



# Dalyah

Established 1964

Patron: His Majesty the King of Bahrain,  
King Hamad Bin Isa Al Khalifa

April-June 2021 / Issue 38

## ***GROW YOUR OWN FOOD***

*Growing potatoes  
Organic pest control  
Composting*

*Organic farming  
Sweet acacia  
Cooking recepies*



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*Dear members, please send your articles about your own gardening experience to the garden club editorial team.*

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*Images for newsletter were contributed by garden club members.*



Cover image © Irina Averinos

## A word from the Chairwoman:



At its founding 55 years ago, one of the central aims of the Bahrain Garden Club was to educate the membership, and gardeners in general, about horticultural practices, especially sustainable agriculture. In so doing, our goal was to help gardeners be more successful in their activities, and aware of their impact on the nature around them.

The Club's Annual Flower and Vegetable Show is the driving force through which we encourage our membership and others to grow vegetables in their own garden. Indeed, competition rules state that all exhibited produce must be home grown.

One of the things which has inspired even more residents to grow their own vegetables, herbs and fruit is the prestigious prize of the late Amir of Bahrain the HH Shaikh Isa Bin Sulman Al Khalifa cup, first awarded in 1967.

I am delighted to report that the majority of our membership have some kind of kitchen garden or vegetable patch, as well as fruit trees. We are all aware that by growing our own food, we have control of every step of the growing process, from seed selection to soil management and pest control, and are able to use organic techniques to benefit our health and the local environment. What's more, we can harvest and consume the freshest ingredients exactly when they are required, with the shortest possible distance from vegetable plot to table thereby cutting out unnecessary food miles.

The therapeutic benefits of connecting with nature are also well known, no matter how small your garden space. Get it right and your farm fresh produce will also save you money, especially if you make your own organic compost from fruit and vegetable scraps and garden waste.

As a group of gardening enthusiasts, there is no doubt in my mind that the more we can do to encourage people to "grow their own organically", the greater the benefit to all and the bigger our contribution to a more sustainable future for our children's children.

**Zahra Abdul Malik**  
Bahrain Garden Club Chairperson

*New members are always welcome.*

**To become a member of the Bahrain Garden Club,  
please contact 17727625 or 39774194**

### Potato

by Tahera Jaber



The potato (*Solanum tuberosum*) is a starchy vegetable, containing more starch than other vegetables.

It is an herbaceous annual that grows up to 100 cm (40 inches) tall and produces a tuber - also called potato - so rich in starch that it ranks as the world's fourth most important food crop, after maize, wheat and rice.

Potatoes are one of the most bountiful and rewarding crops that you, the home gardener, can grow. It is possible, under the right conditions, to pull 30 times as many potatoes out of your garden, as you plant into it. For many indigenous peoples, the potato is, and has been, their main source of starch, protein, vitamins and minerals for more than six thousand years.

Potatoes are a good source of fiber, which can help you lose weight by keeping you full longer. Fiber can help prevent heart disease by keeping cholesterol and blood sugar levels in check. Potatoes are also full of antioxidants that work to prevent diseases and vitamins that help your body function properly. This versatile vegetable also reduces Inflammation, regulates blood pressure, has heart-healing properties, improves brain health, helps promote digestion and sleep and is good for bones and skin.

#### How to grow potatoes at home

Potatoes are easy to grow – one seed potato will produce a large harvest of potatoes given the right conditions.

Potatoes can be grown in Bahrain between October and March. They grow best in well-drained, loose soil in a location that receives full sun—at least 6 hours of sunlight each day.

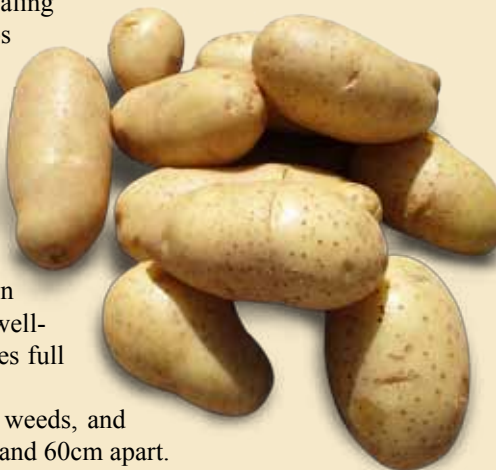
Prepare the soil by digging and removing weeds, and then dig straight trenches or pit 12cm deep and 60cm apart.

