

# Pumice: an Ideal Soilless Growing Media

Pumice is one of Mother Nature's unique and widely useful creations. Born of earth and fire, pumice is essentially a whipped foam of volcanic glass, each stone made up of highly vesicular strands permeated with tiny air bubbles. It's these physical and elemental properties that give pumice its unique and infinitely useful qualities—qualities that find application in a wide range of industrial and practical applications, including horticulture. In particular, pumice provides many advantages as a soilless grow media.



Tomatoes grown in Ponics Stone in an aquaponics-type system.

*Soilless grow systems demand a high-performance grow media that delivers results in these key areas:*

## STABILITY

*~ the grow media must be substantial enough to support a plant's root system, as it is the root system that provides support to the plant and the fruit.*

Pumice grow media is lightweight, yet substantial enough not to float away. The grippy surface

of the little pumice stones form a stable bedding matrix to support thriving plants.

## NUTRIENT HOLDING CAPACITY

*~ an effective grow media must have the ability to retain that nutrient-rich water for a time, making it continuously available for root uptake between watering cycles.*

Ponics Stone is entirely made up of pure, natural pumice. This foamed glass stone is riven with countless tiny pores that function as microscopic reservoirs to capture and store nutrient-rich moisture, allow beneficial microbes to thrive, and provide it all to the root system as needed. That allows for less frequent watering

cycles and avoids problems like algae growth. It also saves energy and reduces wear on the watering system.

## GAS EXCHANGE

*~ a grow media must allow free flowing exchange of oxygen at the root zone.*

The highly porous, low-bulk nature of Ponics Stone facilitates an effective and positive exchange of gases between the root zone and the environment.

**PONICS & STONE**  
SOILLESS GROW MEDIA™

Sourced from the world's purest commercial deposit of white pumice, Ponics Stone™ is effective, economical, sustainable, and planting-ready.



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## DRAINAGE

*~ balance is so important: a grow media must be able to shed water quickly to allow air into the root zone while retaining enough nutrient-rich moisture between irrigation cycles to fuel rapid growth.*

The pores that perforate and pock the sponge-like surface of a Ponics Stone Soilless Grow Media stone are not the same size—and it is this natural variety in pore size, shape, and depth that provide the needed balance for proper drainage. The tiny, microscopic pores hold water and make it available on demand to the root system. The large pores drain quickly, shedding water and taking in air. The hardness and varied shape and size of the stones themselves also prevent compaction of the media.

## WEIGHT

*~ soilless grow beds tend to be positioned above ground/floor level to allow a sump tank underneath and/or to provide easy access when planting and harvesting, and that means grow-media weight is a consideration.*

Since pumice is essentially a foamed glass stone, it is less dense and weighty than gravel or sand. 1.5 cubic feet of pumice media weighs 75 pounds. Yet it is weighty enough to stay in place during irrigation cycles.

## MEDIA PARTICLE SIZE

Ponics Stone Soilless Grow Media stones are not man-made, but rather natural pumice crushed, tumbled, and screened to specific sizes. Standard media (3/4" x 5/16") is an all-purpose size for ponics media beds and net pots. A more uniformly sized premium media (5/16") is also available.

## CROP BALANCE

As a grow media, pumice provides good drainage, excellent moisture retention, and increased gas exchange necessary for both rapid vegetative and reproductive (fruit) growth.

## LONG LIFE

*~ to be able to continually replant in the same grow media saves time and money.*

Pumice grow media is enduring—lasting years in properly designed and maintained systems.

## NUTRIENTS CONTRIBUTED BY GROW MEDIA

Ponics Stone is more than an inert bedding media, rather, over time, through the activity of microbes, it is slowly mined on a molecular level, contributing valuable nutrients to a ponics system—nutrients like silicon dioxide, iron, ferric oxide, ferrous oxide, sodium, potassium, calcium, magnesium oxide, titanium dioxide.

## HESS PUMICE

While pumice is found abundantly across the globe, Mother Nature did not create all pumice as equal—the physical characteristics, chemical makeup, color, and most importantly, *purity*, vary widely. In the Southeast corner of Idaho lies a commercial pumice deposit that enjoys a world-wide reputation for ideal elemental composition, whiteness, and purity. Our pumice is shipped all over the planet for use as a functional component in scores of manufactured products and in a variety of industrial processes—including seed coatings, soil amendment, dental polishes, exfoliating grit, bathing dust (chinchillas, poultry), functional filler in paints and industrial coatings, lightweight plasters and mortars, concrete pozzolan, and much more. From this same deposit comes the pumice for our Ponics Stone™ Soilless Grow Media.

## SUSTAINABLE & GREEN

Since the entire suite of pumice's useful properties are bestowed by nature, the process to prepare pumice for market is simple, sustainable, and green. Ponics Stone Soilless Grow Media is not manufactured—it is simply scraped from the pumice deposit, crushed, dried, and screened to size.

- No super-heating is necessary, which means lower carbon production emissions than any other media on the market.
- No chemicals are used or necessary.
- No water is needed. Even the pumice dust that clings to the particles is useful—providing readily soluble trace minerals and nutrients to the system.



Mike Hess Jr., Sales Manager

(208) 766-4777 x147

salesteam@hesspumice.com

Order Ponics Stone™ online: [www.ponicsstone.com](http://www.ponicsstone.com)