

# MacTriX Testimonials

**Henri Bader**  
**Letaba Macadamias Estates**  
**Knockrow NSW**  
**April 2008**

As you know we had a very wet season with almost continual rain since December 2007 - However, in these conditions spraying for MNB was not possible most of the critical time. Fortunately, we did have a Trichogramma wasp program in place and we followed the recommended guidelines.

The time for the bottom line assessment of the program has arrived the the harvesting which has now commenced. We were very pleasantly surprised and relieved to find minimal damage had occurred from MNB in spite of the very high pressure.

(Note: Henri did a lot of monitoring during the season and recorded very high pressure at times with up to 28 eggs per 100 nuts. He also observed high levels of parasitism in the field and also grew out collected eggs which confirmed the high levels of parasitism)

**Stephen McLean**  
**NSW**  
**April 2008**

I have been involved in IPM in macadamias for approximately 15 years. During this time I learnt the importance of biological control of MNB. Since being commercially available we have used MacTriX on some 50-100,000 trees in the Northern NSW area.

By introducing the MacTriX into the hot spots first and some spot spraying we have reduced our spraying costs and increased our control of MNB.

With the use of MNB moth traps on farms and the release of MacTriX our control has been much improved, cost effective and better for the environment.

**Phillip McCarthy**  
**Northcoast Macadamia Management**  
**Lismore NSW**  
**April 2008**

I am a macadamia farm manager-consultant and a major part of my service is IPM. I have been monitoring macadamias for insect pressure for 10 seasons now and the last 3 seasons I have been using MacTriX on some of my clients orchards as a MNB control measure.

This season we had very high levels of MB activity across the area, I have found that if the MacTriX is used correctly you can achieve a very good level of control over the MNB. Because clients are still building up their confidence with using MacTriX I find some clients will panic and reach for the chemical drum too quickly instead of waiting another week where you will see the parasitism really kick in and gain control.

So I guess what I am saying is that you have to hold your nerve when using the MacTriX and with good monitoring to know when the egg laying pressure is increasing and where in the orchard the hot spots are you will achieve good control. The other major part of control especially in a high pressure season is using the MacTriX at the recommended release rate/ha.

**Scott Herd**  
**Norco Rural Store**  
**Lismore NSW**  
**April 2008**

Year on year for the past four years the number of growers that we service with our crop monitoring business, using MacTriX and the number of hectares covered has been expanding rapidly.

We have plenty of evidence that the MacTriX works as a tool in managing MNB and the growers we service have confidence in it also.

This past season in our area we saw that on some farms where MNB pressure was high, MacTriX was the only effective control. With continuous wet conditions there often wasn't opportunity to put out spray applications.

**John Gillet**  
**Wondaree Macadamias**  
**Ballina NSW**  
**April 2008**

Trichogramma is a useful component in our arsenal to managing MNB populations. Experience and knowledge will dictate if any action is to be taken or if a chemical control or a combination of Trichogramma/chemical control is appropriate.

It is essential that this decision is correct or a lot of money could be wasted. The decision will only be correct if all monitoring is undertaken in a systematic fashion.

**Robert Tarr**  
**Mountashton Pty Ltd**  
**Tregeagle NSW**  
**May 2008**

I have been using "the wasps" for the past four seasons. The cards are very easy to use and attach to the trees.

I have not had to spray for MNB at all with only a very light evidence of MNB activity this past 2007-08 season. ie nuts actually damaged.

In addition to the above, the time saved compared to spraying is substantial, plus there is no pollution of the environment. I intend to continue using the wasps.

**Terry Walker**  
**Moongamba**  
**Alphadale NSW**  
**May 2008**

There seems to be a similar or a little less insects damage (including MNB) than last year.

We did, however, have a larger infestation of MNB in one of our blocks around December 2007 and we increased and extended our MacTriX program in January'08 with worthwhile results. We will continue to use MacTriX later this year.

## MacTrix Testimonials

**Peter Barton - Farm Operations Manager**  
**Brookfarm Macadamias**  
**St Helena Road Byron Bay**  
**April 2008**

At Brookfarm we've used Trichogramma Wasps (Mac Trix) as our only control of macadamia nut borer for the past 3 seasons. We have found Mac Trix to be highly effective in controlling and eventually eradicating egg laying by macadamia nut borer.

