CLEAN & GREEN



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Contents









FEATURES:

Contents Page

Merrv	Christm	nas!	

Merry Christmas Letter from the Clean & Green Team	3
Wait! How Much Waste?	

Harm of Food Waste on the Economy & Environment 4
The Secrets to Optimal Plant Growth

·	
7 Secrets to Optimal Plant Health	6

That's Bananas! 4 Sustainable Ways to use Banana Peels in your Garden... 7

Summer Rain
Gardening during La Nina Season

Which Organics Can I Compost?	
Visual Overview of Organic Compostable Materials	8

Mid Summer's Nights Dream	
Creating Perfect Summer Garden	1
Swap n Grow	

Ŭ	ap	
S	tarting this Summer - Read all about it!	1

How to Grow Tastier Veggies FasterGuaranteed	
Clean & Green Organics Soil	1

Source & Article References 1

PARTNERS:







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HE AUSTRALIAN ORGANIC

HOW FOOD WASTE HARMS THE AUSTRALIAN ECONOMY & ENVIRONMENT

hen food is wasted, whether it be your half-eaten sandwich you threw in the trash, or the tonnes and tonnes of old fruit and veg that are wasted before they even reach the supermarket, it has a serious cost to the Australian economy and environment.

Food waste costs the Australian economy around \$36.6 billion every year (DAWE, 2021). To put that in perspective that is more than the GDP of the entire countries of Uganda (\$33.6 billion) or Estonia (\$33.2 billion) (2021). When your food waste costs more than an entire country, you know there's a serious problem!

Each year, we waste around 7.6 million tonnes of food across the supply and consumption chain, which equates to 312kg per Australian.

All our food waste combined accounts for 3% of Australia's annual greenhouse gas emissions. Which may not sound like a lot, but it's an unnecessary 3% add to our carbon emissions, especially when you consider that food waste has the potential for zero net waste through organic composting processes and sustainable food aid repurposing.

Here's the issue, when organic waste is left to rot in landfills it becomes

anaerobic; meaning instead of using oxygen and energy to decompose into beneficial compost soils, it becomes stagnant and emits methane gases into the atmosphere. This is the dangerous and lethal harm of food waste to our environment.

Did you know, Australian agriculture uses 2600 gigalitres of water to grow food that is ultimately wasted? This is equivalent to five Sydney Harbours. In a country prone to drought and bushfire, wasting water is not an option. So rather than wasting our food Australians need to find better ways to reduce, reuse and recycle it.





FOOD WASTE

costs the Australian economy

\$36.3 billion every year



2600 gigalitres of WATER to grow food that is UKSTED

But there is a chance to do better! The Australian Government aims to halve all food waste produced in this country by 2030 in alignment with the UN's Sustainable Development Goal (DAWE, 2021).

Implementing a series of educational, industrial and technological actions to help reduce food waste production and final output in landfills. This can be achieved through diverting food waste to recycling facilities instead of landfills, food waste education campaigns in schools and communities, and/or redistributing food produce into food aids for Australians in need.

Almost half of all food waste produced in Australia each year is sent to landfill, with 86% of this being generated by consumers.

Source: FIAL, 2021

However we can do more!
We as Aussie citizens can do our small part by being conscious consumers:
Choosing to shop sustainably, consuming goods before their use-by-dates and freezing the rest so it lasts longer.

Composting our kitchen fruit, veggie and breads scraps and reusing peels as fertilisers in our gardens. Saving meat bones for our furry friends or to make homemade broths and stocks. Or simply by making sure that you support your local composting and organic recycling facilities by placing your food waste in the correct bins to be recycled into quality compost soils!

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The Secrets To **Optimum Plant Growth**

Water

Proper hydration is essential for all plant life. Each plant requires different amounts of water some plants need to be grown in water (e.g. Iris); some plants need lots of water or moist soil all the time (e.g. Banana trees or hibiscus flowers); alternatively, some plants need very little water to survive (e.g orchids or succulents). Make sure you know how much water your plant needs to grow and survive.

