



# CROP POLLINATION ASSOCIATION INC.

ABN: 69 235 335 882

## Autumn 2012 Newsletter



### PRESIDENT'S REPORT

I recently attended the Crop Pollination Association executive meeting held at Narrandera on the 21<sup>st</sup> march 2012. This was a meeting that had been changed due to an extraordinary rainfall event in early March as members could not attend due to flooding and road closures.

That afternoon I also had the opportunity to see some of the water damage in and around Narrandera. There was some damage from flood waters from the river but most of the damage to the roads, properties and dams seemed to be from the rainwater running down from the hills and plains.

There were bees flooded in many locations Rutherglen, Leeton, Wagga Wagga etc. Bees near Leeton were lost due to raging flood waters and the banks the bees were sitting on simply eroded away beneath them whilst they were doing pollination work.

We were lucky that our bees doing pollination in that area had been taken out 3 weeks prior to the rain and flooding. Our bees at Condobolin got a lot of rain and were isolated. The rain did a lot of damage to the sunflower and melon crops. The cool wet conditions are not ideal weather for pollinating and growing melons or lucerne seed production.

#### Condolences to those who lost bees.

At our previous executive meeting a full day was set aside for a Strategic Plan Workshop which was led by Doug Somerville. The executive talked about the future of the Crop Pollination Association and its original reason for existence and a way forward. Doug broke it down blow by blow and extracted some important goals from our class, and gave us something to refer back to for the future.

In other news expect to see a column in the Honey Bee News regarding pollination.

### Special Points of Interest:

- *President's Report*
- *Personality Might be Genetically encoded in Bee Brains*
- *AGM & Conference details*
- *Your committee at work*
- *Mudflaps for Sale*

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Hive beetles are also running rampant. I have noticed the bees coming out of cage work losing up to 35% more than usual. Extreme humidity the main reason.

4, 6 and 8 frame hives were used in cage work (Glasshouse). The hives were prepared with bees from the Paroo on gum and cape weed at Dubbo, with new queens in any hive not showing strong brood patterns. The ventilated hives were delivered weekly as required for pollinating onions. On delivery they are placed in a cool room until placed in cages. (Maximum of four hours for large deliveries due to the logistics of opening and placing bees and water in cages.)

The bees spend a maximum of 21 days in the cage and then come out and are allowed to fly free. I have noticed this is where the trouble starts. The hive bee numbers are down. There is nearly no brood in the hives and a big gap in the age of the bees. And there are well fed beetles in and amongst the brood cells. The hives are checked initially 2 days after their removal from the cage and are usually starting to lay and gather good nectar and pollen.

Also noticed is the queen has sent most of the bees that were left to fly and forage for food and water. Due to the low numbers of bees it seems the beetles lay large amounts of eggs and with the extreme humidity, I suspect, all hatch nearly within the same day (day 7) and overwhelm the hive causing it to slime out. A large number just abscond or swarm into a tree; others hang out on the front of the nucleus hive and look like they are fanning honey, but when you open the hive it's a different story.

A lot of work was done to try and save the hives but nearly all due to the extreme humidity had ongoing infections I believe due to the demoralisation of queens.

In previous years there have been fewer losses. This year 44 out of 144 8 framed singles, were lost to beetles. A lot of extra time and work went into avoiding this, making our job harder and doubling the amount of work needed.

The Apithor traps are working extremely well according to reports after talking to several beekeepers about how effective they are. I am considering their use.

But after reading about Fiprinol and its revision by APVMA nearly all problems arising from its use were from miss use and not following the label exactly. If the traps come in contact with water in the bottom of the hive, the hive will most certainly demise.

Unfortunately due to the design of our hive bottoms, I can't guarantee that no water will get in the hive even with the bottoms that have full ventilation. Placement anywhere but the bottom board encourages contamination

Another consideration is removing traps after 3 months so that beetles don't become resistant to the chemical and also removing them before chemical levels drop. Currently I am unable to use the traps legally by the label.

*But He would feed you with the choicest foods.  
He would satisfy you with honey for the taking  
(Psalms 81:16)*

Other methods being used in the meantime are:

- Placing bees on dry bare ground up on pallets (reducing humidity)
- Cleaning excluders and lids.
- Replacing frames in order.
- Cracking lids on big hives. (Heat and humidity.)
- Not working in extra high humidity.
- Re-queening.
- Using packaged bees.



