Providence
AND THE GARDENER

Omnipotence

"St. Augustine described a miracle as 'something difficult, which seldom occurs, surpassing the faculty of nature, and going so far beyond our hopes as to compel our astonishment.' We marvel at miracles, not so much because of their wonder but because of their infrequency. It is a wondrous thing that wheat brings forth the harvest of wheat to feed all mankind; but it happens year after year. On the other hand, it is rare indeed that five thousand are fed with a few loaves and fishes. It is not that we should wonder less at the miraculous, but that we should come awake to the marvel of the ordinary, and wonder most of all at the Lord of the universe and the flashes of His omnipotence that gives us, with the same ease, both the miraculous and the prosaic."*

Providence

In the garden one sees the total ordering of life to God. Forms of soil life such as fungi, algae, bacteria, and earthworms cooperate so that leaves and cuttings, animal droppings, and other plant and animal residues are transformed into substances which sustain plant life. Directly, or indirectly through animals, plant life provides sustenance for life in man, who is called to incorporation in the supernatural life of the Mystical Body of Christ—the Church.

The Gardener

Gardening, properly understood, is a work of stewardship for the riches and artistry bestowed upon us by our loving and provident Creator. Therein lies its true dignity and meaning.

Seeds, plants, and blossoms are of God's established order. With true understanding of and humble submission to the principles of that order the gardener can tend his garden with confidence, peace and joy.

The Composer

Compose your garden design according to the centuries-old norms of beauty set forth by the scholastic theologians of the Church.

**Integrity** — the reflection of God’s unity and being in the completeness and wholeness of the garden form.

**Proportion** — the reflection of the justice, harmony, and peace of the Trinity in the order and fitness of the garden parts.

**Clarity** — the brilliance, luminosity, and splendor of God’s beauty shining through His creatures, the plants and blooms and their composition.

Be an artist; making prayer your intent, tradition your guide, and plant life your palette. Order the garden, whether one bed or several, to provide a harmonious and edifying design and setting for the plants and blooms which, by your stewardship, will come of the brush of the Divine Artist.

The Steward-Artist

Select the area or site for the garden. Next, make a drawing or sketch to compose the following elements of design.

**Enclosure** — the border or edge which sets the garden apart as distinct from its surroundings—“a garden enclosed.”

**Axes** — one or two imaginary lines establishing the basic divisions or symmetry of the garden area.

**Focal point** — a statue or wayside shrine of Our Lady; a Crucifix; a pool, etc. to give a center to the design.

**Bed or beds** — Harmonious in form and arrangement; and proportioned to the enclosure, axes, and focal point.

**Plants** — Mark location of plants on your plan. Choose plants proportioned to the beds and focal point. Select color, also sequence of bloom, spring through fall or, into winter. Choose for harmonious accent to the total design. For proportion, place several plants of each variety together. If you have a Mary’s Gardens Design and Plant Selection Guide take it into the garden; using that Guide: first regard the sun and shade requirements; next, consider colors (blue and purple, red, orange and yellow, white); then visualize according to season, height, and whether annual, biennial or perennial.

Plant Life and its Cycle

The gardener first gains understanding of God’s ordering of nature. He then orders his own garden in the light of that understanding, directing his work to the garden itself and to the greater glory of God.

As plants die to replenish the soil, or are consumed or used by animals and man, their life is perpetuated in a dormant state by seeds. These awaken and send out new roots and shoots when they receive moisture from the surrounding soil and when they have a certain temperature . . . sometimes with the help of light. As the spring days warm up, the proper temperatures for plant growth normally follow those at which seeds begin to sprout.

Once roots and shoots have started, their growth is sustained by soil, moisture, light and air. Moisture enables the roots to absorb soil substances in liquid solution. Energy from light is utilized by the plants, leaves to transform water and carbon dioxide from the air, in the presence of absorbed soil substances, into nourishment for the growing plant cells. Plant cells then consume this nourishment through a process of respiration, using oxygen from the air. As much as 98 per cent of the material with which the plant body is built may come from air and water —only 2 per cent coming strictly from the soil.

