

LD
5655
A761
M1159
760.100
C.2

Cooperative Extension Service
Virginia Polytechnic Institute and
State University
Extension Division

by Wesley P. Judkins

MH 100

Water gardens and pools provide unique interest and beauty in any landscape scene. If running water can be featured, the resulting action and pleasant sound, give additional appeal.

Except for the hazard a pool may present for small children, it is a very desirable feature for the residential property. Small pools may be constructed or purchased at relatively low cost. Larger units may be quite expensive to install and maintain.

Design and Location

A pool usually is a major point of interest in a garden or landscape. Therefore, it must be designed with care to blend with and complement other features of the surroundings.

A location in the sun should be selected. This is particularly true if lilies and other plants are to make satisfactory growth.

Formal Design

A formal pool of geometric shape is appropriate in a balanced landscape design setting. Such a pool should be located on level ground, and may serve as the center feature of a formal garden. Raised pools may be constructed as a part of a terrace. A wide coping provides a location for potted plants, or may be used as a seat.

A formal pool may be used in the corner of a garden where walls meet, as an accent feature in the center of a wall, or as a focal point at the end of a narrow garden. A small formal pool with a fountain may be used as an interesting central accessory for a rose garden.

Informal or Naturalistic Pools

An informal pool is a fine addition to the naturalistic landscaping which is typical of most residences in this country. The shape should be irregular to blend with the informal design of the home grounds.

Locate the pool where it can be a focal point in the landscape, or a feature in a rock garden. The edge or coping should be of native stones to blend with the surroundings. One side of the pool should have shallow water to permit the growth of bog plants. A partially submerged rock may be placed in this portion to give a natural appearance.

A waterfall supplied by a circulating pump, will provide added interest to the informal pool. The origin of the flowing water should be out of sight, and cascade over native stones in a natural manner. Be sure no concrete is exposed to destroy the impression of a natural waterfall. A freefall situation may be developed by installing an overhanging rock from which water drops to the surface of the pool.

Construction

Drainage

Provide support for the pool, and draining, with a 6 inch layer of crushed stone.

A removable drainage pipe should be installed for pools of all sizes, with a screen on top. This will allow excess water to drain out during a heavy rain-storm. If this is not provided, fish and floating plants may be washed out of the pool. The drain for large pools should lead to a tile which discharges at a lower level, to facilitate draining and cleaning the pool.

Prefabricated Pools

Prefabricated pools of fiberglass, plastic, or metal may be installed at any time when it is convenient to do the work. Such pools usually are not more than 16 to 20 inches deep and are suitable only for pygmy size water lilies, shallow water aquatic plants, or goldfish.

Reinforced Concrete Pools

Reinforced concrete pools are the most practical if standard size water lilies are to be grown. A depth of 36 inches is needed if water lilies and fish are to survive under the ice during the winter. If water lily boxes are to be removed, or stored under deep mulch during the winter, a minimum depth of 24 inches may be adequate.

An informal pool may have variable depths for various types of plants. A 12 to 15 inch depth is suitable for pygmy lilies, whereas a shallow area 4 to 6 inches deep is suitable for bog plants.

An ideal time to construct a reinforced concrete pool is during the late summer or fall. This will allow adequate time for the concrete to weather and neutralize the lime of the cement. This must occur before the pool can be used safely for fish. If it must be used immediately, fill and drain several times, scrubbing the walls with a stiff bristle brush. As a final treatment, scrub with vinegar and rinse thoroughly.

Pour the concrete for the bottom and sides all in one operation to avoid joints and cracks. For all but the smallest pools, the sides should be 6 inches thick and the bottom 8 inches. Insert reinforcing wire or 3/8 inch deformed reinforcing rods in the center of the concrete. The side walls should slope outward, and be quite smooth on the inside to allow ice to slip upward and not damage the pool. Harden and cure the concrete for 3 weeks under wet burlap.

Informal pools may be poured against tamped earth as an outer form, and a minimum of inner forms to hold the sloping walls. A formal pool will require complete outer and inner forms to secure the desired geometric shape.

The top of the pool should be level on all sides to avoid any unattractive exposure of wall. Extend the rim 1 or 2 inches above the surrounding lawn area, and cap with brick or tile coping if formal, or native stone if informal.

Care of Pools

Water may be left during the winter in pools with sloping sides, without danger of damage by ice. A few short pieces of log, floating on the surface may absorb some of the pressure of the ice.

Water lilies and fish may be allowed to remain in deep pools which have unfrozen water below the ice. In shallow pools cover the lily boxes with 2 feet of leaves, peat moss, or other mulch to reduce the possibility of damage by cold.

Scrub the pool thoroughly in the spring before adding clean water and plants. Remove floating leaves and other dead plant parts continually during the summer to prevent contamination caused by decaying vegetation.

Fish and Scavengers

Fish are a desirable addition to pools because they are attractive, and consume mosquito larvae. They may need a small amount of food weekly.

Snails and tadpoles may also be added to the pool to consume algae and keep the water clear.

Plants

Very small pools may be used for goldfish or for artistic reflection without plants. Bog plants, reeds and water lilies may be grown in larger pools. Do not over plant. Open water is necessary to set off any type of aquatic plant.

Native bog plants and reeds may be gathered from nearby ponds or swamps. Special decorative aquatic plants and lilies may be secured from local garden centers or mail order sources.

Water lilies are the most decorative plants for pools. They grow best in still, warm water. Moving water in a pool is satisfactory for fish but will seriously restrict the growth of most plants.

Standard size water lilies should be planted in strong wooden boxes at least 18 inches square and 12 inches deep. Use a rich soil mixture composed of 1 part dried or well-rotted manure, 3 parts of loam, and 1 cup of 5-10-5 fertilizer per bushel. Plant with the crown even with the surface of the soil, 2 inches below the rim of the box. Cover the soil with 1 or 2 inches of pebbles, crushed stone, or coarse sand.

Floating plants with attractive forms, colors and textures are available. They make shade for fish, and the dangling roots provide a place for the fish to spawn. Most of these plants are annuals. Simply drop the plants in water and let them grow.

* * * * *

An Educational Service of the Virginia Polytechnic Institute and State University
Virginia's Land-Grant University, with U. S. Department of Agriculture and Local
Governments Cooperating.