I am against using chemicals in bee hives especially those like Fiprinol that can be put on a dog's nose and 25minutes later there are dead fleas dropping off their tail. The same mode of action that helps it move systemically through the plant when applied. (It causes toxic nectar and pollen for 28days.)

However in the future of managing hives under stress during pollination and high humidity, (pollination between September to February) some sort of trap may need to be utilised along with higher prices.

Chux wipes and oil traps are a little help but don't cut it when beetles are serious. Oil traps can spill and contaminate the hive when lifted by hand and the Chux wipes pull as many legs off bees as they do to beetles.

The best story I've heard from the Apithor traps from someone who used over 1000 traps (As per the label), there were no beetles present in the hive and the bees were working happier. But there were a couple of hives where there was a young queen (under 12months) and a handful of bees (1000) but the queen wouldn't lay and there were also more beetles than bees in the hive crawling through empty cells. (Queen demoralised by beetles and beetles possibly eating eggs, nectar, pollen and being fed by bees.)

After placement of the traps in the bottom of their hives, (by pulling 4 frames out of the brood box and placing the harbourage flat on a sloping bottom board) within 1 week the queen was happy and laid a full frame of brood, and expanded with very few beetles in the hive. All bees were working comb and brood peacefully without having to fend off heaps of beetles.

I don't know what price we put on a good queen being able to do her job without being harassed by beetles. More than the \$5.00 price of the trap.

My only comments on homemade traps is if there is a contamination problem, saving \$4.00 on a trap will be rabbit food when contamination of our premium Australian honey renders it in the \$1.00 per kilo. (Bye bye honey sales for trap users. Consideration for permit use of traps also should be watched along with declaring their use on a statutory declaration for honey sales.

Looking forward to meeting the challenges from the government, bees, climate, family and life.

Bryn Jones  
President

**Be part of your future in the industry, put back into it.**

*The best way to double your money is to fold it over once and put it in your pocket. KinHubbarb*



## EXPENSIVE WAY TO MOVE BEES



**Bees were on the floodplain and cut off by a creek near Narrandera. Only practical way out was by helicopter. Box of honey and almond pollination will more than pay for helicopter hire—plus less stress with no cleaning hive gear and making up new hives. Photo: D Mumford**

## CROP POLLINATION AGM & CONFERENCE

- When: Tuesday 17th July
- Where: Shepparton RSL 88 Wyndham St
- Time: 08.30am Registration
- Speakers: Lucerne Seed Production including  
GM update  
APVMA  
Onion Seed Production  
Fireblight  
All to be confirmed
- Cost: \$60.00 if you pre register (pre register form will be in mail out early May 2012) and \$70.00 on the day and for non members.



### PERSONALITY MIGHT BE GENETICALLY ENCODED IN BEE BRAINS



By Katherine Harmon 8 Mar 2012

Honeybees (*Apis Mellifera*) are more than cookie-cutter drones, workers, foragers and queens. They might have individual personality differences similar to our own, according to new research.

After studying hives—both in the wild and in the lab—and analyzing genetic and biochemical profiles of bees' brains, researchers have found that some bees, like some humans, seem to be programmed to seek out new experiences, or novelty.

Forager bees are in charge of gathering food outside the hive, but not all of these bees, it seems, are inclined to strike out and go exploring for new flowers. Only a subset of them—some five to 25 percent—actively scout out new pollen sources. The rest of the foragers simply follow these adventurers' bee dances to find the food. A similar division happens when a group of bees set out in a swarm to start a new hive. In a swarm, less than five percent of foragers acted as nest scouts—independently searching for a suitable new home.

## CONT: PERSONALITY MIGHT BE GENETICALLY ENCODED IN BEE BRAINS

The researchers wanted to see if these scouting groups overlapped, which would indicate an underlying tendency of a subgroup of bees to seek out the new—within the larger category of forager bees. And if some are striking out for novel finds in different circumstances, that they argued, would be evidence that these bees have an essential “personality” difference from their fellow foragers.

To figure out if some bees searched for new food and for new real estate, the researchers first pinpointed the food scouts. Under the cover of night, when bees generally don't forage, hives were moved to a new location outside of familiar territory. The researchers then singled out bees that served as food scouts—the ones that located flowers and returned first to tell other bees where to find the choicest pollen. Then, to see if the food scouts were also more inclined to hunt out new homes, researchers watched eight different colonies over two years to see which bees took the lead when swarms broke off to find a new home. It turns out that the nest scouts were more than three times more likely as other foragers to also be food scouts.