As plants grow the roots extend downwards and the main stem or trunk upwards, the branch stems sideways, and shoots are turned toward the light by the faster growth of their sides or parts receiving least light. Equally marvelous is the way the thickness of the trunk is proportioned to the size of the branches and the size of the root system to that of the shoot system.

The season of bloom of a plant depends upon its inner rate of growth and upon these outside factors: the beginning and maintenance of the temperatures required for plant growth; the weekly hours of sunlight and its intensity; and, in some cases, on a longer or shorter daily period of exposure to light . . . so that some plants bloom only when the days are long and others bloom only when the days are short.

Following pollination of blooms by insects, seeds are formed, dropped, and then scattered for a new cycle of sprouting and growth.

Sun, soil and moisture requirements can be stated in words, but only the loving care of the good and faithful steward will discover the most favorable conditions for each plant in a particular garden site.

Preparing

Before plants are started in the garden, it is important that the soil have a porous or spongy texture which will retain water and soil solutions, and at the same time drain off excess water so that air will be absorbed. If a porous, sandy soil does not drain away puddles of rain water, dig and mix
the soil deeper; or put in a layer of cinders, pebbles or drainage tile at the bottom of the bed to absorb excess water or carry it away to one side. Air in the soil is as important as water, as it is from air that soil bacteria obtain and "fix" into the soil the nitrogen required for plant growth. The minerals required for plant growth are present naturally in most soils in varying degrees.

Soil may be considered as a mixture of clay, sand and plant residues. Clay gives the soil body or retentiveness. Sand provides looseness and drainage. Plant residues provide sponginess, porosity and lightness... as well as sustenance for soil fungae, algae, bacteria and earthworms. Soils containing a balanced mixture of clay, sand and plant residues are referred to as "common" garden soils; those containing more or less clay as "heavy" or "light" soils; those containing more sand as "sandy" soils; and those containing more plant residues as "rich" soils. Most plants do well in common garden soil, but they frequently have preferences for heavy, light, sandy or rich soils. They may also have preferences for moist or dry soils.

Soil is conveniently enriched and made porous by mixing decomposed leaves, grass clippings and plant cuttings into it. These materials are collected in a "compost" heap or pile during the growing season and in the fall, and kept wet. By spring fungae, algae and bacteria will have decomposed them into rich, black leaf mold or compost, which can be spread on top of the soil and dug into it with spade or fork. This same digging also gets needed air down into the soil.

If good results are not obtained send a soil sample to the nearest government agricultural station for analysis and recommended addition of minerals.

Sowing

If you would honor Mary by growing her flowers, do justice to the seed. Treat seed with respect: Be faithful to seed requirements, so that God's riches and artistry locked within them may unfold as gifts to Mary, who unfailingly leads us to her Divine Son and Lord, Jesus Christ.

The conditions required for seed germination are few and simple: a certain temperature range, moisture and porous soil or other medium to bring moisture to and excess moisture away from contact with the seeds.

Sowings can be made outdoors at the proper time, but those seeds which require warm soil (65° to 70° F.) for germination can be sown to advantage indoors in two-inch deep containers of soil at a sunny windowsill—safe from outdoor flood, drought and disturbance by birds and animals.

Any containers will do—large or small—wood, metal, plastic or waterproof cardboard; boxes, cake pans, coffee cans.* Soil is made porous by mixing sand and leafmold, peat or similar materials with it, and moisture is provided by gentle hand sprinkling. Cracks or holes made in the bottom of the containers will drain off any excess moisture.

To make a sowing, fill each container with mixed soil, level the soil, and make one eighth inch deep furrows about 2" apart with your fingers or a pointed instrument. Shake seeds from a packet into each furrow, cover with soil to a depth of from two to four times seed thickness, mark the name of the seed on the edge of the container, and firm the soil. Then give a thorough initial moistening and place outdoors or in a windowsill providing the proper temperature. Give additional moisture only when soil becomes dry. Do not over-water. Annual seedlings should sprout in one week; most perennials in two to three weeks. As the seedlings crowd each other, thin them out promptly, or move some of them to other containers.

