including wind farms, wind monitoring towers, radio towers, agricultural GPS towers and powerlines.
3. COAG should establish a national control of use scheme for agricultural chemicals that ensures all jurisdictions have relevant and generally equal requirements for ground and aerial applicators in terms of competence, licencing, risk management, record keeping, auditing and investigation.
4. Direct the APVMA to establish an aerial application task force, including AAAA as a member, to establish a simplified pathway for aerial application registration of products, to identify standardised label statements for aerial application and to ensure that aerial application is being assessed on a level playing field with ground application.
5. COAG should implement the National Aerial Application Pilot Licencing Scheme as outlined by the Product Security and Integrity Committee working group in September 2008.
6. Reduce duplication and red tape by undertaking a sector by sector analysis that identifies the multiple government demands on the sector and potential for simplification or removal. This critical task should not be left to government departments to self-report.
7. Establish new taxation zones that provide an incentive for more people to settle outside metropolitan Australia so as to make rural communities more economically diverse. This would also help address skills shortages, including in aerial application, and recognise the generally poorer government service provision in rural Australia.
8. Implement a range of tax policy initiatives that would increase the resilience of sectors such as aerial application in being able to self-manage highly variable seasons better, including access to improved income averaging and farm deposits for contractors, establishment of a Commonwealth Agricultural Developmental Bank, accelerated depreciation for aircraft, extension of HECs to agricultural pilots, removal of the aviation fuel excise on agricultural aircraft and a review of various tax rulings affecting agricultural aircraft.
9. Encourage States that have not removed mandatory chemical insurance requirements for aerial application to do so in accordance with the National Competition Policy review recommendation.
10. Establish a National Agricultural Development Bank that would offer finance solutions to agriculture dependent industries such as aerial application.
11. Introduce access to HECS for professional pilots pursuing a commercial pilot's licence and an aerial application rating required to participate in the aerial application industry.
12. Establish a nationally consistent framework for recognising industry co-regulation, programs and accreditation systems so as to reduce the regulatory burden on industry and improve productivity, safety and quality assurance outcomes.

13. Initiate a major schools-based education program on agriculture, including identification of career pathways, including aerial application.
14. Extend any drought relief policy to include agricultural service providers such as aerial application companies.
15. Develop a range of measures to secure appropriate water allocations for agricultural use and establish incentives for water saving measures and recognition for existing sound water management practices.
16. If Commonwealth or State policies on agricultural water allocations result in significant costs or a significant loss of market or turnover to contractors such as aerial applicators, then a compensation scheme should be established to support the adjustment.
17. Recognise the current 'zero' level of government support for R+D in the aerial application sector and open discussions with AAAA to establish an appropriate funding system to support aerial application research, development and extension.
18. Better communicate to the community the current measures in place to ensure food safety.
19. Ensure free trade agreements automatically include negotiations around aviation issues and access for Australian aerial application companies, service and products. In the case of existing FTAs, schedule the inclusion of aviation issues in the next available rounds of negotiations.

## 1. Introduction

A key element in meeting the challenge set by the UN FAO in its definition of food security is for Australian Commonwealth, State, Territory and local governments to ensure that their policy settings create and sustain an environment where agricultural and forestry production is given an appropriately high priority against competing interests.

In other words, agricultural policy must include a means to identify and rectify government policy settings that work against positive agricultural outcomes.

A broader perspective must be taken to ensure that the production system is not so narrowly defined in a policy sense as to ignore the critical contribution made by agricultural service industries such as aerial application.

All too often, government policies have ignored the plight of agricultural service industries and contractors, expecting their essential capabilities to somehow survive seasonal variation without any longer-term framework of flexibility – such as could be provided through the taxation system – or support – such as through drought policies – or relief – such as through the current ‘Cutting Red Tape’ initiatives.

In addition, the regulation of aerial application is in many cases not based on science or risk (eg APVMA) or is characterised by inefficiency and red tape for no safety outcome (eg CASA).

An integrated approach to government policy development with a focus on agricultural security that includes the providers of agricultural services is a welcome initiative.

This White Paper process infers the existence of a community and government awareness - and accompanying policy settings - that ongoing access to appropriate quality and diversity of agricultural products for the Australian people is fundamental to the national interest.

This is something that has to a large degree been taken for granted in Australia, where government has been able to rely on consistent crops providing not only domestic supply but also export earnings for the national economy. The government has also been able to rely on a highly efficient, adaptive, and innovative rural and agricultural sector that has to some degree reinforced the policy laziness in terms of agricultural production security.

Other countries do not take their food security for granted as most Australian do. For example, on a Churchill Fellowship to the US, an Australian aerial applicator noted in their report that:

**“It’s a Matter of National Security”.**

This statement was repeated freely to me by many aerial operators, farmers, departmental authorities, regulators and American citizens. The overwhelming

sentiment by the average American, that their nation be able to sustain the ability to feed their own people, was enormous.

Agriculture in the USA is considered to be an indispensable industry. It is considered by many a direct security issue if they were to become unable to feed their own. The American people have an appreciation for their armed forces, for their freedom and for agriculture...

The fact that so many Americans see their food source as a Matter of National Security, places the industry high on political and social agendas, unlike Australia, where in our last election, agriculture was barely mentioned in the political campaign by either of the major parties.

*(see McDonald, M, Churchill Fellow Report 2010 – [www.churchilltrust.com.au](http://www.churchilltrust.com.au))*

Australia can start to redress this malaise by developing a national agricultural policy that provides recognition, efficiencies, resilience and safeguards, but the plan will be a failure if it does not permeate all relevant government policies, legislation and regulation.

In the longer term, the ongoing population drift away from agricultural production areas, skills shortages and the widespread lack of understanding of the importance of an Australian food production industry to all Australians may have to be countered by government policies and campaigns that provide leadership in the area of agricultural policy.

Australia will not reach a state of improved agricultural outcomes until:

- There is security of land and water for agricultural production
- The wider population has an appreciation of the importance of agricultural production – probably starting in schools
- Policy makers automatically include a consideration of agricultural production into the development of whatever policy they are working on. This may require regulation in the interim, for example, by mandating the inclusion of agricultural considerations in Regulatory Impact Statements.
- There is an overarching government commitment to policies that enhance agriculture
- There are additional incentives for people to live in areas of agricultural production
- There are incentives, encouragement and recognition for agricultural and supporting industries to maintain and accelerate their pursuit of continuous improvement.

## **Agriculture, People and the Environment**

A triple bottom line approach is required to sensibly address the policy decisions required to place Australia on a sustainable trajectory – agriculture, people and the environment.

National policies are required on agriculture, regional and rural development and sustainability to better inform the current debate.

Without people and skills, agriculture cannot flourish.

Without rural towns that have adequate infrastructure including good transport systems (roads and aviation), safe hospitals and doctors, sound education for children, adequate supply chain outlets including banks and machinery parts suppliers and other facilities taken for granted by metropolitan Australia, then people will chose not to live in agricultural areas.