Cover the seed potatoes with soil to fill the trench.

When the shoots reach 20cm tall, use a rake, hoe or spade to mound soil up around the bases of the shoots, covering the stems half way. This is called earthing up.

Regular potatoes are ready to harvest when the foliage begins to die back.

This year my organic farm harvested more than 1000kg of potatoes.



### A cautionary note about green potatoes



When potatoes are exposed to light they become green and start to sprout. Green potatoes and sprouts contain high levels of a toxin called solanine, which protects potatoes from insects and bacteria but is dangerous to humans; ingestion of green potatoes can cause nausea, headaches and neurological problems.

Peeling green potatoes and cooking them in any way does not significantly reduce solanine levels and does not make green potatoes any safer to eat.

Store potatoes in a cool dark dry place. Refrigeration is not recommended. Inspect potatoes for greening and sprouting before consuming them. Do not eat, but use them for growing new potato plants in your garden or in containers.

## Organic farming takes off in Bahrain

by Dr. Sarah Clarke



I first came across Rachel Carson's landmark book, *Silent Spring*, published in 1962 by Houghton Mifflin, during a seminar on Business and the Environment at Manchester Business School in 1991. In the book, Carson documented the adverse environmental effects caused by the indiscriminate use of pesticides. I remember thinking why hadn't there been any discussion about environmental issues during my earlier education, despite the fact that, in the UK, debate about organic agricultural methods began at the turn of the 20th century, with Lord Northbourne first coining the term "organic farming" in 1940?

Back in the 1990s in the UK, a small number of organic products were available in supermarkets, fresh from the farm or at farmers' markets. Some were flown in from far off countries. By and large, they were too expensive for my dinner table and looked a bit odd; marketing campaigns convinced us that fruits and vegetables that looked perfect – meaning big, shiny, uniform and unblemished - were better. By the late 1990s, the availability of genetically modified foods exploded, leading to a wider debate about the health implications of scientists fiddling with the food chain.

Fast forward to 2021 and it's reassuring to see that the organic message has become mainstream, with extensive discussions about the damage pesticides and inorganic fertilisers do to the land, as well as the health implications of potentially contaminated food.

Amateur gardeners and a small number of organic farms in Bahrain champion the benefits of organic growing methods for health and wellbeing; together they demonstrate how we can nurture and rejuvenate the land in our corner of the world, for the benefit of future generations and for the support of local biodiversity.

I recently had the pleasure of visiting two pioneering farms in Bahrain: Jasra Organic Farm and Roots & Shoots Organic Farm.

What struck me most during my visits was the passion that everyone involved has for their work, the joy they derive from growing organic produce and their desire to educate others in Bahrain about the benefits of organic farming methods. Happily, even though my tour coincided with the end of the main growing season, there was a wide variety of crops still thriving on both farms, including kale, broccoli, cabbage, carrot, greens, egg-plant, celery, tomato,



**Jasra Organic Farm, Jasra**  
@jasraorganicfarm



Owned by the Jaber family and managed by Tariq Jaber on a not-for-profit basis under the slogan "Grown with Love". This nearly 11,000sq.m. farm champions sustainable agriculture and permaculture, and has used local varieties and organic methods since 2010, banning the use of all forms of chemical pesticides and fertilisers. All produce is available for purchase by the public direct from the farm including locally harvested honey. The farm's ducks, chickens, goats and other animals are a hit with visiting families.



