

CLEAN & GREEN

WINTER NEWSLETTER

Food Waste is serious!

How can we
solve this?

pg 3

Want a *Beautiful* Winter Wonderland Garden?

Learn how to
get your own in
this newsletter edition!

Meet the Greeny Bunch!

pg 7

Winter Veggies
taste so much

Sweeter!

Find out why?... pg 7

Winter Time Planting
It's a thing!
Check it out.... pages 4-6

Clean & Green Organics
is still open for business!
Call 0434 208 513
for enquiries or soil

Your health is important
and so is your soil's!
Read more... pg 6

Contents

Written & Produced by Gabby Mastroianni
Published by Clean & Green Organics Pty Ltd

Vol.1, No.2, Winter 2020
Released 1 June 2020



FEATURES:

Contents Page

Think Recycling

Recycling facts & stats page..... 3

Flowering in the Winter Time

Best flowers to plant in winter..... 4

Your Guide to Winter Gardening

Unique articles for Winter 2020 gardening..... 5

Can Roots Freeze?..... 5

Surviving the Frost..... 5

Bees in Winter..... 5

Is my Garden Soil Healthy?

Soil health and maintenance..... 6

Winter Season Planting Guide

Benefits and guide to planting winter crops 7

Meet the Greeny Bunch

Kids guide to fun winter vegetables..... 7

Source & Article References..... 8



Check out **Clean & Green Global Solutions** website to discover more information about Clean & Green services, news and special offers!

www.cleangreenrecycling.com.au

Think Recycling

FOOD WASTE
costs the
Australian economy
\$20 billion
every year!*

Almost half of all fruit and vegetables
produced around the world is wasted.



This means
3.7 trillion
APPLES
ARE WASTED!*



\$3,800
WORTH OF
GROCERIES
per household
ENDS UP IN THE BIN
each year!*

Ways we can **Solve this!**

- 1. Plan Meals for the Week**
Buy only what you need week to week.
- 2. Shop with a List**
Avoid over-buying or impulse shopping.
- 3. Store Food Correctly**
Food in fridge and freezer lasts longer.
- 4. Love your Leftovers!**
Leftover food is still good the next day.
- 5. Be Aware of Your Waste**
Keep track of your daily waste.
- 6. Separate the Recyclables!**
Paper, Bottles, & Organics can be recycled to reduce waste to landfill!

35%
of the
avg. household
BIN is
FOOD WASTE*



Flowering in the Winter Time

Not everything freezes over in the colder climates. Some of the most beautiful flowers blossom in the frost!

Hellebores, Heather, Pansies, & Snowdrops are pretty and colourful flowers to decorate your winter wonderland garden this season!

Why do these plants blossom in winter?

For some species flowering in winter offers greater advantages than summer. The breezy weather and the absence of heavy foliage means pollen can be spread around and pollinate female flowers faster.

Flowers which rely on insect pollination can avoid competition. Summer flowers need to use a lot of energy to produce stronger scent and colour to appeal to insects and compete with other blooming flowers.

Winter flowers also ripen their seeds in the cooler climate giving these plants an advantage in germination, as they can seek good growing spots before the spring and summer seasons.

So for your next gardening project consider planting these winter flowers for that beautiful all-year round blossoming garden!

Pansies

Fragrant, edible flowers that grow all year round.
Yes that's right - edible!
Great for a salad or dessert garnish.



Red Hellebores

Known as *Anna's Red*, produces a crimson bloom during winter. Great for indoors & outdoors, easy care & low maintenance.



White Hellebores

These winter blooms with dusky pink tips are also known as *Molly's White*. Low maintenance, easy care, indoor & outdoor flower.



Winter Heather

Part of the *Ericaceae* family. Winter hardiness, low maintenance, salt, wind & drought resistant.



Snowdrops

Love the colder climates & can grow in the wild. Not native to Australia but are beautiful winter blooms nonetheless!



Your guide to Winter Gardening

Can Roots Freeze?

Some plants like tomatoes and dahlias can't survive in winter, but there are some hardy plants that can survive through the frost!

Like a bear goes into hibernation for the winter, some plants and trees enter a state of dormancy as the colder climate sets in, making them less susceptible to freezing.

However this means Spring time is ever so important for these dormant roots! Evergreen trees (like our famous christmas trees) rely on their roots in Spring to undo the damage of windy frosty weather on the leaves and foliage.

To protect our more vulnerable plants, we recommend using bark and mulch to coat and insulate the soil and roots underneath!



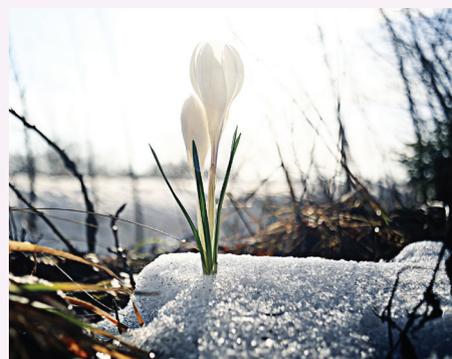
Surviving the Frost

Like an athlete goes through intensive training before a race, our plants also undergo seasonal conditioning called "hardening" to ready themselves for the onset of frosty temperatures!

Hardening involves increasing the dissolved sugars and other organic molecules inside the plants cells. This prevents freezing or ice crystals forming inside the cell walls which can severely damage or even kill the plant.

This process is a hardy plant's natural antifreeze! However if temperatures are consistently low, around 5°C or less, then plants must supercool, preparing for the deep cold.

But for supercooling to happen, hardening must happen first!



Bees in Winter

Ever wondered what happens to bees during winter?

Like most species, honeybees remain in their hives during the winter time. They cluster together and vibrate their wing muscles to keep warm.