Without agriculture or people, the environment will have no stewards and while that may be attractive or even Utopian to some extreme environmentalists, the greater Australian community – and our overseas clients - will suffer through a lack of food and fibre supply and the landscape will suffer through erosion, noxious weeds and introduced species invasion.

Ignoring the interconnected nature of people, agriculture and the environment, or focussing on only one aspect in this interconnected system is poor policy that will lead to unsustainable outcomes.

Timing is critical – due to recent droughts, there is little resilience within agriculture or rural communities. Both agriculture and rural communities need clever government policies that establish a trusted and effective framework so that change can be successfully absorbed without large-scale dislocation.

## **2. AAAA**

The Aerial Agricultural Association of Australia (known as ‘four As’), represents the professional aerial application industry, providing critical aviation services for agricultural production and emergency response.

The Association members account for over 90% of all aerial application in Australia. The Association has been active since 1958 and provides a comprehensive mix of training, education, professional development, conference and accreditation services to our members, as well as ensuring our elected representatives are kept up-to-date with industry issues, problems and opportunities.

AAAA works closely with State and Federal agencies on a range of policy issues. Our website is: [www.aerialag.com.au](http://www.aerialag.com.au)

The Association has its national office based in Canberra and is governed by a Board of Directors with representation from business owners and pilots. The Board is in regular consultation with the CEO and application operators and meets formally on a regular basis.

AAAA's mission is to promote a sustainable aerial agricultural industry based on the professionalism of operators, pilots and staff and the pursuit of industry best practice.

### **Aerial Application In Australia**

Modern and effective agriculture must maintain an aerial application capability to protect crops, soil quality, productivity and environmental values.

Aerial application includes the spraying of agricultural chemicals onto crops, forests, pasture and grazing land to protect against the impacts of insect pests, weeds, fungi and a range of other threats to land productivity.

Aerial application also covers the application of fertilisers - both liquid and granular - to crops, pastures and forestry, significantly lifting agricultural productivity. Aerial application also sows seed for crops (such as rice and occasionally wheat). Aerial application also spreads canola seed, pasture seed, native vegetation seed, and grass seed for environmental and mine site rehabilitation.

Aerial application helps to improve and stabilise the environment through erosion control and reduces soil compaction and disease transfer due to flying over the crop rather than passing through it.

Aerial application includes the use of aircraft (both fixed-wing and helicopters) in the fire-bombing of bushfires, the management of oil spills for environmental protection, and vertebrate pest management and noxious weed control in National Parks and elsewhere. Disease vector control is managed through the spraying of mosquitoes, including in urban areas, and plagues of locusts and mice are managed by aerial application. Exotic pest and disease outbreaks are also contained by aerial application, including fire ants.

Aerial application is generally undertaken at heights of approximately three metres above the ground for spraying operations to approximately 30 metres above the ground for topdressing, sowing and similar operations.

Agricultural aviation directly employs approximately 2000 personnel comprising pilots, field staff, maintenance staff and administrators, depending on seasons. The industry uses more than 300 specialist aircraft with supporting vehicles and equipment, together with established aircraft maintenance facilities throughout the country.

The industry has progressed considerably in knowledge, skill and degree of professionalism since the late 1940's image of the 'crop duster', partly due to the role of AAAA in professional development and training and representing the interests of both pilots and operators.

There are approximately 130 aerial application companies active in Australia. The split between States is approximately:

- NSW – 52 companies
- Qld 35 companies
- Vic 21 companies
- SA 3 companies
- WA 10
- Tas 5
- NT 3

Company size varies from family run micro-businesses to larger companies employing more than 50 people during peak periods. Most companies use fixed wing aircraft, but rotary wing aircraft are used by approximately 30 companies.

Aerial application underpins employment in service sectors such as transport, fuel, chemical and aviation equipment suppliers, engine overhaulers and repairers, avionics suppliers and repairers and others.

### **AAAA Issues**

There is a range of issues of particular importance to the aerial application industry which should be considered in any Government policy on agriculture.

These include:

- **Land planning and competition for land use**
  - Security of tenure and land-use control is essential for high value food production areas
  - The need for a national approach that places agriculture on an equal footing to mining and energy production (particularly windfarms and their impact on aerial application – for more detail see AAAA submission and evidence to the Senate Community Affairs Committee Inquiry into the Social and Economic Impacts of Rural Windfarms)
  - The ‘right’ to farm, which will become increasingly important in areas under pressure from ‘hobby farm’ developments and urban encroachment, as well as from mining and energy companies.
- **The critical role of service sectors to agriculture and food production**
  - Contractors/service providers such as aerial applicators make a critical contribution to agricultural production
  - They represent a highly efficient use of capital and time
  - They provide products and services that could not be afforded on a single farm basis for all but the largest of agricultural production enterprises
  - In some cases, such as extremely wet years, aerial application plays a critical role in enabling agricultural production where other systems of crop protection are simply not viable
  - Some crops have unique features that require aerial application- such as bananas, cane and forestry.

- **Continuing Aerial Application Capability**
  - Government policy needs to include consideration of how to sustain an aerial application capability
  - Removal of red tape and duplication from multiple regulators
    - CASA
    - APVMA
    - State chemical control of use regulators
    - WH&S
    - Dangerous Goods etc
  - Financial policies
    - Drought support policy for contractors
    - Improved flexibility, clarity and certainty for contractors and sub-contractors
  - Tax system
    - Income averaging across five years at least in highly variably industries
    - Investment incentives – potentially linked to carbon efficiency and more efficient aircraft
    - Removal of taxes such as the aviation fuel levy that is applied to aerial application.
  
- **Agricultural sustainability**
  - The role of aircraft in crop protection is significant
    - Right product, right place, right rate, right time, right price
    - In wet years may be the only method to protect crops
    - In some crops, is the only viable and safe method of protection (eg bananas, rice, cotton, forestry)
  
  - The role of APVMA
    - Ongoing aerial access to chemicals is critical to ensure crops can be effectively treated while ensuring the environment, trade and human health are protected.
    - Spray drift reduction technology recognition system is critical and still missing from APVMA systems
    - APVMA should be able to recognise management systems that deliver safe results, such as the AAAA Aerial Improvement Management System - AIMS.
    - See the AAAA Submission to the Commonwealth Inquiry into Better Regulation of Agricultural Chemicals ([www.daff.gov.au](http://www.daff.gov.au))
  
  - Protection of the environment, health and trade
    - The need for consistent national regulation of all chemical applicators
      - Consistent levels of competency across States/Territories
      - National licencing systems for ground and air applicators
      - Mandatory training for all applicators
      - Mandatory record keeping
      - Appropriate audit and investigation, including of ground applications.
    - The need for regulation of agronomists and advisors to ensure they are accountable, competent and liable for prosecution if they make 'recommendations' off-label
    - The need for direct Commonwealth funding of strategic research to support the development and uptake of improved technology by aerial application,

including support for wind-tunnel testing of nozzles and chemicals, training manuals and courses.

