



A Secrets of Virginia Gardening  
Presentation

# Growing Container Waterlilies

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AJ Frank Muralidhar  
Manon Dixon

# A Quick Introduction

Good afternoon - my name is AJ Frank Muralidhar. I am an Experimental Gardener... all that means is that I make more gardening mistakes faster than anyone else. Sometimes I learn from them 😊.

I garden in a suburban lot. It's 0.2 acres of chaotic cottage garden. I grow Roses, Peonies and container Waterlilies. My favorite annuals are Giant Poppies, Nigella, Foxgloves, Canterbury Bells, Larkspurs, Cosmos, Dahlias and Asian vegetables. I've gardened in Spotsylvania for 15 years, but I've also gardened in Pennsylvania, Illinois, California and India.

I'm an Admin for the Virginia Gardening Group on FB and a couple of other groups. My current projects are a sustainable woodland forest farm in south Spotsylvania (almost 13 acres) and fundraising for the World Central Kitchen (Chef Jose Andres) and School/Community gardens via AJ Frank Fine Gardening. I also volunteer at Chatham Manor garden as time permits.

I work full time - I'm a Navy Engineer, work in DC at the historic Washington Navy Yard. I took the day off to be with you here today, and I am grateful to you all for being here to support me.



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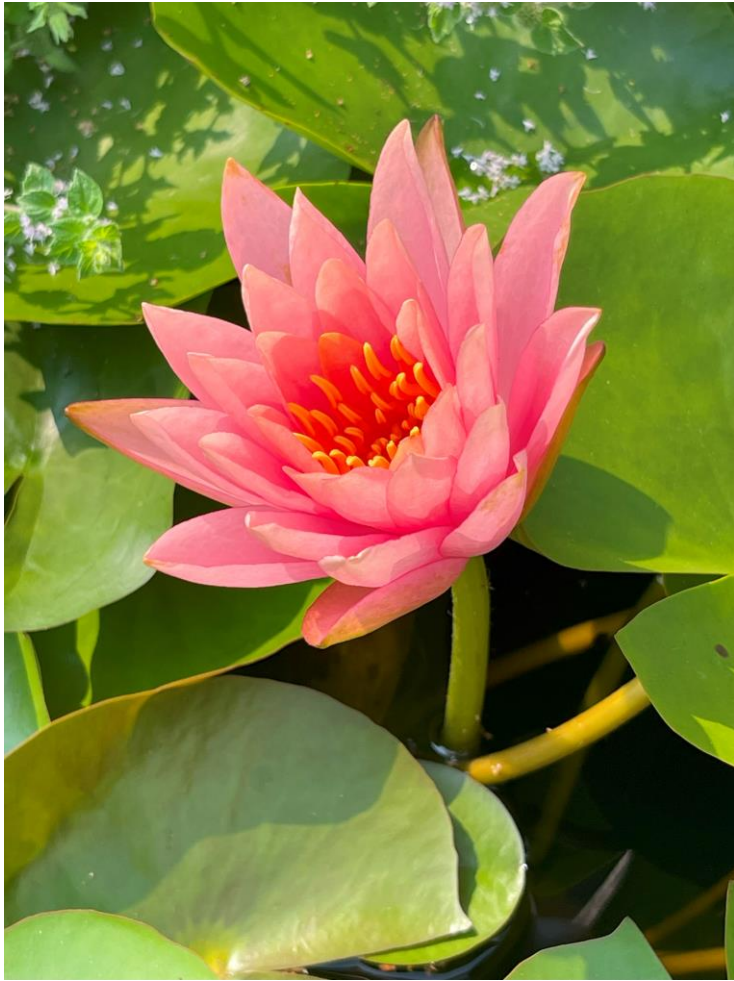
Acknowledgements