The researchers then looked to see whether the food and nesting scouting behaviours had a genetic basis. Whole-genome scans on the bees revealed ‘a large neurogenomic signature scouting in the bee brain,’ they reported in a paper, published online March 8 in *Science*.

Some genetic differences between scouting and non-scouting brains were predicted. “We expected to find some, but the magnitude of the differences was surprising given that both scouts and non-scouts are foragers,” Gene Robinson, director of the Institute for Genomic Biology at the University of Illinois at Champaign-Urbana and co-author of the new study, said in a prepared statement. There were many minute genetic differences. But one of the biggest finds were distinct differences in 10 genes that help to control catecholamine, glutamate and gamma-aminobutyric acid (GABA) signaling—signatures that have also been linked to novelty-seeking and reward behaviour in humans.

To solidify their finding, the researchers tried changing the levels of these signals in scouting and non-scouting bees to see if they indeed affected their behaviour. Non-scouting bees got extra glutamate and octopamine, while dopamine—a reward neurotransmitter—was inhibited in scouting bees. With these signals switched, the non-scouting bees became more inclined to go explore, and without dopamine, the scouting bees less so.

Does this mean that these bees really have individual “personalities”?

Personality can sound like a strong word for any animal research—especially that done on insects. But Robinson noted, “if you show the same tendency in different contexts, then that can be called a personality trait”. So with the parallels in food and hive scouting bees, he suggests that this novelty-seeking behaviour is, indeed an example of personality.

And this has deeper evolutionary implications. It is possible that insects and vertebrates developed similar signals independently, but a more likely explanation is that “these mechanisms represent part of a basic tool kit that has been used repeatedly in the evolution of behaviour,” the researchers wrote in their paper.

*This is a copy of an article that appeared in the Scientific American 8 March 2012*



## WHAT HAS YOUR COMMITTEE BEEN UP TO:

AGM Venue & Speakers

Advertising Strategy

New sticker design

Design and purchase mudflaps—see article.

Website update and new management

Agricultural census—lobby to have meaningful pollination questions included.

AFB Program response to Vic Agricultural minister request.

Draft Neonicotinoids letter to lobby for improved testing and labeling for this systemic insecticide.

Crop Pollination Association Business Plan Workshop—hosted (free) by Dr Doug Sommerville.

## Newsletters

Your committee decided that it was important to raise the awareness of the Crop Pollination Association. To do this we have a Supplementary List that we send newsletters to, such entities as state beekeeping associations, AHBIC, industry leaders and some ministers. The summer edition is the first that we have mailed to this supplementary list (this had been done before when Dr Doug Sommerville was the editor).

If you think there is benefit for others to receive our newsletter please contact the secretary and we can add them to our supplementary list.

The following page is the response we received from Senator Christine Milne from the Greens Party after her office received the summer newsletter.



CROP POLLINATION ASSOCIATION INC NEWSLETTER AUTUMN 2012



SENATOR CHRISTINE MILNE  
Australian Greens Senator for Tasmania

Stephen Targett  
Secretary  
Cross Pollination Association Inc.  
PO Box 325 Narrandera NSW 2700

13 March 2012

Dear Stephen,

Firstly I hope I have your name correct – I had a little trouble reading your signature. Thank you for your letter to Senator Brown enclosing your Association's newsletter. It was forwarded to our office as Senator Christine Milne is the Australian Greens spokesperson on food security including biosecurity, so she has a strong and long-term interest in the health of Australia's bees.

The information in your latest newsletter regarding the impact of pesticides on pollination bees and beekeepers was most interesting and timely. The Greens have been following with interest and increasing concern the incidents of colony collapse disorder (CCD) and accompanying research showing increasingly that certain pesticides and fungicides are having a serious impact on pollination bees; in particular neonicotinoids.

I note that your President, Bryn Jones, was suggesting greater legal protections for beekeepers affected by pesticides. I note that in other countries there is a serious push underway to curtail or outright ban the use of pesticides now linked to bee decline. If your association would like to discuss possible legal protections and measures, please don't hesitate to get in touch. For your information I have enclosed some of Senator Milne's latest work on bees.

Yours Sincerely

Imogen Birley  
Office of Senator Christine Milne  
Deputy Leader of the Australian Greens



# Mudflaps for Sale

The CPA has designed and purchased for sale mudflaps. The truck and ute mudflaps are black on white heavy duty plastic. They look very smart on the vehicle and help to advertise our industry.

