

At home, in the garden or in the greenhouse, Growstones™ are an ideal substrate to grow a wide variety of crops in different hydroponic systems. Growstones™ can be used in systems as simple as manually irrigated containers, or as advanced as automatically irrigated systems such as drip irrigated containers, Ebb-Flow, and NFT tables.

For best plant performance, follow these simple steps and recommendations:

Preparation		
1-	Rinse by submerging Growstones™ in a bucket of warm water for 45 minutes.	
2-	Volume of water should be approximately four times the volume of Growstones™.	
3-	Discard rinse water in the garden.	
Seeding and Transplant		
4-	Place rinsed Growstones™ in your growing system:	
	Ebb-flow systems	NFT systems
	Fill container with a volume of Growstones™ proportional to your recirculating pump. Nutrient solution should rise until Growstones™ feel moist to touch 1" - 2" below the surface.	Total depth of Growstones™ should be adequate to support and keep crown above water level or flow.
	Containers	
	Fill container with Growstones™ to within 1" from the top.	
5-	For direct seeding place seed in a peat or other soilless mix plug and transplant into Growstones™ media.	
6-	To transplant seedlings, gently insert bottom of plug or seedling into the Growstones™ growing media.	

pH and Nutrition
Most plants perform best when the pH of the nutrient solution is between 5.5 and 6.5. Please consult your local garden center or hydroponic store for more information on pH adjusting solutions as well nutrient formulations that will most benefit your plants.
Most pre-mixed formulations developed for greenhouse or garden plants will need Mg and Ca supplementation. For more in depth information on nutritional and irrigation programs visit our website: www.growstone.com

Irrigation schedule			
Automated	Ebb-flow systems	NFT systems	Containers
Frequency	For recently transplanted seedlings, flood once to twice a day. As plants grow, maintain moisture 1" - 2" below surface.	Maintain thin film of nutrients flowing at all times.	For recently transplanted seedlings, irrigate once to twice a day. As plants grow, maintain moisture 1" - 2" below surface.
Duration / Depth of flow	Enough to maintain surface of Growstones™ moist to touch.		Irrigate until drainage is visible from bottom of container.
Manual Irrigation			
Manual irrigation in Growstones™ is generally recommended for low water usage plants such as aromatic herbs, perennials or short cycle vegetable plants grown in individual containers.			
Frequency and duration	Twice a day until bottom drainage is visible. As plants grow, increase irrigation frequency to maintain surface of Growstones™ moist to touch.		

Directions to reuse GrowStones:
To reuse Growstones™ in second crop, simply remove old plant from container, and shake well to displace any Growstones™ attached to roots. For directions on seeding and transplant simply repeat steps 5 and 6.

More information:
For more detailed and free technical information go to www.growstone.com .