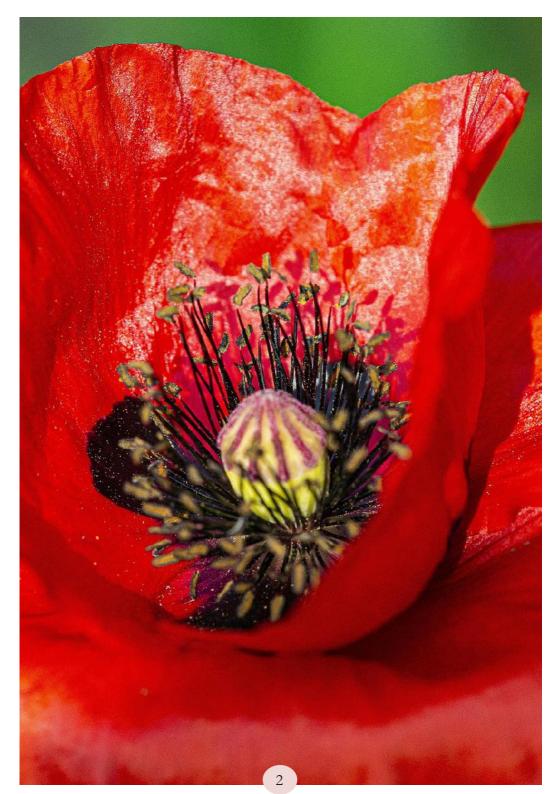
SGARDENS BOTSWANA





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Editorial

What's on

This issue, which covers autumn through to spring, is all about heat - especially after the scorching summer we have just experienced - and how to choose plants moving forward that can survive future heat waves.

I've never had a problem with fires before, however this past season was rather scary, and I had fires almost 360 degrees around my plot. Succulent barriers proved to be extremely effective if planted with enough width or height.

Now that we are moving into winter, it is also time to make things a little cozier in the garden by adding in a firepit or some warming reds, unless of course, you're yearning for a snowy escape and would prefer to splash out with white wintry colours.

I hope you find the inspiration and information within these pages that you need to transform your garden, and don't forget to enjoy it all.

Happy gardening!

S.C

markets & events

Wednesday 1st May: Grow Your Own Organic Vegetables and Herbs (start of 10-week online course)
Saturday 4th May: Farmer's Market at BSCPA animal shelter, 10am to 3pm
Saturday 18th May: Grow Your Own Organic
Vegetables and Herbs
Workshop at
Kingfisher Farm, Notwane, 10am to 4pm

Land Events: September - Art & Craft Market contact Nancy (pg 50)

Francistown, & Palapye

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anitas - Winter whites

If you're looking for cool winter colours, to ease the burn of this last scorching summer we've had, then snowy whites will do the trick. Lovely trees to consider are the fragrant Frangipani, *Strelitzia nicolai* - which attracts lots of birds, and the architectural *Pachypodium lamerei*.







I feel white flowers in the garden always create such a calming cooling effect. Plus these particular plants are extremely drought tolerant and can withstand the crazy temperatures we experienced this past summer.

Shrubs like the Iceberg Rose and white Plumblago are both standouts. Pelargoniums, White Agapanthus and Arygyranthemums are lovely bedding plants, the Argyranthemums with grey foliage are also especially lovely for the cool garden.

S.C (pics Pixabay)







growing -

Carica papaya, papaya or pawpaw, is native to Tropical America. Spaniards introduced papaya to other parts of the world in the 16th century, and it's cultivation now spans most tropical countries to central Africa, India, and Australia, and it is very adaptable and grows well here in Botswana.

WHY - For the fruit, which is edible and nutritious. The seeds are also edible and have a sharp spicy taste. The tree is attractive with its unusual shape and large leaves.

HOW TO PLANT - Papayas require rich, well-draining soil and at least six to eight hours of bright light daily. Fertilize every month in the growing season. Keep them well-watered, and protect from frost as they are extremely susceptible to cold weather. Papayas can fruit in their first year in ideal conditions, however plants can be dioecious or have male and female flowers on the same plant, so it is best to grow a few to be sure.





BENEFITS - Papayas are full of nutrients, they have a strong antioxidant effect, anti-cancer properties and are said to improve heart health. If the papaya is ripe, you can eat it raw. However, it should always be cooked before eating for pregnant women, because green fruit often has a lot of latex, which can stimulate contractions. They are also said to prevent inflammation and improve digestive function.

PROPAGATE - By seed. It is very easy to propagate and if seeds are sown on rich soil in summer, they will germinate in a few weeks.

WHERE - Papaya trees are available from Sanitas, and from most roadside stalls.

S.C (pics Pixabay)



Julia's veggies - Chillies

I have lived in Botswana for over 41 years and have never gone through a summer like the one we have just had! Heat wave after heat wave, with no rain in sight. The dam on our farm has remained empty the whole 'rainy season' – there is not a drop of water in it. Most of the vegetables and herbs on the farm have succumbed to the never-ending heat, except for a few notable exceptions including basil, wild rocket, egg plants and chillies! Thank goodness that is behind us now and we can get planting and transplanting again to our heart's delight! *by Julia Farmer*







Pics of Chillies (Pixabay)

Vegetables of the Season – According to Jane Griffiths, chilli peppers originated in the Americas and have been part of the diet there for more than 7,000 years. They are now used in cuisines all over the world. Chillies are related to the vegetable featured in my last article, ie tomatoes, also to eggplants so it's not surprising that they need similar growing conditions. However, unlike their relatives they are not usually affected by spider mite and most other pests steer clear of them too! There are many different varieties of chilli with a wide range of colours, shapes and heat! Experts estimate that there are 3000 to 4000 different types of chilli peppers in the world. Cayenne or tabasco peppers are exceptionally hot and need to be used with care but Carolina Reaper, African Ghost Peppers, Birds Eye, Habanero Chillies and Trinidad Scorpion are the varieties said to be the hottest of them all!

Companion plants: Tomatoes and basil.

Bad Companions: Avoid planting near sweet peppers as they may cross pollinate.

When to grow: Summer

How to grow: Chilli plants prefer a well-drained fertile soil and as mentioned above, love hot climates like ours! However, Jane Griffiths warns that if temperature goes above 35 degrees chillies stop producing. They also don't like cold and will be destroyed by severe frost.

