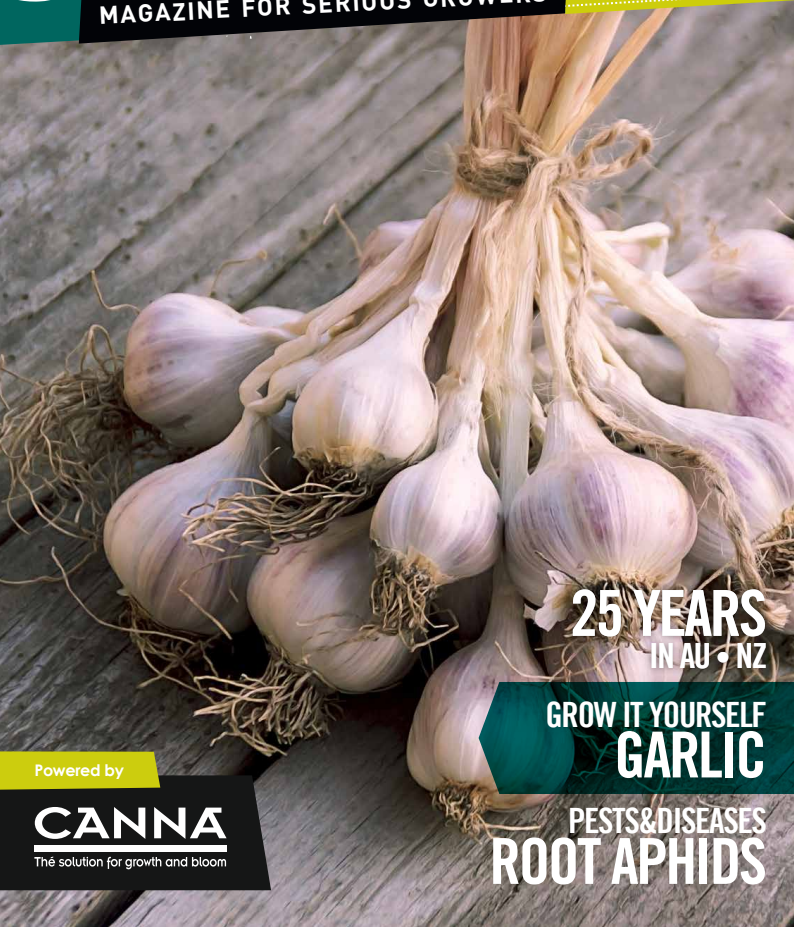


# CANNAtalk<sup>®</sup>

MAGAZINE FOR SERIOUS GROWERS

ISSUE 2 2019



**25 YEARS**  
IN AU • NZ

**GROW IT YOURSELF**  
**GARLIC**

**PESTS & DISEASES**  
**ROOT APHIDS**

Powered by

**CANNA**

The solution for growth and bloom

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No.2 // 2019

3.

## FOREWORD

We have had a great response to the first edition of our new pocket guide. Many questions have been coming in as well as interest in being part of the store highlight page. If you wish to be a part of the store highlight please let us know through the contact page on the website. The CANNATALK display boxes are now available and will be sent with your orders.

CANNA in 2019 is celebrating 25 years in Australia. From Humble beginnings in 1993 to a strong and successful presence in 2019. The CANNA in Australia story starts on page 6.

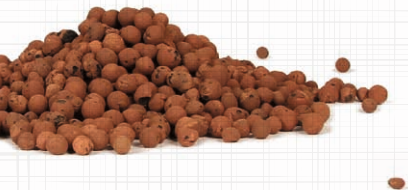
**'Quality Proves Itself'**

Happy Gardening.

# 4. CANNA AQUA CLAY PEBBLES

CANNA Aqua Clay Pebbles are baked clay pellets that form an ideal substrate for use by experienced growers. Aqua Clay Pebbles are ideal for growers who want to control the application of nutrients and the humidity level of their plants throughout the entire cultivation process.

CANNA Aqua Clay Pebbles are manufactured from special types of clay that have a low soluble salt content. Because of this, they are particularly suited for use in closed hydroponic cultivation systems.