For food, these bees use their honey stores, or if the honey has been collected already, they eat bee candy or the sugar solutions remaining.

Bumblebees on the other hand live in underground nests. Bees generally breed during this time. Queen bumblebees hibernate underground on their own for winter.

Solitary native bees who have no colony or hive will take shelter on their own until spring returns.





Is my garden Soil Healthy?

Did you know our soils can get sick too? Sick soils can make our crops weak and unhealthy. **But there's a cure!** Here are some ways we can keep our soils healthy and fruitful!

Healthy soil is critical for ensuring strong plant and crop growth. Just like a person, if we don't know what's making us sick how can we treat the sickness?

A soil may become sick because of a number of factors: sowing the same soil with the same crops season after season, the soil structure might be damaged because of building work, flooding or waterlogging which may have led to the depletion of beneficial nutrients or worms!

Same Soil, Same plant

Different plants carry different diseases and pests. If crops are planted in the same soil season after season this can damage the soil structure and eventual plant growth.

So what's the solution

The four-year rotation system is a method used today to protect plant and soil health.

It rotates between four different types of crops, making sure that the initial crop will only return to the same place after four years.

This time period is long enough to reduce any chance of crop-specific pest problems or soil nutrient depletion.

Planting different crops in the same soil has many other benefits too!

For example, planting potatoes in the first year is ideal for breaking up the soil, so that in the second year root crops like carrots, radishes or beetroots can allow their roots to run deep and ensure healthy growth.

Having deep root runs in the soil establishes strong foundations for other crops like legumes or peas in the following seasons too!

Compost Mixes

Another way to ensure healthy soil is to use compost product or soil conditioners! By mixing current soils with compost or soil conditioner products, it enables new nutrient content to enter the soil whilst aerating and refreshing the mix!

Clean & Green Organics are an approved Australian owned and operating business that specialises in creating organic composts and soil conditioners from organic materials.

Clean & Green composts are bursting with vital nutrients and micro-organisms essential for healthy plant and crop growth, with proven healthy results!

With these easy methods you too can keep your soils strong & healthy!



Winter season

Planting Guide

Australian winter doesn't have to be drab and dreary...

- 1** Planting during the colder months means you'll have **fresh, homegrown and ready to pick veggies** by summer!
- 2** Some of our favourite green veggies and herbs find it difficult to grow in the simmering heat.
- 3** The frosty nights and cooler days actually helps convert starches into sugars, making our beloved **vegetables much sweeter and yummiar!**
Even the kids will love their greens!
- 4** **Hardly any maintenance is required** for winter gardening too! Little watering is needed and pests are hardly seen during the colder months.
- 5** Preparing your own homegrown veggies teaches our kids about seasonal planting and **adds greater variety** to mealtime!
- 6** Using **bark or mulch to coat** the soil around your newly planted roots to give them that extra insulation during windy or snowy days.



Meet the Greeny Bunch

Spencer the Spring Onion

I love planting in the chillier months!

Bruce the Brussel Sprout

I am much sweeter when I grow during winter!

Corrie the Coriander

It's too hot in summer for me!

Abbie the Asparagus

Winter is my time to get ready & fabulous for Summer!

Pier, Penelope & Peta the Snow peas

We love the cold! We are so much sweeter!



Written & Produced by Gabby Mastroianni
 Published by Clean & Green Organics Pty Ltd

Vol.1, No.2, Winter 2020

REFERENCES:

Barter, G., 2017, How do worms work?: A gardener’s collection of curious questions and astonishing answers, edn. 1: (134-135, 158-159, 170-171, 176-177, 184, 202) Hachette Australia, Sydney.

EPA, 2020, Love Food Hate Waste, <https://www.epa.nsw.gov.au/your-environment/waste/reducing-your-household-waste/love-food-hate-waste>

Gardenia, 2020, *Heaths & Heathers*, <https://www.gardenia.net/plant-variety/about-heaths-and-heathers>

Macdonald, K., 2020, Snowdrops - 10 facts to tell kids, *Wild About Here*, [blog post] <https://wildaboutthere.com/snowdrops-10-fun-facts-to-tell-kids/>

OzHarvest, 2020, Food Waste Facts, https://www.ozharvest.org/what-we-do/environment-facts/?gclid=EAlaIQobChMI4u_zruOv6QIVSyUrCh1hgg-bCEAAYAiAAEgKMafD_BwE

Plants Management Australia, 2020, *Hellebores ‘Anna’s Red’*, <https://www.pma.com.au/annas-red>

Plants Management Australia, 2020, *Hellebores ‘Molly’s White’*, https://www.pma.com.au/Plant/Plant.cshtml?plant_id=2144398905

Queensland Government, 2017, The Surprising Health Benefits of Gardening, <https://www.health.qld.gov.au/news-events/news/health-benefits-of-gardening>

REC, 2018, *Blue environment National Waste Report 2018*, accessed 19 November 2018, <https://www.environment.gov.au/system/files/resources/7381c1de-31d0-429b-912c-91a6dbc83af7/files/national-waste-report-2018.pdf>

The Flower Expert, 2020, *Pansy*, <https://www.theflowerexpert.com/content/growingflowers/flowersandseasons/pansy>

The Little Veggie Patch co., 2019, *Guide to Winter Gardening*, <https://littleveggiepatchco.com.au/blogs/news/guide-to-winter-gardening>

Check out **Clean & Green Global Solutions** website to discover more information about Clean & Green services, news and special offers!
www.cleangreenrecycling.com.au



Clean & Green Newsletter editions are released on the first day of the month of every new season. For more information about **Clean & Green** news check out our website:
www.cleangreenrecycling.com.au