**Roots & Shoots Organic Farm, Hamala**

@rootsandshoots.me

www.rootsandshoots.me



12,000sq.m. farm is run as a cooperative (community supported agriculture) farm, managed by Andrea Pucciarelli. Based on principles of regeneration and no-till, the initiative is dedicated to producing 100% organic produce using zero chemicals. The farm champions locally grown, seasonal varieties and encourages the active involvement of their membership. Once a week, members receive a basket of produce. Premium subscribers benefit from a special gift every month from the farm emporium. Excess produce is available for purchase by the public. Tours by appointment.



a wide range of herbs, potato and more. Pollinators buzzed from bloom to bloom, birds sang joyfully, insects happily went about their work, chickens clucked around large open spaces and the occasional bleat was heard from a goat.

As might be expected, both farms create their own compost, adopt companion planting methods, use their own well water, harvest their seeds and apply organic approaches to pest and disease control. Initially, Roots & Shoots simple goal was to see how much of the produce used at Chef Suzy's restaurant could be organically grown locally. From that kernel of an idea, a small cooperative movement has emerged that benefits the restaurant as well as more than 50 families, helping to educate the next generation about more sustainable in food production.

Sharing their knowledge of organic farming techniques is also a goal of the owners of Jasra Organic Farm who want to pass on their passion to the wider community, for the long term benefit of Bahrain's ecosystem. Learning by doing and experimentation underpins their farming philosophy, as a way of building know-how about what works and what doesn't work in our harsh climate, sentiments echoed by Roots & Shoots.

**So here are some easy ways to start on the road to an organic garden!**

1. Start collecting kitchen waste. Put it in a hole in your garden. By the end of the summer you'll have your first batch of organic compost!
2. Plant cover crops such as turnips, radishes, grasses, barley, coriander to help regenerate the soil and don't be scared of weeds – they return their nutrients to the soil.
3. Pretty much everything is edible so, for example, don't throw away the leaves of beetroot bulbs or celery stalks as they can make tasty addition to a salad and remember those little wonky carrots and odd shaped tomatoes pack a flavoursome punch!

Good luck and I hope to visit your organic garden soon!

### Compost is free, environmentally friendly, and easy to make

by Eng. Irina Averinos



Do you want to enrich your garden soil, restore vitality to depleted soil or fuel your plants' growth and help them bloom? Then start to produce nutrient-rich soil by making your own compost now!

If you think it's a complicated process, think again! I've been making compost for several years

using the laziest and most effortless, no-turn, in-ground composting process. No bins, boxes, turning, or other maintenance required. In-ground composting is a passive, cold and natural process and all you need is a shovel to start today!

Food scraps and yard waste currently make up more than 30% of what we throw away, which makes composting a simple way to put your kitchen scraps to good use, improve your garden soil and decrease the amount of wasted biodegradable materials.

Find a suitable place in a shady part of your garden with easy access to water and dig a hole in the ground – at least 50cm x 50cm. Start to put into the hole a mixture of kitchen scraps (vegetables and fruit peels, eggshells, coffee grounds, tea leaves, paper tea bags, kitchen paper towels), collected dry leaves, shrub pruned plant material, grass clippings, shredded black-and-white newspapers, papers, and cardboard (be sure to remove coated papers, plastic coverings and metal staples).

Depending on the size of your family, a small hole can be filled within a week, or a bigger one used throughout a season. Put your composting materials in layers or just add a quantity every day and then ignore it while nature does its work.

Adding a layer of soil on top of your compost will help mask any odours, and microorganisms in the soil will accelerate the composting process. Keep compost moist; water it occasionally, but not too much.

- Do not compost meat, bones, dairy products, fats, grease or oils.
- Avoid composting diseased plants and any perennial weeds with seeds.
- Do not include pet manures in compost that will be used

If you live in an apartment and do not have yard or garden, you can still make your own compost using a commercially available indoor composter. Alternatively, you can make your own free fertilisers from banana peels, eggshells, tea leaves, and coffee grounds.

#### Quick and Easy Home Fertilisers

Indoor and outdoor garden spaces will benefit from these easy to make home fertilisers.

**Banana Peel** is one of the highest organic sources of potassium (42%), which straightens the stems, help plants flower, and improves the quality of the fruit. Also, banana peel contains 25% of phosphorus, rich in calcium and magnesium.