Healthy Growing, Healthy Eating

Most chilli plants look great when grown in pots and can be moved into a warm place when frost is imminent. They can produce for up to 5 years if looked after well. Sow seeds in seed trays or individual pots. Chillies have short root systems so don't be in a hurry to transplant them out – give them a chance to become resilient (about 6 weeks). Plant them in rows 50cm apart and the same distance between rows. Bury the seedlings so that their leaves are just above the ground as that again helps chillies to develop a stronger root system. They appreciate some protection from the sun and thus can be grown under shade netting or use some twigs. When chillies are about to flower, just like other fruiting vegetables, you should feed them a potassium rich, organic, liquid fertilizer.







Pics of Chillies (Pixabay)

How to harvest: Most chillies will increase their heat the longer they are left on the plant but continually harvesting chillies will increase their production. Small chillies can be nipped off with your finger and thumb (but don't forget to wash your hands afterwards!) and larger ones should be cut with scissors to avoid damaging the plant.

Why eat: Chillies are chiefly included in the diet to add spicy flavour to food. They do have a high vitamin C content and contain anti-oxidants but they are eaten in such small quantities that they don't really add to the nutritional value of a meal.

How to eat: When fresh, chillies can be used in curries, stir-fries, stews, and soups. Chillies can be preserved in a variety of ways too, such as freezing, pickling, drying, pastes, jellies, relishes, chutney, and sauce making.

Autumn/Winter Events:

Wednesday 1st May: Grow Your Own Organic Vegetables and Herbs (start of 10-week online course) Saturday 4th May: Farmer's Market at BSCPA animal shelter, 10am to 3pm Saturday 18th May: Grow Your Own Organic Vegetables and Herbs Workshop at Kingfisher Farm, Notwane, 10am to 4pm



Climate-change Organic Gardening Tips

I think after the last few months of extreme heat I would like to share a few tips I have learnt for combating climate-change:

- Mulch, mulch! Cover the surface of vegetable beds with whatever dry material you can find I ended up using wild rocket plants that had grown too straggly. The bonus was that they dropped their seeds and then I got a green cover mulch from the plants that grew!
- Do not leave beds empty as the soil will dry out even more than if something was growing in it. I planted bush beans (my own from seed saving) and cow peas (cheap to buy in supermarkets) as not only to they cover the surface but they help to fix nitrogen in the soil. You could also chop them to provide green material for the compost heap while leaving the roots in the soil to enrich it.
- If one layer of shade netting doesn't work use two! Although we grow nearly all our vegetables and herbs in shade netting tunnels the heat was still too much for young plants. So we put a layer of shade netting about 50cm above the plants to give added protection and it really helped.

To Contact Julia Farmer:

Email: jellyfishfarmer@yahoo.com for more details or to receive our weekly newsletter. Also visit my Facebook Pages for more information – Kingfisher Farm, Farmer's Natural Produce, Farmer's Markets, Grow and Cook with Julia.

Grow Your Own Organic Vegetables and Herbs, ••••



Everything a gardener or farmer needs to know about growing organically!

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Grow Your Own Organic Vegetables and Herbs

https://julia-farmer.mykajabi.com/growing-happiness-organically-1

herb guru - Ginger

Ginger, Zingiber officinale is a rhizome with a yellowish centre that has a spicy aroma. The ginger plant is a perennial tropical looking plant with vivid green narrow leaf blades that looks like other plants in the decorative ginger family.



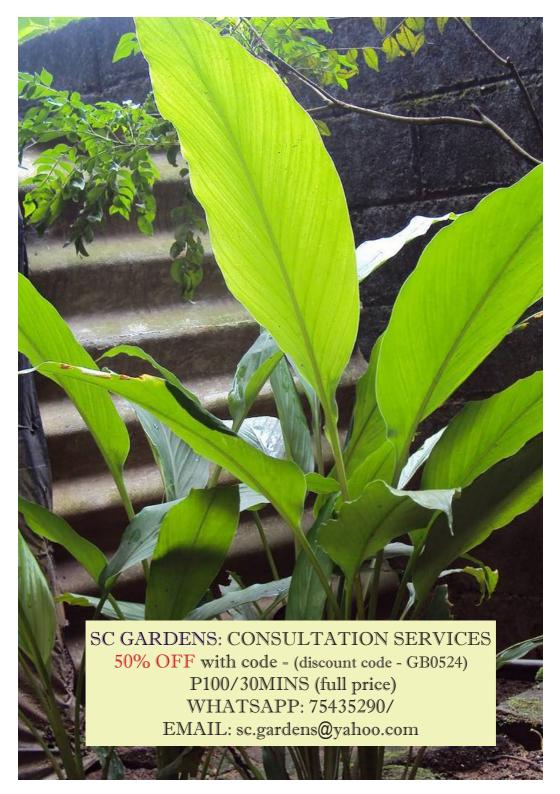
Medicinal - Ginger is not just delicious, Gingerol, a natural component of ginger root, benefits gastrointestinal motility — the rate at which food exits the stomach and continues along the digestive process. Eating ginger encourages efficient digestion, so food doesn't linger as long in the gut. Ginger contains antioxidants. These molecules help manage free radicals, which are compounds that can damage cells when their numbers grow too high.

Edible - Delicious recipes include ginger in the form of freshly grated or minced ginger root, ginger paste or dry ginger powder, and pickled ginger.

Cultivation - The growing tips at the end of each 'finger' of a rhizome will sprout quickly. It is a shade loving plant and requires ample moisture for normal growth. Deep, well-drained, friable, loamy soil, rich in humus is ideal for ginger cultivation. Within eight to ten months, the ginger plant will be fully grown. S.C text (pics by Pixabay)



12



forager's tips

edible plants - Portulacaria afra

Elephant bush, Spekboom, *Portulaxaria afra* has rounded to oval leaves and is often used as a hedge plant. The foliage is edible – and is commonly eaten in southern Africa, usually in salads or soups to add a sour flavour – and traditionally for a variety of minor ailments. The taste of the leaves are pleasant varying from slightly sharp to acidic. The delicious greenery is heavily browsed by game and a firm favourite of several wild animals, especially elephants.

medicinal plants ~ Corbichonia decumbens

Corbichonia decumbens is an annual or short-lived plant that is found growing in rocky areas and on sand-stones in dry, hot areas around Botswana. It is used to cure kidney stones and gonorrhoea, and studies using Gas Chromatography Mass Spectrometry have shown that Corbichonia decumbens can be used for drug formulations against some major disorders, i.e., cancer, ulcers, tuberculosis, arthritis, etc.