**Ute Flaps** 250mm wide x 230mm deep

**\$25.00 set (2) Members**                      **\$30.00 set (2) Non Members**  
Plus Postage and handling from Narrandera NSW 2700.

*All 2012/2013 members attending 2012 AGM /Conference get one set free.*

**Truck Flaps** 610mm wide x 455mm deep

**\$60.00 set (2) Members**                      **\$70.00 set (2) Non Members**  
Plus Postage and handling from Narrandera NSW 2700.

## To Purchase:

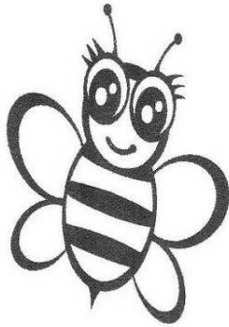
Contact the secretary Stephen Targett on 0428 649321 and obtain the Postage and Handling cost before sending payment or arrange pick up at our AGM/Conference or the NSW Conference.

**Ute mudflap  
design**

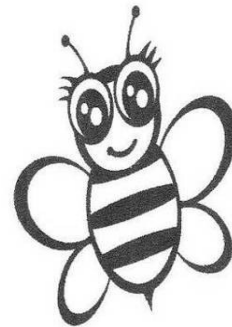


## Truck Mud Flap Design

**NO BEES = NO FOOD**



**BUY**



**AUSTRALIAN  
HONEY**

**[aussiepollination.com.au](http://aussiepollination.com.au)**

## My Melon Pollination Quote 2011

Early Dec 2011 a Griffith melon grower contacted me in a panic – he had melons flowering and no bees for pollination. I was asked to provide a quote. After some questions there were a total of 28 hives required in three locations on two farms. One site was next to a vineyard and he could not tell me how close cotton was to the melon sites.

I explained that the price was for 3 weeks only and after that there would be a further lower fee charged. Given the panic he was in and it was leading up to Christmas (using my heart instead of my head) I quoted **\$95.00 (inc)** per hive. He would get back to me.

I never heard from the grower and **I am glad I did not get the contract**. I had made the quote without using the following table. The following table will show you why it was a very poor business decision to quote \$95.00 for 28 hives. **A total income of \$2,660.00 and I would lose 10% GST to the government from this.**

To set the scene it is 85km from my house to Griffith and 270km from my home to the bees, to melon site and home. I drive a 12 ton GVM truck (no ute).

### Pollination Costings for Quote

|   |  |
|---|--|
| Inspect melon sites – km  | 170km @32c/km (car)<br>.....TOTAL \$ 54.40   |
| Inspect melon sites - time  | 3 hrs @ \$40.00/hr (me)<br>.....TOTAL \$120.00   |
| Manipulate bees and check   | 3 hrs @ \$40/hr (me)<br>..... TOTAL \$120.00   |
| Travel cost to manipulate and move bees in one day (not ideal)        | 270km @ \$1.18/km (truck running cost) TOTAL \$318.60                                      |
| Cost time wise of travel, load and unload into pollination sites      | 5 hrs @ \$40/hr (me)<br>..... TOTAL \$160.00   |
| Honey used by Pollination hives                                       | Nil  |
| Spray risk cotton/grapes my assessment is 1 in 5 yrs get a spray kill | Value of hive \$120.00 over 5 years = risk cost of \$24.00/hive/pa<br>.....TOTAL \$ 672.00 |
| Cost time wise to remove bees from pollination sites                  | 5 hrs @ \$40/hr (me)<br>.....TOTAL \$160.00  |
| Travel cost to remove bees from pollination site and return to apiary | 270km @ \$1.18/km (truck running cost).....TOTAL.....\$318.00                              |
|   | ..... <b>TOTAL COST \$1,922.40</b>   |
| Lost Honey production – 2 boxes (40kg) @ \$3.40/kg Christmas Mallee   | ..... <b>TOTAL \$ 3,808.00</b>   |

**Cont: My Melon Pollination Quote 2011**

**Total Cost \$1,922.40 + Lost Honey Production \$3,808.00 = \$5,730.40**

**\$5,730.40** is the pollination price to break even with honey production for the same period, spread over 28 hives = **\$204.65 per hive**. This includes my labour at \$40/hr. **A good business decision would have been to quote \$204.65 + GST per hive to be commercial.**

If I do not factor in my time (charity) then Total Cost is \$1,362.40 = \$48.65 per hive. Without factoring in lost honey production I make a profit of \$1,297.60 or \$46.34 per hive. At \$3.40 kg this equates to 13.6kg honey in 3 weeks per hive. Given that the Christmas Mallee was yielding this figure is very conservative.