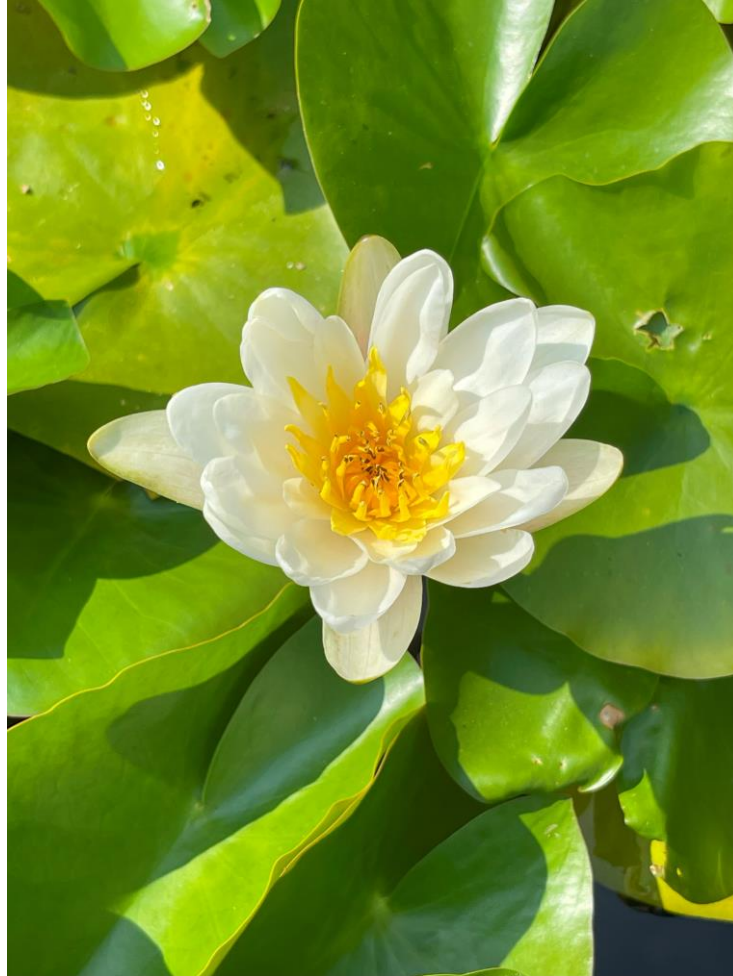
# Waterlilies in the garden



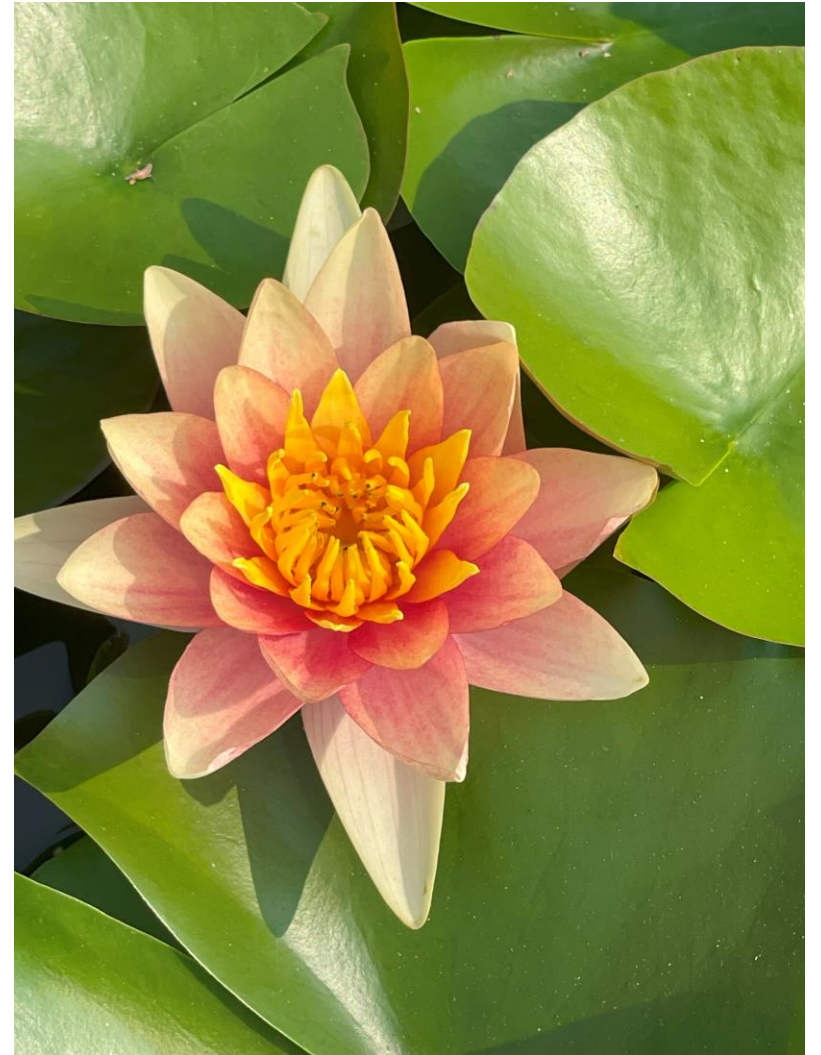




Nymphaea Colorado

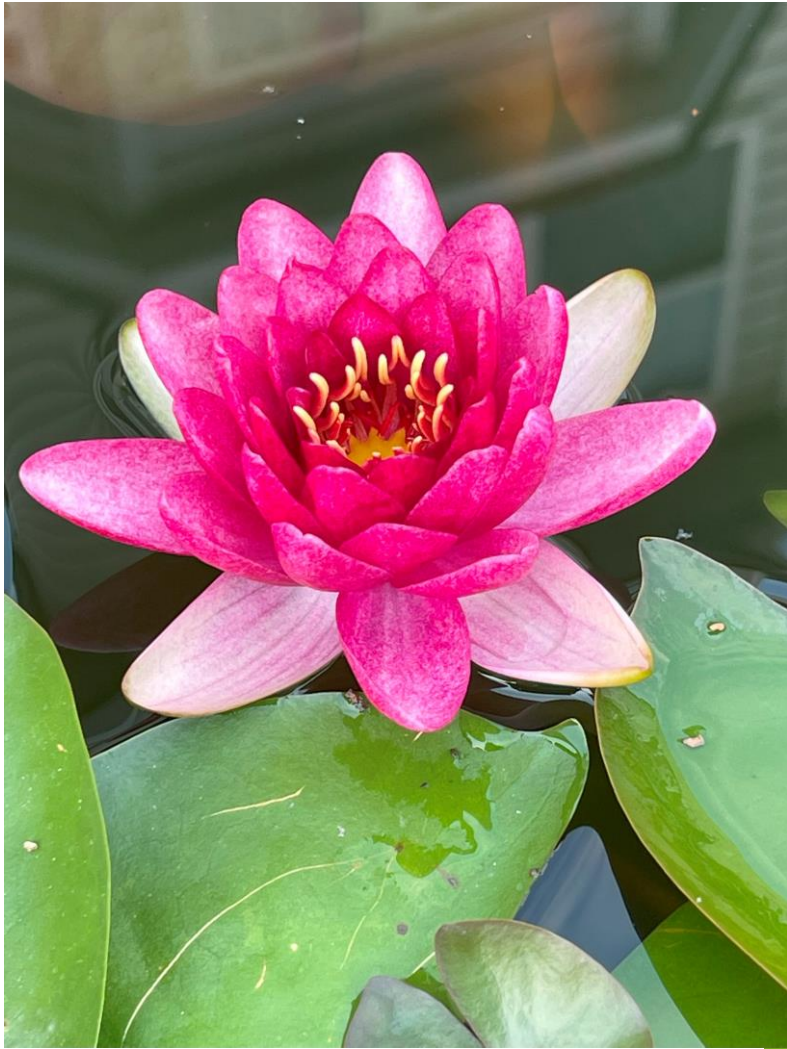


Nymphaea Alaskan



Nymphaea Sioux

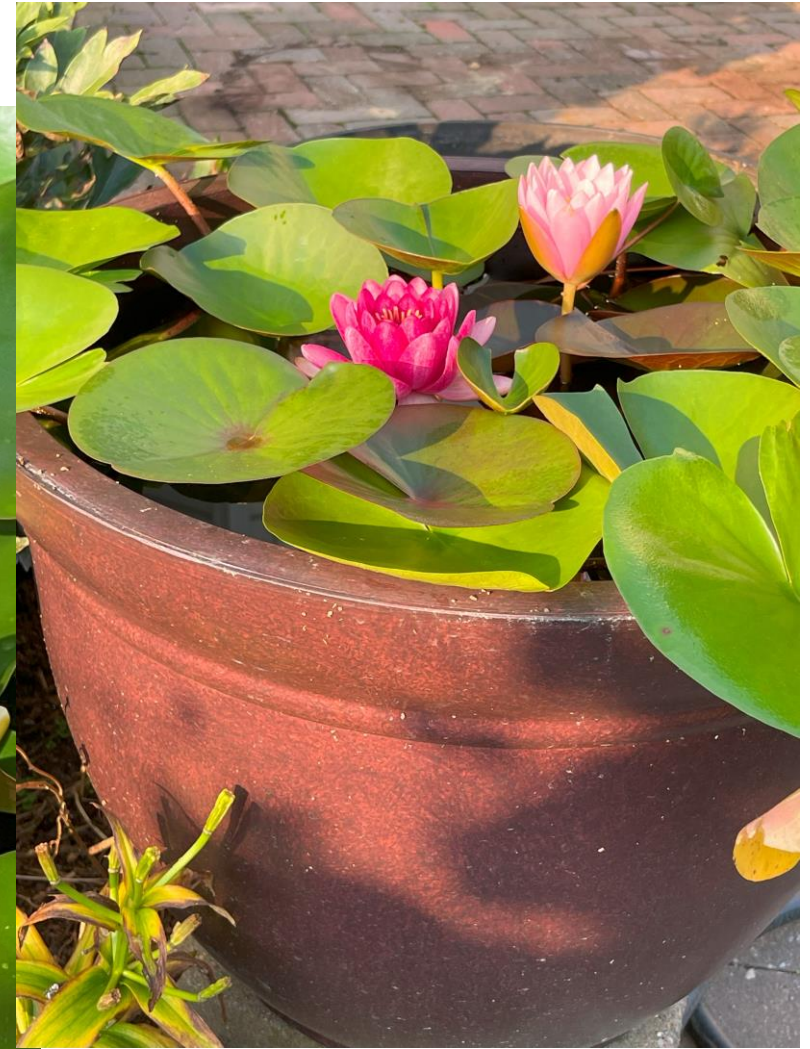




Nymphaea Attraction

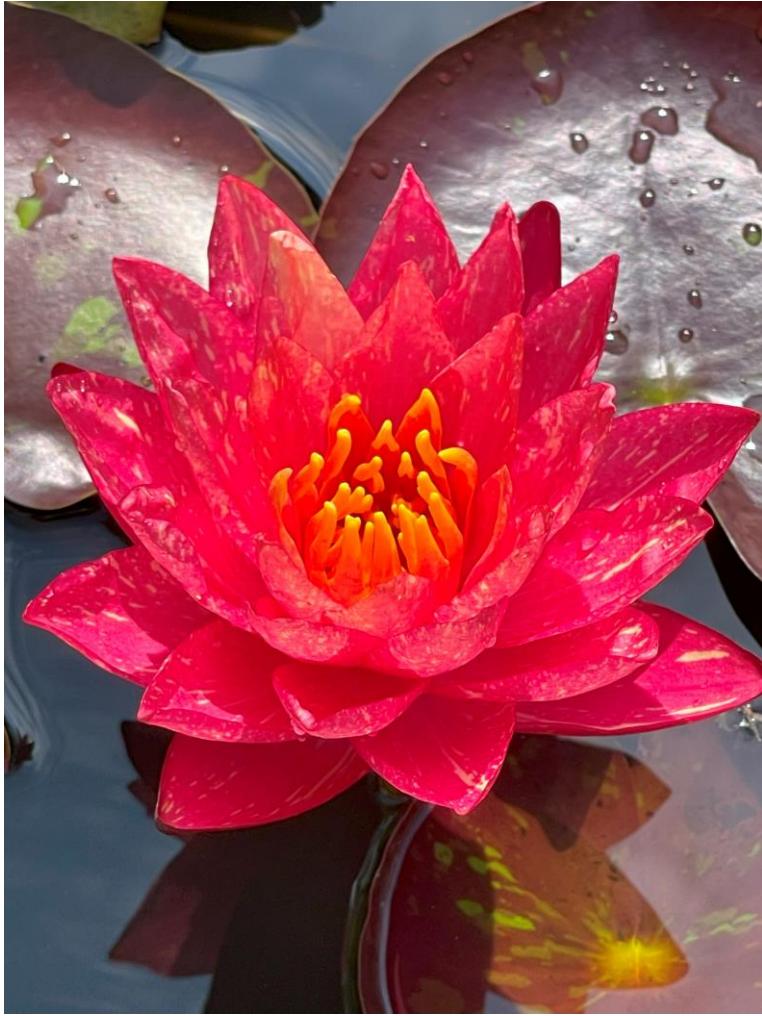


Nymphaea Alaskan

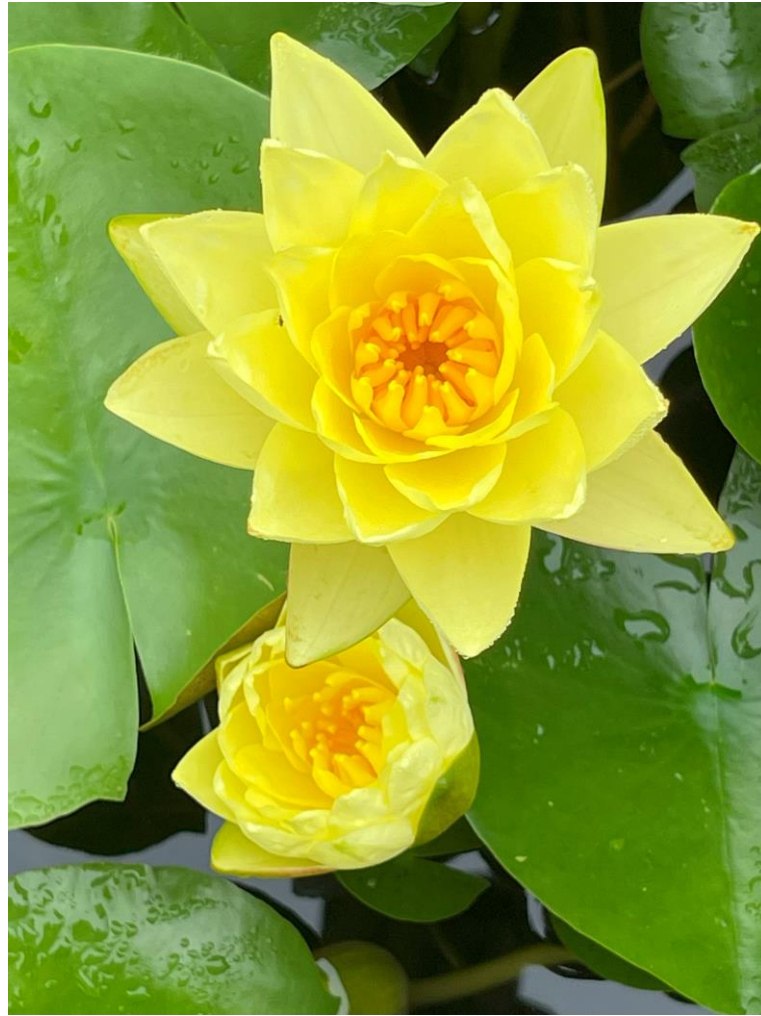


Attraction and Venusta

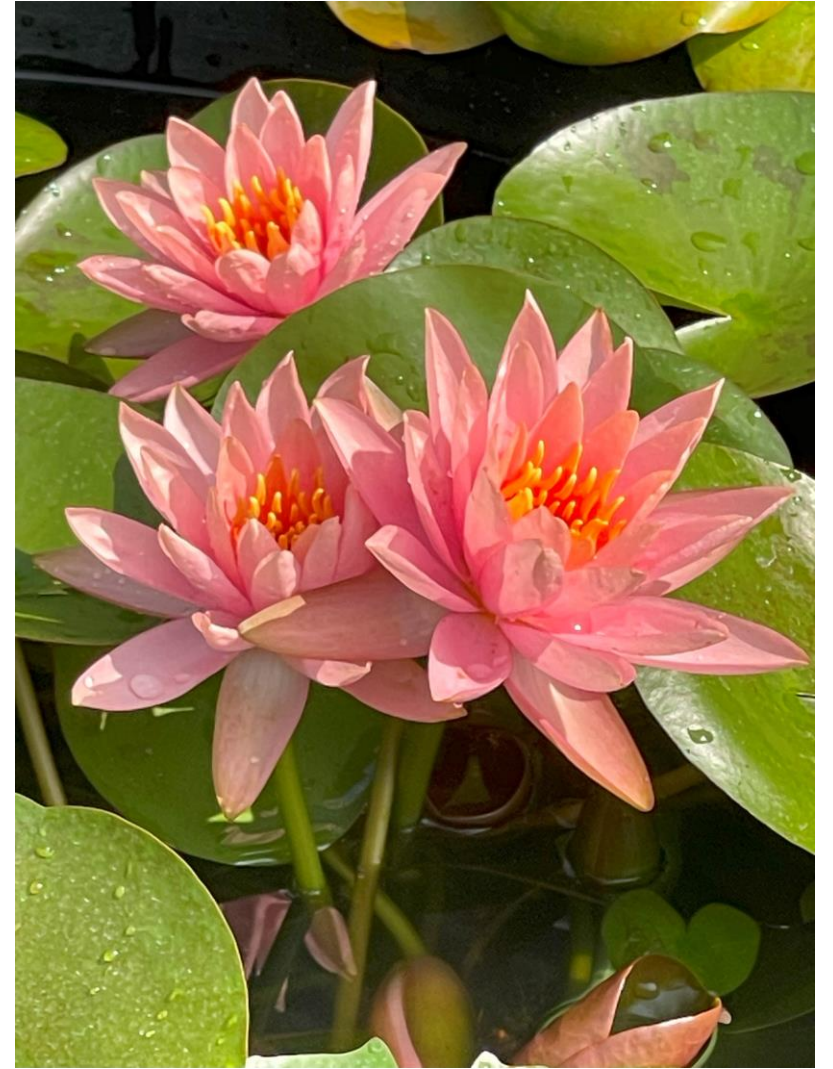




Nymphaea Wanvisa

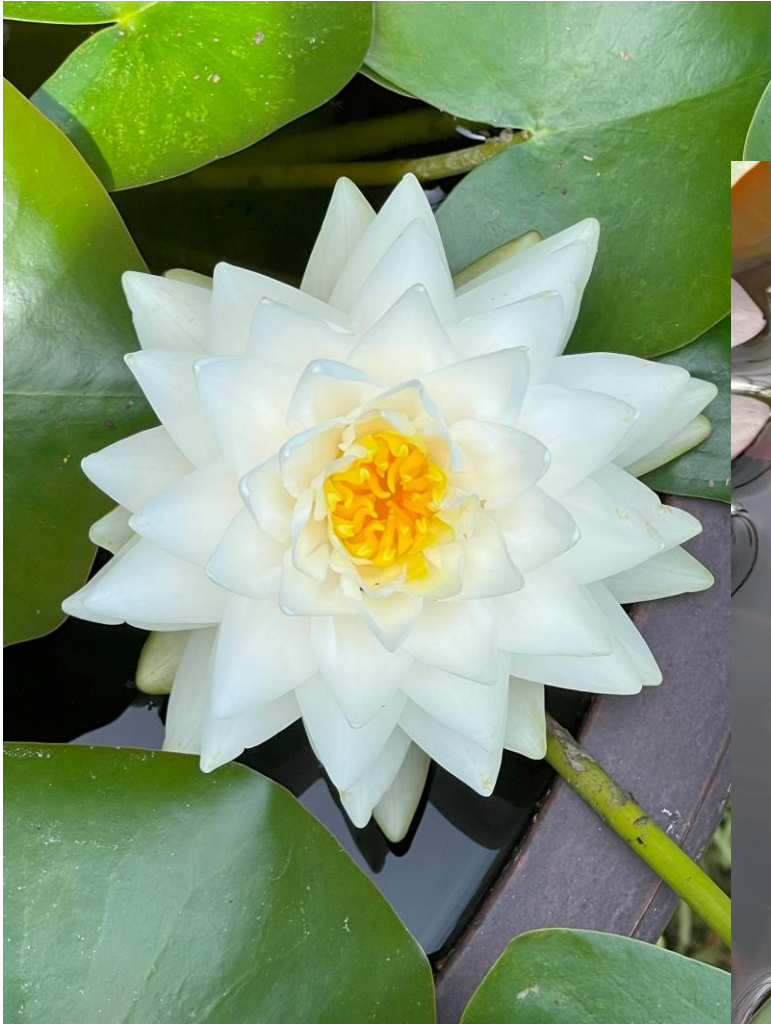


Nymphaea Chromatella



Nymphaea Colorado

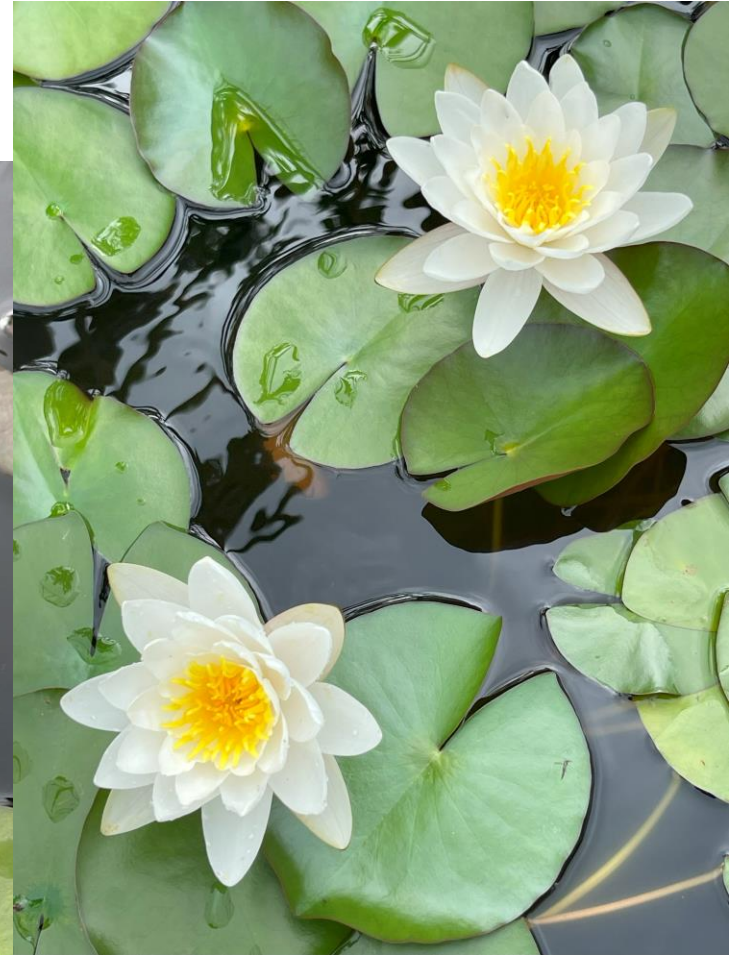




*Nymphaea Alba*

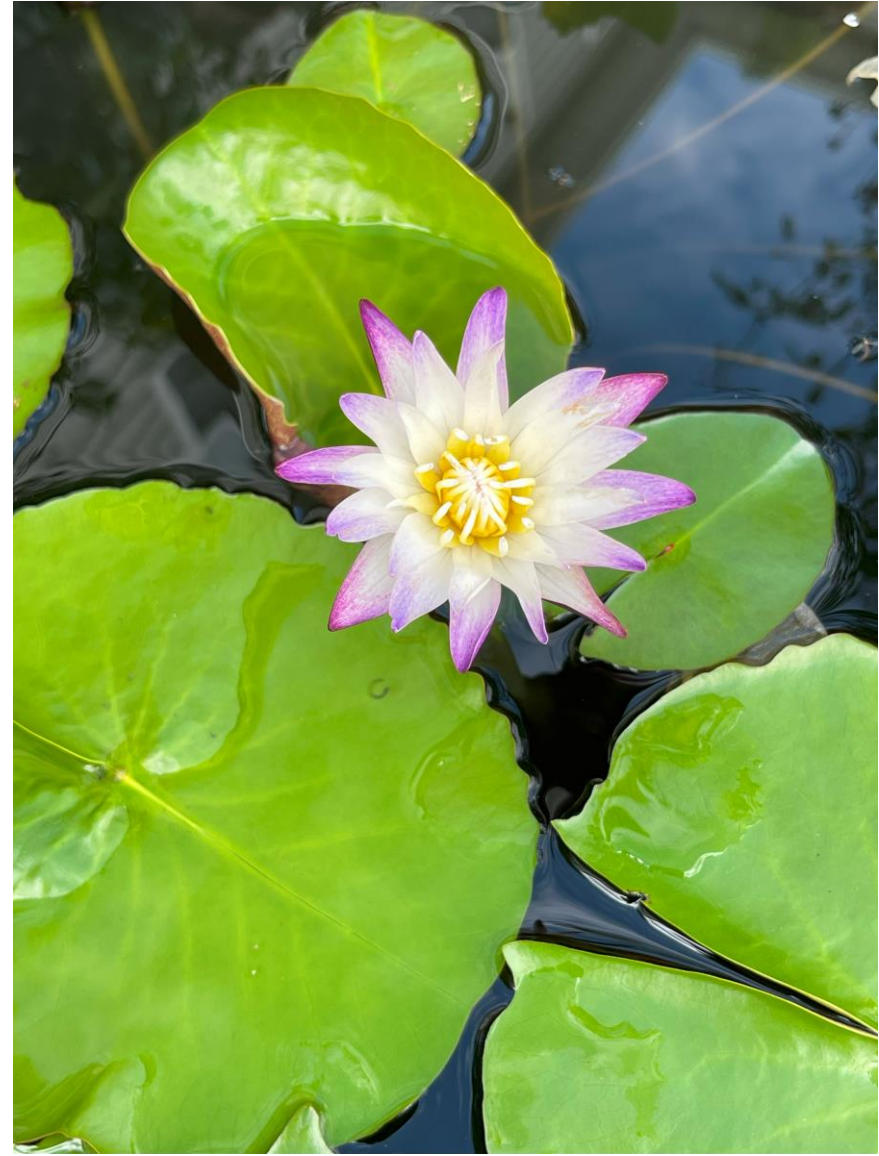


*Nymphaea Venusta*



*Nymphaea Alaskan*





Tropical Waterlily Nymphaea Purple Joy





Growing Container Waterlilies MGACRA 20 March 2024





# Growing Waterlilies



# Growing Waterlilies

- Waterlilies are generally assumed to be difficult; beyond the reach of the ordinary town or suburban gardener without a pond. It's just the opposite.