#### Dried banana peel fertiliser:

Collect banana peels and sundry them for a couple of days until they become black and crispy. Grind the peels into a fine powder. Add one tablespoon of the powder to your plant soil, and water the plant as usual. Repeat after two weeks.

#### Liquid banana tea fertiliser:

Fill a glass jar with banana peels, add water and let stand for five days.

Remove banana skins, pour the tea out into a bigger vessel

Dilute the tea with water at 1:5 for watering your plants.

Discard used banana peels.

Banana water can also be used as a plant shower for diseased plants.





**Eggshells** are a rich source of calcium in the form of calcium carbonate, and they contain other nutrients that are essential for plants: phosphorus, magnesium, sodium, potassium, zinc, iron, and copper. Plants such as tomato, pepper, eggplants, broccoli, cauliflower, spinach, amaranth, and Swiss chard will benefit from eggshell fertiliser.

***Eggshell Tea:***

Put washed and crushed eggshells in a jar, add water, keep for a day or two, and then use this water for plants.

***Eggshell powder fertiliser:***

Collect washed and dried eggshells.

Grind the shells and store in an airtight container.

Use the powder for indoor plants and in the garden.



***Pest Control using Eggshells:***

Crushed dried eggshells can be used to keep pests, such as snails or slugs, away from your plants.

Spread crushed shells on top of the soil and around the base of plants, making a barrier about 5 cm wide around the plant.

Did you know that the tea and coffee you consume can benefit and help your indoor and outdoor plants, fruit and vegetables' growth and health?

Used tea leaves and coffee grinds contain nutrients that are natural fertiliser so if you're looking for an organic way to enrich your garden soil and reduce pests, used tea leaves, tea bags and coffee grinds are your gardens' best friend!

***How to use tea and coffee in your garden***

1. Second-brew, cooled weak tea can be poured on potted plants as a natural liquid fertiliser.
2. Second-brew black or camomile tea are a good fighter of fungi. Spray or water plants with the liquid to prevent fungi.
3. Tea bags, tea leaves and coffee grounds will help keep bugs away from your plants. Sprinkle used tea leaves and coffee grounds around plants, and its natural aroma deters spiders, bugs and mice. An added benefit is that it will also keep cats from urinating on your favourite plants.
4. Bury tea bags near the root of plants to help plants retain water and stay healthy. Also tea bags will discourage the growth of weeds.
5. Used tea bags help to feed earth worms. Worms eat the tea leaves and produce a more nutrient-rich fertilizer, making the soil healthier for plants.
6. Tea leaves increase the speed of decomposition of other garden waste and food scraps because of acid in the tea. Add tea leaves and tea bags to your compost to speed up decomposition.
7. Germinate seeds in a tea bag and then plant the seedlings out in the garden.

***Remember:***

- Coffee grounds are highly acidic. They should be used for plants that prefer more acidic conditions.
- Some teabags contain plastic. For organic compost only use the leaves from the bag, unless the teabags are certified organic.



## Local plant

### Acacia Farnesian (Sweet Acacia)

by Zahra Abdul Malik



Acacia Farnesian (Sweet Acacia) originates from Central America. It is a small, upright, 6m high, 4m spread, slow-growing tree, with multiple trunks and thorny branches. The tree's flowers are bright yellow, very sweet scented and appear in spring.

Sweet Acacia make excellent patio trees, can be used for background planting and also look attractive on an avenue of trees alongside a

pedestrian path.

Acacia is a welcome addition to the landscape of Bahrain as it is particularly well suited to our climate and growth conditions. The tree grows well in sandy soil in full sun and has a very high tolerance of salinity, wind and drought. Its low water requirement and pest resistance make it an excellent choice for our desert conditions.

The tree is propagated by fresh scarified seeds. Interestingly, almost every portion of the tree has a use. The gum is used medicinally. The green portions of the tree and its fruit form valuable animal fodder in arid areas. The timber is hard and durable, and extensively used for wheels and fuel. Finally, young branches can be used for toothbrushes.

I highly recommend this versatile tree; not only is it attractive, but also it is a good choice along a path to sustainable gardening. Imagine seaside promenades in Bahrain lined with this highly salt tolerant tree!



