

Wilmette Pe *"the place for people u"*

Ponds add a unique dimension to your home and yard: the sights and sounds of moving water are very relaxing, and they can attract beautiful butterflies, birds, and other wildlife to your yard.



Creating your pond:

Building your own pond is not as daunting a task as most people think; instructions can be found all over the internet (check out This Old House's step-by-step instructions [here](#) or [this Wiki How](#) page). There are also a variety of companies that can do all the work for you. Ponds can either be free form or created using premade liners. These are easy to use, as they are one entire piece and just fit right into the hole you dig in your backyard.

When planning your pond, look for a location that is not right under a tree or bushes; when the leaves fall. You want the pond to get a few hours of sunlight with some shade available. Place it where kids and pets can't easily get to it, and check with your city laws to see if a permit is needed to install a pond.

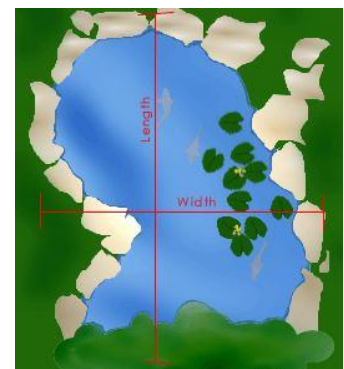
Container ponds are the easiest way to get started with ponds. You can use premade pond shapes, half-barrels, or any large container to hold water. These ponds are easier to maintain and easier to create, as they don't take up a lot of space and you don't need to do any digging. All the maintenance is the same for in-ground ponds (there are a few other things you need to do to get it ready for winter, though.)

Pond size:

Knowing how many gallons are in your pond lets you figure out how many fish you can stock, and is important if you have to medicate. If you've used a premade pond liner, the manufacturer lists the gallons. If you built your own pond, or inherited it with the house, you need to use some math to figure out the size of your pond:

Square or rectangular ponds: multiply the length x width x depth x 7.5 to get the gallons

Circular or oval ponds: $3.14 \times \text{Radius} \times \text{Radius} \times \text{Depth} \times 7.5$



Odd shape ponds: Avg. Length x Avg. Width x Avg. Depth x 7.0 You could also try to mentally break an odd shaped pond into various circles and oval, figure the gallons for each, then add them together.

Calculating the gallons in a pond can be tricky. Only if the walls are completely vertical and there are no plant shelves can we be completely accurate in our calculations. For best results with irregular shaped ponds and ones with varying depths, the key is to get averages for all of your measurements, then use the formula.

Filtration:

Filtration in ponds is just as important as filtration in your fish tanks. It helps aerate the water,

physically removes debris, and processes ammonia and nitrites through biological means. As with your aquarium, it's better to over filter your pond. Having a higher rate of water turnover will process ammonia out faster and keep your pond healthier. A lot of pumps have attachments that can turn them into works of art, beautiful sprays of water that also help to aerate the pond.



Our pond, with a fountain feature on the filtration

Barley straw has been used for a long time to naturally control algae and keep the water clear in ponds. As barley straw decomposes, it releases a chemical that inhibits the growth of algae. The process requires the straw have access to oxygen and sunlight. It produces no toxic compounds and is environmentally safe. Place a bale of the straw in the water current and close to the surface to ensure proper decomposition.

Prepping your pond:

Whether it's a new pond or one you're bringing out of hibernation, there are a few products that will make your pond easier to maintain and enjoy.



MicrobLift PL- This additive is a concentrated form of the beneficial bacteria that forms the ecosystem in your pond. The bacteria help break up and debris in the bottom of the pond, and help reduce the ammonia and nitrites, keeping the water clear and clean. It also helps reduce fish loss and prevent infections from taking hold.

API Stress Coat - Filling your pond with water from a hose presents the same problem it does in aquaria: chlorine and chloramines. These tap water additives are meant to protect us from water-borne pathogens, but can be detrimental to the beneficial bacteria that helps keep your pond clean. Chlorine and chloramines can also damage a fish's sensitive gills, making it difficult for them to absorb oxygen. Stress Coat neutralizes these additives instantly, making your water safe for fish.

