

Capital Journal HOME PAGE

Development of Plants for Medicinal Use Interesting

By MARK M. TAYLOR

Some of the interesting aspects in combating insects and diseases in our gardens are found in the study of the origin of present day insecticides and fungicides. For example, centuries ago natives in tropical countries found that by pounding roots of two plants, Derris and Cube, and throwing them into streams the fish were paralyzed and easily caught. They didn't know why until much later, scientists discovered that only the cold-blooded creatures were affected and that warm blooded ones were not injured. Thus, rotenone came into being.

Caucasian tribesmen pounded flower heads of a member of the Chrysanthemum family, Pyrethrum, and used the powder to kill lice. This is one of the earliest insecticides, often called Persian Insect Powder or Dalmatian Insect Powder.

Antibiotics are in daily use to check human ills. There's nothing new about them. It is only that now we are beginning to learn something of these that Nature has produced since the beginning of time.

Antibiotics Not New
The use of antibiotics to control plant diseases is relatively new. Their use must not only control the spread of disease but must be harmless to humans or animals that may eat the plant. Thus they are still in the experimental stage. Several antibiotics have been found that will check the dreaded Dutch Elm disease, but when these are injected into the sapwood where the fungus is located the tree dies.

On the other hand, crown gall on a number of trees was controlled by penicillin or streptomycin. Apple leaf infections have been checked by Antidone and several other antibiotics. Hellebore, another contact insecticide and stomach poison, is derived from the powdered roots of Veratrum Album and Veratrum Viride. The former is the American Hellebore, also called "Swamp Hellebore," "Indian Poke," and "Itch Weed." Like rotenone and pyrethrum it is harmless to human beings.

Pyrethrum was probably used in the Orient thousands of years ago. Of the fungicides, sulfur has been known since antiquity. Linen was bleached with sulfur as early as 2000 B.C. Sulfur is mentioned in the Bible and Homer refers to it as a disinfectant.

In 1840 it is reported that "Flowers of Sulfur" (sublimed sulfur) was used in France to combat the grape mildew fungus. This form was too coarse for many uses and much contained sulfuric acid as an impurity sufficient to cause foliage damage to plants to which it was applied. However, the development of new processes have corrected this deficiency.

Tobacco Used
Tobacco was one of the first materials to be used as an insecticide. In 1763 a French paper recommended the use of finely powdered tobacco mixed in water with the addition of some lime to destroy plant lice without harm to the plant. It was not until 1809, however, that the presence of a volatile poisonous substance was discovered and recognized as an alkaloid and named nicotine.

Nicotine in its first commercial form was used as a sheep dip, then combined with arsenicals to control orchard pests, other than chewing insects. Nicotine sulfate is a highly flexible insecticide which may be applied as a dust or spray. Nicotine fumes have been best adapted to greenhouse use where one practice is to paint the steam pipes in the greenhouse, close the ventilators and turn on the steam. In large commercial operations, fumes have been used with special applicators, and some growers have stated that even wasps and rats are killed by the fumes.

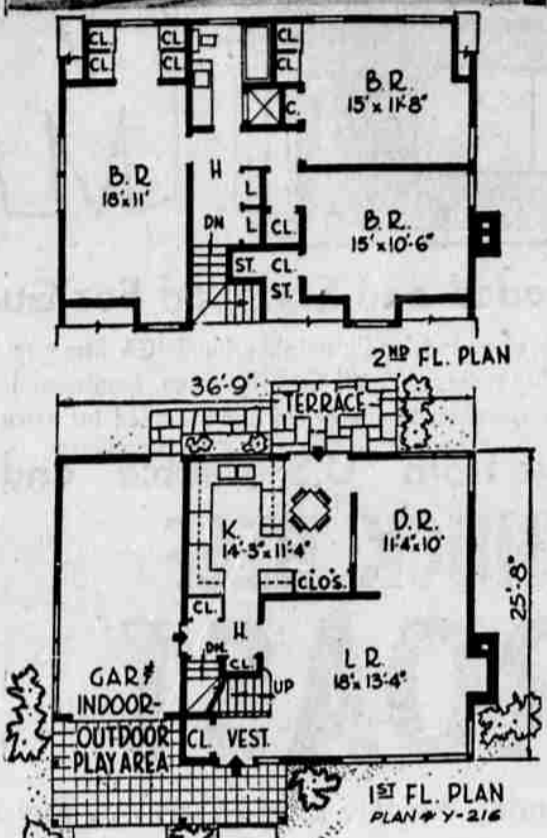
The state colleges and research stations, as well as private laboratories, are actively working on the control of plant diseases by use of antibiotics. It is a safe bet that before long we will be able to buy small capsules of antibiotics to use in our gardens either as sprays, to inject into the plant or to use in the soil to be taken up by the plant. The encouraging part is that expensive as these may be at the beginning, it will take only minute quantities to do the trick because such antibiotics are micro-organisms that prey on other micro-organisms and thus grow, multiply and increase their effectiveness. Thus, nature has provided its own system of checks and balances to keep the world from coming to an abrupt and dramatic end.