poisonous plants ~ Abrus precatorius

Rosary pea, Abrus precatorius is a herbaceous flowering plant that I've seen growing in the Okavango Delta, and it contains one of the most lethal natural toxins - Abrin. Compared with Ricin, Abrin is about 75% more toxic and is classified as a Category B biological warfare agent in the U.S. Initial symptoms of seed ingestion include diarrhoea, nausea, vomiting, cramps and chills, followed by low blood pressure, occasionally hallucinations and seizures. Death from abrin poisoning can take place within 36 to 72 hours of exposure depending on the route of exposure.

invasive plants ~ Cassythia filiformis

Love-vine, *Cassythia filiformis* an orangish, wiry parasitic vine found in tropical coastal areas. They absorb the nutrients from their host plant until it dies. It has a reputation as an aphrodisiac in the Caribbean hence the name, it is used medicinally in Asia, and in Africa to treat cancer and sleeping sickness. It is not particularly invasive in the African regions where it is found, but as it usually kills the host plant it is seen as such. However elsewhere such as in the Yucatan, Mexico, it has become particularly invasive.

indigenous

Gloriosa superba, the Flame lily is a beautiful lily found in the northern parts of Botswana, and is the national flower of Zimbabwe.

The Flame lily has glossy green leaves, twining tips that curl onto nearby branches enabling it to use other plants for support. The flowers have flame-coloured petals and outstretched stamens, it flowers from December until May in warm areas. Colours range from yellow, orange, red to burgundy. It can grow up to 1m in height, and as plants grow from an underground tuber Flame lilies can survive the intense heat we've just experienced this past summer. pics & text by S.C.





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the Landscaper ~ Chelsea Flower Show

It's a given, most of us that love plants would jump at a chance to attend this show. However if like me, you're unable to, then the next best thing is to read all about it.

This year the show promises to be the 'most sustainable' yet, using eco techniques, green building, low carbon materials and it is focused on reducing waste too. It is stated that every single garden will be relocated to communities across the UK, which will make for an incredibly wonderful surprise to some lucky residents!

The newly announced All About Plants gardens will feature an edible skate park, plants for gut health and a tropical forest. The skate park will highlight how fun outdoor learning in a natural setting can positively impact the confidence and wellbeing in young people It was created by skaters, parents and food growers. For the Sanctuary Gardens, Catherine Macdonald will be creating a garden using plants as paints to celebrate the most famous works of art. There's even a Bridgerton garden by Holly Johnston, as Season 3 of this Netflix drama is about to start mid May.

I'd be really interested to see the Bowel Research garden, which includes an edible meadow. I'd also like to see the Size of Wales garden which will feature 313 rarely seen plant species. The Pulp Friction garden by Dutch landscape architects will undoubtedly be fascinating, as they will recreate a forest environment with plants being either edible or useful. Actually the list is endless - I'd like to see them all! The pics below below and opposite are from a visit in 2010.

by S.C









top 5
snapshots
of Chelsea
flower show





Hottest new plants for 2024

Imagine peeping your head through a pavilion door and seeing a football field filled to the brim with flowers, like in Aalsmeer in the Netherlands which holds the largest flower auction in the world. Trends, however, are governed by many players, including the breeders who bring new and improved varieties or discoveries.

If it were up to us gardeners at home here in Botswana, we'd like new and improved varieties that can handle INTENSE heat.. not just showy ones that we buy and plant, which look good for a few days, but we've killed by the end of the week.

The flowers below are definitely not the world's hottest new plants, but they do make our gardens richer and more beautiful by staying alive. So let's declare Botswana's hottest three: *Barleria soutpansbergensis* or *B. repens; Zephyranthes robusta or Z. candida*; and *Agapanthus* 'Lapis Lazuli' or 'Buccaneer'.

Opposite are the hottest new plants that we cannot grow very easily here.

by S.C (pics: Pixabay & S.C).









Above left to right: Lilium hybrids Below top: Tulips

Below bottom left to right: Bearded Iris and Tulip 'Aladdin' hybrids



plant enthusiasts ~ Kleinia fulgens

Kleinia fulgens is a stunning greyleafed shrub-like perennial succulent native to Southern Africa.

Reddish orange flowers, presented in a capitulum in winter and spring, carry copious pollen and are a favourite with butterflies and bees. The subsequent seeds have feathery appendages as an adaptation for wind dispersal.

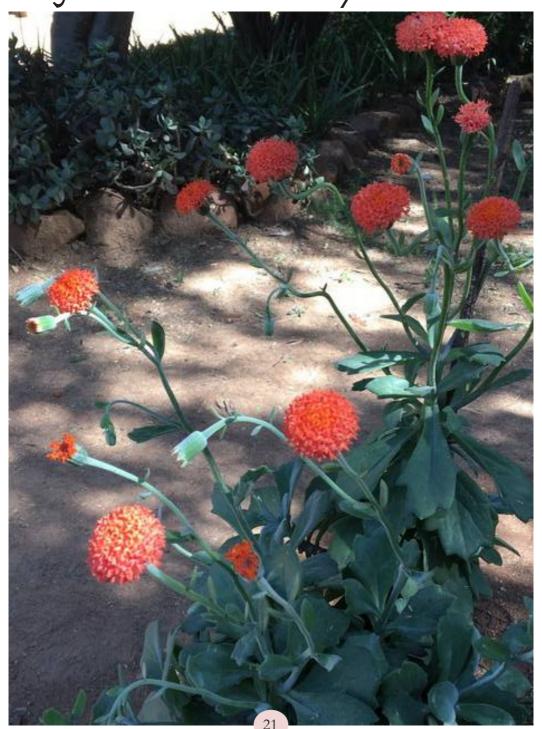
Large complex subterranean tubers contribute to its undemanding nature and low water requirements.

Karin Duthie





dry lovers - Kleinia species



Mokolodi Nurseries - firescaping

Firescaping – the art of fire resistant landscape design.

Succulents and cacti are excellent options as fire retardants as they have high moisture content and are therefore less flammable. Fortunately, the best fire resistant plant species also happen to be incredibly beautiful, low maintenance and drought resilient.

The word succulent comes from the Latin 'Sucus' meaning juice or sap.