Pondzyme Plus - Ponds will begin to accumulate a thick layer of gunk on the bottom - debris and detritus, organic materials like leaves, especially if you are restarting a pond in the spring. Pond-zyme contains powerful enzymes to help breakup and eliminate these materials, which can be a source of ammonia spikes in your pond.



Plants:

Pond plants play the same role they do in your aquarium. They help remove ammonia and add oxygen to the water. They also help shade the water and provide shelter for fish. Plants should cover 40 to 60% of the surface; too many plants in a pond can interfere with the oxygen and gas exchange, causing problems in the pond. Plants also beautify your pond; with gorgeous flowers and beautiful foliage.

Some common plants for ponds are:

Water hyacinth - These floating plants are known for their beautiful blooms and lush foliage. They love the sunshine, but if left unchecked can take over a pond quickly. Their large root systems make great hiding places for fish and the micro-organisms they feed on.



Duckweed - Duckweed's claim to fame is that it is the world's smallest flowering plant. While this floating plant is tiny but makes up for it by reproducing quickly. They make a great cover for small and baby fish, and their roots can reduce the nutrients in the water, helping prevent algae. Care needs to be taken that they don't take over the pond, as too many can reduce the oxygen in the water. Creating some currents can help, as duckweed prefers slow moving or still water.



Water lilies and lotus - These are such a common sight in ponds. Their large leaves sit flat on the surface, and they can send up some of the most stunning flowers. These plants should be put in pots that sit on the bottom of your pond.

Rushes - These marginal plants live on the edge of your pond. They can provide some dramatic contrast and height to your pondscape, giving it a more natural look. They need to sit in bucket in the shallows, with water covering the roots but with the crowns rising about the surface.

Animals:

Mosquitofish - These simple livebearers have been used for a long time as a natural mosquito control. They fish eat tons of the mosquito larvae - hence their name. Zebra danios and guppies can be also be used. Although they stay small, they provide a lot of motion and activity in your pond.

Tadpoles - These aquatic creatures will eventually change over to frogs, filling the evening air with their croaks and calls. They're great for eating up a lot of the pest insects people find in their back yards, too.

Goldfish - Any goldfish, from simple comets to fancier fantails can be used in ponds. Adding fish with lighter colors can make them easier to see. Even comets can grow quite large in a well cycled healthy pond.

Koi - These fish are kind of the reason for having ponds! While technically members of the goldfish family, koi really belong in a class by themselves. Through centuries of selective breeding, people have created some truly stunning fish. They were bred to be seen from above, so they have wide, flat pectoral fins. Their colors can range from red and white to blues, black, and cream. Some fish have metallic scales, others have long, flowing fins. The color combines with different patterns to form over twenty recognized varieties. Koi can go from \$50 to \$300, with the most expensive koi ever sold going for \$2.2 million!



Mosquito control:

Standing water is a big concern for mosquitoes. Mosquitoes can be carriers for disease, and any standing water can be a potential breeding ground for these pests. Preventing mosquitoes from using your pond as a breeding ground is actually quite easy; since they require very still water to lay their eggs and for larvae development, keep the water circulating to block them. A strong pump or water feature have the added benefit of creating a lot of current in your pond. Fish, as mentioned above, are a great natural way to control mosquitoes and their larvae.

Wildlife:

Ponds will attract all sort of wildlife to your yard. Some of it you want: various species of birds can take up residence, using your pond as a source of water. Frogs will often migrate to ponds, filling the evening with their song.



Some animal visitors are less desirable. Herons have learned to search the suburbs, as they make handy places to find water and food. Raccoons are the other biggest natural threat to your fish. They love to sit on the sides and fish for their dinner. And while it can be really fun to watch these animals in your yard, they can quickly empty your pond of all those beautiful fish.

There are ways to protect your pond and fish. Since herons are solitary hunters, if they see another bird at a pond, they'll find another dinner place. Placing a plastic heron next to your pond will trick any herons flying over that this particular buffet is already occupied. To frustrate raccoons, provide plenty of places for your fish to hide. One favorite is a cinder block, laid on its side. The openings give fish a place to hide out when predators are nearby. Turning off your water features, fountains and waterfalls, at night can help reduce the chance of attracting undesired wildlife.

A backyard pond with running water, floating plants and darting fish can make a bland space breathtaking, and add value to your home. It can attract interesting wildlife to your space and even help reduce stress.