- Asia has a long history of waterlily cultivation in smaller cisterns, and in Containers
- Most waterlilies are easily grown in containers; its very rewarding
- There are basically 2 types - Hardy Waterlilies and Tropical Waterlilies... hardy waterlilies can be left outdoors all year if growing in a pool, natural or artificial pond. Tropical waterlilies cannot take the cold; they'll die if left outdoors
- If growing in Containers, both types should be brought into an unheated garage and stored in a bucket of water or a container from November to April
- Hardy waterlilies come in the most beautiful pastel and bright colors; tropical waterlilies come in some exotic colors like purple

# Container Waterlilies

- Growing waterlilies in containers is simple; the basic needs of the waterlily are water, sun and fertilizer
- The set up is simple too— a small inner container of soil/planting medium in which the root is planted and a larger outer container in which the inner container with the waterlily root is inserted.
- Inner container can be anything – I use plastic planter pots or rubber feed containers
- Outer container can be a pond liner, large fiberglass, plastic, metal or ceramic container with no drainage holes. Ideally, the container should be able to hold 18-20 gallons and have at least 12 inches of water above the inner container.

# Planting the Waterlily

- Fill the inner container with the soil/medium, make a sloping trench towards the center and lay the waterlily root in it.
- Cover with more clay medium, then place a large stone to prevent the root from moving. Cover with pea gravel or small stones to make sure the clay stays in place.
- Fill a bucket halfway and slowly lower the inner container until its immersed; be careful not to disturb the clay or the water will become cloudy
- The trapped air in the soil will bubble up; leave in the bucket for a few hours or overnight until the bubbles are all gone. This is called conditioning the soil.
- Conditioning can be done before planting the root, but this method is much easier.