Plants take up water through their root system. Temperature, humidity and amount of rainfall all determine how much water your plants require.

Nutrients

Plants obtain nutrients through the soil, therefore it is important to provide fertile soil with high organic matter and mineral uptake. Some plants are heavy feeders and need compost soils or support supplements like manures, mulches or compost juices.

All plants need these minerals: nitrogen, carbon, phosphorus, potassium, calcium, magnesium, and sulphur, for healthy growth.

Soil

Soil health impacts plant growth as well as root development and plant mineral uptake. Ensuring plants are growing in the correct soil is important.

Compost soils are rich in organic matter which assists plant mineral absorption, have excellent drainage capabilities which prevent waterlogging or plant disease, and support root structures. These soils also have great aeration and retain moisture for longer, meaning plants will not dry out quickly.

These soil types are great for growing food bearing plants and exotic plants like roses.

Temperature

Temperature impacts plant growth. Ensuring your plants are growing in their required temperature range is important. Best way to ensure this is to plant species that are native to your region and are seasonal.

Some plants are perennials while others are annuals, this impacts which season is best to plant certain species.

Light

Plants need photosynthesis to create food which they get from the sun. Different plants need different amounts of sunlight, however all plant life need the sun for growth and development. For example, full sun plants require at least 8-10 hours of full sun (direct or indirect) each day.

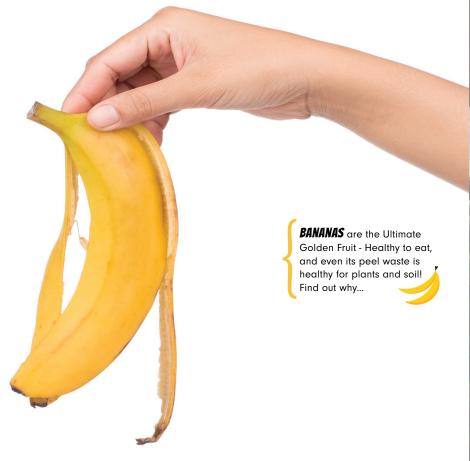
Spacing

Always ensure there is enough room for your plants to spread out as they grow. Make sure you purchase the correct pot size for potted plants and sow seeds with enough room between each plant. This is to make sure plants receive enough light and won't be shaded or cramped by other plants that are too close.

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Making sure the soil pH is regulated for each plant type is also important. Some plants require more acidic soil conditions (<6.8), some need more neutral conditions (7), while some prefer more basic conditions (alkaline soil) (>7.5).





THAT'S BANANAS!

4 Sustainable Ways to Use Banana Peels in your Garden

Bananas are truly the golden fruit, not just because of its highnutrient dietary value when we eat them, but even its leftover skin peel is incredibly beneficial for our soils and gardens!

Bananas are mineral rich, so recycling them back into our gardens sustainably supports plant development. Here are 4 ways you can use banana peels in your garden that don't involve composting:

Amend Your Soil



amendment when preparing fruit and veggie garden beds will help ensure high nutrient uptake from plants and strong development. Chop the banana peels into small pieces and work them into your soil beds. Make sure to bury them deep to avoid attracting pests.

Feed Your Seedlings

When sowing new seeds in your garden beds, make sure to lay out your banana peels into long flat strips, inside facing up, placing the new seedlings onto the banana peel itself before covering in soil. Your

seedling will greatly benefit from the rich minerals in the banana peel during the germination phase.

Keep Aphids Away

Banana peels are well-known natural aphid deterrents. Aphids are horrible pests which can decimate garden plants. Instead of using pesticides (which harm our environment with its chemical properties and affect our plants by stripping them of nutrients) place chopped banana peels around the

plant stem just below the soil line.

Plant Food Supplement

Just like humans take vitamin supplements, soaked banana peel juice is one of the best mineral supplements for our plants! It's leached liquid nutrients are high in potassium, calcium, maganese, sodium and sulphur - all essential for healthy plant growth, development and fighting off disease.



Will La Nina season bring a wet Aussie summer?