For many years lime-sulfur held a high place and was used more extensively than any other scalecide or fungicide. Dry lime-sulfur is dehydrated liquid lime-sulfur plus granulated sugar. It should not be stored near arsenate of lead as it has the property of uniting with it forming a lead sulfide. Soluble sulfur is used strictly as a dormant spray.

Weed Killers
Among the weed killers we find one called by the abbreviation TCP which is a hormone like chemical that is carried by the plant through the leaves down to the root tips, touching every part of the plant so it is entirely killed. It seems to destroy the green cells "chlorophyll" and paralyzes the cell walls of the plant so that proper functioning cannot take place. It is not that in the future we may be able to "mow" our lawns as we sprinkle them!

Fertilizer Realm
In the realm of fertilizers, too, history has shown some interesting developments that affect the home gardener. Nature provided an abundance of organic fertilizers when in the forest for centuries the leaves fell, insects and small animals perished, only to return to the soil. The rain washed residue into the ground making it available as plant food. Eventually, even the natives recognized the value of fertilizers by observing the lush growth surrounding those areas where animal manures were prevalent. It is well known in Indian lore that when they planted maize (corn) they planted a fish, too. Was this knowledge or accidental? History does not tell us, but it soon became a common practice—a forerunner of the fish meal and fish emulsion fertilizers so much used today. Science soon began analyzing the need of plants and formulated means of artificially supplying those needs with chemical substitutes. Even as man supplemented his own needs in many artificial ways, the needs of plants, too, were satisfied. Where certain elements may be lacking in the diet of a plant to promote growth, this can now be supplied simply, artificially, with use of chemicals.

HOMES FOR AMERICANS



A Cottage with two story advantages, this compact story and a half house includes a garage built into the house itself. The house covers only 922 square feet including the garage and provides 838 square feet of floor space upstairs. This is plan Y-216 by Herman York, 115 New Hyde Park Road, Garden City, N.Y.

Garden Notebook

By MARK M. TAYLOR

What to Do in August
Feed chrysanthemums, fuchsias, dahlias and vegetable garden now.
Prune berries of old wood after producing fruit.
Divide madonna lilies, oriental poppies and iris.
Cut off old and faded flowers from all plants.
Set out plants of broccoli, cabbage and Brussels sprouts.
Plant leaf lettuce, radishes, carrots, onions and parsley.
Keep plants well watered.
Set out balled evergreens.
Spray roses regularly, keep faded blooms picked off to encourage continued blooming.

Plant perennials.
Planning a new lawn? Work ground this month, fertilize and keep watered; to germinate native grass and weed seeds which can be destroyed before planting lawn grass next month.
Fertilize and water existing lawns, keep grasses growing well.
Order spring flowering bulbs from your dealer now for planting this fall.
Order peonies for planting next month.

Morris Clan Reunion
Mill City—Members of the Morris clan met at the home of Mr. and Mrs. Bert Morris of Mill City Sunday for their annual reunion. A pot luck dinner was served on the lawn on the bank of the Santiam river.
Mrs. Will Morris, 76, Portland, was the oldest guest present and the six-weeks-old son of Mr. and Mrs. Lake Smith, Oregon City, was the youngest.

Coming Events
Aug. 7—Five-ton Strawberry Club banquet, Multnomah hotel, Portland, 6:30 p.m.
Aug. 9—Oregon Jersey Cattle club annual picnic, Yasunia park, Newport.
Aug. 12—Annual hop growers field day, Oregon State college, East farm, 1:30 p.m., Corvallis.
Aug. 13—Vegetable field day, Oregon State college, 10 a.m.
Aug. 14—Peach field day, fruit experiment farm, Oregon State college, Corvallis, 1:30 p.m.
Aug. 16—Oregon State Farmers Union picnic, Chamboos park.
Aug. 17-22—Yamhill County Fair, McMinnville.
Aug. 20—First annual Production tested livestock auction sale, Oregon State college, Livestock pavilion.
Aug. 24-25—Linn County Fair, Albany.
Aug. 26-29—Clackamas County Fair, Clackey.
Aug. 28-30—Polk County Fair, Rick-Traill.

Questions Answered

BY MARK M. TAYLOR

Q—Mr. Taylor, will you please tell me what is to be done for snapdragon rust? The plants were put out a year ago this last spring and they stood the winter just fine. Got them on the west side and I notice many yellow leaves on my glads.—Mrs. M.M.E.

Ans.—1. Rust on snapdragons is a serious problem. The rust fungus destroys the leaves, stunts the plants. Fine sulphur dusted on frequently, beginning early, will control it if the condition has been evident for some time, you should destroy the plants and select a new location for planting next time. Spraying with Bordeaux mixture is also effective during growing season. There are rust resistant varieties now on the market that are 75% rust proof! In watering snapdragons, keep foliage dry to prevent spreading.
2. If the gladiolus leaves are yellowing and appear to be dying back you may have fusarium fungus. No way is known except to destroy all infected corms to prevent spreading. Some yellowing may be caused by thrips which may be controlled by a spray of one tablespoon Paris Green, 4½ teaspoons of tartar emetic (a dangerous poison) and 1½ cups of brown sugar to 3 gallons of water.