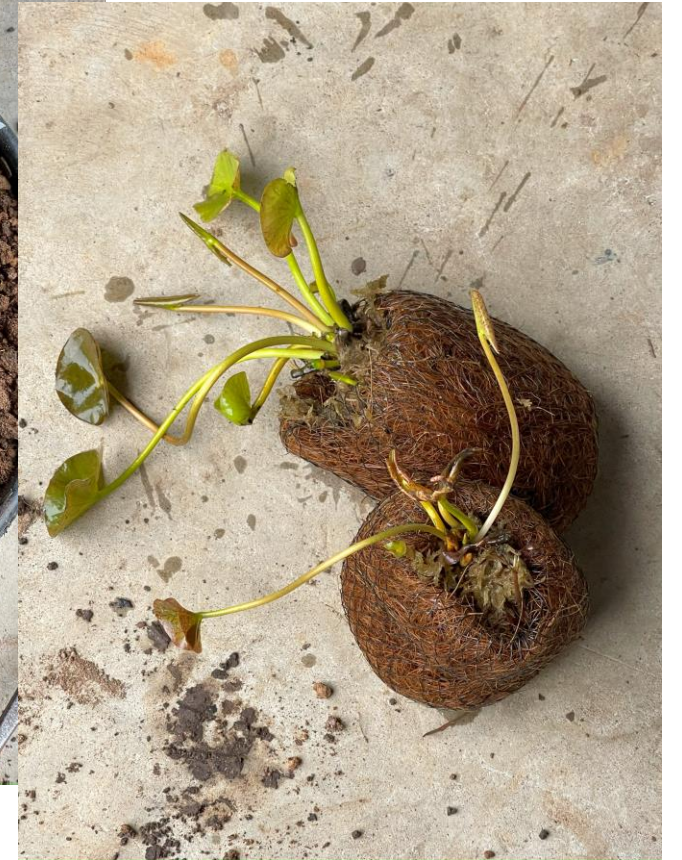
Inner Container



Growing Medium



Fertilizer

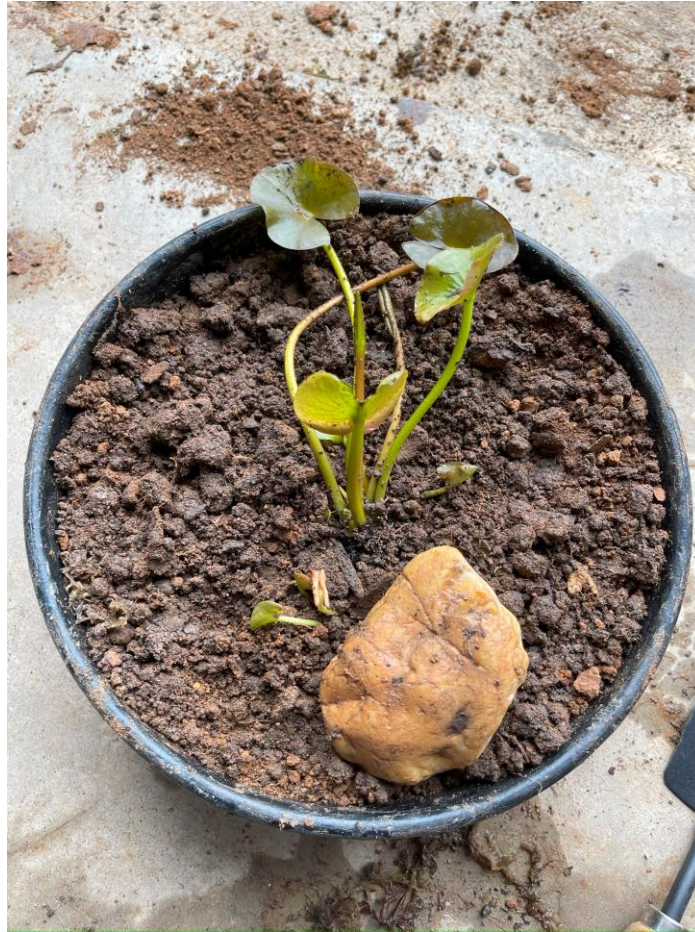


The root with growth tip

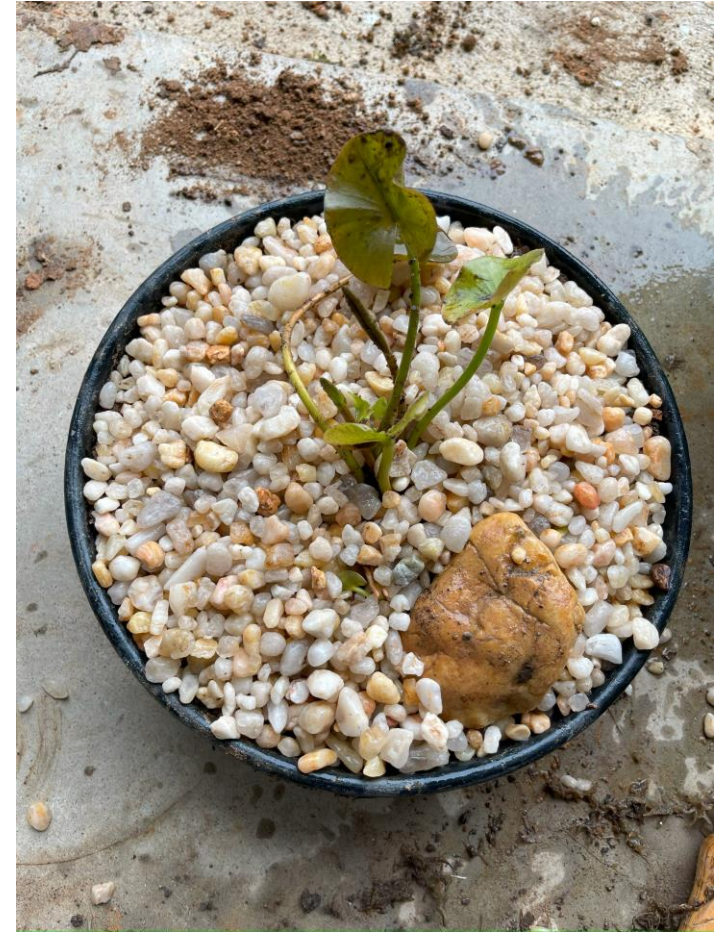




Laying the root



Weighing it down



Pea Gravel prevents muddy water





Conditioning



Coin Leaf Stage





2 Weeks Later

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Full Grown Leaves



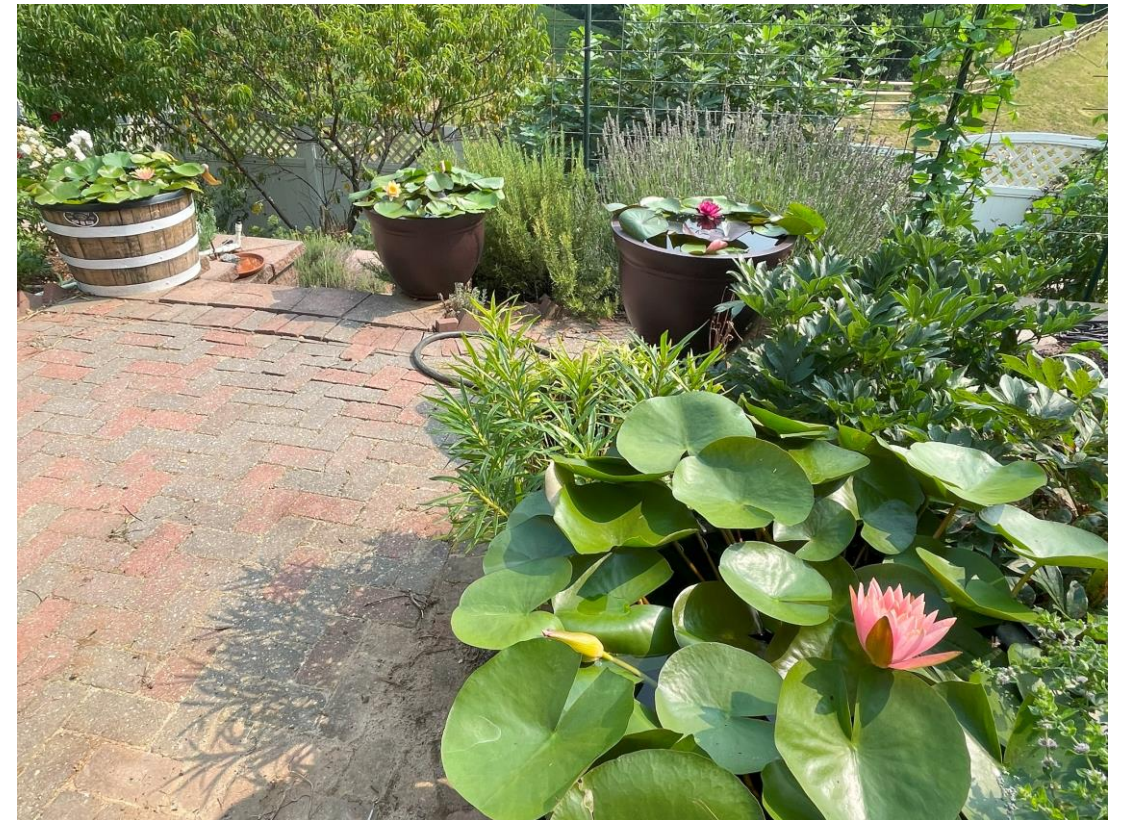


In the Garden





May in the Garden

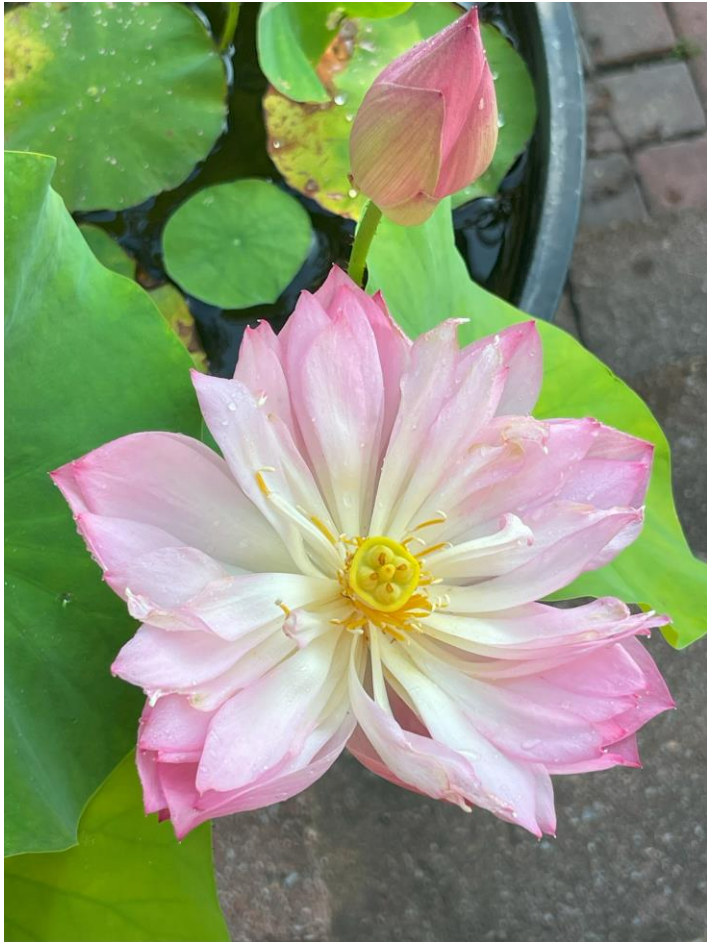


June in the Garden