Australia's weather is influenced by many climate drivers, in particular the El Nino Southern Oscillation (ENSO) cycle which brings alternating El Nino and La Nina weather patterns.

During La Nina, the winds are stronger and deep cool ocean temperatures clash with warm ocean surface temperatures, creating more cloud development and rainfall.

In Australia, usually the winter to spring months are affected most by rainfall, however this can continue

through summer and can result in severe flooding.

HOW TO BRACE FOR A WET SUMMER?

- 1. Make sure your garden drains, grates and pipes are unblocked and fully-functioning. This should minimise the risk of flooding.
- **2.** Also be sure to use well-draining soils in your garden to avoid waterlogging and damaging your plants.
- 3. Install a water tank to capture rainwater for future gardening needs, and bonus - reduce your water bills.



WHIGH ORGANICS COMPOST?

Composting is earth's natural recycling system which decomposes organic waste into nutrientrich soils for the environment!

This process relies on a perfect balance of water, oxygen, organic materials and bacteria to ensure the decomposition process remains aerobic - without which these compost piles would become anaerobic and release toxic methane gases into the atmosphere. This is what happens when organics are dumped in our landfills!

Every year Australia produced 15.3 million tonnes of organic waste, half of this is food waste alone. Just over 45% of this total waste generated is sent to landfill, contributing to the rising greenhouse gases in the atmosphere.

Imagine if we composted this organic waste instead?

We could have zero greenhouse emissions, and more nutrient-rich, recycled organic compost soils to give back to the environment to grow more trees, food and plants!

Composts need a mixture of wet and dry organic materials, or otherwise known as "green" or "brown" materials. Green materials are high in nitrogen, while brown materials in carbon. The balance of the two ensures the composting process stays aerobic, while ensuring these nutrients are absorbed into the compost soil itself and thus transferred to its plants!

Find out which organic waste materials can be composted at home or at a certified composting facility like Clean & Green Organics, based in Bringelly, NSW.



FRUIT & VEG WASTE

Organic Fruit & Vegetable waste contributes to your Green Materials in compost. These are rich in nitrogen and usually wet when decomposing. This helps stimulate the aerobic composting process by making sure bacteria and oxygen are present. Moudly, rotten, peels, skins, seeds and scraps are all excellent!



OTHER ORGANIC FOOD WASTE

Other organic food wastes, such as Nuts and Legumes, Organic Wheats like Breads, Pasta and Cereals, Rice and Grains, and even Eggs, Egg Shells and Egg Cartons are also considered green materials, rich in nitrogen, and are great to add to composts too. These help stimulate the decomposition process.





ORGANIC GREEN WASTE

Your everyday garden waste, from grass and tree clippings, to sticks and branches, to plants and even dirt, are all must compostables! Green (Garden) Waste is high in nitrogen. So even as it decays, it maintains higher levels for longer than food waste, ensuring the aerobic decomposition process is constantly stimulated.



ORGANIC LIQUIDS

Organic materials such as coffee grounds and beans, tea leaves, and plant/ nut-based juices and milks are considered organic liquids and can be composted. These fall into the green material category and have a high nitrogen level essential for balance compost. Make sure to add plenty of brown material to absorb these liquids.



UNTREATED WOOD WASTE

Untreated Wood Waste refers to organic timbers that are not laquered, oiled or painted with chemicals. These harmful toxins are not compostable! Organic woods include, untreated cut offs, sawdust, logs & stumps and pallets, to name a few. These are brown materials, high in carbon matter & are essential to aerobic composting.



ORGANIC PAPER WASTE

Some organic paper wastes cannot be recycled conventionally due to contamination. These include paper pulp, or food-based paper wastes, like napkins, paper towels, even plant-based/ paper straws, plates or cutlery. These organic waste streams are brown materials (carbon based) and stimulate aerobic decay.

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Mid Summer Night's Dream

Creating the perfect summer backyard for those warm nights and social gatherings starts with a beautifully kept garden and healthy green lawn.