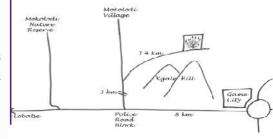
Succulents have thick, fleshy, engorged leaves and stems that retain water in arid climate and poor soils and are a perfect solution when needing to protect your home and property from the ravages of fire. by Karin Duthie



WATER WISE PLANTS & TREES

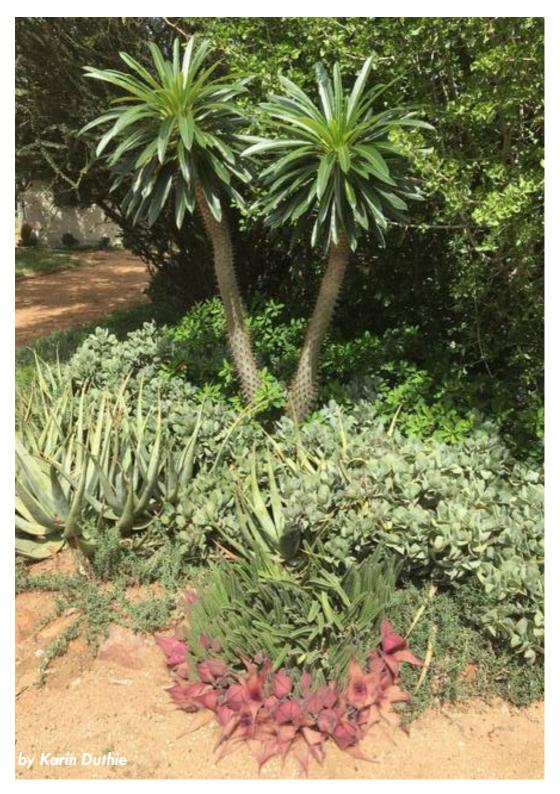
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SUPPLIERS OF INDIGENOUS DROUGHT RESISTANT PLANTS & TREES









garden goings-on...













FLOWERING BETWEEN MAY - OCTOBER

- Gerbera
- Chrysanthemum
- Tulip
- Tecomaria capensis
- Narcissus
- Golden shower
- Ginger bush
- Pansy
- Phalaenopsis orchid
- Statice
- Alstromeria
 - Protea
- Kalanchoe
- Crassula
- Aloe
- Pachypodium saundersiae
- Pycnostachys urticifolia syn. Coleus livingstonei

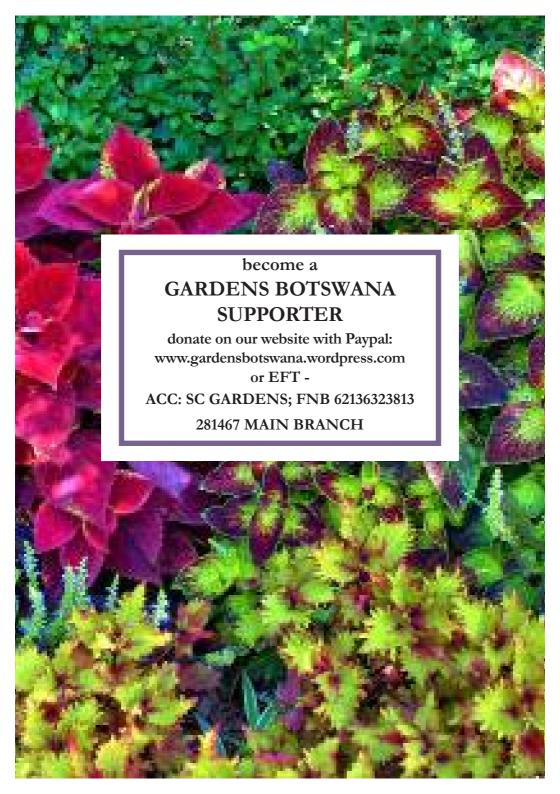
FRUITING BETWEEN MAY - OCTOBER

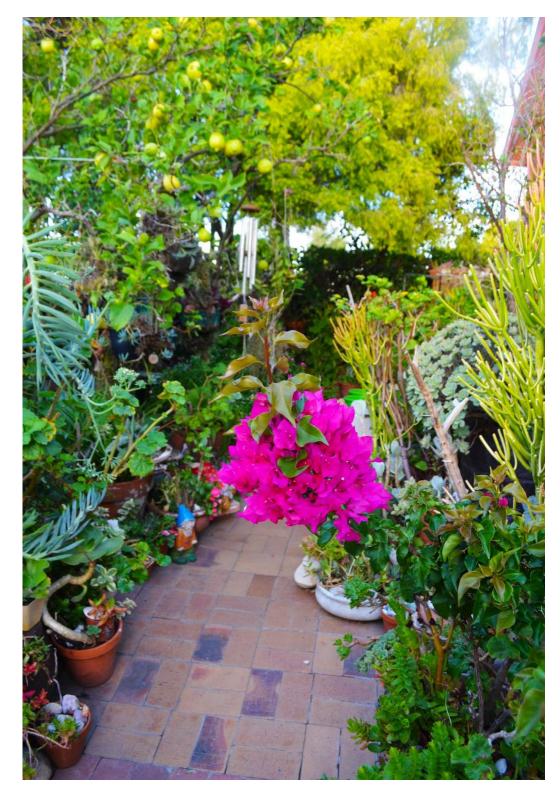
- Papaya *Autumn*
- Orange
- Lemon
- Lime
- Banana
- Mongongo *Autumn*
- Apple

CHORES TO DO

- Water when needed
- Harvest fruit and veg, dry or pickle the excess
- Prune back dead wood
- Turn the compost pile
- Add mulch around plants
- Clean old pots and containers
- Put frost cloth over tender plants like bananas and papayas
- Sow winter veg

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Mimi's secret garden patch

Something tells me we have got over the worst heat of the 2024 Summer and the plants are now beginning to recover, especially with a regular shower of water.

However, some species that come to mind as being the most resilient to the days of intense heat are – and one of my favourites – the orchid epidendrum. I've got a purple one that I boast about to anyone who will listen. Its home is in a small Ficus Tree in the crook of one of its branches and when I moved it there from a hanging basket, – almost immediately sprays of flowers shot out between the Ficus leaves, with its dangling root like tendrils hanging down. It's those 'roots' that I cut off and re-plant – literally where I want some growth and colour. They add pleasure to almost any nook, baskets – in the flower beds or amongst the vegetables. These orchids take a little time to settle but are just so pretty when the flowers come out, lasting at least a week.