Seedlings can be transplanted to garden or nursery bed outdoors when they are about two inches high. Transplanting is accomplished by lifting each seedling and its surrounding soil with a small spoon or a spade and placing it in a hole made in the soil of the new bed—being careful not to injure its tiny roots. Press the soil in place and water thoroughly. Seedlings are best transplanted on a cool, cloudy day to permit an initial adaptation to their new surroundings before exposure to sunlight.

Early Sowing

Most annual plants require at least ten weeks from seed germination until bloom. In climates where the soil warms up in midspring, annuals seed sown outdoors will not produce blooms until mid-summer. For earlier bloom, such seeds can be started indoors six to ten weeks before outdoor sowing time... provided care is taken to "harden" or "toughen" the seedlings before they are given open exposure to the cooler outdoor night time temperatures. Hardening is accomplished by moving the containers of seedlings to a sheltered outdoor location for one or two weeks before transplanting to exposed garden beds. Before hardening, the seedlings are usually light green in color. Afterwards they are bluish.

Outdoor shelter is commonly provided by a "cold frame"—a wooden box with a hinged or removable glass top which permits the sun to reach the seedlings by day but protects them from the cold at night. Such a shelter is also useful as a means of starting seeds outdoors five or six weeks earlier.

*Full details of a Seed Starting Kit for the experienced and the beginning gardener are found on page 27.
than normal sowing time in exposed beds. On hot, sunny days overheating should be avoided by raising the glass top of the frame to provide ventilation.

Warm soil (65° to 70° F.) biennials and perennial seeds also can be sown to advantage in soil containers indoors or outdoors because of the greater ease in sowing and early tending.

Due to their slower growth, biennials and perennials seedlings are usually kept in nursery beds for one season, before they are moved to their final garden locations in the fall or the following spring.

When outdoors winter temperatures are not cold enough, or where a late winter or early spring sowing is to be made, cold soil (33° to 42° F.) perennial seeds can be placed in moist soil or other medium in a refrigerator. In six weeks or more such seeds begin to swell, after which they should be moved to a cool outdoor location for sprouting.

Tending

After seedlings and plants have been established in the garden, they require moisture, cultivation and weeding. Where the absence of rain makes watering necessary, a deep soaking once a week is better than light daily sprinklings. Cultivation or movement of the soil with a hoe or hooked fork kills beginning weeds, improves drainage, and breaks up any hard crust which might prevent air or moisture from penetrating down to the plant roots. Weeds ("plants out of place") are rooted up to prevent crowding of the plants intended for the beds. A soil cover or "mulch" of peat, grass clippings, or stones can help retain moisture and at the same time stop crust and weed growth.

Sticks and strings can be used to support tall, shallow-rooted annuals and slender perennial plants to safeguard them from being knocked or weighted down by rain storms. The picking of blooms prolongs the bloom period of many plants. Dead or diseased blooms, shoots or plants should be removed promptly. Some blooms should be left on the finer plants for pollination by insects and ripening of seeds.

Many perennial plants can be propagated by dividing their root or bulb clumps into two or more plants, or by developing new root growth from stems. New root growth is started by removing 1/2" of bark from a growing stem, and surrounding ("layering") it in moist soil; or by placing a small "slip" or "cutting," with three or four sets of leaves, into warm, moist sand.

The tending of plant life affords a profound analogy and reminder of our responsibility for the supernatural life in our souls, and in the souls of our children. Seeds and plants demand a constant earth and a constant gardener. Much greater is the demand for constancy in safeguarding, nourishing and cultivating the seeds of grace sown in human souls by Christ the Sower.

Dormant Life

Plant life has its rest: the plants become dormant. Biennials and perennials which lie dormant in winter need a covering.

To avoid root damage due to the successive freezings and thawings of winter, and to prevent spoilage by unseasonable warmth followed by a freeze, cover the ground and low plants with leaves, salt hay, or evergreen branches. Enclose tall plants, if they need protection, with burlap or stacked evergreen boughs. Remove the covering in late winter or early spring and be watchful as awakened life rises from out the garden beds.

Supernatural Life

The gardener is blessed when aware of Providence and natural life and as much aware of the Church and supernatural life.