## 5. Advantages of CANNA Aqua Clay Pebbles

- CANNA Aqua Clay Pebbles have both high porosity and high air content which stimulate the development of strong roots that grip the substrate well. Strong roots mean bigger yields.
- Aqua Clay Pebbles are inorganic, have a neutral pH value, are fungus free and do not rot.

CANNA Aqua Clay Pebbles give you the basis for optimum growth and flowering. They give the highest yield when used in combination with CANNA Aqua Vega and CANNA Aqua Flores nutrients.



# 6. CANNA 25 YEAR HISTORY IN ANZ

**Celebrating a fantastic 25 years in Australia and New Zealand. Thank you for supporting us for the last 25 years.**

Our diverse range of products have been enjoyed by thousands of Aussies and Kiwis in cities and rural towns across the country. The joy of helping you grow continues to inspire our people to create innovative products that make your life that little bit easier. So, to each and every customer who has supported us since 1994, we'd like to say something simple. Thank you.

## **CANNA Vega and Flores**

In 1994, Australians and New Zealanders took a set of humble Dutch hydroponic nutrients into their hearts and they've been loved ever since through successive generations.

7. CANNA Vega and CANNA Flores nutrients had arrived a few years after their domestic debut as pioneers of the global basic hydroponic nutrient system – a highly nutritious, grow and bloom formula combining macro and micro elements in an A and B system (rather than the 3-part system common to hydroponic American nutrients of the time).

Central to the instant appeal of Vega and Flores – a name that represented a nutrient created for indoor gardens grown under HID lighting – was a list of impressive values not typical of hydroponic nutrients in the early 1990s: crop specific formulation, environmentally friendly, high quality and repeated reliability. CANNA's timing couldn't have been more opportune.





8.



Although it had been a response to the commercial struggles of a Dutch coffeeshop grower, its introduction to growland coincided with the new cultivation methods using rock wool and the subsequent grower rush towards growing smaller plants taken from cuttings.

The popularity of Vega and Flores in overseas markets was boosted when it became the first nutrient to meet the demands of Dutch growers of fast growing medicinal and culinary herbs set by, courtesy of its ground-breaking balanced nutrient formulation.



9.

# WIN A CANNA HARLEY-DAVIDSON

## 25 YEARS OF GOOD TIMES. RIDE ON.



**Just buy any 2 participating CANNA products in 1 transaction.**

From a participating CANNA dealer between 01/05/2019 and 31/12/2019



Submit your valid entry at  
**[www.canna.com.au/win-a-harley](http://www.canna.com.au/win-a-harley)**

10.

# GARLIC

Garlic has a long history of cultivation, having been grown for a variety of uses for millennia. The word garlic comes from the Old English *garleac*, meaning "spear-leek." Dating back over 6,000 years, it is a native plant of Central Asia and has long been a staple in the Mediterranean region, as well as a frequently used seasoning in Asia, Africa, and Europe.

Over 300 varieties of garlic are grown around the world. American garlic, with its white, papery skin and strong flavour is one of the most common varieties. Italian and Mexican garlic, both of which have pink or purple-tinged skins, are slightly milder-flavoured varieties.

## **Brimming with health benefits**

Aside from the wonderful flavour it can give to your cooking, garlic has been used for its remarkable medicinal properties throughout the ages. In Egypt, it was revered as a physical strength enhancer; in ancient Greece, its laxative properties were praised. It was even nicknamed "Russian penicillin" due to its effectiveness as a topical antibiotic for use on battle wounds. Though not completely understood at the time, contemporary research has confirmed that garlic's healing powers come from the hundreds of volatile sulphur compounds

11.



## **GROW IT YOURSELF**

12.



that are found in the vegetable, including allicin, (which gives garlic its distinctive odour), alliin, cycloalliin, and diallyl disulphide. The allicin in raw, crushed garlic has been shown to kill 23 types of bacteria, including salmonella and staphylococcus. Heated garlic gives off another compound, diallyl disulphide oxide, which has been shown to lower serum cholesterol by preventing clotting in the arteries.

The vitamins present in garlic including A, B, and C help the body fight carcinogens and get rid of toxins, and they may even help prevent certain types of cancer, such as stomach cancer. Garlic's sulphurous compounds help regulate blood sugar, stimulate and detoxify the liver and stimulate circulation and the nervous system.