Q—Some of my rose bushes show wilting of the new growth. What causes this and what can be done for it?—T.H.M.

Ans.—If there are no signs of aphids or other insects and your spray program combated mildew then you may have a root gall or knot. There are special sprays prepared for this purpose. However, it is possible you have forced too rapid a growth and the sudden warm weather wilted the new growth.
Q—Seed pods have formed on my rhododendrons just ahead of the new growth buds. Should these be removed?—T.H.M.

Ans.—Yes, remove them so all energy will go into the new growth. If left, Nature will drop them off anyway but you are helping just that much. Be careful not to remove the new growth buds, too. Had the faded flowers been removed after blooming you would not have this problem now.

Q—I want to put in a hedge that will not reach over four feet tall, evergreen and not too expensive to set out. Please recommend.—E.K.

Ans.—Boxwood will be most satisfactory for your purpose. I believe. Buy small plants and they will not be too expensive but will grow to the desired size soon. Privet is an expensive but desirable hedge and while not evergreen, it retains its foliage until quite late. Holly makes a beautiful hedge, though a little more expensive. Camellia Sasanqua is gaining popularity as an evergreen hedge plant with flowers, too!

Q—Why do so many people frown on laurel as a hedge plant?—E.K.

Ans.—Laurel has an unusual root system and will rob adjacent plants of any available food. Its roots, also, may bother and clog drainage lines, septic tank outlets and the like.

Q—Is the saving of peony seed advisable?—L.T.

Ans.—No. If there should be a new variety from the seed it would only be by a wild chance that the seed and pollenized naturally. Best now to cut the old flower stalks just below soil level and destroy to prevent spread of any disease.

Q—Recently moved to a new house and found a vine growing in the garage. Can you tell me what it is and if it is worthwhile saving? (twig enclosed)—G.S.

Ans.—This appears to be a Kudzu vine, a very good twining vine with the botanical name of Pueria thunbergia. The flowers are violet-purple, its leaves are coarse. It makes tremendous growth under favorable conditions, putting out shoots as long as 60 feet in one season. It can be kept in bounds by pruning. It may kill back in winter but usually comes through in spring. Flowers are often hidden by the large leaves. By all means keep it unless some other vine suits your purpose better.

Q—What lawn grass mixture do you recommend and the amount needed to cover 9500 sq. ft.—B.B.

Ans.—Dealers have prepared mixtures that are fine but if you prefer to mix your own I would suggest ¼ Chewing Fescue, ¼ Seaside Bend, and ½ Kentucky Blue Grass. You will need about 24 lbs. of seed for good coverage.

Q—Should you fertilize before sowing grass seed?—B.B.

Ans.—Yes. Use a 0-4-4 formula. There should be enough nitrogen in the soil to take care of starting grasses but phosphorus and potash will be needed to insure sturdy growth and a good root system. Fertilize, irrigate and let stand awhile, then stir the soil slightly before sowing seed.

Q—How can I keep tree roots from creeping into the lawn?—R.S.

Ans.—Dig a trench 6 to 10 feet from a 12-inch trunk to a foot below lowest root that reaches that far. Apply with a trowel all the monohydrate copper sulfate, dry, that will adhere to the sides of the trench. When the roots reach this they will rot off. (This is good for cleaning drain tiles or septic outlets, too!)
Q—My Oriental Poppies have finished blooming. What care should be given them now?—R.C.

Ans.—Cut back the bloom stems to a two-inch stub. New growth will start in Fall, so don't be surprised.
Q—What soil should be provided for a garden planting of ferns?—Mrs. R. H.

Ans.—Any damp ground in semi-shade or full sun is ideal as they are relatives of the jungle ferns that thrive in such places.
Q—Are tree peonies winter hardy in this area, or if not what protection is needed?—Mrs. B. K.

Ans.—They need no protection after the first winter.

Make Do



A discarded section of a picket fence makes a fine ramp for beaching a rowboat on a rock-covered shore where boats are in danger of damage. Picket points can be quickly sawed off and ramp can be anchored with stakes.

Hubbard

Hubbard — John Doubrava was taken to a Portland hospital Friday for amputation of parts of two fingers of his left hand, injured when the shell in a mole trap he was setting exploded. He was brought home Sunday in good condition but will be unable to work for

awhile. He is employed at the Berkeley garage. The George Waddingtons drove him to and from the hospital.
Guests of the George Waddingtons this week are his brother and wife, Mr. and Mrs. John Waddington of Denver, Colorado.

Webfoot

Webfoot — Mr. and Mrs. Clarence Warner and their son and daughter-in-law, Mr. and Mrs. Marion Warner and their small daughter, Pamela, of Webfoot district, attended the annual family reunion of the Dey family held at the home of Mr. and Mrs. Lewis Dey near Lorane, Ore., August 2.

There were 25 members of the family present.
Mrs. Clarence Warner was the eldest member of the family present and Pamela Warner was the youngest one attending. She was born April 13.

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