Even with all of that the gardener may find it a difficult spiritual and intellectual discipline to apply Christian names, thought and religious sense to gardening as a work. So, too, communicating with others could be trying, if for no other reason, because the common usage of language in our day and place is not helpful.

The Church, holding ever to good and innocent expressions, never has cast off the terms of nature for descriptive and symbolic, instructional and religious purposes. For example, the homily of St. Germanus as found in the divine office of the Roman rite for the Immaculate Conception: "Hail, most pleasant and ordered garden of God, planted toward the East by God's own omnipotent hand, breathing up to Him the sweet fragrance of lily and germinating the rose that cannot wither, from which is pressed the draught for the cure of those who have gulped down the pestilential and fatally bitter poison of death. Hail, Paradise, where blooms the life-giving Word, whose taste produces immortality . . . Hail, God's mountain of lush grass and shade, whereon the Lamb and Word was strengthened to bear our sins and sicknesses . . . O holy bearer-of-God, immaculate, who bore the Word Incarnate, the Lamb Christ."

When Christian religious sense and expression are of the heart and in the daily living of gardeners and farmers, much that is in nature, and in the liturgy and symbolism of the Church may more readily touch the heart and quicken the spirit unto the things of supernatural life.
Location - Choose a location for your garden that has at least 5 hours a day of full sun.

Design - Sketch the outlines of your garden on paper, referring to the sample sketches in the "Our Lady's Garden" leaflet.

Digging - (1) Mark the outlines of your garden on the ground. (2) Dig up squares of grass sod to a depth of about 1 inch. Use sod to cover bare spots elsewhere, or dig into the bottom of your garden bed after clay soil has been removed. (3) Dig the ground to a depth of at least 1 foot. (4) As you dig, pile to one side the poorer clay soil from the bottom 5 inches and remove.

Soil Preparation - Shovel and rake the remaining soil to break up the lumps and remove stones. Then dig the following materials uniformly into the top 12 inches, to make it porous for deep penetration of water and air, spongy to receive and retain water, and fertile to nourish plant growth:

- River Sand (salt free): 20 cubic feet (20 100# bags) to each 100 square feet of garden area . . . for porosity.
- Humus (compost, leaf-mold or Canadian peat): 30 cubic feet (5 bales) to each 100 square feet . . . for sponginess and initial fertility.
- Fertilizer: 10 pounds per 100 square feet of mixed organic and ground natural-rock fertilizer such as Espoma Garden Tone \( \text{N}_4\text{H}_6\text{P}_6\text{O}_{12} \) (4% Nitrogen, 6% Phosphorus, 6% Potash) or Fertrell Super "3-7-3", which provide some immediately available nutrients for early spring growth, plus additional nutrients for gradual release through the year through the action of water, soil bacteria and earthworms.
- Lime: 8 pounds of crushed limestone per 100 square feet . . . to "sweeten" our usually acid Philadelphia soils to a slightly acid or nearly neutral condition. (Not necessary in the lime areas of some northwest suburbs.)

Soil Maintenance - After the first year, add 6 cu. ft. of humus, 5 lb. of fertilizer and 3 lb. of limestone each spring to replenish materials used by plants or leached away by water. Spread on top of the soil and use a hand cultivator or spading fork to work it in as deeply as you can without disturbing plant roots.

Planting - Outline the areas for low, medium and tall plants on your garden sketch and estimate the numbers of each you will need . . . allowing 6" space between low plants; 12" between medium and 18" between tall. Decide the flowers you want from the list on the reverse of this sheet and mark their locations on your sketch. Then, procure, sow and plant at the times indicated. For earlier bloom of annual flowers, seeds may be sown indoors in a sunny location in trays or pots 4 to 6 weeks before outdoor sowing time, and then transplanted to the garden, following instructions in the "Our Lady's Garden" leaflet.