High on my list I want to mention – even though I feel it is rather ignored by many gardeners calling it a weed plant - is the Hen and Chicken. This plant is just so attractive – with white flowers hanging at the end of its sprays of leaves blowing in the wind....through sun and wind and rain, the Hen and Chicken does its thing and settles in a basket very quickly. When I was searching in the garden for some 'filler' to put into my basket my eye fell on the Hen and Chicken – and as long as the variegated leaves are kept clean, it does so well and it looks stunning. Lastly something that I think a lot of people take for granted is the Bougainvillea – it comes in so many jewel colours. Different coloured bougainvillea can be matched up in alternate colours, or all one colour – even completely in white would look really eye catching. We have one as a hedge along one side of our property and these shrubs just seems to flower and flower. Sprays of the bracts in a vase on the table adds colour which lasts and makes an unusual decoration but best of all are the flowers in the garden while doing its own thing.



gardening for birds

Autumn means that all our migrants have left for Africa or Europe. (Only one migrant goes east and that is the Amur Falcon which goes north-east to Northern China.) It was a tough, long, hot summer and the birds took strain.

Sadly, the number of smaller birds declined because of the heat. At this time of the year, those which have remained behind need to have their diets supplemented if possible. Make sure there is always water available from a large bowl or dripping tap. If you want to have birds visit your garden regularly, make sure that you place wild bird seed in a hanging tray. It is always better from a hanging tray than from the ground as then your birds will be out of range of cats.

Guaranteed constant visitors will be Blue Waxbills, weavers, sparrows and probably hornbills. Fruit-eating birds, such as barbets, bulbuls and Go-away birds should benefit from fruit skins from your breakfast and dinner tables. Spoil them with some fruit as well. Lastly, don't forget to look after the insect eaters. They need suet or "sawdust" from your friendly butcher. This should be placed in a hanging bowl and the babblers, starlings, shrikes and hornbills will flock to your garden. They will be happy and so will you.

by Harold Hester & Photographs by Ian White (For more information - www.birdlifebotswana.org.bw)







our trees

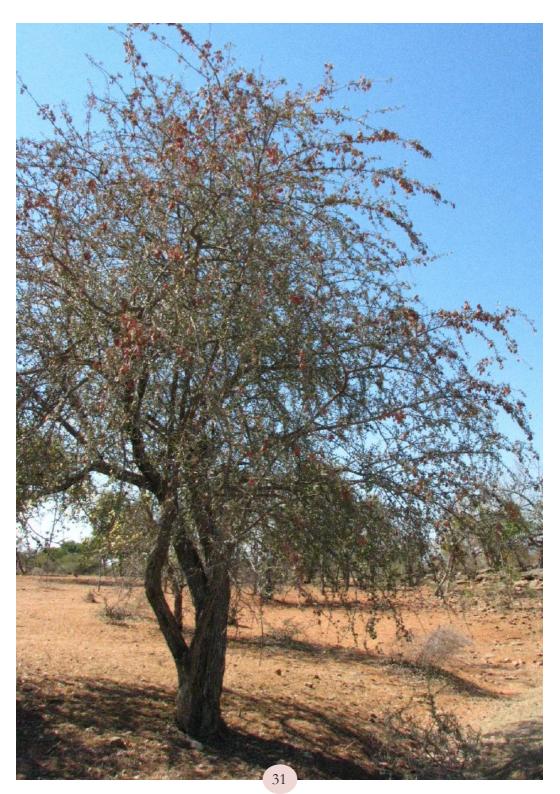
Purple-pod Terminalia, Terminalia prunioides

Terminalia prunioides is a small, deciduous tree that can sometimes be multi-stemmed, growing 2.5 - 15 metres tall, the flowers have a strong and unpleasant smell. It grows in sandy areas and on stony slopes of arid and semi-arid zones. It is found at elevations up to 1,400 metres. It grows best in areas where the mean maximum and minimum annual temperatures are within the range 20 - 35°C. It is only found wild in frost-free areas. It prefers a mean annual rainfall in the range 450 - 900mm.

It is harvested from the wild as a source of food, medicine and wood. An edible gum exudes from the tree. The bark is chewed to treat coughs, sore throats and stomach-aches. The roots are chewed to treat colds. A root decoction is taken to treat constipation, coughs and colds. A tea is made from the fruits and leaves - the fruits are generally preferred, because too many leaves make the tea bitter. The rotten heartwood is sometimes pulverized and used as a fragrance for cosmetic purposes. The yellow wood is heavy, very hard, tough and exceptionally durable. It is used to make tool handles, fencing posts, wagon axles and in building houses. The wood makes a good fuel and an excellent charcoal. The leaves are used as a green manure. It grows best in a sunny position and succeeds in most well-drained soils of at least moderate fertility.

by S.C pics by S.C (References: https://tropical.theferns.info/)





Palapye plant feature - Lynn Freeman

Red colours always warm up the home in winter time.

In Palapye Euphorbia pulcherrima, the pointsettia grows well, plus glorious Amaryllis lilies emerge in spring, Celosia and Amaranth also put on a show. Crocosmia can be a difficult flower to grow in our climate, but in pots they do quite well. Begonias (opposite page) appear to be always flowering, giving the garden a cheery glow.











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Creatures in the garden - monitor lizard



Monitor lizards, colloquially known as Leguans or Leguans, are lizards in the genus Varanus. They are native to Africa, Asia, and Oceania. About 80 species are recognized. Monitor lizards have long necks, powerful tails and claws, and well-developed limbs. The Rock and Nile Monitor lizards we have here can grow up to a maximum of 2.5m and are related to the Komodo Dragon. The Rock Monitor species are terrestrial and arboreal, while the Nile Monitor is also semiaquatic. These lizards are carnivorous, eating smaller reptiles, fish, birds, insects, small mammals, and eggs. Certain species of monitors are known to be able to count; studies showed that they can distinguish numbers up to six.

Like snakes, monitor lizards have highly forked tongues that act as part of the "smell" sense, where the tips of the tongue carry molecules from the environment to sensory organs in the skull. The forked apparatus allows for these lizards to sense boundaries in the molecules they collect, almost smelling in "stereo". Monitor lizards have a high aerobic scope that is afforded, in part, by their heart anatomy. This ensures that oxygenated blood is quickly distributed to the body without also flooding the lungs with high-pressure blood.

