

Hydroponics Supplies found online

You'll be hard pressed to find a more cost-effective and efficient method of water and air purification than activated carbon filters. If you are serious about maintaining the health of your hydroponic systems, you'll want to invest in a good air purification system as well. There are several types on the market today that are available via mail order online as well as local purveyors of hydroponic supplies, and you'll need to change out your carbon filters periodically.

Why Carbon Air Filters?

Like people and animals, plants benefit from fresh air, and air purification systems can be the environment free of organic contaminants that can damage indoor gardens and compromise the health of hydroponic systems. Carbon filters, because of their unique chemistry, are excellent at doing this job and in fact are used aboard submarines of the U.S. Navy.

This last fact is also applicable to you; without proper air purification systems with activated carbon filters, your indoor horticulture project is likely to give off unpleasant smells.

Choices

You can choose from three different kinds of carbon filters; however, these are not all effective for air purification.

The three major types are:

- Powdered activated carbon (PAC)
- Granulated activated carbon (GAC)
- Extruded activated carbon (EAC)

In addition, there is "impregnated" carbon, polymers coated carbon and activated carbon fiber, which is actually a form of cloth. The granulated GAC type is actually the best for use with hydroponic systems and indoor gardens. These granulated activated carbon filters have a much larger surface area, and thus are better for air filtration than the powdered variety of activated carbon air filters.

It's Pure Magnetism

Carbon is "activated" by oxygenation, which creates millions of microscopic pores on the surfaces of the granules in which organic molecules become trapped, as well as chlorine. Carbon air filters are less effective when it comes to inorganic chemicals however. This is not usually an issue, because plants don't give off such chemicals, and it's unlikely that any chemical toxins will enter your garden space unless you live next door to a DuPont or Union Carbide facility.

There Are Limits

Activated carbon filters can absorb a tremendous amount of organic contaminants, but eventually reach the saturation point. Therefore, it is necessary to change these filters as recommended by the manufacturer. The useful working life of these filters can be extended substantially by using them in conjunction with HEPA filters, however. In addition, HEPA filters can trap particulate matter that carbon filters may miss – and vice-versa

About the Author

Susan Slobac has a great deal of experience with indoor [gardening](#). Hydroponic gardening is the way of the future. Known to some as "soil less gardening", [hydroponics](#) are proven to grow plants 20-30% faster than their soil grown counterparts.

