

#### Pond Care Guide

# Calculating the size of your pond

Whether you are installing a new pond or maintaining an established water garden it is important to know the size of your pond. To calculate your pond size, follow these simple steps:

For a rectangular pond:	
Measure the length, width, and depth.	
(L) $x$ (W) $x$ (D) = cu. ft.	
cu. ft. x 7.5 = gallons	
For a circular pond:	
Measure the diameter of the pond.	
	cu. ft.
cu. ft. x 7.5 = gallons	

## Stocking your pond

Fish: One inch of fish per 1-2 gallons of water.

Fish eat pests such as mosquito larvae, aphids, and other insects. They also consume algae as a routine part of their diet.

Snails: One per 1-2 square feet of bottom surface area Snails consume fish waste and decaying plant matter. They also groom algae from plants and other surfaces in the pond.

Tadpoles: One per 1-2 square feet of bottom surface area

#### **Pond Plants**

Oxygenating plants: one bunch for 2 square feet of surface area

Press plants or cuttings into soil and/or coarse sand covered with  $\frac{1}{2}$ " -  $\frac{3}{4}$ " gravel.

Oxygenating plants compete with algae for carbon dioxide and dissolve nutrients.

They also serve as a spawning bed for fish eggs and provide protection for small fish.

Floating foliage: should cover 50 – 75% of ponds surface.

Floating foliage provides shade, keeps the water cooler, and prevents the growth of algae. More coverage is needed in sunny areas.

#### Water additives

Most city water sources are treated with chloramines as well as chlorine. Unlike chlorine, chloramines do not dissipate for up to 90 days and can be very toxic to fish. You should treat all tap water with a suitable chemical for removing the additives prior to adding fish or other pond life.

**Independence Nursery recommends:** 

Stress Coat Plus – reduces chloramine and chlorine levels

#### **Green Water / Algae**

Green water normally appears in all ponds during early spring before other plants have had a chance to grow and before beneficial bacteria has a chance to become active. This also happens with freshly cleaned or filled ponds rich in mineral salts. This is a natural process and takes time. Do not flush and refill your pond or the curing process will have to start all over again.

To prevent algae growth naturally you must establish plenty of good bacteria to remove the bad bacteria. This is achieved by providing a place for the bacteria to grow in the form of a rock bottom at least 2" deep.

Proper circulation also helps ensure that bad bacteria does not have the opportunity to grow in your pond.

Add beneficial bacteria to reduce the green water period and speed up balancing. It can take several weeks for the process to occur.

# **Independence Nursery recommends:**

Algaefix – Removes bad bacteria (for spring use)
Microbe-lift – Removes bad bacteria (for fall and winter use)
Ecofix – Builds good bacteria

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It is important to maintain an acceptable pH level in your pond. Extreme levels of pH can affect the health of your pond and the health of your fish. An ideal pH range for garden ponds is 6.8 to 8.0. Simple pH tests can be used to find the pH level in your pond. You should always test pH in the morning to obtain the most accurate reading, because plants and algae cause temporary increases in pH during the afternoon heat. When using chemicals to adjust your pH level, make sure that the level does not change by more than 0.5 units every 24 hours.

# Independence Nursery recommends:

pHUP – raises the pH level Phos-Out – lowers the pH level

# Fish care

If you notice that your fish have developed open wounds or damage to their tail or fins, it is important to treat the water with an antibacterial. This will help the injured fish heal faster and prevent infection in other fish.

## **Independence Nursery recommends:**

Melafix – antibacterial to treat ulcers, open wounds, and damaged tail and fin

Anchor worm, if left untreated, can spread to other fish and can be fatal to your fish. The most common symptom is the female worm embedded in the side of the fish in the shape of an anchor.

# Independence Nursery recommends:

Dimilin – controls anchorworm in ornamental fish

# **Closing Your Pond for Winter**

Late in October you should begin preparing your pond for the cold winter months. Keeping the pond clean is very important for your enjoyment and the health of your fish.

The first thing to attend to are the plants: grassy type plants should be cut back, leaving stems sticking out just above the water's surface. Hardy lilies should be cut back as close to the main root as possible. If the lily is still growing, remove the worst two thirds of its foliage. Store them at the bottom of the pond during winter.

Next, determine what kind of winter care your pump will need.

- If the pump is on the floor of your pond you will need to unplug it and disconnect any tubing. You can leave the pump in the pond as long as it is two or more feet deep.
- If the pump is located in a skimmer and pumps less than 3000 gallons per hour, you have two options: disconnect it for the winter, or put deicer in front of the skimmer opening. Disconnecting the check valve will allow you to drain any water from the biofalls and the line. Leave the disconnected pump in the skimmer for the winter.
- If the pump moves more than 3000 gallons of water per hour you can leave it running year round. It is a good idea to put a valve on your pump to reduce the water flow to half to prevent freezing. You may still want to place a de-icer in front of the skimmer opening. Run it as needed to guarantee an unrestricted flow of water throughout the winter. Don't forget to check the skimmer net for debris over the winter months. You may need to add water to maintain an adequate water level.

Fish will winter over in as little as 18 – 24" of water.

- Be sure that there is always an opening in the frozen pond surface. You can achieve
  this by use of a de-icer or by leaving your pump running if it moves more than 3000
  gallons per hour. Breaking the ice can harm your fish.
- Stop feeding your fish when water temperatures drop below 50 degrees. Their slowed metabolism can't digest man-made products.

If you have trees in the area of your pond, netting can be very helpful to keep falling leaves and other debris out. Leaves, nuts, and berries can be hazardous to your fish if left in the water. They should be removed as soon as possible. We recommend making a tent out of netting until all the leaves have fallen. Then simply remove the netting and discard the leaves.

Treating your pond with a heavy dose of bacteria at closing is also beneficial.

Independence Nursery recommends:

Microbe-lift - removes bad bacteria

## **Opening Your Pond in the Spring**

Proper care in the fall should make opening your pond in the spring very easy.

If you disconnected your pump during the winter, reconnect your pump and ensure it is running properly.

If you used a de-icer during the winter, remove it from your pond.

Begin feeding your fish after the water temperature climbs above 50 degrees.

If you notice algae beginning to build in your pond, treat the water to remove bad bacteria and encourage the growth of good bacteria.

**Independence Nursery recommends:** 

Algaefix – removes bad bacteria

Ecofix – builds good bacteria

# My Pond – Special Instructions and Notes Just For You

Installation Date:	Pond Size:	gallons
Pump Type:	Pump Size:	gph
Pump Model:	Pump Serial #:	
Recommended Chemicals:	Application Rate:	
Other Notes:		