1. Creating this tropical outdoor cabana means planting tropical palms and floral combinations like Birds of Paradise, Banana Leaves or Hibiscus.' Be sure to use one part Garden Mix and two parts Compost Soil for tropical plants, for strong plant development. Compost soil's high waterdraining properties prevent waterlogging, whilst also maintaining moisture in the soil particles to prevent plant dehydration in the heat. Adding fairy lights and curtain detail to your backyard cabana really adds that romantic touch to feel like a honeymoon getaway at home. 2. Making sure your lawn paths are well-lit and well-kept is important during those summer nights spent outdoors. Be sure to use Soil Underlay for turfing maintenance, mow around path tiles using a whipper-snipper for better accuracy and neater cuts. 3. Increase the value of your home by including spotlights on your plants in your garden. Position them to highlight the best plants in your beds, or simply to add some decorated outdoor light for those summer nights. Adding mulch and wood chips over your soil beds helps with plant growth

but also gives your garden that professional finished touch. 4. Lining your boardwalks with path lights, full palms and tropical plants and flowers can create that holiday island oasis in your own garden. Make sure to keep

pruning throughout summer to avoid plants becoming overly

bushy and messy.



Pruning

Consistent pruning is important throughout summer to avoid gardens becoming over-grown and messy and to help flower growth and budding. Don't prune azaleas or camellias before the new year. Be sure to prune Aussie natives and Lavender soon after flowering as well as wayward tendrils from climbers. Prune roses later in February.

Planting

Summer is the perfect time to add more variety to your veggie patch. Add some celery, leek and carrot to your garden as well as watermelon, sweet potato, sunflowers and basil. Be sure to sow basil seeds in the evening. We recommend using one part Garden Mix and two parts Compost Soil for optimal plant growth and nutrient absorption.

Potted Care

Potted plants are vulnerable to overheating during the summer months, especially those in terracotta pots. Make sure to lightly mulch plants to keep their soil cooler. Position your potted plants out of the afternoon sun heat or undercover wherever possible. Make sure to keep the soil moist and water in the morning.





How it works

Swapping Scraps for Soil

Collecting & Composting Scraps

Clean & Green Organics partner with Swap n Grow to collect your organic food and green waste "scraps" from your business place or home to be composted into high quality organic soils.

Using our own collection trucks, your scraps are taken to our composting facility in Bringelly, NSW to be mixed with our other organic materials and layed into compost piles.

Through regular monitoring and analysis, our composts are created to the highest quality to meet Australian Standards, and when ready, are screened and delivered back to your gardens to continue the circle of life!

Swapping & Delivering Soil

An idea born from swapping scraps for soil to grow new life, Clean & Green Organics and Swap n Grow partners contribute to the circular economy by doing exactly that!

Composting organic food and green waste "scraps" into high quality organic compost soils; that are bursting with essential nutrients and micro-organisms for healthy garden growth and development, and that meet Australian Standards.

Every season we deliver you fresh compost soil, made with love from your organic scraps, to use in your home garden. Alternatively, you can choose to donate your soil to a community project or local garden and be a part of the sustainable circular economy!





How to Grow Tastier Veggies in Your Garden Faster...



Guaranteed!

Growing veggies doesn't need to be rocket science, in fact it's really easy if you use the right soil!

Soil is the life source of your plant's health, with poor quality soil you have fewer vegetables that take a long time to grow and don't taste as good because they lack nutrients. Fact.

Whereas, using high quality soils means your garden will be bursting with nutrient-rich, tastier and bigger veggies because they have healthy nutrient-rich development and growth!

Clean & Green Organics high-quality composts and soils are made from 100% recycled organic materials at our Australian composting facility in Bringelly, NSW.

Certified made to Australian Standards, Clean & Green soils and composts are bursting with minerals essential for healthy plant growth with proven results!

We test all our soil products in our own veggie garden onsite each season, growing a variety of different foods, and they are always huge and healthy, absolutely delicious and grow super quickly!

All our customers absolutely love using our product and gloat about how full and healthy their own veggie gardens look, and how much better their veggies taste, just from using our soil!

If you're interested to know more, send an enquiry online today! www.cleangreenreycling.com.au/contact/







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