## Plant Pathology

### Dealing with garden pests organically

By Nishrin Kothambawala



In the last issue of Dahlia, I discussed some of the ways we can deal with unwanted insects in our gardens using organic methods. This issue, my focus is the pathological diseases, bacterium and viruses that attack our plants.

In the table that follows, I've listed some of the ways of treating common plant pathologies using only organic treatments, without the need for environmentally damaging chemicals.

There are a number of general ways to keep your organic garden happy and healthy

- ***Keep your garden as clean as possible from debris and dead organic matter***
- ***Always use sterilized compost***
- ***Check new plants carefully before bringing them into your garden***
- ***Look for early signs for of pathogens and pests***
- ***Try to breed/introduce useful insects in your garden***
- ***Try to apply organic solutions as much as possible***
- ***If you purchase readily available organic formula, always follow the manufacturer's instructions***

***Happy pest-free gardening!***



| <b>PATHOLOGY</b>                | <b>IDENTIFICATION</b>  | <b>ORGANIC CONTROL/TREATMENT</b>  |
|---------------------------------|--|---|
| <b>DISEASE:<br/>GREY MOULD</b>  | <ul style="list-style-type: none"> <li>Found on a wide range of plants, grey mould (<i>Botrytis cinerea</i>) is a fungal disease that travels quickly through gardens, especially during damp, cool to mild weather.</li> <li>Grey mould causes a soft decay of plant tissues accompanied by a growth of fuzzy grey-brown mould.</li> <li>This fungus causes brown spots and blotches on the leaves, and white, tan, brown or purple spots on flowers. It also causes stem rot.</li> </ul> | <ol style="list-style-type: none"> <li>1. Prune or stake plants to improve air circulation between plants</li> <li>2. Keep soil under plants clean</li> <li>3. Add a good amount of organic compost or mulch under plants.</li> <li>4. Water in the early morning hours to give plants time to dry out during the day.</li> <li>5. Copper soap fungicide once a week will help by protecting the plants.</li> <li>6. Bio-fungicides can be used.</li> <li>7. Avoid crowding plants too close together and do not splash foliage and flowers with water</li> </ol> |
| <b>DISEASE:<br/>LEAF SPOT</b>   | <ul style="list-style-type: none"> <li>Round reddish brown spots surrounded by yellowish margins on the leaves are caused by a fungus called <i>Fusarium moniliforme</i>.</li> <li>When the leaf spots become numerous and begin to touch each other the disease is called a blight.</li> <li>Leave may yellow and drop prematurely</li> <li>The organisms can survive in fallen infected leaves and dead twigs.</li> </ul>  | <ol style="list-style-type: none"> <li>1. Clip away badly affected leaves.</li> <li>2. Carefully dispose of dead and damaged leaves and twigs.</li> <li>3. Make sure that water doesn't splash on leaves while watering.</li> <li>4. If the problem becomes widespread, apply an organic fungicide available from the market.</li> </ol>  |
| <b>DISEASE:<br/>SOOTY MOULD</b> | <ul style="list-style-type: none"> <li>Patches of thin black powder appear on both surfaces of the leaves.</li> <li>This is a side effect of a mealy bug, scale insect or whitefly infestation.</li> <li>It is a black fungus that grows on the sticky honeydew deposited by the pests.</li> <li>It does not directly harm the plant, but affects the leaves by blocking the pores and preventing the leaves from getting enough sunlight.</li> </ul>                                      | <ol style="list-style-type: none"> <li>1. Remove the mould by cleaning with a mild soap solution.</li> <li>2. If a few leaves are infected, remove them and clean the surrounding healthy ones with mild soap solution.</li> </ol>  |
| <b>VIRUSES</b>                  | <ul style="list-style-type: none"> <li>Plant viruses can lead to stunted growth and distortion of stems.</li> <li>The appearance of pale green or yellow spots can be a sign of virus infection.</li> <li>Coloured flowers may have large white streaks.</li> <li>Insects can bring viruses or they may have been present when the plant was purchased</li> </ul>  | <ol style="list-style-type: none"> <li>1. Some plants recover naturally.</li> <li>2. There is no cure for a virus attack and, if it persists, it is better to destroy the plant.</li> </ol>   |
| <b>BACTERIA</b>                 | <ul style="list-style-type: none"> <li>Bacteria can cause severely damaging diseases in plants ranging from spots, mosaic patterns on fruits and leaves, smelly tuber rot to plant death.</li> </ul>   | <ol style="list-style-type: none"> <li>1. Remove infested leaves.</li> <li>2. Isolate the plant.</li> <li>3. Spray with antibacterial oils such as garlic or oregano diluted with water or a solution of baking soda and water.</li> </ol>  |