The cost savings alone using a Mac Trix 8 week program compared to a chemical program of protection are significant.

2007-2008 season when pressure from macadamia nut borer was at it's highest we had an unusually long extended time of wet conditions. While macadamia farmers that relied on chemical spraying alone were unable to spray due to the conditions and have subsequently suffered crop loss due to nut borer. With the Mac Trix it was simply a matter of waiting for a break in the showers and putting out the Mac Trix.

The 2007-2008 season was a high pressure year from nut borer but at Brookfarm using Mac Trix we had high levels of parasitism, which made it virtually impossible to find any tunnelled nut in any of our 4500 macadamia trees.

Mac Trix are highly effective in controlling nut borer. They are environmentally safer than chemical control and very cost effective.

At Brookfarm we are delighted with Mac Trix and are a very important weapon in the control of our nut borer. It is an integral part of our integrated pest management program.

**Paul Jones**  
**Horticultural Crop Monitoring**  
**Sunshine Coast**

Prior to Mactrix releases at Cliff Davis' farm at Donneybrook he suffered from major nut borer damage. Economically the borer damage was devastating and challenged the farm's future. Nut borer originated from neighbouring black wattle and mangroves.

The severe effects of nut borer forced Cliff to pursue Mactrix as a means to controlling the nut borer. The first Mactrix were released in December 2003 after a nut borer and FSB spray was applied. Blocks were monitored weekly.

The results were astounding - the nut borer returned, however parasitized nut borer eggs (black eggs) were soon detected. Large MNB egg counts were again recorded however this time very few eggs hatched as there were high levels of Mactrix egg parasitism.

The first release season resulted in very little nut borer damage in spite of the heavy pressure. Since then, each year it is mandatory that Mactrix is released.

A neighbouring farm that had not used the Mactrix till late in the 2007/08 season has had a history of high nut borer damage. Eventually their skepticism has changed to adoption as the grower was not getting successful nut borer control with chemicals. Late season releases were made so the full benefits of the wasps would not have been met.

**John Stock**  
**Macadamia Services Pty Ltd**  
**Rous Mill NSW**  
**June 2008**

I have used Trichogramma on a few properties for the last two years and have been pleased with their ability to parasitise nut borer eggs and reduce infestation levels.

Parasite effectiveness has enabled Bulldock to be used primarily prior to Christmas for fruitspotting bug. Borer was generally in larger numbers in the 2007-8 season. Multiple borer egg laying was commonly seen on nuts and it was usual to see all or most of these eggs parasitised. In a nut season, on steeper slopes, where sprayer access can be difficult, I would say the use of Trichogramma parasite is essential. I was pleasantly surprised how effective the parasites were in a wet summer, as I know they prefer hot and dry conditions.

The use of Trichogramma is now an essential tool on all our macadamia properties with a history of nut borer activity.

**Adrian van Boven**  
**General Manager**  
**Hinkler Park Plantation**  
**Bundaberg Qld**  
**June 2008**

We have been using MacTrix on our Bundaberg and Mt Bauple farms for several years and they have become an integral part of our management of Macadamia Nut Borer.

Our on-farm trials have shown that early release is essential in reducing Borer numbers before Christmas, with continual releases into February ensuring that we have biological control occurring throughout the entire danger period.

The use of MacTrix has reduced our reliance on chemical control with high parasitism rates on some farms reducing chemical use by up to 35% in a season.

The wasp is also an important part of our risk management - if we experience a wet season and cannot get out into the orchard to apply chemical control, we know that at least the MacTrix are out there giving us some protection against possible losses.

**Allan Coates**  
**Coates Horticulture**  
**Northern Rivers NSW**  
**June 2008**

We are an IPM advisory service in the macadamia industry in Northern NSW and have used MacTrix for macadamia nut borer management successfully for many years.

Every year we have more growers using the wasps and continually get better results as growers understand and manage the MacTrix system better.

This season, because of consistent rainfall after Christmas, spraying was not possible on most orchards in our area. We had moderate to high MNB pressure on a lot of farms and had excellent control with the wasps even in the wet conditions.

Earlier flowering and nut set brought earlier MNB pressure in hot spot areas and targeting these areas successfully minimised the spread through the orchard.