By quoting \$95.00 per hive I was in effect saying I was prepared to accept \$46.34 profit per hive for 3 weeks in peak honey production time. Whereas the apiary these pollination units came from gave me a profit (not including labour) of approx \$120+ per hive (this figure takes into account travel costs to get to apiary and remove honey).

**What is not factored in is the lost production on the following honey flow due to the bees being down after melon pollination, the cost of lost queens due to spray/stress, etc.**

Now this pollination job may have been taken by someone who lived very close to the melon sites and did not have christmas mallee sites. Business decisions are made for different reasons for every business. However commercially in the peak honey production season decisions to provide pollination at prices of below **\$120** do not make business sense. That is unless you are silly enough to think that paying tax is a problem or place no value on your time.

Article by Stephen Targett

**Autumn Management for Spring Pollination**

The days are certainly shorter and the nights are getting cooler. The bees have been in autumn management mode since early December (packing honey into the brood chamber). As beekeepers **now is the time to be knocking bees back to doubles or singles and placing bees on warm sites with quality pollen if possible.** An autumn disease check is also desirable.

A lot of beekeepers have been impacted by the heavy rain in March 2012. Maybe this is a indication that we should be using winter sites that are all weather access sites. With the ground already wet not much winter rain is needed to make normally solid ground boggy and unsuitable for heavy loads. Check out a couple of small photos in this newsletter and this was summer time.

Bees work for man, yet they never bruise  
Their Master's flower, but leave it, having done,  
As fair as ever and as fit to use;  
So both the flower doth stay, and honey run.

(George Herbert 1593-1633) Providence





## YOUR COMMITTEE:

|                  |                 |              |
|------------------|-----------------|--------------|
| PRESIDENT:       | BRYN JONES      | 02 6887 2638 |
| SECRETARY        | STEPHEN TARGETT | 0428 649321  |
| TREASURER        | KEN GELL        | 03 5461 4326 |
| PUBLIC OFFICER   | CRAIG SCOTT     | 03 5482 5617 |
| DAVID MUMFORD    |                 | 02 6959 2519 |
| ELWYNNE PAPWORTH |                 | 03 5484 9231 |
| ALAN TAYLOR      |                 | 03 5726 1983 |



## Apple Pollination

**Pensioner pollinates apples:** This year we again provided bees for pollination of apples.

We used a slightly different method – we placed a pallet of bees (4 hives) on a trailer built to hold fruit bins, and these trailers were then towed to the headlands of the rows of apple trees, taking particular care to slope hive entrances down so no water could enter hives.

We also placed single hives in the centre of the rows. No difference was noted in the strength of the front hives to the rear ones. A small amount of honey was consumed. The bees are under stress as it is generally quite cold and they have to fly under the hail nets. A week or so after the pollination job you would not know the hives had been under stress..

To take bees to apples without first finding good breeding conditions would be very silly. This orchard has 350 ha of apples under nets. We use 390 hives. Our return is \$70+ per hive. The apple grower is very happy with pollination results.

### JOHN BENFIELD

*For those pollinating apples for the first time you will note this is below the recommended stocking rates of 4–12 .5 hives per Ha. The actual stocking rate is normally determined by how much the orchardist is willing to pay. If the stocking rate is close to that recommended then bees will use a minimum of half a box of honey while in the orchard. The price charged should reflect this increased honey consumption. At \$3.20 kg that is \$32.00 of honey used in the orchard before other expenses.—Editor*

Article from the Guardian in the UK Friday 30 March 2012.

## Pesticides Linked to Honeybee Decline

The first study conducted in a natural environment has shown that systemic pesticides damage bees' ability to navigate

Common crop pesticides have been shown for the first time to seriously harm bees by damaging their renowned ability to navigate home.

The new research strongly links the pesticides to the serious decline in honey bee numbers in the US and UK – a drop of around 50% in the last 25 years. The losses pose a threat to food supplies as bees pollinate a third of the food we eat such as tomatoes, beans, apples and strawberries.

Scientists found that bees consuming one pesticide suffered an 85% loss in the number of queens their nests produced, while another study showed a doubling in "disappeared" bees – those that failed to return from food foraging trips. The significance of the new work, published *Science*, is that it is the first carried out in realistic, open-air conditions.

