



POND QUESTIONS & ANSWERS

Determining Liner Size:

Once you've settled on the exact size and shape, measure the length and width of your pond. Then using the following formulas, you can determine your pond's specific liner and hardware requirements:

Length + (Depth x 2) + 2 Feet = Liner Length

Width + (Depth x 2) + 2 Feet = Liner Width

Determining Gallons of Water in a Pond

The formula for calculating the total gallons of water in a body of water is:

Length x Width x Depth x 7.5 = Total Gallons of Water in a Pond

To convert English Imperial gallons to U.S. gallons

English Gallons x 1.2 = U.S. Gallons

Determining Pump/Filter Requirements

The size of a pump is measured by how many gallons of water it can output in one hour, or gph. For your pump to work effectively, it should turn over half of the total gallons of water in your pond every hour. The formula for pump size is:

Total Gallons of Water in a Pond divided by 2 = Pump Gallons Per Hour

Other factors that will affect the output of a pump are the number of water features that need to be powered and the head height of a ponds waterfall.



Determining Head Height

Head height is the distance between the surface of the water and the top of a pond's waterfall. The greater the head height, the more powerful a pump needs to be. Most pumps have a head height chart on the side of the package to show you each pump's flow rate at various head heights.

How deep should my pond be?

The minimum recommended pond depth for fish is 18", although 2 ½ feet is considered ideal. Keep in mind that your fish require cool water in the summertime and need to be able to live under the ice in the wintertime. In extremely hot or cold climates, a few extra inches in the depth of your pond may have a considerable impact on the health of your fish.

Can I put fish in my pond?

The size and depth of your pond will determine whether or not your pond can accommodate them. When stocking a pond, it's usually a good idea to start small and add a few fish at a time. This will give you time to test your pond's water and the surrounding habitat before spending a lot of money.

For goldfish and comets, 1 inch of fish for every three gallons of water is a good rule of thumb. For Koi, five gallons of water for every inch of fish is recommended. As the fish begin to grow, you may need to remove some of them in order to maintain an ideal pond environment.

Can I put fish in my pond right away?

Tap water can contain chlorine, chloramines and other harmful elements that are toxic to fish. In order to make your tap water safe, it should be treated with a conditioner such as Laguna Water Prep before fish are added.

When should I feed my fish?

Depending on the water temperature, pond fish have different nutritional requirements and feeding habits. At water temperatures of 55° F or above, feed fish up to four times daily, but only as much as they can consume in two minutes. It is better to feed in small portions where everything is consumed, rather than feed once heavily. When everything is eaten, less waste and pollution is created.

In winter, when the water temperature drops below 50 F, pond fish require less food. We recommend that you reduce feeding to two or three times per week. At below freezing temperatures, discontinue feeding completely, as fish are dormant and do not require food. Never overfeed your fish. Excess food will pollute the pond water and promote algae growth.

What types of plant are ideal for a garden pond?

There are four major types of pond plants – oxygenation, floating, water lilies and marginal. Oxygenating plants provide vital oxygen for fish and other pond inhabitants. In a mature pond, 60-70% of the pond surface should be covered with floating plants in order to reduce the development of algae. Water lilies at the bottom of the pond provide fish with shade and protection from predators. Marginal plants along the outer edge of the pond, will blend with the surrounding landscape, making it more attractive.

Why is oxygen so important in my pond?

Fish, plants and other pond inhabitants require large quantities of oxygen in order to survive. In an isolated pond, dirt, leaves, algae and other contaminants can quickly accumulate, depleting a pond's vital oxygen supply. Fountains and waterfalls help to aerate oxygen-deficient ponds and help to keep pond inhabitants healthy.

Will I get clear pond water quickly, and how can I prevent it from becoming cloudy or green with algae?

With a new pond installation, the water may become cloudy until things have a chance to settle. Algae can also result from several factors, including strong sunlight, warm water and the overstocking and overfeeding of pond fish. The use of a Nursery-Pro skimmer and bio-falls will discourage algae. Adding a UV sterilizer will kill algae and other harmful bacteria for cleaner, clearer pond water. The use of UltraClear and AlgaeFix, combined with the introduction of aquatic plants will also improve water quality.

Are there points I should consider if I have children?

A water garden can be a fascinating natural learning environment for children. However, before installing a garden pond, it is important to consider the layout and depth of your pond, the type of water features you plan to use and any other factors that may affect its accessibility to children.

The safer option is a "bubble" fountain where the water is pumped up from an underground tank covered with pebbles on the surface. The foaming jet creates a very attractive display as the water trickles through the stones back into the tank.

What sort of maintenance is required with a garden pond?

Most pumps require very little maintenance after installation. The strainer cage should be checked periodically to be sure they are clear of debris in order to keep the pump running at peak performance. Filters should be cleaned regularly (usually once every 2-3 weeks) so that they can continue to operate at peak performance.

How do I hide the power cord in my garden?

Place the cord inside a piece of a piece of pipe and run it underground, preferably along a wall or fence so that it won't be dug up accidentally. Consult a qualified electrician before undertaking an electrical installation.

What size hose do I need for my pump?

Refer to the hose adapter size listed on the package. When connecting a waterfall, or other special feature to a diverter valve, refer to the outlet flow control dimension also listed on the package. The ideal hose color is black. This will blend with the pond liner and prevent algae from forming inside the hose.

Tips

- Build your pond in an area with plenty of sunlight.
- Keep sharp objects away from the liner as they can puncture it.
- Raise the pump from the bottom of the pond to avoid clogging.
- The maximum height of your fountain should be half the width of the pond.
- Allow three gallons of water for each inch of fish, five gallons for Koi.
- Keep Koi in large, well-filtered ponds, at least 2 ½ feet deep.
- Oxygenating plants provide oxygen only in daylight. Fish may suffer stress during hot summer nights if you don't leave the waterfall or fountain running. This water agitation provides needed oxygen.
- Although most pumps operate from your normal electrical supply, the installation should be planned with a permanent line, incorporating a circuit breaker (GFI). Always use wiring and connectors designed specifically for outdoor and water garden use, and have your system installed by a qualified electrician.
- When choosing fish and plants, visit the aquatic section at Town & Country Gardens for help and advice.

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