- **Emergency services**

- An important community benefit of aerial application is the availability of a significant aerial fire-fighting capability to attack bushfires.
- Oilspill control – also critical to the management of fisheries – is conducted by aerial application using the same aircraft and pilots who provide agricultural services.

### **3. Infrastructure**

There are two key elements that are critical components in any consideration of agricultural policy:

- People – without people living in rural and regional Australia it will be very difficult to sustain traditional levels of production. Government policies to encourage and support people living in rural Australia are critical to food production. This includes the maintenance of communities in rural areas that provide the often intangible support, social and community services that provide rural and regional Australians with equitable access to the type of services available to metropolitan Australia.

However, if there is a continuing trend of less people in rural and regional Australia involved in agriculture, then the role of highly productive service providers such as aerial application becomes even more critical.

The capability of aerial application to offer farmers a cost and time effective means of protecting their crops and increasing yields should not be underestimated, including as a significant multiplier effect whereby the speed at which treatments can be delivered adds significantly to farmers' efficiency – even with less people on the ground.

- Innovative and adaptive industry – Australia is fortunate to have a very inventive and 'early-adaptor' culture in much of its farming and related sectors. While guardianship of this culture sits primarily with industry itself, it should also be nurtured and supported by government policies and structures that encourage, facilitate and communicate innovation rather than stifle it.

An excellent example is the lack of a spray drift reduction recognition system within the APVMA which currently serves to lock-in current practice and stifles innovation.

In particular, government can play a very important role, with minimal call on resources, by assisting highly specialised industries that can have a very broad positive impact, such as aerial application, to develop better techniques and equipment that is beyond the reach of the individual sector.

For example, there is significant research support for aerial application through the USDA, while there is zero in Australia. Instead, government takes the role of a freeloader on the industry's own research program, despite offering considerable research support to other sectors in agriculture.

### **Aviation Infrastructure**

Aviation infrastructure is consistently overlooked as a Commonwealth responsibility since many aerodromes were handed back to local government following the abolition of the previous Aerodrome Local Ownership Program (AOLP). Since that time, many aerodromes have suffered from an ongoing challenge to meet maintenance costs purely from aviation users, even though the local community and the national economy also gains from their ongoing upkeep.

Many of these aerodromes are used by aerial applicators in addition to other users, both commercial and private.

Unfortunately, many aerodromes are seen as a 'land bank' by local real estate developers who envisage the carve-up of such an important local asset delivering them significant personal gain.

While some important and positive work has been undertaken by the Commonwealth Department of Infrastructure through the National Airport Safeguarding Advisory Group (NASAG), their recommendations are advisory at best and generally left to implementation by State planning authorities and local government, both of which have often demonstrated a very poor understanding of the importance of aviation infrastructure.

#### ***Recommendation 1***

*Reconsider how the Commonwealth can play a stronger role in supporting the maintenance of local aerodromes and how it can strengthen the protection of local aerodromes for aviation use.*

### **Windfarm and powerline hazards**

Windfarms and their supporting meteorological evaluation towers (METs) pose a direct threat to legitimate low level aviation users such as aerial applicators, as do powerlines.

METs can be erected in a day and are very difficult to identify. They are generally unmarked and un-notified.

There is no national real-time database that holds information relating to the position of windfarms, METs or powerlines and which is accessible by pilots, despite AAAA having consistently called for the establishment of such a database for years.

AAAA has developed a comprehensive wind farm and powerline policy and national operating protocols so as to inform regulators, asset developers and operators alike of the need for action on their part to fulfill their duty of care to Australia's aerial applicators. All of these documents are available from the AAAA website – [www.aerialag.com.au](http://www.aerialag.com.au) / Resource Centre / Policy.

AAAA believes that:

- All wind monitoring towers—including guy wires—must be clearly marked to assist pilots to see them
- All wind monitoring towers and windfarms should be registered on a national database accessible by legitimate low level aviators in real time
- All wind towers, wind monitoring towers and associated infrastructure must be required to be removed when no longer in use
- All powerline company mapping information should be readily available to aerial application companies in a useable format
- All powerline companies should have a system for the cost-effective marking of their wires where they are reported as posing a risk to aerial application.

Again, the Commonwealth has undertaken useful work in this area but the outcomes are advisory in nature and not binding on any windfarm developer. The NASAG Guidelines to assist with marking of aviation hazards are available from: [http://www.infrastructure.gov.au/aviation/environmental/airport\\_safeguarding/nasg/files/4.1.3\\_Guideline\\_D\\_Wind\\_Turbines.pdf](http://www.infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasg/files/4.1.3_Guideline_D_Wind_Turbines.pdf)

AAAA has also given evidence to the Senate Windfarm inquiry – a copy of the transcript is available from: <http://www.aph.gov.au/hansard/senate/committee/S13670.pdf>

AAAA notes with sadness the deaths of agricultural pilots in the US from hitting unmarked, un-notified towers, and the related \$6 million legal settlement from one of those cases. <http://www.agaviation.org/content.asp?contentid=407>

Powerline companies hold mapping information of their network assets, but only one company in Australia – Essential Energy from NSW – makes that information available to the aviation sector in a user-friendly package.

### **Recommendation 2**

*Direct the Commonwealth Department of Infrastructure, in collaboration with CASA, to develop a national real-time low level hazard database, based on a GIS system such as Google maps, accessible by all legitimate low-level pilots and which mandatorily requires the reporting of all hazards that pose a threat to low level aviation including wind farms, wind monitoring towers, radio towers, agricultural GPS towers and powerlines.*

## **4. Working with the States and Territories**

### **National Control of Use Regulatory System**

The lack of a nationally consistent agricultural chemical control of use system is clearly a fundamental flaw in efficiently managing key inputs into agricultural production.

#### **Recommendation 3**

*COAG should establish a national control of use scheme for agricultural chemicals that ensures all jurisdictions have relevant and generally equal requirements for ground and aerial applicators in terms of competence, licencing, risk management, record keeping, auditing and investigation.*

### **Reform of APVMA**

The APVMA has a range of measures that actively work against the registration of chemicals for aerial application use for no good risk management or scientific reason.

The current APVMA approach is to work on the worst possible scenario and to apply that to all aerial application scenarios, regardless of the capability of the applicator to deliver a better result.

In other words, the current APVMA system locks in a worst case scenario for aerial application that discourages registrants for applying for aerial registration, that ignores the potential to encourage drift reduction technology and practices, and which is actively damaging agricultural outcomes in Australia.

For example, if a label includes a high chemical rate for 'right of way' type applications, then that rate is used in setting buffers and other requirements even if the 'normal' cropping use rate is significantly less – thereby requiring a smaller buffer.

This refusal to permit better practice using real world risk assessments is simply very poor policy and damaging to agriculture.

