



## What's happening in the world of Aquaponics.

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*This edition is packed full of information, that will excite and motivate the backyard enthusiast.*

### Backyard Farming Magazine

Backyard Farming Edition Two, is now out and can be downloaded from either backyard-farming.com.au or backyardaquaponics.com.au.

Fun facts and useful articles are what this edition is all about! I bet you didn't know that the percentage of protein wasted by feeding grain to livestock is 90%!

And that if all the grain and soybeans, that are fed to livestock in the US, were used to feed humans; we could feed a whopping 1,300,000,000 people for an entire year!

However, there is nothing more filling than a big slab of beef on the plate. Better still, smoked meat. There's an entire new dimension to meats when they are smoked—as Nigel from the Backyard Farming forum explains, in his mouth watering article on home smoking.

There's only one thing better than the smell of home smoked bacon, and that's the smell of freshly baked

Issue 2 First Quarter 2010 Fantastic Information for the Backyard Farmer in us all

Bringing Food Production Home

# Backyard Farming

*Growing Bananas*

Bananas are great in your backyard

- Figs** - An ancient fruit
- Quail** - a productive bird for the backyard
- Smoking** your own meats at home
- Grapes** Are simple to grow in the garden
- Chamomile** A refreshing herb for any backyard

banana muffins! Joel Malcolm shares his knowledge and experience on one of his favourite fruits, the banana. He talks about why and how to grow them in your backyard.

And after reading the maga-

zine, why not sit back and enjoy a calming cup of chamomile tea.

Doug explains how you can grow your own chamomile in your backyard, plus why they are great plants for any garden.

If you find dead, parasite-infested caterpillars don't throw them away!

## White Cabbage Butterfly

When the hot weather approaches so do the hordes of white cabbage butterfly, that decimate cabbage crops every year!

Luckily Faye Arcaro is here to provide a few tips on how to protect your crops from total devastation. Below is a sample of Faye's article on this notorious pest.

The complete article can be found in the eighth edition of the Backyard Aquaponics Magazine.

"One is often encouraged to believe that a garden full of healthy insect life is a good omen. Bees and butterflies pollinate plants and flowers, making them important for a garden's survival. It is often easy to be filled with pride upon the sight of fluttering butterflies and buzzing worker bees; signs of a thriving garden, a bustling eco-system full of life.

However, there is always a downside to every up. And for any aspiring vegetable grower, there are few creatures more annoying than the cabbage white butterfly. Sure, it may be a wondrous

event to behold a horde of flapping white majesties drifting around your garden, but two weeks later the ugly truth will be revealed. The eggs hatch and suddenly what was once a lovely spectacle is now turning into a chaotic situation as crops are slowly eradicated.

Deceptively alluring, the species scientifically named *Pieris rapae*, has been the bane of many vegetable farmers globally. Originally populating Europe, North Africa and Asia, it was accidentally introduced to North America, Australia and New Zealand, where the species proceeded to spread rapidly causing extensive damage to crops.

### Know Your Enemy

Attacking cruciferous crops such as cabbages, Swedes, turnips and other brassicas, the cabbage white butterfly is an insect to be wary of. The adult butterfly, however, is not directly the problem, but rather the larvae. With powerful mandibles for cutting through leaves, this caterpillar can be devastat-



Adult White Cabbage Butterfly

ing to crops.

The white cabbage butterfly is often the first butterfly to appear at the beginning of summer. Often affectionately called the summer snowflake, the adults can be identified by their white wings with one or two dark spots. The adults mate and the female lays her eggs on the inside of the crucifers or the undersides of the leaves. The eggs are laid singly, and are the shape of a bullet, of less than 1mm in length, with a distinctive yellow colour, making them difficult to spot.

The eggs then hatch into green larvae anywhere from five to fourteen days after they were laid. These little monsters are the vegetable gardeners' biggest problem. They devour the leaves, leaving gaping holes and more often than not they dig deeper to the heart of the plant, leaving a rotting shell of a vegetable in its place. When they burrow through the leaves they leave a green or brown deposit behind them.

You can find out how to control the caterpillar on your crops in the Backyard Aquaponics Magazine Edition eight.



Parasitic wasps emerging from cocoon

## Amana Living Retirement Village

Amana Living Retirement Village, in Lesmurdie have recently celebrated the official opening of their aquaponics system.