Watering - Water your garden with a gentle hose sprinkling or soaking. Supply as much water as it will absorb without becoming mushy or forming puddles. Water again only when the soil looks dry on top in the morning or plants show signs of beginning to wilt (usually after 2 to 7 days in dry weather, depending upon heat and humidity). Thorough watering followed by drying from the top down induces deep root growth and draws in fresh air necessary for soil processes and root vigor. A 1" soil cover or "mulch" such as grass clippings or buckwheat hulls will decrease water loss and soil crusting in the hot summer months.
MARY GARDEN SEEDS, BULBS AND PLANTS AVAILABLE IN THE PHILADELPHIA AREA

Listing is by botanical name. Common and religious names are given on the attached larger list of 200 Mary Garden plants. Plants are coded: (L) - Low (to 1 ft.); M - Medium (1 to 2 ft.); (T) - Tall (over 2 ft.)

SEED - Available by mail order from Burpee's, Box 6929, Phila. 19132; or by retail from Dan Krensel, 22 S. 17 St. (large assortment), or hardware stores and garden marts throughout the city and suburbs. Color photos and sowing instructions on each packet. Some varieties also available at retail stores in spring as started plants:

- **Half-Hardy Annuals** - Sow outdoors after May 1 each year.
  Ageratum(M) Cleome(T) Impatiens(M) Mathiola(M) Tagetes(INT)
  Amaranthus(T) Coix(T) Ipomoea(Vine) Petunia(I) Tropaeol(Vine)
  Antirrhin.(T) Cosmos(T) Lagenaria(I) Rudbeckia(T) Zinnea(T)
  Celosia(T) Gomphrena(M) Lupinus(T) Silene(M)

- **Hardy Annuals** - Sow outdoors after April 1 each year.
  Briza(M) Chrysanth.(M) Gaillardia(M) Lobularia(L) Rudbeckia(T)
  Calendula(M) Coreopsis(T) Helianthus(T) Nigella(M) Scabiosa(T)
  Centauria(T) Delphinium(M) Lathyrus(Vine) Papaver(M)

BULBS & ROOTS - Available from same sources as seeds:

- **Half-Hardy Perennials** - Plant April to June. Store indoors in winter.
  Amaryllis(M) Dahlia(T) Gladiolus(T) Oxalis(I) Polianthes(T) Tigridia(T)

- **Hardy Perennials** - Plant in fall for bloom spring after spring.
  Colchicum(I) Eranthus(I) Hyacinthus(L) Muscari(I) Peaonia(T)
  Convallaria(L) Galanthus(I) Leucocium(I) Narciss.(M) Scilla(I)
  Crocus(I) Hemerocal.(T) 3 Lilium(T) Ornithog.(I) Tulipa(M)

PLANTS - Available from Dan Krensel in center city, and from many garden marts and nurseries in the city and suburbs:

- **Hardy Biennials** - Plant in April or May. Replace each year. Or, start from seed in June or August for bloom the following year.
  Althea(T) Bellis(L) Campanula(T) Dianthus(M) Digitalis(T) Viola(L)

- **Tender Perennials** - Not on attached list - Plant in May. Winter indoors.
  Fuchsia(M) - Mary's Eardrops. Florist's Geranium(I) - Gentle Virgin

- **Hardy Perennials** - Plant in April, May or fall. Bloom year after year.
  Aquilegia(M) 3 Dianthus(I) Iberis(I) Phlox(M) Veronica(T)
  Armeria(I) Dictamnus(M) Iris(M) Primula(I) Viola(I)
  Aster(T) Fragaria(I) 2 Lychnis(M) Santolina(M) Ajuga(I)
  Chrysanth.(T) Gypsophila(M) Myosotis(I) Tradescan.(M) Rosa(T)

TYPICAL PRICES: Seed Pkts: 25¢; Bulbs: 25¢-1.00; Plants: 50¢-1.50.

SOIL BUILDING MATERIALS - Available from hardware stores, garden marts and nurseries in the city and suburbs:

- Peat: 6 cu. ft. bale - $5.00
- River Sand: 100# bag - 60¢
- Fertilizers: 25# bag - $2.00-2.50
- Crushed Limestone: 25# bag - 50¢

MARY'S GARDENS is a research and educational project in gardening, using regular garden suppliers as sources for plant materials, except for:

- INTRODUCTORY "OUR LADY'S GARDEN" KIT of 10 Seed Packets and Gardening Instructions, available for $1.00 postpaid from Mary's Gardens address. Write for lists of house plants, educational materials and books.

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