While AAAA understands that a discussion paper on drift management policy and the introduction of a drift reduction technology recognition system is likely to be issued by APVMA in February 2015 (some 12 months overdue), this will not immediately address the damage already caused by the existing policy.

AAAA congratulates APVMA on recognising the damage its existing policy has caused for no environmental, human health or trade protection benefits, and looks forward to participating positively in that review to hopefully establish a fully functional spray drift reduction technology recognition system in Australia. However, AAAA warns against a limited focus on only new technology alone – pieces of equipment – in delivering better outcomes and receiving recognition. There are a wide range of initiatives – management systems, spray application planning,

reduction in rates used, real-time meteorological conditions to name a few – that can also offer significant benefits but which currently go unrecognised.

While AAAA welcomes the upcoming APVMA drift policy and is hopeful that it will remove the current policy problems, AAAA remains concerned with the amount of time this process is taking.

Currently, label statements for aerial application are close to incoherent across a wide range of labels, leading to a challenging operational interpretation environment and difficulty with accessing definitive advice from APVMA on safe application. Inconsistencies between different labels for the same active ingredient are adding to problems.

Current label statements are far from standardised and have led AAAA to establish a 'Stupid Label' program to highlight the issue to APVMA and registrants. Labels suffer from a range of often historic and non-science based requirements that are counter to current sound practice. In some cases they require equipment use that would likely cause spray drift issues.

The current process required to attain an aerial application approval on a label is having the effect of significantly reducing available chemicals for aerial application. Registrants are being informally advised by APVMA that adding an 'aerial' approval to a label will lead to significant delays for their entire product approval.

#### **Recommendation 4**

*Direct the APVMA to establish an aerial application task force, including AAAA as a member, to establish a simplified pathway for aerial application registration of products, to identify standardised label statements for aerial application and to ensure that aerial application is being assessed on a level playing field with ground application.*

#### **National Pilot and Business Licencing Scheme**

While COAG has only been wrestling with agricultural chemical regulatory issues over recent years, AAAA has been sitting on some committees of State/DAFF regulators for over eight years with no identifiable outcome – such as the PSIC Working Group for a National Pilot Licencing System.

This is despite the existing recognition by every State/Territory of the AAAA Spraysafe program as providing the competencies required by every aerial application pilot.

AAAA has made a range of submissions on this issue to other processes and will not repeat the obvious arguments in this submission, other than to point out the dysfunctionality and inconsistency of State/Territory based systems in a national economy.

The proposed National Pilot and Business Licencing Scheme included a proposal for the development of national operational protocols for chemical application. In conjunction with the proposed simplification of pilot licencing across all States, the system would provide a very effective model for the licencing of all ground-based application companies and individuals.

#### **Recommendation 5**

*COAG should implement the National Aerial Application Pilot Licencing Scheme as outlined by the Product Security and Integrity Committee working group in September 2008.*

In addition, no government provides funding support to AAAA to support its critical work in training and education, safety promotion, environmental stewardship or ongoing professional development (*see section on R+D and Extension*).

## **5. Competition and Regulation**

Efficient government regulation is essential for effective continuous improvement of any sector.

Efficient regulation has features that include it being:

- the minimum required to achieve clearly identified and quantified risk management
- outcome based
- nationally consistent
- harmonised across governments
- used only when other measures such as education or cooperative regulation is not viable.

This includes establishing level playing fields in regulation and competition – for example between aerial and ground application which is characterised by very strict controls over aerial application and often few practical controls over ground application. This is not a risk based approach – as evidenced by the clear preponderance of investigations by the States that focus on transgressions by ground applicators.

A national agricultural white paper should provide for better integration and whole of government approaches, rather than the current disjointed approach that dogs agricultural service providers and burdens them with excessive compliance costs, duplication and red tape.

While the current Commonwealth initiative on cutting red tape is a very positive development, evidence to date shows that most regulators are more interested in

window dressing and pretending that they already have efficient systems, when in fact the opposite is true. Genuine reform at a strategic level is required if Commonwealth agencies are to be made more efficient and responsive to the limited capacity of especially small business enterprises to carry any heavier burden of government red tape.

The agricultural white paper should also recognise that the agricultural production system includes those sectors that provide critical supporting products and services, such as aerial application.

Recognition must include policies and programs that support service providers as well as producers. This is not limited to better regulations or an improved tax system that recognises seasonal variability, but should also include specific government funded programs for research and development to contribute to the environmental and economic sustainability of service providers.

The difficulty is not that any one element of the regulatory burden of industry is intolerable (although some are more bureaucratic than effective), but rather that the cumulative effect of government's interaction with the agricultural industry is almost crippling.

In many discussions with Commonwealth and State/Territory regulators, the argument is often advanced that a particular requirement is only small, not of consequence, and will only require a small amount of time from the business. If a requirement is a result of a State regulation, it is seldom considered by a Commonwealth agency and vice versa.

Unfortunately, creeping incrementalism of government regulation in its totality is never assessed by any government.

It is the complex interplay between regulations and regulators, the States and the Commonwealth, one department from another, the left hand from the right, that is providing such a significant burden to industry.

While AAAA understands and accepts that due to the nature of aerial application operations a range of regulators will be involved, it is the lack of national consistency and the lack of any effort on the part of regulators to harmonise their demands that causes a considerable additional and avoidable burden. The lack of a whole of government approach to many issues simply compounds the demands on industry.

It seems that many regulators are not content to regulate for outcomes but want to regulate for how a business will be run and prescribe a range of actions and offences that firstly make prosecution easier. A firmer commitment to outcome based regulation by national and State/Territory governments would create significant potential for a large reduction in the regulatory burden on industry, while not compromising safety or the environment.

For example, for a micro business of a few people in the aerial application sector, the following non-exhaustive list of regulators and their regulations would have to be

accessed, complied with, maintained, recorded, and audits and surveys responded to:

- CASA – licencing of business and individuals; aircraft registration and maintenance; operational regulations; Drug and Alcohol Management Plans and testing; surveys; audits and responses
- ATSB – reporting of all aviation accidents and incidents, cooperation with investigations as required
- APVMA – chemical labels with inconsistent language and layout, different appetites for risk being displayed in chemical assessments, lack of a system to recognise better practice
- State Control of Use – licencing of business and individuals in each State, significant differences in regulations from State to State, even down to philosophies of regulation, record keeping, training etc
- Dangerous Goods – complex and very large regulatory suite, sometimes implemented in the States in slightly different ways despite relying on a national Code
- WH&S – different in some States despite a ‘national’ system. Currently ranges from outcome based to highly prescriptive
- Business – ATO, ASIC, ACCC etc
- Bureau of Stats etc – mandatory surveys on aircraft use etc.

These demands have been increasing over the last decade to the point where AAAA felt it necessary to develop an integrated management system for members - principally to manage the complex, contradictory and often trivial and bureaucratic requirements of regulators that do nothing to provide for safety, security or environmental protection.