## BGC Activities during pandemic



## 54th Annual 2020 Prize Ceremony





## Recipes

### Mulberry Jam

by Irina Averinos

1kg mulberries  
1kg sugar  
2-3 tbsp. fresh lemon juice

Sterilise jam jars and lids.

Gently wash mulberries well.

Mix the mulberries, sugar and lemon juice in a wide pot with a thick bottom.

Cook on medium heat for about 20 mins, stirring occasionally.

Reduce the heat and cook an additional 10 mins or until the jam becomes a little thicker. Stir constantly to prevent the jam from sticking to the pan. Remember that cold jam will be thicker than hot so do not overcook.

Transfer the hot jam immediately to the prepared jars, cover securely with lids and turn the jars upside-down until the jam is cool.

If you prefer, smashed berries in your jam, squish them gently by hand, or with a potato masher, before cooking.



### Ugli Fruit (Tring) Marmalade

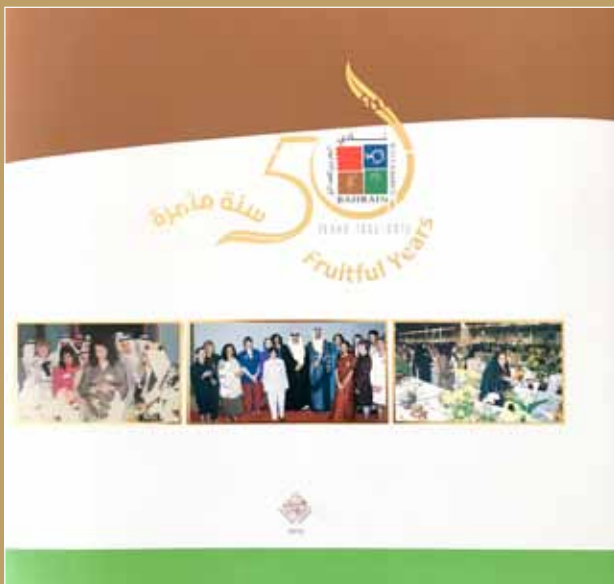
By Majeda Al Zayani

4 cups of sugar syrup\*  
1 big ugli fruit  
1 pinch of saffron  
2 tbsp. rose water  
1 tsp. cardamom powder

\*made by dissolving white, fine grain sugar in water using a 1:1 ratio

- Wash fruit and peel a thin layer of zest from the entire fruit. Reserve zest.
- Cut fruit in half and remove the white spongy part of the skin, leaving the juicy flesh aside to eat as desired.
- Cut the white part of the skin into 8 pieces and boil in water until a soft texture.
- Remove skin from water, rinse in cold water and squeeze well to remove excess water.
- Soak saffron in the rose water until the water becomes yellow.
- In a large pan, add the sugar syrup, slices of ugli fruit skin, saffron solution and cardamom powder.
- Wrap zest in a muslin cloth and add to the syrup.
- Bring to boil and then simmer on a low heat until the slices of fruit skin become transparent and the syrup thickens.
- Transfer marmalade to sterilized jars with lids.
- Allow to cool and then store in dark cool place.





This historical book “50 Fruitful Years” was published on the occasion of the Golden Anniversary of the Bahrain Garden Club in 2015. It takes an in-depth look at the history of gardening experience in Bahrain from early days to the present time.

ur book is on sell at THE BAHRAIN GARDEN CLUB. Tel.: 17727625

Gift your friends or family with this memorial gardening history in Bahrain.



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and  
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