13.

### Growing garlic at home

Growing your own garlic at home can be fun and relatively easy, even if you're not blessed with green fingers. A new garlic plant will grow from each clove, and each new plant will produce a new bulb, in turn containing up to twenty cloves. This growth cycle makes garlic self-sustaining. Garlic's unique fungicidal and pesticide properties can also help keep neighbouring plants healthy.

Garlic typically enjoys a Mediterranean climate, but can be grown in cooler climates as well. Choose a spot in the garden where the soil is not too damp and there is plenty of sunshine. Plant the cloves individually, pointing upwards and about an inch under the surface. Cloves should be planted about 4 inches apart, with rows about 18 inches apart. The best time to plant garlic is early spring or late autumn/early winter. although knowing when to pick garlic is not an exact science, a good rule of thumb is to harvest your garlic when half the leaves around the base of the bulb are green and the other half are turning brown and dying back. After harvesting, take your garlic inside straight away, brush off any dirt, and store in a cool, dry place.



**FULL OF  
HEALTH BENEFITS**



14.



**COMPANY** North East Hydroponics

**OWNER** Matt Prior & Scott Bull

**LOCATION** St Agnes South Australia

**PHONE** +61 8 8265 4801

**WEB** [www.northeasthydro.com.au](http://www.northeasthydro.com.au)

**E-MAIL** [enquiries@northeasthydro.com.au](mailto:enquiries@northeasthydro.com.au)

**MOTTO** Grow with the experts

North East hydroponics, is a new shop located in St Agnes South Australia. With over 25 years of experience in the industry, passion about giving expert advice to the beginner right through to the commercial gardener is key for their business.

15.

# STORE HIGHLIGHT



**CANNNA**  
The solution for growth and bloom



"We have just celebrated the first 6 months of our new business, and we are surprised how we have hit the ground running. The support we have had from the whole industry has been overwhelming, and has helped set our foundations for the future."

North East hydroponics stock a wide range of nutrients, additives, growing media, lighting and irrigation. Head over to their shop or website to get your supplies! We are very excited about our future and building this business.

# HATS AND BEANIES

17.

The new hats and beanies are now available through CANNA Australasia. Make sure you have them on your next order.



**INSTORE  
PROMO STOCK**



# 18. PK 13/14

## NO FIREWORKS, NO GIMMICKS, JUST PURE, CLEAN CONCENTRATED P AND K

### Phosphorous and Potassium additive

- To provide extra P and K in mid bloom, for the brief period that not enough is supplied by Classic Flores
- Economic, Concentrated solution 15ml /10L suggested use for 7 to 15 days only
- No useless coloring agent
- No Hormones/PGRs
- Stable, does not react negatively with CANNA nutrients (no precipitations)

In the generative phase, plants use more phosphorous and potassium than in their vegetative phase. Phosphorous is used in the complex energy creation process and potassium drives the water flow towards fruits and flowers, creating the bulk and increased weight.

**PRODUCT  
HIGHLIGHT**

19. While CANNA nutrients do contain enough of both elements, when things are done right, there is a short window in mid bloom where the plants can use a bit more of both. This is when the addition of PK13/14 is recommended.

CANNA cares about what goes into your production and we source only the cleanest ingredients, in fact our phosphoric acid manufacturer also supplies a very popular soft drink manufacturer! We however do not recommend drinking too much cola, the phosphorous is clean but too much sugar is unhealthy. ;)

The purity of the phosphorous and potassium in PK 13/14 makes it an easy to use product which does not conflict with CANNA nutrients. There is no useless coloring agent, hidden PGR's or other gimmicks. Simple, pure, clean plant available phosphorous and potassium.

### Instructions:

With CANNA Nutrients 1.5 ml / L,  
during mid bloom for 7 -15 days

For other / custom  
nutrient formulations:

1ml of PK13/14 per litre provides: 60  
ppm of P and 123 ppm of K



## 20. ROOT APHIDS

A close-up photograph of a plant root system. Numerous small, pear-shaped aphids, some white and some yellowish, are clustered on the root. Some aphids are covered in a white, waxy secretion. The background is a blurred green, suggesting foliage.