The martial eagle and man are the main predators of the monitor lizard. I have a resident monitor lizard where I live, and while not friendly he is not aggressive and will always run away before exhibiting any attack-like behaviour. Monitor lizards are oviparous, laying from seven to 38 eggs, which they often cover with soil or protect in a hollow tree stump. According to IUCN Red List of threatened species, most of the monitor lizards species fall in the categories of least concern, but the population is decreasing globally.

S.C (ref: Wikipedia; Pics: S.C)



Agrichemist's solutions ~ Benefits of Ash





Wood Ash: Ash from wood fires, such as bonfires or wood-burning stoves, can be a useful additive to the compost heap or can be applied directly to bare ground and dug in. It can be a natural source of potassium and trace elements. It also has a liming effect, so can help to remedy excessively acidic soils.



Wood ash may contain useful levels of potassium – a major plant nutrient associated with flowering and fruiting. However, the levels will vary depending on the age of the wood that was burnt – young wood, such as from pruning, will have a higher potassium content than older, thicker branches. Only add wood ash to the compost heap occasionally, as heavier use risks high levels of alkalinity and soluble salts that could damage plants and soil.

If applying wood ash directly to bare soil, do this in winter and rake or dig it in. This will allow the compounds in the ash that could scorch plants to react with the moist soil and be rendered harmless before spring sowing or planting.

Other Ash:

Other ash, like from burnt plastics is not suitable for use in the garden, and will pollute the soil. Some chlorinated plastics can release harmful chemicals into the surrounding soil, which can then seep into groundwater or other surrounding water sources, and also the ecosystem. S.C (Pix: Pixabay Ref: rhs.org.uk)

Garden Design ~ Fiery colours

For those who want some warmth in their garden, here are some plants that will do well and look fabulous. They also come with a range of flowering times through all the seasons.

Cape honeysuckle bush, *Tecomaria capensis* which is in flower now, Orange trumpet vine, *Pyrostegia venusta* which will make a beautiful show in winter, Coral tree, *Erythrina lysistemon* which will flower in early spring followed by Flamboyant, *Delonix regia*.



Silver oak, Grevillea robusta flowers in late spring together with Combretum microphyllum, a robust deciduous climber that flowers from late spring to November.

The Rangoon creeper, *Combretum indicum* flowers from spring through summer, together with the Weeping bottlebrush tree, *Callistemon viminalis*.

Also from spring to early summer, is the magnificent Amaryllis, *Hippeastrum spp*.

Daylily, Hemerocallis spp., and Salvias will flower in early summer together with Roses, Bauhinia Galpinii and Chrysanthemums that can last through into autumn. To be followed once more by the Cape honeysuckle, which actually seems to flower whenever it likes. S.C





Farmers markets are considered a sustainable business model. They have a low carbon footprint, with the added benefit of consuming local food of known origin. Products are quite often different from what you can find in the store, and can be vegan, organic, free range, produce from different cultures. In a word they are exciting.

They are also a solution to the growing isolation in our modern society. It is quite incredible to experience the joy of a market, where one can meet new people, interact with adults, children and pets without the mishaps that would occur in one's own home. It is also a wonderful way to support the truly creative artisans and enjoy lovely food and products at the same time.

Sanitas markets - contact 3931358

BSPCA markets are generally the first Saturday of the month contact Julia Farmer for more information (jellyfishfarmer@yahoo.com) For Bull and Bush markets take a look at their Facebook page. For the Olive Grove Market at the Serbian Orthodox Church every Saturday, take a look at their Instagram or Facebook page. For **Oodi Food Stall** Market - email oodifoodstall@gmail.com/ www.oodifoodstall.wordpress.com



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around Africa - Bazaruto, Mozambique



The Bazaruto Archipelago is a group of 6 islands off the coast of southern Mozambique. They lie within Bazaruto National Park and are known for their white-sand beaches. Bazaruto, with sand dunes, is the largest island. Coral reefs around Magaruque and Santa Carolina islands protect rare marine animals, like dugongs.

Bazaruto island has coastal vegetation, mangroves and interior forests and wetlands home to Samango monkeys, duikers, red squirrels and lots of birds including flamingos. Some really interesting plants are the fruiting ones - they have *Mimusops caffra*, *Ancylobotrys capensis*, *Diospyros rotundifolia* and *Garcinia livingstonei* (as we have here in Botswana). Elsewhere in Mozambique they make a wine from the Coconut tree called 'Sura' but on Bazaruto island they make a wine or beer from *Phoenix reclinata* the wild date palm and *Hyphaene coriacea* the lala palm, called Uchema. Worth a try! *by S.C*







Art in the garden - outdoor fivepit



Nothing adds that fiery warmth and ambiance to your garden quite like an outdoor fire pit. With winter coming, this would add the fun and nostalgic to your backyard. Gather around the flames sipping a hot cocoa or mulled wine, and roast a few marshmallows too.

Design-wise, fire pits are also a great way to add a focal point to your backyard landscaping, making it feel a bit 'outdoor chic' and cozy too.

A fire pit doesn't have to be an expensive addition, either. There are braziers that can be made quite cheaply in most welding shops around Mogoditshane, or Builders warehouse for a few more options. There are plenty of backyard fire pit ideas out there to suit any budget.

by SC (Pics: Pixabay)



Trees for the Forest



"A tree's beauty lies in its branches, but its strength lies in its roots."

- Matshona Dhliwayo

Plants are a joy to behold, and we eagerly include them in all aspect of our gardens and greenscapes. We tend to claim possession over them by dictating their form, appearance, place, and function in our world. We use them to feed, shelter and succour us, planting them as crops or decorations in the world we dominate. We forget that these are wild creations, having lived on this earth far longer than any of us. We forget that these amazing life-forms are the true colonizers of this planet, and even now, as they are pressed to labour for our ends, they continue to provide the very elements we rely on for our survival.

All green plants photosynthesize, respirate and transpire, and in a simplified explanation, while doing so they actively reduce carbon dioxide, produce oxygen and release water vapour into the atmosphere. We also know that green plants reduce gaseous pollutants in the atmosphere, capture and store carbon, reduce surface temperatures by creating shade and absorbing radiant energy, cools air temperature by transpiring water vapour into the surrounding area, mitigate flood damage, reduce soil erosion and lessen water runoff and loss by increasing the infiltration and absorption potential of soil (Ellison et al., 2017). Among all plant life, phytoplankton produces an estimated three quarters of our global oxygen, while trees and rainforests contribute the bulk of the remaining quarter. One Tree Planted (OneTreePlanted) 2023 estimates that a mature oak tree alone produces approximately 274 litres of oxygen a day, almost half of what an adult human needs per day.