Over 30% of the industry have taken up the Aerial Improvement Management System (AIMS) in an effort to better manage the regulatory burden as well as to improve their own performance.

In between complying with regulations, companies hope to actually undertake work and perform a service for their agricultural clients while protecting the environment, staying alive in a hazard rich low level aviation environment, and fitting into appropriate meteorological application windows.

Government regulation is neither responsible nor causative of this consistently high level of performance and positive outcomes.

#### **Recommendation 6**

*Reduce duplication and red tape by undertaking a sector by sector analysis that identifies the multiple government demands on the sector and potential for simplification or removal. This critical task should not be left to government departments to self-report.*

## **6. Finance, Business Structures and Taxation**

The agricultural white paper should incorporate policies that support and encourage people to live in areas of agricultural production so as to both strengthen metropolitan and urban Australia's understanding of the importance of agricultural security and to address the serious skills shortage in rural Australia.

Aerial application is a high capital business that requires significant expertise in both aviation and chemical application. The industry has a number of unique features that are essential to understand to ensure that government policies do not actually damage or impede the industry.

### **Taxation Issues**

There is a range of taxation issues that have a significant impact on the aerial application sector which should be addressed as part of the agricultural white paper process, including:

- Increased flexibility to income average across seasons to encourage greater resistance to drought and long term resilience.
- This should include agricultural contractor access to the Commonwealth income equalisation or farm deposit scheme.
- Access to cheaper and fairer financing through a Commonwealth Agricultural Development Bank that would recognise the unique challenges faced by all contractors providing services to agriculture but which operate in capital intensive industries, such as aerial application. This could include initiatives not currently available from commercial banks including permitting the use of the asset being financed (such as an aircraft) to be used as collateral to secure the loan.
- Accelerated depreciation for aerial application aviation assets so as to permit greater efficiencies from more modern aircraft, enabling aerial applicators to adapt to potential new economies. Given the highly seasonal nature of the industry and the environment in which aerial application aircraft operate, ATO rulings on depreciation and the useful life of application aircraft should be urgently reviewed in cooperation with the industry. In the USA, aerial application aircraft are able to be depreciated by 60% in the first year – enabling aerial applicators to better manage their assets and utilise more fuel and application efficient aircraft.
- Lack of a financially viable education pathway for commercial pilots and application pilots. All application pilots are required to hold a Commercial Pilots Licence by CASA before they can attain their application rating. The cost of this is significant and must be self-funded due to the lack of access for pilots to government education or training pathways. For example, the aviation industry recently suffered a significant skills shortage because government policies do not recognise aviation as a sector requiring education

policy support. By simply extending the HECs scheme or other financial loan support for pilots wishing to pursue a career in aerial application, government would be able to address one of the major impediments to Australia's ability to produce pilots. Currently there is no structure to support the training of pilots through the traditional CASA approved flying training school system, with trainees often incurring personal debts of \$100,000 to attain the relevant licences.

- Aviation fuel excise charges – the government applies a fuel excise to all aviation operators to pay for the operations of CASA – despite CASA playing what can only be described as a minor role in aviation safety in the sector. The aerial application sector – including firefighting operations – should be exempted from the CASA fuel excise charge because of its focus on supplying a service to agriculture.
- Various tax rulings on the treatment of financed purchases of aircraft relating to depreciation, investment allowance and spare parts. These rulings have been in response to broader aviation industry issues, but have a particularly damaging – and possibly unintended - impact on aerial application aircraft.

#### **Recommendation 7**

*Establish new taxation zones that provide an incentive for more people to settle outside metropolitan Australia so as to make rural communities more economically diverse. This would also help address skills shortages, including in aerial application, and recognise the generally poorer government service provision in rural Australia.*

#### **Recommendation 8**

*Implement a range of tax policy initiatives that would increase the resilience of sectors such as aerial application in being able to self-manage highly variable seasons better, including access to improved income averaging and farm deposits for contractors, establishment of a Commonwealth Agricultural Development Bank, accelerated depreciation for aircraft, extension of HECs to agricultural pilots, removal of the aviation fuel excise on agricultural aircraft and a review of various tax rulings affecting agricultural aircraft.*

#### **Aerial Application Company Viability**

Aerial application's efficiency, time sensitivity, and ability to treat wet ground make the agriculture and aerial application partnership very productive.

The aerial application industry has been at the forefront of improving environmental performance over the last 20 years and is now an integral and very professional component of modern environmentally-appropriate farming.

Cotton is protected by aerial application using the latest technology and practices to deliver sound treatments, while minimising off-target application. Aircraft have used sub-meter GPS swath-guidance technology for decades. They are capable of precision applications featuring variable rate and spray quality adjustment in flight.

Much of Australia's rice crop is sown by air due to its accurate and more even placement of rice seed into paddies. The growing rice crop is then protected by the air from pests and disease.

Both rice and cotton feature irrigation methods that make it very difficult for ground applications to be effective at or after watering. The aircraft's ability to make rapid and efficacious applications without damaging the crop is an integral advantage.

In addition, aerial application is used to treat broadacre and dryland crops. Where rain has prevented ground application vehicles from entering fields, it has been aircraft alone that have been able to protect crops ranging from wheat to chick peas to try and ensure farmers gain an economic return.

Similarly, widespread outbreaks of disease such as rust in wheat can only be effectively treated by aerial application because of the massive size of the problem. With high application speeds the aircraft can protect crops in days that would take ground application weeks – or longer.

The ability to move aircraft quickly from one area to another ensures that the advantages of aerial application are available to all farmers, as well as for the support of the community in times of pest plagues and emergencies.

Any significant reduction in irrigation industries – especially cotton and rice – would see a significant flow-on effect to the aerial application industry in those areas.

In turn, this would lead to a significant impact on employment of pilots, engineers, support staff and management.

There are a range of flow-on effects to clients, agricultural production, the environment and local communities as a result.

In some cases, aerial application companies may no longer be viable in some areas.

Additional cost pressures arising from any reduction in the size of the aerial application fleet – as explained below – may result in many more companies not being viable for other than direct economic reasons - but related to the threshold of sustainability of the sector.

There have been significant changes in the utilisation of aerial application over the last decade due to the:

- Significant increase in the use of ground rigs in some areas, partly due to their mostly unregulated status and lack of chemical control-of-use compliance policing, but also, generally drier years allowing unrestricted access to paddocks
- Introduction of integrated pest management principles
- Introduction of GMO cotton
- Chemical company decisions not to put aerial application on chemical labels due to a range of reasons, including registrant claims that this reduces delays in bringing chemicals to market by avoiding APVMA inefficiencies in aerial application assessment and changes in APVMA policies resulting in increased costs.

While these issues have been partly offset by the emergence of new products (such as trace element and organic sprays) and techniques (precision application, direct injection variable rate, variable rate solids), the effect nonetheless has been significant – probably resulting in a general decrease in utilisation in the order of 30%, depending on the area and the particular season.