Root aphids seem to be an increasing problem with more questions about pest control regarding these little critters. They are small about the size of a mite and can be difficult to see as they blend with the growing media. They secrete a waxy material to help with identification.

They are pear shaped and colored white brown and sometimes pink and live at the soil level or just under. They multiply quickly feeding on the roots and can go unseen for some time until the vigor of the plant reduces to a point where the plant can die. The plant will lack vigor with withered, curled and yellow leaves and will be much smaller than plants not affected.

Control can be difficult as the eggs can remain in stasis for a long period of time. Once detected affected plants and containers should be removed and destroyed. Also check surrounding plants around the affected areas for host plants. These include plants outside the growing area or any other plant or soil that has been in contact with the gardener. Hygiene is the best option to prevent infestation, use yellow sticky traps at the soil level for early identification.

Pyrerthrum in circulated water.  
Beneficial nematodes (*Heteroraptitis*) introduced to hydroponic solutions after the first sign of infestation may slow the spread of root aphids. *Beauveria bassiana*, an entomopathogenic fungus that attacks a long-list of troublesome crop pests – even resistant strains! Weekly applications can prevent insect population explosions and provide protection equal to or better than conventional chemical pesticides.  
Chemical pesticides, Thiacloprid: 0.05%



# 10 WATERING RULES OF THUMB



## 2. ROOTZONE

Roots have to grow from where there is no water and nutrients to where there is. Keeping them in abundant water and nutrients slows their growth leading to a condition known as over-watering, where

## 1. START

Roots need near 100% humidity, ideally at all times. Go below and the root tip begins to die back. The root tip is responsible for the taking up of the vast majority of minerals and water. Kill the tips and the root has to regenerate before going forward.



roots won't develop in balance with the upper part. On the opposite side, letting it dry for too long will cause Under-Watering. Both situations will cause health problems and nutrient delivery problems.

## 3. KEEP ALL DRAINS OPEN

Well drained medium can have water applied for a longer period because the excess drains quickly from the medium when the application ceases. Poorly drained mediums have much shorter but slower application time because it will take longer to drain the excess water away from the root surface.



## 5. WATER CYCLE

When figuring water cycle on a crop of more than one plant, base timing on an average of all plants. We want to rewater most mediums (except aeroponics) when about 50% of the total volume of the water is used or gone. Set automatic systems to turn on when 50% of the total crop is ready. To accomplish this, keep conditions the same; medium, plant age and size, light exposure, air currents, and so on. Above all else, keep crops developing equally.

## 5.

## 4. DETERMINING ROOT HEALTH

In general, a square meter of full canopy will use 4-6 litres of water per day. No matter how many plants on the square meter. If using less water, either the roots are having a tough go or humidity could be too high, temperatures could be too low, and so on.

## 4.



## 6. WEIGHING

With organic or inert medium, water when 50% of the water you applied last time is gone. The grower can weigh the container bone dry, water to drainage and weigh again. The difference is how much water the container will hold. Lifting and weighing is key. This is very precise in the early days after planting, later on the grower should take into account that the plant is gaining weight.



24.

## HUMIDITY

7.



In aeroponic systems, you have to be good at judging when the root surface has just lost the free moisture on it while not falling much below 100% humidity (air). This will require constant monitoring and adjusting.



## KEEP ROOTS IN THE DARK

8.

Roots like the dark and really try to grow away from light. Keep them as light-less as possible in systems that are thin walled PVC, or an air chamber.

9.

## NEVER TOO MUCH WATER

You cannot put more water in a container with medium and drainage holes, than what it can hold. Once you stop watering, the excess water will drain out and the physical properties of the medium will determine the amount of water available. However you can keep it too wet by watering for too long and/or too often (Over watering).



## PREFERABLY DON'T WATER AT NIGHT

During the dark periods (nights) the plant is using much less water. Mediums that hold water seldom need watering during the night as long as the grower adjusts the irrigation cycle, to water in the last or first half hour of light. Aeroponics or clay pebbles will need an infrequent application a few times during the night.



10.

## WATERING BASED ON WEIGHT OF THE POT

25.



Watering is a very important factor that shapes the development of the roots throughout the pot. A healthy root system has the following characteristics:

- Medium-sized and large whitish roots.
- There should be roots throughout the pot, from top to bottom.

