

DETERMINING FLEXIBLE LINER SIZE (All dimensions in feet)

- Length of pond + (2 times the depth) + 2' = length of liner
 - Width of pond + (2 times the depth) + 2' = width of liner
- The bigger the pond, the less susceptible it will be to environmental stresses.

CALCULATING THE VOLUME OF WATER AND PUMP SIZE (All dimensions in feet)

To calculate the volume of water in a pond use the formulas below...

- For square and rectangle ponds, use: length x width x average depth
- For round ponds, use: radius squared (times itself) x 3.14 x average depth
- To figure the gallons of water in a pond, multiply the volume by 7.5 (there are 7.5 gallons of water per cubic foot of water)
- The water in the pond should be recycled every 1 to 2 hours. For example, if you have a 300 gallon pond, you will need at least a 150 gph pump. You will need a larger pump if you have a waterfall or a long stream.
- See our *#2 Water Gardens: Streams and Waterfalls- Determining the Proper Flow* care sheet for more information on pump sizing.

FILTERS AND FOUNTAINS

- In a properly stocked pond, the plants and fish will maintain a natural balance and the water will be clear. Filtration will aid in this process by removing organic debris from the water. A biological filter contains microorganisms that will break down waste. The filter should be large enough to circulate a minimum of 1/2 the volume of water each hour.
- See our *#5 Water Gardens: Algae Control and Pond Balance* care sheet for more information on filters and filtration systems.
- Fountain heads and statuary fountains may also be incorporated into your filter system. They are aesthetically pleasing and provide the pond with valuable oxygen by mixing the water with air.

LANDSCAPING AROUND THE POND

Waterfalls, fountains and aquatic plants add a dramatic element to the yard. The areas around the pond help accent the pond and bring all the elements of the landscape together. Try using a mixture of perennials, shrubs and evergreens to create a good balance of textures, sizes and shapes. Weeping specimens like Lace-leaf Japanese Maples, Weeping Larches or Spruces can add a unique focal point behind the water garden. Dwarf evergreens can add winter interest. Perennials like Hostas, Astilbes and Ferns provide good contrast to the marginals on the edges of the pond. Ornamental Grasses provide fall and winter interest even after the pond has been closed up for the season. For larger, natural ponds, try using Bald Cypress or Red Twig Dogwood along the pond edges. (To help reduce maintenance on the pond do not locate the pond under flowering trees whose flower petals are likely to fall into the water.)