However, simple changes can mean significant impacts on utilisation. For example, the heavy rain events across eastern Australia in 2010 triggered an almost overnight return to higher utilisation rates. The current drought in Queensland and northern NSW is also having a significant impact on aerial application companies and employees.

Farmers of all crops rely on aerial application. Whether it is conducting aerial control of locusts before they get to major cropping areas, combating bushfires, sowing crops, or applying chemicals, trace elements or fertiliser to crops, forestry and pasture, aerial application is an integral part of modern, efficient and environmentally responsible farming.

If the Government does not want to significantly damage a sector that plays a key support role for agriculture, it must consider the impacts of irrigation cuts on the aerial application industry and the need for policy inclusion of aerial application in areas such as drought relief and taxation.

### **Aircraft Value**

The agricultural and firebombing aircraft market in Australia is relatively small – about 350 specialist aircraft - and any change in the utilisation of aircraft would have a significant impact on the value of aircraft remaining in the fleet.

While there is a theoretical potential to re-export agricultural aircraft (almost all are imported from the US), this is not realistic due to the depressed nature of the US second-hand agricultural aircraft market, the incentives available in the US for purchase of new aircraft (60% depreciation in the first year), the costs involved in re-export, and the sometimes high value of the Australian dollar.

The impact of a significant reduction in utilisation of aircraft would lead to the Australian market being flooded with second-hand aircraft, completely undercutting the value of both the aircraft on the market and those remaining as company assets.

This, in turn, could lead to company asset write-downs. Lenders might then seek to refinance or call-in loans on the basis of the reduced value of assets used as collateral in securing finance and the overall poorer financial position of the company.

### **Aircraft Insurance**

Any reduction in the relatively small size of the Australian agricultural aircraft fleet may have a significant impact on the insurance premiums charged for agricultural operations and related activities.

The US agricultural aircraft market is approximately 10 times larger than the Australian agricultural aircraft market. The significantly smaller scale in Australia already presents major challenges to Australian-based underwriters in securing appropriately priced reinsurance and being able to spread losses across an adequate premium base.

The Australian agricultural aviation market is dominated by a single supplier – QBE Aviation Insurance. As a subset of the much larger QBE company, any decrease in profitability or reduction in total activity may be enough to have them withdraw from the agricultural aircraft market altogether.

Any lack of availability of insurance would have a significant impact on aerial application.

Several States still have mandatory requirements for the carriage of chemical drift insurance as a condition of licencing of aerial applicators and without access to the ‘bundling’ of this insurance with the aircraft hull and hangar-keeper’s liability, this insurance may simply not be available. Consequently, aerial application companies would not be able to operate in NSW, for example.

A National Competition Policy review recommended the removal of the mandatory insurance requirement for aerial application, but some States have refused to comply.

### **Recommendation 9**

*Encourage States that have not removed mandatory insurance requirements for aerial application to do so in accordance with the National Competition Policy review recommendation.*

Agricultural aircraft hull insurance is very expensive as a result of the small market size in Australia and as a nature of the risk involved in the operation. For many companies, this cost can exceed \$60,000 per turbine powered aircraft per year.

The inflexibility of most available policies means that lay-ups and other cost reduction techniques are only available in limited circumstances. Any increase in the variability of seasons due to a reduction in more consistent irrigation cropping would lead to more expensive insurance as aircraft operators would be forced to keep aircraft on full policies for a longer period each season.

### **Aircraft Leasing and Financing**

Without access to insurance for leased assets, finance companies would be very reluctant to provide financing for the purchase of modern and efficient agricultural aircraft.

A new agricultural turbine-powered aircraft can cost up to \$US1.5 million. Purchase of such essential assets would simply not be possible for many aerial operators without leasing and financing arrangements backed by adequate insurance.

A recent twist is that banks are now refusing to include the value of the asset being purchased in calculations for loan or finance approval. This is particularly galling given the significant support the banks received through the GFC by government guarantees.

The establishment of a Commonwealth Agricultural or Development Bank would be one way of supporting agricultural industries to continue to develop in the face of such policies from the banking sector.

### ***Recommendation 10***

*Establish a National Agricultural Development Bank that would offer finance solutions to agricultural dependent industries.*

## **7. Foreign investment**

No comment

## **8. Education, skills and training and labour**

### **National licencing scheme for aerial application**

AAAA has sat on various Commonwealth, DAFF and COAG training and licencing committees for the last 15 years.

Despite the development of a highly efficient and effective national aerial application pilot licencing proposal that had the support of all States, no such scheme has been brought into existence or even been brought before the relevant Ministerial Council.

The National Aerial Application Pilot Licencing Scheme remains a viable option that would remove State duplication, improve the relevance of regulation to the risks, lower costs for industry and government, allow traceback to individual applications, and remove existing red tape and duplication.

Details of the scheme are available from AAAA and should be available through the DAFF file system relating to the PSIC aerial licencing working group minutes and recommendations to PSIC from 16 September 2008.

Current COAG processes focussed on a national control of use system – including licencing – seem destined to ignore the good work that was previously done and which would offer significant savings across all jurisdictions, as well as a significant simplification for industry. There has been little to no consultation with industry by the various State-led working groups and there is certainly no urgency in bringing the process to a timely conclusion.

There is simply no reason why a national licencing scheme should not be pursued as part of the agricultural white paper and serve as a model for all chemical application licencing across the country.

See recommendation 5.

### **Training and Skills Support**

Industries - especially technical industries such as aerial application – depend on good people with good skills. Without a skilled workforce, the capability of sectors such as aerial application will be crippled. The aerial application sector was certainly challenged by the long drought that ended in 2010 and the outflow of skills from the industry during that time.

Pilots and engineers cannot be created quickly. An engineer may require 5 years before becoming fully productive – and still with relatively limited experience and capability. An aerial application pilot may take three years before reaching fully productive status – and then only on smaller aircraft. AAAA provided a detailed submission on this issue to the Senate Inquiry into Pilot Training.

This time lag reflects the difficulty of the sector in responding to seasonal variations and particularly responding to agricultural industries emerging from drought. The impact of drought on aerial application lasts for several years after the first return to better seasons.

Rebuilding the industry and continually refreshing the industry by encouraging younger pilots, engineers and other employees to join is currently compromised by poor government policy relating to career pathways and financing of aviation careers.

There is currently no training support available to aerial application pilots in attaining either their Commercial Pilots Licence or their Agricultural Rating, both of which are essential to perform the job and which can amount to over \$100,000 investment by

an individual. The bulk of aviation training is still taking place in CASA approved flight training schools rather than university aviation programs – especially in highly specialised sectors such as aerial application.

The introduction of a HECs type scheme for aerial application pilots should be a priority for the government and would provide a significant boost to industry efforts to sustain the industry.