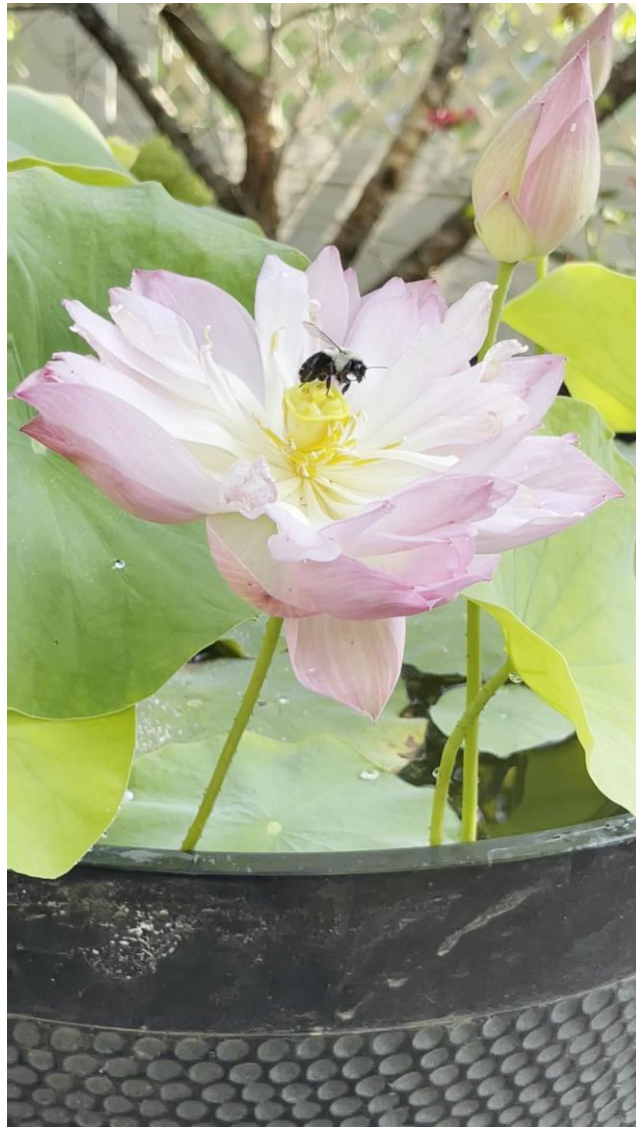


# What about a Lotus?

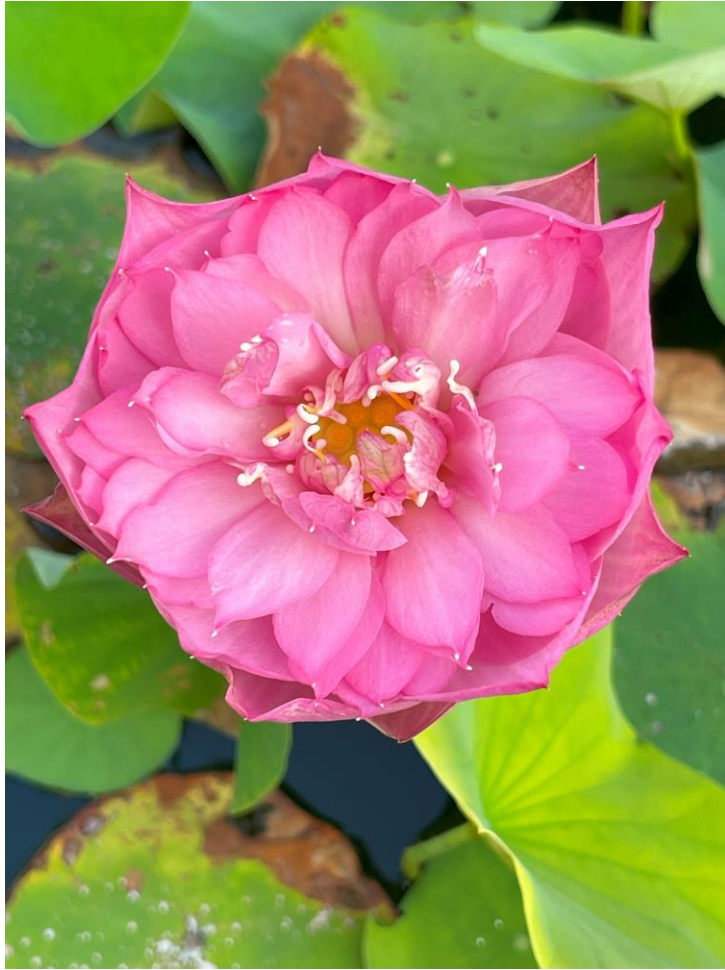
- Yes, Lotuses are easy to grow in a container as well; they need a larger containers
- Choose lotus very carefully for the home garden. Some are very large plants with enormous leaves
- Lotus leaves are generally above the water surface, with exceptions. Waterlilies leaves float on the surface.
- Water depth above the roots should be about 15-24 inches
- Basic care is the same as for waterlilies; they are heavy feeders