***"People had found pretty trivial effects in lab and greenhouse experiments, but we have shown they can translate into really big effects in the field. This has transformed our understanding,"*** said Prof David Goulson, at the University of Stirling and leader of one of the research teams. ***"If it's only one metre from where they forage in a lab to their nest, even an unwell bee can manage that."***

Prof Mickaël Henry, at INRA in Avignon, France, who led a separate research team, said:

***"Under the effects we saw from the pesticides, the population size would decline disastrously, and make them even more sensitive to parasites or a lack of food."***

The reason for the huge decline in bee numbers has remained uncertain, but pesticides, the varroa mite and other parasites, and destruction of the flower-rich habitats in which bees feed are believed to be the key reasons. Pesticide manufacturers and the UK government deny a class of the chemicals called neonicotinoids cause significant problems for bees, but Germany, Italy and France have suspended key insecticides over

Honeybee pollinates a citrus flower



such fears.

A spokesperson from Department for Environment, Food and Rural Affairs (Defra) said the new research did not change the government's position.

***"The UK has a robust system for assessing risks from pesticides and all the evidence shows neonicotinoids do not pose an unacceptable risk to honeybees when products are used correctly. However, we will not hesitate to act if presented with any new evidence."***

Henry said the new research showed current approval processes for the pesticides are inadequate:

***"We now have enough data to say authorisation processes must take into account not only the lethal effects, but also the effects of non-lethal doses."***

The pesticides investigated in the new studies - insect neurotoxins called neonicotinoids - are applied to seeds and flow through the plants' whole system. The environmental advantage of this is it reduces pesticide spraying but chemicals end up in the nectar and pollen on which bees feed. Goulson's group studied an extremely widely used type called imidacloprid, primarily manufactured by Bayer CropScience, and registered for use on over 140 crops in 120 countries.

Bumblebees were fed the toxin at the same level found in treated rape plants and found that these colonies were about 10% smaller than those not exposed to the insecticide. Most strikingly, the exposed colonies lost almost all of their ability to produce queens, which are the only bee to survive the winter and establish new colonies. ***"There was a staggering magnitude of effect,"*** said Goulson. ***"This is likely to have a substantial population-level impact."***

The French team analysed the effect on honey bees of a new generation neonicotinoid, called thiamethoxam and manufactured by Syngenta. They fitted tiny electronic tags to over 650 bees and monitored their activity around the hive. Those exposed to "commonly encountered" levels of thiamethoxam suffered high mortality, with up to a third of the bees failing to return. ***"They disappeared in much higher numbers than expected,"*** said Henry. Previous scientific work has shown insect neurotoxins may cause memory, learning, and navigation problems in bees.

A spokesman for Syngenta said:

***"Although we take good research very seriously, over the last four years, independent authorities in France have closely monitored the use of Cruiser – the product containing thiamethoxam – on more than 1.9m hectares. When properly used no cases of bee mortality have been recorded."***

Julian Little, spokesman for Bayer CropScience, criticised Goulson's study because the bees were exposed to imidacloprid in the laboratory, before being placed outside in a natural field environment to feed. ***"All studies looking at the interaction of bees and pesticides must be done in a full field situation,"*** he said. ***"This study does not demonstrate that current agricultural practices damage bee colonies."***

Goulson dismissed as ***"nonsense"*** Little's suggestion that the doses given to the bees were higher than in reality. Both Bayer and Defra suggested other field studies had shown no harmful effects to bees. Goulson said: ***"If they have done these studies, where are they? They are not in the public domain and therefore cannot be scrutinised. That raises the question of just how good they are."***



# CROP POLLINATION ASSOCIATION Inc.

ABN: 69 335 882

Application to Become or to Renew Membership  
of the Crop Pollination Association Inc.

**2012/2013**

Name:

.....

Postal Address:

.....

City/town:.....State: ..... Post Code:.....

Telephone: .....Fax: .....Mobile:.....

Email Address: .....

**Annual Membership Fee. \$50 – NO GST**

Forward completed form to:- CPA Secretary  
PO Box 325 Narrandera NSW 2700  
Telephone: 0428 649321-

Please indicate areas where you are prepared to travel to, to undertake pollination contracts

.....

.....

Please state whether the Crop Pollination Association can give your name and contact details to growers who require pollination hives.

YES NO

Please state if you agree to have your details published on the CPA Website.

YES NO

Do you wish to receive the newsletter electronically?

YES NO

*If you do not answer this question by default you will receive it electronically.*