The residents celebrated with a light afternoon tea., coupled with an extensive tour of the aquaponics system.

A carer at the hostel concluded "Our residents were very keen to get involved with feeding the trout and had plenty of questions, such as the types of fish we could grow and what veggies,"

The residents have shown an immense interest in aquaponics. Its also great for their health as it gets

them outdoors and communicating with each other, in a friendly environment.

" Aquaponics has been a real eye opener for us, and

it's good to see the residents taking an active part in proceedings, out in the fresh air," recounts the carer.

*Residents were very keen to get involved with feeding the trout and had plenty of questions.*



Residents watching and feeding the fish

## Milne's Advice about Aquaponics

"Just a warning!

If thinking aquaponics say goodbye to all your spare time for the next 2 years, after you build the first one you will be thinking of the second and third.

You will dream about aquaponics. All your friends, you will bore to death about aquaponics.

You will get up at 2am just to see if everything is ok.

The wife will get grumpy because nothing is done about the house.

When you go on holidays you will ring the neighbours just to check that the pumps are still running.

But after 2 years the obsession will slowly wear off and the system will look after itself [ like it had for the last 18 months ]

Then all you have to do is feed the fish if you think of it and pick the veggies!"

Milne

## Home-Grown Aquaponics



Home-Grown Aquaponics in NSW, have installed a neat looking two bed system.

The system was installed in a pre-existing hot house, and Fred, has had fantastic success with his new aquaponics system.

This is their first install, and we congratulate them on their continuing success.



## Fish Tales

*Chillidude* is a seasoned aquaponics enthusiast, who is passionate about aquaponics. He has a large 6000 litre system. On the 25th April 2010 he shared with us this captivating story.

*(Extract from the BYAP forum)*

"Had a heart stopping moment on Thursday . . .

Looked into the fish tank as I was walking past to the kitchen, and saw a fish that didn't fit in with the silver perch. Looked again, and it was a bloody red fin - with a silver perch fingerling in his mouth

Now, it's not an immaculate conception, as I have eight red fin in one of the sumps under my grow-

beds, but to get to the fish tank he had to swim up a submerged, vertical piece of 50mm pipe, negotiate a vertically oriented 90° elbow that is only 50% below the waterline, wiggle his way along 7 meters of horizontal 50mm pipe, including another two 90° elbows, that never has a

depth more than one quarter full. And he is at least 50mm high himself !

I have put him back in the sump and put a piece of onion bag over the end of the pipe to prevent another freak occurrence."

*If you've got an interesting or funny story, send us an email.*

[enquires@backyardaquaponics.com](mailto:enquires@backyardaquaponics.com)



## Size does Matter Competition!

Time for a bit of fun. We all know that aquaponics is very productive, it's time to see just how productive peoples systems are. We are offering a \$250 BYAP Shop voucher for the BIGGEST fruit and/or vegetable harvest. There will also be a \$50 spot prize for the best effort or most unusual vegetable. Think you can grow a big carrot? Have you grown a huge tomato? Are your spring onions looking more like Leeks?

You will need to provide photographic evidence so that everyone knows that it's been grown in an aquaponics system, and so we all know what it weighs, or it's length etc. Also it would be good if the photos are a reasonable size as ultimately we will publi-

cize the winner in the magazine. The biggest and best entrants picked by the moderators and administrators will then be put up for a public vote by members.

Entries can be in the form of a single vegetable or fruit, or a combined weight or size of a whole crop.

Already members have been sharing their super-sized harvests, with fellow forum members.

Here are just a few of the entries so far. . . .



Man-size leeks! A fantastic harvest by *hydrophilia*, from California, USA

## Size does Matter!



Above Left: Gigantic Bok Choy, weighing 5.25kg. The plant was growing so well that it had ten mini Bok Choy plants growing from its stem. Well done gemmell, from Canberra.



Above Right: A massive beetroot, grown at the BYAP shop, weighing an impressive 1kg!



Above: Massive Zucchini, grown in a BYAP Courtyard System, by Monya, in the Adelaide Hills.



Left: Quite a big watermelon, grown by OutbackOzzie, in Kalgoorlie, WA.