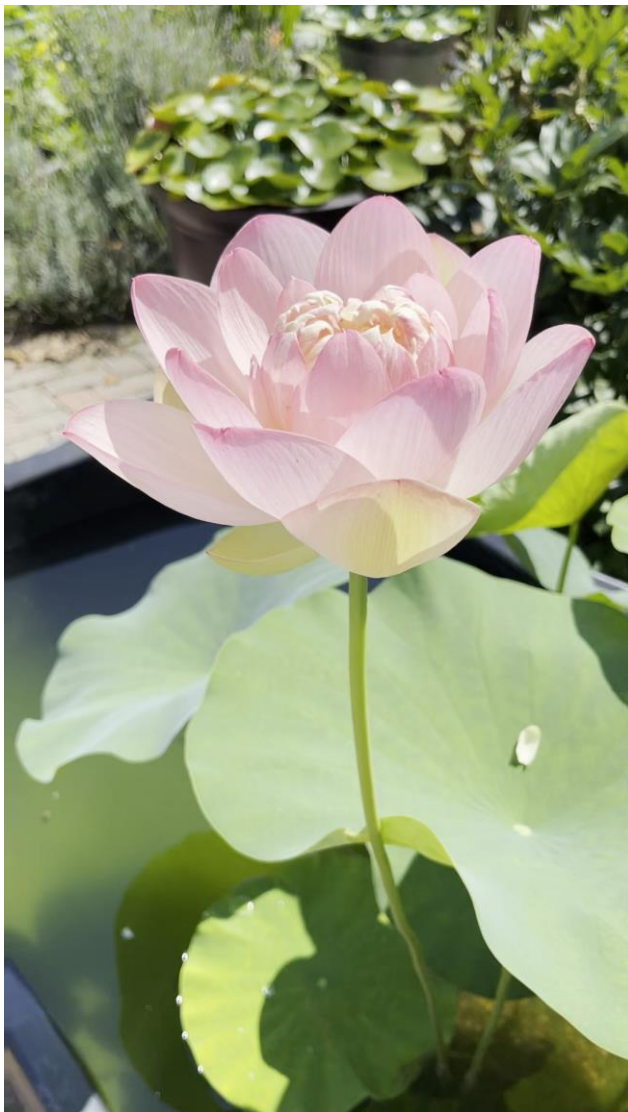


Juwaba Lotus









Mrs. Perry Slocum Lotus



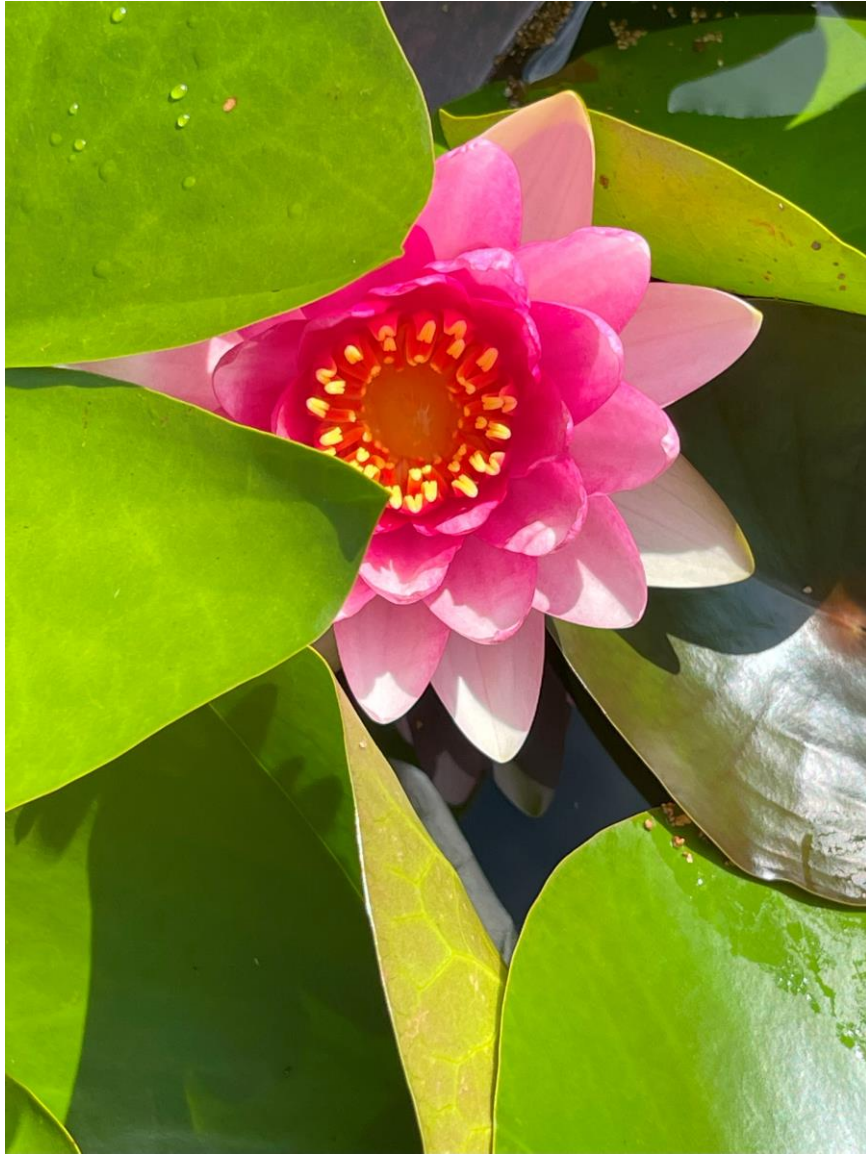
# Growing Medium

- Plain garden soil is the best; no need to buy fancy packaged soil. Our clay soil is superb for waterlilies
- Do NOT use bagged potting soil – its too light and all the woodchips, peat, coir whatever will float and make a mess. Heavy clayey soil is needed
- Garden clay is full of life – if using, condition the soil by sinking a container of soil in a bucket. Leave for 2 days – all the organic debris, bugs and worms will float to the top. It's gross, but it's done once. Then use the conditioned soil
- Plain unscented 100% clay kitty litter is a good substitute; it can be used by itself, but better if mixed with 50% garden soil. I've used both; the cat litter clay works, but it's gray and has less natural nutrients.



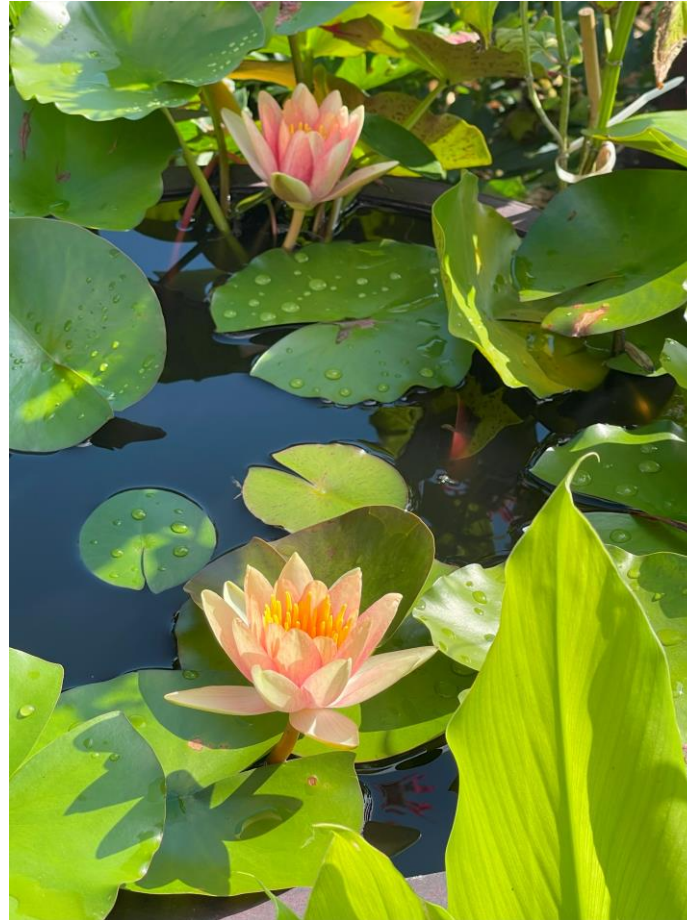
# The Secret Life of Waterlilies

- Waterlilies are smart flowers – they open and close at set hours; it varies slightly by the variety, but they open up around 9 am and close up by 4 pm
- The blooms last for 2 days on average; then they close and sink under water (self cleaning)
- They grow rapidly overnight to reach the surface if the water level is raised above the leaf level
- They like still water; if growing in a pond with a pump and filter, keep the lily plant as far as possible. Avoid pumps in containers.
- They are heat lovers; the hotter it is, the more they bloom.
- They are heavy feeders – very heavy from June to September



Amazing Fact:

They move under a leaf to protect themselves from the hot sun





# Wildlife Habitat Value



Safe breeding spot for Native Tree Frogs



Water for Birds and Insects



# Fertilization

- Fertilizing Container waterlilies and lotuses is very simple.
- Do not use regular commercial fertilizer – fertilizers for water plants are specially formulated with lower phosphorus to prevent algae blooms
- Best fertilizer for waterlilies is PondTabbs - these are cylindrical soluble tablets that are pushed into the soil of the inner container
- 1 tablet each month in April and May – as it warms up, increase to 2 tablets in June, and 3 tablets per month for July, August and September
- All season spikes are available from Laguna, but expensive. I don't think they work as well as tablets.



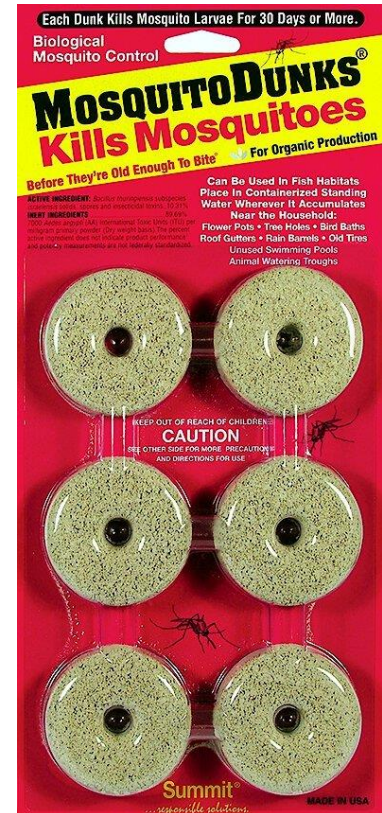
# Troubleshooting

- ALGAE – normal; cut back on Fertilizer, add a few drops of Algaecide
- EVAPORATION – normal in summer, top up as needed, check every day in the hottest part of the day
- LOUD CROAKING – normal. Tree Frogs have found the container
- SLIMY STUFF - normal – the Tree Frogs are laying eggs. Watch for tadpoles in a few days
- YELLOWING – normal senescence; remove dead and yellow leaves by cutting under the surface. Keeps the container looking nice
- MOSQUITO LARVAE – Use Summit Mosquito Dunks
- DARK SLUDGE – this is debris from rotting leaves and flowers at the bottom, looks icky but not visible. Does not harm the plant.