## Watering issues



## Overwatering or watering too frequently;

will stifle the development of roots in the lower half of the pot.

## Underwatering or pots that are not watered frequently enough;

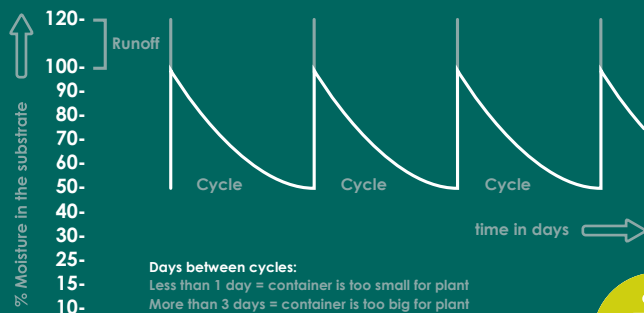
will lead to a lot of dead root matter in the upper half of the pot.



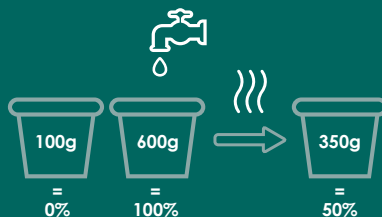
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## Water cycle

Roots grow when they have enough water, but allow plants time to dry out a bit and use up all the minerals present.



Water the plant when 50% of the water you applied last time is gone.



Watering after filling approximately 600g (=100%)  
Wait watering until the pot weight is app. 350g (=50%)

27.

## TELL US AND WIN!

We are giving away great prizes at Summernats 33!  
To win you just have to answer a few questions on our website or visit the CANNA booth at the festival.  
For more information about the competition go to [www.canna.com/summernats](http://www.canna.com/summernats)





# GROOVEFEST

Since April 2018 CANNA has sponsored Tombstone Entertainment, a Heavy Metal rock band based in Christchurch NZ. The band has grown and now presents Groovefest 7 with CANNA represented at the show.

The land of the long white cloud gives rise to many creative talents. After striking a "eureka moment" years ago at an outdoor festival, Tombstone Entertainment's Tim Hunt has been showcasing Christchurch and the rest of New Zealand's best upcoming bands at 'Groovefest', New Zealand's Annual Riff Worship event.

Over the last 7 years, mind blowing bands such as Stonehurst, SCROOGE, Skinny Hobos, Left or Right, Heavy Metal Ninjas, His Masters Voice, Coridian, Pieces of Molly, Themeta, Enfire, Osmium, and many more have attended these unforgettable events.



The Christchurch based Heavy Rock favourites 'Stonehurst' are a common feature at Groovefest, as Tim from Tombstone Entertainment is Front man/Guitarist for the band.

The latest showcase 'Groovefest 7' held in Christchurch on April 5th (A Rolling Stone) and 6th (Micky Finns), featuring the latest rock radio sensation blowing up throughout New Zealand, Skinny Hobos, plus many more amazing acts that drip with pure NZ rock and roll essence!



Groovefest creates an eye-opening experience for anyone willing to attend. With the help of CANNA, Tombstone Entertainment and Groovefest strive to get bigger and better every year to bring the worldwide musical community together and strengthen our bond through the love of music.

30.

# GROWERS QUESTIONS

We are often asked about a change in labels for CANNA Pk 13/14 that happened a number of years ago. Why is the ratio shown on the bottles now NPKS 0-6-11-0?

31.

This change occurred due to labeling requirement changes in Australian government agencies. Where in Europe the percentages of NPKS are measured in mass/weight, meaning that the mass/weight of eg  $P_2O_5$  is measured as a whole unit, the new law in Australia says the percentages need to be measured as mass/volume, meaning only the volume of  $P_2$  is measured. So this is just a change in the way the amount of NPKS is measured in the formula based on the labeling laws of the country. The formula of Pk 13/14 has not changed.

We recommend in the grow guide to only use for one week during the flowering cycle to provide a boost to the size and weight of flowers. This is all that is required at this stage of the plants development. *Note: If the Pk range is low before the addition of Pk this can create a negative affect to its use.*

# CANNA

The solution for growth and bloom



[www.canna.com.au](http://www.canna.com.au)