If you would like to enter, visit us at [www.backyardaquaponics.com/forum](http://www.backyardaquaponics.com/forum)



## BYAP Magazine News

The eighth edition of the Backyard Aquaponics magazine, is packed with useful information. Edition eight features the unique role aquaponics plays within the family unit. Sylvia Bernstein has been privileged to an exclusive interview with Dr. James Rakocy - one of the worlds leading specialists on aquaponics.

Continuing on from our Commercial Aquaponics series, this edition includes an article on a commercial NFT system, based in New Zealand.

Faye Arcaro also continues sharing her passion for insects in her captivating tale of the white cabbage butterfly.

The edition can be purchased via the backyardaquaponics.com web-page or in-store.



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**In the Garden**

“Okra is an all-rounder: nutritionally beneficial, useful for a wide range of cuisines and valuable medicinally”

**In the Garden**

# Okra

By Faye Arcaro

**O**kra is an annual plant in the hibiscus family which has many different common names that are used all over the world, including Lady's fingers, gumbo, bhindi and quingombis, just to name a few. Despite its alias, the recognizable *Abelmoschus esculentus*, is a flowering plant that can reach nearly two metres tall at full maturity. It is easily noticeable in the garden by its distinctive flowers, which have white and yellow petals, very often with red or fuchsia spots at the base. The plant is primarily grown for its elongated seed pod, which is used as a vegetable. Having a sweet flavour and interesting texture, okra adds something new and different to the table. The mucous-like liquid contained within it is commonly used as a thickening agent in stews.

**HISTORY**  
Originally, okra was most likely cultivated by ancient Egyptians, almost three thousand years ago. Native to Ethiopia, the plant made its way across most of North Africa and even into the Middle East. The seeds were enjoyed as a substitute for the more elusive (at the time) coffee. The seed pods were also consumed whole after being cooked thoroughly.

Slaves from West Africa were the source of okra in the New World (U.S.A.). Quickly gaining popularity with the French colonialists, it became a major part of the local diet. The settlers were taught by the slaves how to use okra to thicken their soups. Even today it is grown in America by soup companies, and is still used as one of the key ingredients in thickening soups.

**COOKING**  
Okra is a vegetable that has a wide range of uses in the kitchen. It adds more than

just its unique texture and flavour to a meal. In the Mediterranean and Middle East, the oil from the ripened seed pods is often used as a substitute for other edible cooking oils, since okra can thrive in conditions that many other crops can't.

On the surface, okra is already worthy of the garden patch because it does so much for a meal. Versatile veggies are hard to find and okra appeals to a wide range of preferences or tastes with its mild flavour. Okra can be cooked in a variety of different ways. You can:

- Boil or microwave it until it is soft and tender. Squeeze some lemon juice over it and add a little freshly cracked pepper.
- Make an okra and tomato stew. Serve with rice, for a wholesome meal.

Okra is a great addition to a curry, or can simply be sautéed with curry spices: coriander, cumin, turmeric and curry powder for example.

As mentioned before, okra has thickening properties and therefore should be cut up in soups or stews that require longer cooking times, to really mix in its juices.

Okra's flavour is very similar to eggplant, and can be used instead of eggplant in many recipes.

Raw okra does well in salads, though some might find the mucilaginous aspect not to their liking.

**HEALING PROPERTIES**  
For the health wary, okra is a blessing

pod-size. The little green pod packs a veritable wealth of vitamins and nutrients. Thiamin, vitamin C, folic acid, riboflavin, calcium and zinc, are just a few that we can't do without, and are all contained within the potent pods. For the frequenters of late night backchannels, the gooey juice that oozes from an okra has strong detoxifying properties, cleansing not only cholesterol but bile acid carrying harmful toxins filtered in the liver.

Okra is used as a diuretic by many and is occasionally used to treat urinary tract infections. The combination of its abundance of dietary fibre and binding properties with toxins makes it the ideal vegetable for anybody wishing to detoxify their body. Assisting with artherosclerosis, supporting capillary structure and helping to contain and prevent asthma

Okra makes a welcome addition to soups, stews and curries.

Pickled Okra - a great way to preserve bounty! harvests

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Come down and see us at the Backyard Aquaponics Shop. You can see aquaponics systems of all shapes and sizes producing beautiful fish and vegetables. Come and speak with the experts about how aquaponics can best suit your lifestyle.

The shop is easy to find, about 12 km south of the CBD, just off the freeway on the corner of Berrigan Drive and Jandakot Road. We hope to see you soon.