According to The National Aeronautics and Space Administration (NASA) 2024,

plants themselves release approximately 95% of all the water they absorb from the soil through transpirational pull back into the atmosphere as water vapour, contributing an estimated 15% of available water vapour in the Earth's atmosphere. This is an unavoidable consequence of photosynthesis, but it is an essential part of our global water cycle as it occurs over land. This transpired water vapour from plants, together with water vapour sourced from openwater and soil surfaces through solar radiation, is what moves Earth's water around the planet to places where plants, animals and humans can use it. The United States Geological Survey(USGS) 2018 states that the same above-mentioned mature oak tree can transpire an estimated 413 litres of water each day, a huge number compared to crop plants such as corn that may only produce 3 litres of water per m2 per day. The important part here is the fact that we know that plants can produce water vapour, and we know that there is a difference in the amount of water vapour produced by different types of plants. We know a large part of this answer lies in the differences in the general plant type, morphology, and climate, but a major part of this answer lies in plant root depth.

We know a lot of things ... and sometimes it pays off to investigate the things that we do not know a lot about. An idle childhood memory of damp tree roots in a dry sand dune led me to trawl the internet for more information and it exposed my ignorance on the topics of "vegetative hydraulic redistribution". Further virtual rubbernecking revealed a fascinating world of studies conducted around these topics. They deal with the amazing ability that plants possess, especially trees, to actively influence the water balance in the soil layers around its root system by the process of hydraulic redistribution. The processes of hydraulic redistribution, even though they go a long way towards explaining the mechanics of my childhood memory, are of course only part of a much larger integrated system that deals with the amazing ability of trees and forests to influence the environment around them and ultimately influence and regulate the Earth's climate.

Water can move naturally downwards through the soil column when affected by gravity, and it can move laterally or even upwards in response to the capillary forces of adhesion and cohesion, allowing water to move from deeper more saturated zones to drier areas around or above it. Capillary forces only work if there is a hydraulic or moisture connection between these layers with different water potential. This process can be aided by trees with deeper and denser roots systems that can mechanically break up compacted soil layers, increase soil porosity, and water infiltration by at least 50% or more (Xieet al., 2020).



In arid and semi-arid climates water evaporation from open soil and shallow rooted plants can deplete soil layers close to the surface of water and can cause a Dry Soil Layer (DSL) to develop (Balugani et al., 2018).

This DSL can become so severe under continuous arid conditions that it can break the hydraulic connection between the upper and lower layers in the soil column and starts to become a barrier to the natural movement of water through gravity and capillary action, effectively making these areas prone to the processes of duricrust formation and desertification.

Plants absorbs water passively from the surrounding soil through osmosis in accordance with the differences in hydrostatic pressure between the soil and the roots. Water then travels up and around the plant body against the force of gravity by the process of hydraulic pull in response to the driving force of transpiration. Moreover, plants with deep root systems are also able to secrete water back into the soil through their roots in response to a reduction in the hydrostatic pressure in the surrounding soil layers, meaning that its roots can act as a subterranean transport network to move water from moist areas to dry areas around the root system. This phenomenon is called Hydraulic Redistribution (HR), and it is one of the key factors that governs the water balance within a plant community. It is a crucial aspect that determines the water relations within the general ecology of terrestrial plant communities.

It has been described as "a phenomenon that improves plant transpiration and other plant processes through water provision to upper roots and its redistribution within the root system" (Prieto et al., 2012).

They continue to list 5 types of hydraulic redistribution schemes that can be observed, including Hydraulic Lift (HL) which is described as a simple water moisture redistribution via a tree root system from deeper moist soil layers to shallow dry soil layers close to the surface, such as the DSL above. This is particularly important for the purpose of this discussion as it indicates that trees are able, via their root systems, to not only increase that absorption potential of a DSL, but also to hydrate this DSL from within the soil column when the hydraulic link between upper dry layers and lower moist layers have been severed by arid conditions.

This is of course a very simplified representation of a highly complex system that is influenced by various passive and active factors such as soil type, texture and porosity, salinity and conductivity, and size, plant morphology, available mycorrhizas around the root system, variable water potentials and water table recharge potential, radiant tree root system energy levels and even the time of day. This process may not sound impressive in a bell-and-whistles kind of way, but it potentially enables deep rooted plants such as trees to access water resources that have been effectively lost to the surface, breaking the devastation of DSL's and making more soil moisture available to any shallow rooted plants around them to create a favourable micro-climate. This in turn produces a more reliable rate of transpiration from the plant community around the tree and a more constant production of water vapour into the atmosphere.

In a perfect world, this would mean that more trees equals more available moisture for cooling the atmosphere and producing precipitation, more plant life, more photosynthesis, more transpiration to produce even more moisture for rain to reduce arid conditions and alleviate the devastation of extreme weather events. It creates the possibility of locking in more moisture under a green canopy to create a more stable global climate.

If a few trees can create a favourable micro-climate, imagine what a forest of trees can accomplish if we work together to look after our precious trees to reclaim our atmosphere and climate.



Then maybe we would start to see not only the trees but the forest too!

Petra Strydom Catterall - Tales from the Soothmoother (Pics of trees in Tsitsikamma Forest, South Africa).

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Nancy's nook - the turning seasons

The sizzling summer of Botswana has been one of the most scorching and sweltering ever. The River Combretum tree leaves have turned a beautiful but sad golden and amber colour, testament to the lack of any life giving rain that has failed to bless the land during the normal rainy season.

An unexpected April rain has brought forth a delightful scent of damp leaves that share their aroma with the breeze, bringing a thankful reprise from the heat and dust. In some places, the rains caused flooding and damage, but it is bringing life again to the grass that was withered and dry, crackled by fiery and unforgiving heat. The brown grass has miraculously turned an emerald green again, as if to say that any swelter or heatwave cannot deny them the privilege of life. However, some trees that have turned their leaves yellow and orange too early in the season in response to the sultriness and rainless months will not reach out with new leaves. The rains will not turn them green again, it is too late. The leaves will fall before their time, and cover the ground with their striking golden and amber beauty, emitting a delightful scent when walked upon. Even in their 'death', their presence continues to bring beauty and delight.