### **Recommendation 11**

*Introduce access to HECS for professional pilots pursuing a commercial pilots licence and an aerial application rating required to participate in the aerial application industry.*

### **Recognition and Encouragement of Industry Education and Training Programs**

Ongoing industry pursuit of best practice programs and their recognition and encouragement by government agencies for a range of purposes – including reducing the regulatory burden on industry – would significantly improve both agricultural and environmental outcomes.

Well designed and supported industry education and training programs – such as AAAA's Spraysafe and AIMS accreditation systems – offer government a fundamentally more effective means of encouraging continuous improvement in industry when compared to regulation.

For example, the AAAA Spraysafe accreditation for pilots is recognised as the *de facto* competency standard by all States and Territories for the issuing of a chemical distribution licence. Tasmania and Victoria also recognise the Spraysafe business accreditation for licencing purposes.

AAAA is also currently working closely with CASA on developing a sector risk profile that will hopefully lead to better recognition of AAAA training and accreditation programs. AAAA programs are sector specific, based on the latest peer-reviewed science and international and national standards, and deliver positive outcomes that are well recognised by both regulators and participants.

The AAAA AIMS program – Aerial improvement Management System – is already recognised by the industry's main insurer – QBE Aviation, and hopefully greater recognition by government agencies will occur over the coming years.

The AAAA training courses on issues such as Wire Risk Management and Crew Resource Management and Human Factors are recognised by various firefighting agencies as a prerequisite for contract fulfilment.

However, AAAA is continually frustrated in its efforts to gain recognition of these types of co-regulatory programs that are delivering real benefits and potentially

efficiencies. Recognition generally requires 9 separate negotiation processes just for dealing with the Commonwealth, States and Territories.

While AAAA supports a sensible regulatory framework for all of the areas it is involved in – such as aviation, chemical application, dangerous goods, WHS etc – that framework should be light and efficient. The current government regulatory framework is neither.

In terms of education, training and qualifications, the current government regulatory framework is highly dysfunctional, inefficient and costly.

The agricultural white paper should provide a framework for the widespread recognition and encouragement of industry education and training programs.

***Recommendation 12***

*Establish a nationally consistent framework for recognising industry co-regulation programs and accreditation systems so as to reduce the regulatory burden on industry and improve productivity, safety and quality assurance outcomes.*

**Community Understanding of Agriculture**

The generally decreasing understanding of agriculture, science and scientific processes in the wider community is a threat to the adoption of improved or emerging technologies in agricultural production, and to the maintenance of existing safe practices and products.

This lack of knowledge in the wider community makes the community more susceptible to misinformation and campaigns that may not be based on science, but which may be driven by ideology or politics.

The government should consider a major review of education policies and how school and community education could contribute to a better understanding of science and agriculture in the community over the medium to long term.

A combined government and non-government campaign – including in schools - to better educate Australians on the means of agricultural production and the management that is in place to ensure Australian food is safe should be a high government priority.

***Recommendation 13***

*Initiate a major schools-based education program on agriculture, including identification of career pathways, including aerial application.*

## **9. Drought**

While many government policies recognise a range of impacts on those immediately affected by drought, there is an underlying failure to recognise the impacts and hardship caused to those who also rely on farming for their livelihoods – agricultural contractors, including aerial applicators.

Contractors who provide services to the farming community have generally been treated differently to farmers themselves in a range of policy areas. The role of contractors – including aerial applicators - and their dependence on agricultural production must be recognised in the agricultural white paper to ensure they are not left behind or unfairly penalised.

Aerial application contractors have invested millions of dollars in equipment, infrastructure and people to ensure they can service the needs of their farming clients.

In such a capital intense industry that has to cope with highly seasonal commodity and weather variability, current government policies ranging from taxation to drought undermine the resilience of the sector.

In addition to addressing the longer term issue of creating a regulatory and taxation environment more conducive to self-management of seasonal variability, the white paper should deliver the extension of drought relief to agricultural contractors.

### ***Recommendation 14***

*Extend any drought relief policy to include agricultural service providers such as aerial application companies.*

## **10. Water and natural resource management**

### **Water policy**

There is currently a lack of a coherent policy that recognises the fundamental importance of water to agricultural production.

High security water allocations for key crops such as cotton and rice should be a central plank of an agricultural policy.

The ongoing demands of different water users – including environmental groups and downstream governments – does not seem to be based on a firm grasp of the need to balance environmental objectives with overall sustainability of the basin in the interests of the nation as a whole, rather than particular targeted objectives.

Government must explore more innovative ways of efficiently supporting both agriculture and the environment, including through water saving measures such as increased piping of water and investment in research to reduce the impact of evaporation from storages, including the aerial application of anti-evaporative films/products to storages.

The depressive cycle of decreasing basin population, reduced economic and agricultural activity and reduced services must be addressed as an integral part of the agricultural white paper to provide incentives for people to live, work and prosper in regional Australia while increasing our agricultural output and value.

While there is clearly a need to balance water's productive capacity with environmental requirements, the burden of readjustment has previously fallen unfairly on rural communities while metropolitan Australia has mostly evaded any pain.

The rejection of the previous draft Murray Darling Basin Guide for a Plan is indicative of the pain that can be caused by poor policy development that is not firmly based on Australia's national interest, agricultural security, sound consultation and a fair and equitable sharing of the burden of readjustment.

The agricultural white paper should include the following measures:

- A comprehensive and integrated Commonwealth and State Government regional development policy and programs that will support the sustainability of rural communities and especially those communities having to readjust to different water allocations. These policies and programs should include a focus on delivering improved services that will support the attraction of more people to rural Australia, including transport and aviation services that help keep communities connected to the rest of Australia.
- Those involved in agriculture, and especially irrigated agriculture, should not be unfairly penalised for compliance with previous Government policies where landholders, farmers and irrigators acted in good faith - often with the active and vocal encouragement of State and Commonwealth Government agencies - to invest in water licences, agricultural land development, and expensive equipment such as aircraft, people and systems. They should be compensated for any significant change in Government policy that undermines both the capital value of many properties and the viability of many enterprises.
- Development of a system for recognising and rewarding water saving technologies, systems or improvements that provides an incentive to farmers to protect the water they have. Recognition of evaporation reducing polymers on water storages may be one example.
- Where government policies have a clear economic impact on contractors who provide services to farmers – including aerial applicators - an adjustment support program should be established to enable the sector to maintain a suitable level of capability.

### **Recommendation 15**

*Develop a range of measures to secure appropriate water allocations for agricultural use and establish incentives for water saving measures and recognition for existing sound water management practices.*

### **Recommendation 16**

*If Commonwealth or State policies on agricultural water allocations result in significant costs or a significant loss of market or turnover to contractors such as aerial applicators, then a compensation scheme should be established to support the adjustment.*

## **Sustainability – the advantages of aerial application**

- *Less timely treatments = greater disease and pest impact = economic loss*

Aerial application is able to limit economic loss to farmers due to rapid response times and the speed of the aircraft over the crop – approximately 250km/h.

Aircraft can reposition across either local areas or from one State to another very quickly – allowing a movement of resources that reflects demand.