# About Mosquito Control

- Mosquitoes are attracted to ANY standing water; its necessary to prevent them from using the Containers as breeding grounds
- Summit Mosquito Dunks are a safe preventive measure
- It's a Biological Mosquito Control
- They contain a type of BT (Bacillus Thuringensis - Israelensis) which attacks only mosquito and gnat larvae and kills them, thus preventing them reaching maturity and breeding
- Use every 2 weeks
- The water is safe for birds and fish



# Winterization – End of Season

- In late October, remove inner pots from the container, cut off the leaves and overgrown roots
- Empty the outer container and scrub them down, wash and store upside down
- Use a pond liner, plastic trough, bucket or container as the winter storage
- Move the cleaned up inner pots into a shed and place in the winter storage container, fill with water
- Leave through winter. Add a Mosquito Dunk to keep any pesky mosquitos from breeding



# Spring Start Up

- Remove inner containers from winter storage
- They may have continued to grow new leaves slowly
- Examine if pot is overgrown
- Repotting is needed every couple of years. Annual if using a small inner container or if the variety is a vigorous grower
- Remove the plant from the pot, pull out of the clay, wash it off
- Cut away any dead or yellowing portions, dead and decayed leaves and roots.
- Select a one or two healthy sections with growing tips and discard the rest (if multiple growing tips – share with friends or start a new pot)
- Repot and feed
- Set up outer container in the sun, fill and immerse inner container very slowly
- Enjoy another year of growing Waterlilies

# Selected Waterlily Sources



Lowes (roots)

Etsy (roots)

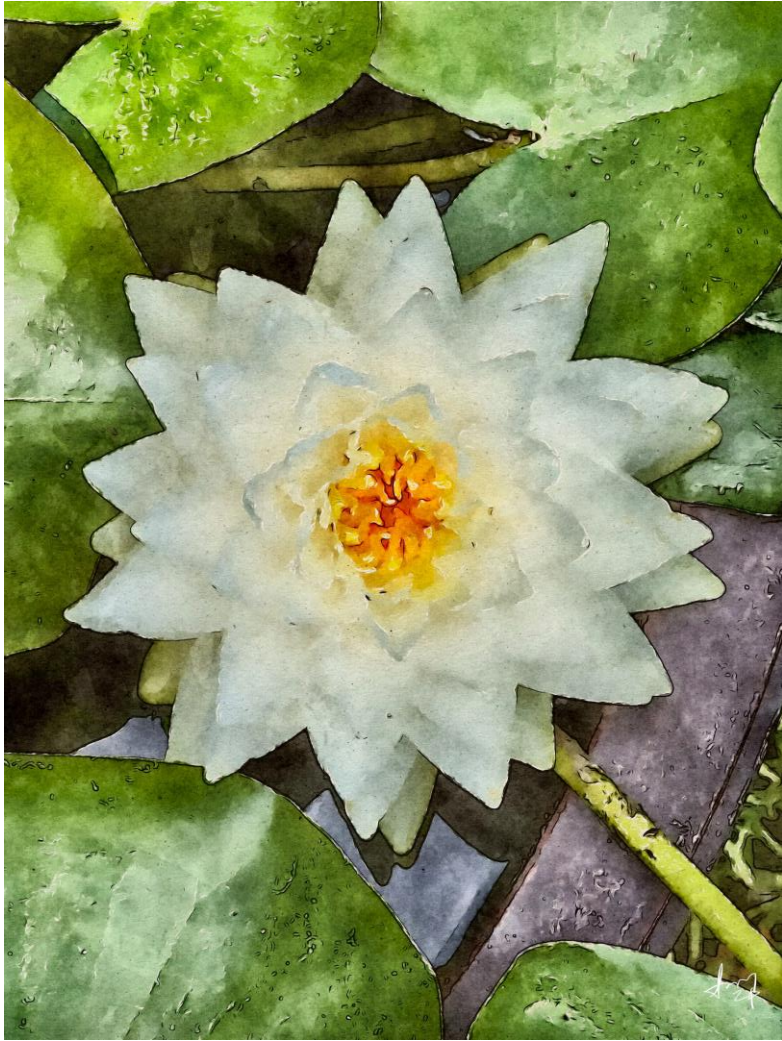
Webb's Water Gardens (roots)

Virginia Watergardens (potted)

Meadows Farms (potted)

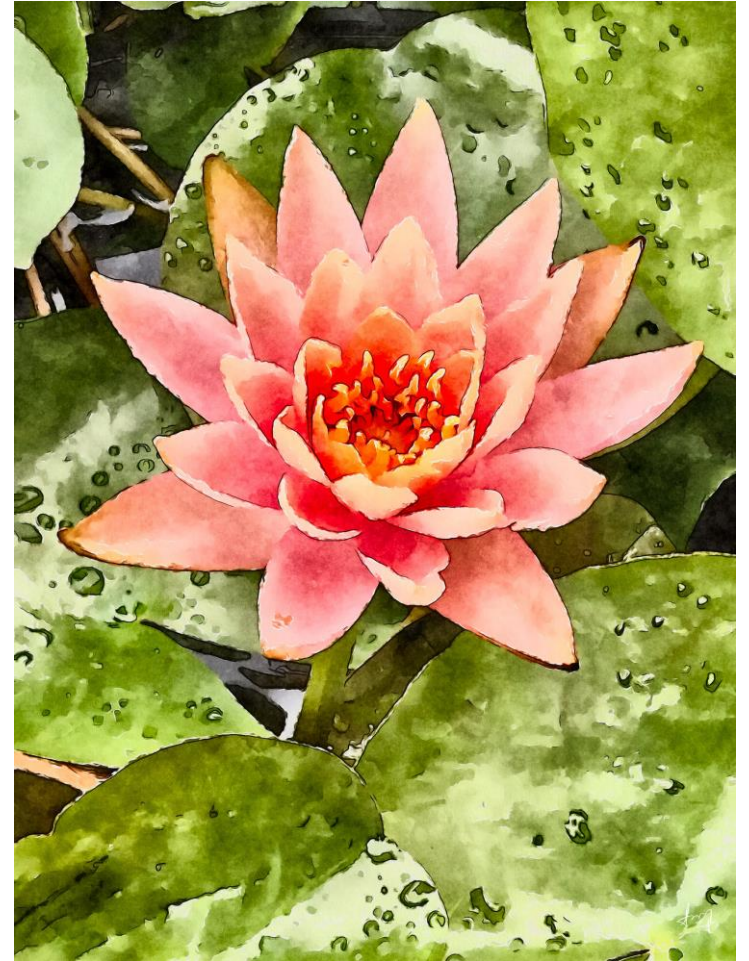
AJ Frank Gardening (potted, roots, kits)





They make great Prints as well!

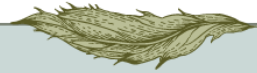




They make great Prints as well!



# Waterlily Timeline - North-Central VA





# Support the World Central Kitchen!

A personal appeal – as the please keep the work of the World Central Kitchen in your hearts – this is the organization started by Chef Jose Andres to provide hot meals in Crisis stricken areas. Check them out at [www.wck.org](http://www.wck.org). WCK is in Ukraine and Gaza, serving meals,

100% of the proceeds of sales of seeds, flowers, tools, books and prints through go towards supporting WCK mission as well as Community and School Gardens with seeds and tools.

Thank you.







# Acknowledgements

Thank you to my gardening friends from the FB Garden Groups:

Virginia Gardening, Gardening in the Fredericksburg Area, Stafford Area Gardeners, Supergardeners & Shitty Harvests. They are my Family.

A shoutout to Carol Hyland and my fellow volunteers who keep Chatham Manor Historical Garden beautiful and of course, to all my Master Gardener friends who work tirelessly to make our communities green.

Special thanks to MG Manon Dixon for her support and encouragement in making this presentation possible; and to MG Margene Sims. You're awesome.





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Thank You!



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Questions?