It will be a scenic autumn, with gold, sandy and tawny colours flaunting their charm against a cerulean sky. We will have to wait for the cold of winter to pass by before the warmth of spring will show which trees have survived the fiery heat, and which trees have succumbed to the scorching and dry season, becoming a bare roosting spot for the passing birds. But for now, today, the gold and fragrance delight the senses and bring a pleasure to the soul.

Heat comes and goes, cold comes and goes, and with it the turning of the seasons and the flowing of cycles. Although we might have experienced the stress and sweat of this summer, in the fullness of time, it is just a hiccough on the timeless path of passing seasons. And there are some unseen benefits that might not seem like benefits, but the future shows them to be gifts. Intense heat can awaken fires in-between the crinkled stalks of grass and desiccated tree trunks and branches, and if the fires do not get out of hand, they can create new life and fresh soil after they have finished their destruction. A spring rain on a parched burned land brings forth a most beautiful green that is in stark contrast to the dark and charcoal ground. After a few years, the burnt land is vibrant with life, even sometimes more life than the land that has not been burned.

In fact, Native American tribes used to practice a land management technique called cultural burning. They purposely started small fires, and kept them under control, to



achieve specific benefits for their environment and way of life. These fires managed vegetation, as the burned brush and undergrowth promoted the growth of desirable plants and created better grazing areas. Controlled fires also prevented larger, uncontrolled wildfires, as these regular burns reduced the accumulation of flammable elements. Fire also stimulates the growth of certain food sources and medicinal plants. Some plants actually need fire in order to germinate their seeds. The heat from fire can crack open some seeds that have hard coats that prevent germination, allowing water and oxygen to reach the seed and trigger germination. Fire can also cause the soil to release chemicals that encourage seed growth.

Isn't it amazing to know that heat and its fire form are so much an intricate part of nature and the flourishing of plants, the ecosystem and animals. To us, we just see and feel the heat that causes us to complain and find any way to cool down, but in the web of nature, it plays its part. Only time will tell if the intense heat around some parts of the planet is a climate change caused by humans, or caused by earths cycles.

Whatever the reason, I will definitely enjoy a rare winter with amber, orange and gold leaves abounding on the ground, bringing delight and colour to a beautiful cold day.

www.nancysartnook.com www.facebook.com/NancysGourmetArtNook Nancy Horenburg - naneky@gmail.com



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CHILLI CON CARNE RECIPE

INGREDIENTS

4 Tbsp vegetable oil

1 green bell pepper chopped

1 white onion chopped

1 kg lean minced beef

2/3 cup red wine

2 beef bouillon cubes/beef stock

2 cans whole tomatoes

250g tomato paste

2 Tbsp dried parsley

2 tsp dried basil, chili powder, paprika

3 Tbsp flour, and corn flour

1/2 cup water

1 tsp cayenne pepper, salt

1/2 tsp black pepper and oregano

1 can kidney beans - drained

12 drops hot chilli sauce

METHOD

- 1. Heat oil in a saucepan over medium heat, add green peppers and onions, cook till soft.
- 2. Stir in beef and cook till brown, add stock/cubes and red wine. Cook for a few minutes, add tomato cans, paste, garlic and seasonings.
- 3. Bring to boil over high heat, then reduce and simmer for 1.5 hrs, add water if more liquid is needed.
- 3. Add kidney beans and optional sweetcorn and chilli sauce and simmer for 30 mins.
- 4. Stir flour and cornflour with some water in a cup until smooth then add to saucepan.
- 5. Simmer for another 10 mins or until the sauce has thickened up. Garnish with sour cream and fresh parsley.

SERVE & ENJOY Bettina & Coffee Buzz Team!!!





Oodi Farm Stall

www.oodifarmstall.wordpress.com /// oodifarmstall@gmail.com

HOT CHILLI SAUCE RECIPE

INGREDIENTS

250g red chillis, I like bird's eye, habanero 1/2 cup vinegar and jalapeno 2 Tbsp salt

1/3 cup olive oil Optional - Sugar to taste

METHOD

- 1. Wash and prepare the chillis, best to wear gloves to avoid accidents.
- 2. Roughly chop the chillis
- 3. Add the oil, vinegar, salt and sugar into a blender and blitz.
- 4. Optional ingredients of garlic and tamarind for taste.









Fun stuff~ Signs







Signs are just like those 'happy quotes' for the day. They give that little bit of sunshine and humour to the garden. Of course some can be informative and very helpful too - 'Toad crossing'.

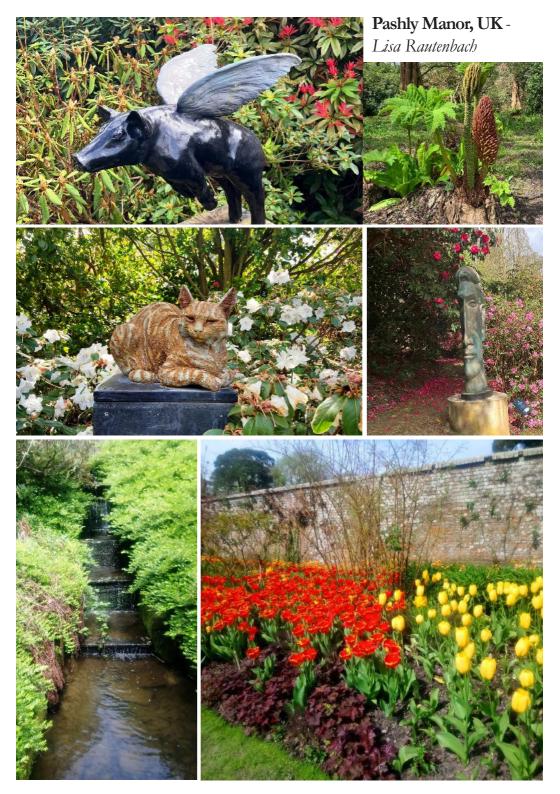
Signs can be as simple as chalk on a blackboard, or a bit more complex, with the help of a chisel and some paint or varnish they can be engraved on a piece of wood.

If you'd prefer to have one of the more unique 'out of your DIY league' kind of signs then any printing company or art store should be able to help out.

S.C (Pics: Pixabay)

Pics from all over







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