The efficiency of aerial application, combined with the expertise of personnel and the accountability that comes from licencing and regulated record keeping underscores the critical role of aerial application in modern farming systems.

- *Increased ground application = increased exposure to chemical drift*

The use of aircraft minimises exposure and the likelihood of spray drift incidents – as witnessed by State regulator reports that they conduct far more investigations into ground application than aerial.

Many ground applicators are not required to demonstrate any competence in application in States other than NSW and the training provided in NSW is simply not comprehensive enough when compared to the training of aerial application pilots. Some States require additional competence for access to Schedule 7 poisons (such as the Victorian ACUP – Agricultural Chemical User Permit), but many agricultural chemicals are freely available to untrained personnel.

Ground application is comparatively slow and requires significant periods of suitable weather for spraying. While aircraft may cover up to 10 hectares per

minute and are able to take advantage of even narrow application windows, ground applications must, by their nature, be exposed for much longer periods. When coupled with a lack of proven competence, ground applications are more likely to take place in conditions that are conducive to spray drift.

The recent trend of ground applications to make use of GPS signals and auto-steer has enabled ground application to occur at night. This has led to operations in unsuitable conditions – especially very still ‘surface temperature inversion’ conditions – where the poorly trained applicator is not aware of the difficult conditions they may be working in.

Aerial application is, by contrast, conducted by highly trained, licenced and regulated professionals using well researched equipment and techniques. Aerial application pilots participate in ongoing learning throughout their careers through the AAAA Spraysafe and Professional Pilot Programs.

- *Increased soil compaction and crop trampling = loss of yield*

The significant agronomic impact of the compaction of soils is now better understood.

In immediate terms it can lead to trampling of crops and significant yield loss – estimated at up to 5% by the WA Department of Agriculture.

In addition, the increased use of ground application equipment would lead to increased long-term soil compaction issues which would also serve to decrease yields.

- *Increased disease transfer = loss of yield and increased costs*

The significant cost of increased disease transfer between crops or the transfer of noxious weeds by ground application equipment is an important consideration in managing crops.

The use of aircraft eliminates this issue and so any reduction in the use of aircraft may lead to significant disease transfer from affected crops to unaffected by ground application equipment.

## **11. Research, development and extension**

Aerial application research, development and extension in Australia is characterised by a complete lack of Commonwealth and State government involvement.

To make matters worse, a considerable portion of the research effort of the industry is dedicated to providing research outcomes in response to poor government policy. The APVMA provides many examples of policy changes due to research

commissioned and paid for by industry to overcome policies developed on the basis of either no research or a poor understanding of the issues at play.

For example, AAAA has invested approximately \$50,000 of members' funds to develop a nozzle calculator through the University of Queensland which has supported the AAAA challenge to existing APVMA policy which was unfairly discriminating against the use of aircraft in chemical assessments.

The fact that the calculator, along with research papers also commissioned by AAAA, led to a new operational notice published by APVMA in 2010 is stark evidence that the lack of government support of research into aerial application is simply counter-productive.

This is in contrast to the US, for example, where millions of dollars are allocated to research into aerial application each year by the Department of Agriculture who have their own R+D capacity for aerial application at:

[http://www.ars.usda.gov/main/site\\_main.htm?modecode=30-91-05-15](http://www.ars.usda.gov/main/site_main.htm?modecode=30-91-05-15)

AAAA is not suggesting such a large commitment is relevant in the Australian context, but it is significant to note that the only research, development and extension in aerial application is conducted by AAAA, with no co-funding of any projects from the Commonwealth, States or R&D corporations.

AAAA plays a significant role in providing ongoing education and training to aerial applicators and others in the industry through its various programs that cover:

- ongoing professional development for pilots
- chemical application theory and training
- practical tools to improve spray planning, execution and drift management
- equipment testing and use
- equipment set-up and calibration workshops
- aviation and chemical application risk management and safety manuals and training
- business and safety management systems
- emergency response and recovery
- dangerous goods

Many of AAAA's programs and products lead the world and fill gaps where there is simply a failure of government policy or education.

The Commonwealth should consider how it could more usefully support the research, development and extension activities of AAAA in this highly specialised area.

### **Recommendation 17**

*Recognise the current 'zero' level of government support for R+D in the aerial application sector and open discussions with AAAA to establish an appropriate funding system to support aerial application research, development and extension.*

## **12. Biosecurity**

Aerial application plays a vital role in controlling plague and exotic disease and pest outbreaks such as:

- Human health disease vector control (mosquito spraying)
- Black sigatoka control program in bananas in tropical Queensland
- Fire ant eradication/control program around Brisbane
- Plague locust control
- Mice plague control

Without the capability offered by aerial application, agricultural production in Australia could potentially be crippled.

All of the government policies that affect aerial application companies – ranging from access to chemicals administered by the APVMA through to CASA oversight of aviation and the Australian Tax Office policy on the useful working life of agricultural aircraft – bring pressures to bear on aerial application.

Without a coherent national agricultural plan that takes these pressures and often contradictory and inefficient government regulation into account, there will remain a real threat to the viability of the aerial application sector, compounded by a lack of flexibility and support for contractors and service providers in meeting the challenges of seasonal variation.

### **Food Safety and Education**

Consumers clearly benefit from the reliability inherent in the Australian agricultural market – reliability of safety, reliability of supply and diversity, and reliability of relatively low cost during average seasons.

It is important that Australian governments improve their efforts to communicate the food safety measures that are already in place.

Agricultural chemical residue testing continually shows that Australian food is safe, but the lack of government explanation of the reasons 'why' permits scare campaigns to be run that are not based on science, but on political and ideological grounds.

An improved community understanding of the high standard of safety of Australian food and the agricultural management systems in place would be an important

contribution to the community's understanding of the importance of food security through purchasing Australian grown produce.

**Recommendation 18**

*Better communicate to the community the current measures in place to ensure food safety.*

**13. Accessing International Markets**

A key concern of the aerial application sector is the ability for foreign companies to compete for Australian work without similar reciprocal rights of access being available for Australian companies in other countries.

For example, a range of international companies are utilised in Australian fire fighting contracts – contracts that are let by Australian government agencies with no consideration of the impact on Australian companies able to provide a similar service.

Government policy should be reviewed to enforce the principle that only countries that permit Australian access to their markets should be able to access the Australian aerial application market.

Free trade treaties should automatically include negotiations around aviation issues and access for Australian aerial application companies, service and products.

**Recommendation 19**

*Ensure free trade agreements automatically include negotiations around aviation issues and access for Australian aerial application companies, service and products. In the case of existing FTAs, schedule the inclusion of aviation issues in the next available rounds of negotiations.*

**14. Further Information**

For further information on this submission or related issues, the Aerial Agricultural Association of Australia can be contacted on 02 6241 2100. The Association website can be found at [www.aerialag.com.au](http://www.aerialag.com.au)