

## Perlite or Vermiculite

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Throughout my articles on gardening, you may have noticed that on occasion I may list Perlite as a requirement for an experiment while in others you find me suggesting the use of Vermiculite. I suppose you are a bit confused with this and in this article, I will attempt to clear the air on these two additives.

I generally keep both of these items readily available for use when I am planting and growing plants. It is important to understand how these two products differ when comparing the properties of your garden. Without haste, let's see what we have here.

First, we shall talk about Perlite. What is Perlite and how is it properly used in our plant ventures? The primary characteristic of Perlite is that it is clean, easy to use, lightweight, and provides no odor what-so-ever. The normal pH of Perlite is between 6.6 and 7.5.

Perlite is actually a special type of volcanic glass which is formed when obsidian contacts water. Obsidian is a naturally occurring volcanic glass which is formed as an extrusive igneous rock. This volcanic glass contains a high-water content. When heat is applied to perlite, it inflates to those familiar little white balls. It is these little white balls that are known as perlite. This additive is placed into potting soils which are used to aid in soil aeration and water retention. It not only retains water, but air as well, which forms on the surface of the little balls.

Perlite is an excellent selection for the plants in the garden which requires the soil to dry out completely before adding water again. Cactus is a prime example of where perlite can be used in the soil. Due to the porous nature of perlite, the excess water drains very quickly. Perlite has the ability to be crushed into a powder with only one's fingers. For plant use, this does not present any sort of problem as such pressures would not be

encountered in a flower-pot. The primary use of perlite is to improve the aeration of the soil, making it lighter so it receives better drainage and oxygen to the roots.

With that being said, let's now move on to what Vermiculite is and its advance to the plants. Vermiculite tends to interact with calcium, magnesium and potassium when added to the soil. It will elevate the pH level of your plant soil to create a neutral 7.0 pH rating. The actual composition of Vermiculite is compressed flakes of a silicate type of material which is possessed of an absorbing and spongy nature. Vermiculite is brown in color and it is often difficult to distinguish from the common potting soil. When mixed together, it is almost impossible to distinguish. As water is added to the vermiculite, the flakes will expand forming a worm-like shape.

The vermiculite is used when plants require the soil to remain moist. This is an excellent material to use for plants which love water. You would use only a scoop of vermiculite with your soil. It will absorb 3 to 4 times its volume when watered. Vermiculite tends to absorb more water than perlite and it does not aerate the soil. Therefore, less oxygen will reach the roots with vermiculite. An interesting note here is if you use vermiculite for those plants that do not require damp soil the plants may develop root rot, so you need to be sure of your plant's requirements.

As you can see there are major difference and I might add important difference in these two products. In short, Vermiculite will readily mix with soil and aid in water retention. Perlite, however, will add drainage to the soil. Vermiculite will protect seedlings from fungus. Although perlite could be used with seedlings, it's use is better served when moving the seedlings to separate pots.

To give you some idea as to when to use Perlite, employ it when you need to dry out your plants prior to watering them again, when moving them to separate pots, or if your soil is heavy with clay and needs to be loosened. On the other hand, use the Vermiculite when you need to keep the plant moist. As you can see both products are excellent additives for the garden if you know when to use them. I hope this short article has helped to define the difference between vermiculite and perlite.