

Millions of Blossoms... Vegetables and Fruits... grown without soil by the marvel of

HYDROPONICS

The Easy Way of Gardening

The limitations of physical strength, garden space and climate need no longer deter any garden enthusiast from growing exquisite flowers and crisp vegetables at any season of the year. Intensive scientific research has proved the practicability of GARDENING WITHOUT SOIL. By the use of simple apparatus, tanks or crocks, and the scientifically-balanced chemical solution, almost any plant can be easily grown to luxurious growth in small space... a yard, verandah, etc. The possibilities are endless.

We read of grain grown on trays, in cabinets, fed on mineral salts, with controlled temperature and light, producing in ten days fodder on one square foot to feed a dairy cow for a day! Of prize quality blossoms—carnations, roses, hydrangeas, etc.—grown in an unbelievably short space of time to flawless beauty: of strawberries in mid-winter; of 20lb. of tomatoes from one vine grown in a small crock; of the ease with which cuttings and seeds are grown; of agricultural importance to the farmer too, this scientific feeding of plants, in the avoiding of "sick soil" and animal diseases, and so, too, ultimately affecting the health of man.

THE THOUSAND-DOLLAR RADISH

On the low-lying and lonely Wake Island Pan-American Airways faced a unique problem of finding fresh vegetables for the Airways Inn, which provides meals for travellers, the company's staff, and for out-bound planes. Wake is a coral isle, whose sands are of too recent vintage to have nutrients sufficient for vegetables or flowers.

All the fresh water available is that caught on roofs and stored in cisterns. On Midway, where the Pacific Cable Company has maintained a station for half-a-century, every supply vessel has brought a shipment of soil each month for fifty years, and thus a sizeable truck garden was slowly built. But Midway has the water which Wake lacks, and the Pan-American supply ship comes but twice each year. A Hydroponics garden appeared the one and only answer, and that's how come Doctor Gerick's first soilless desert farm is on an island in the middle of the ocean.

Within two months after he set foot on Wake, enthusiastic Mr. Laumeister delivered

the first "thousand-dollar radish," as it was called by incredulous guests, to the chef of the Airways Inn. Another month and he had lettuce, cucumbers and carrots for them. At four months his tomato crop came in. At the end of six months, an executive of the company out of curiosity radioed to ask what crops the garden had produced that week. Back came the message, "From one hundred and twenty square feet of garden we picked this week thirty-three pounds of tomatoes, twenty heads of lettuce, twenty pounds of string beans, fifteen pounds of squash, forty-four pounds of corn."

The story of Hydroponics is a fascinating one. It has long been used with increasing success in other countries, particularly America. The formation of the Hydroponics Institute has enabled it to be offered to New Zealanders with the assurance that adequate supplies of chemicals, etc., will be always available.

Its membership in New Zealand now totals over 2000, and includes well-known farmers, gardeners, nurserymen and hobbyists, enthusiastically enjoying the opportunity that the Institute offers them to develop this splendid study.

Demonstrations given at the Centennial Exhibition created intense interest—strawberries were grown to luscious perfection of colour and flavour, tomatoes were enviously eyed and many plants of all kinds were grown within a few weeks, and under difficult conditions.

Nurserymen and market gardeners are helping other members with their knowledge, and are finding many practical uses for soilless culture, particularly in raising seedlings and out-of-season produce.



SAND OR GRAVEL CULTURE

The sand culture method includes any system that uses inert material to anchor the plants, whether it is sand, gravel, pumice or cinders, and through which the nutrient solution is applied to the surface and permitted to seep through as a food supply. Cinders have proved exceptionally good. Apparently there are certain minute quantities of materials in cinders which are beneficial to most plants.

CONSTANT DRIP SYSTEM

The constant drip system also is one which should appeal to the beginner. It is very efficient because, as the solution flows through the medium, it draws fresh air after it.

Sand of a gauge between one-sixteenth and one-quarter inch grains is most suitable. If the only sand available is that derived from limestone, it would be better to use cinders.

NO MIXING OF CHEMICALS NEEDED

The chemical nutrient is supplied in mixed form. All that is necessary is to dissolve it in the quantities advised and use as directed for either tank, sand, gravel, cinders or drip culture—according to the method the gardener finds most convenient for his special conditions.

HYDROPONICS NOT AN EXPENSIVE STUDY

The running cost may be gauged by the fact that the whole Hydroponic display at the Centennial Exhibition averaged 1/6 per week for minerals, thus feeding all the

Snapdragons (Antirrhinums) raised commercially in gravel at West Chicago, Illinois. It is not, of course, essential to provide such cover as indicated here, which is to give greater perfection for commerce.

dozens of tanks in the main display, plus all the row along the outer fence. So that the cost is negligible. The method of joining the Institute, and so gaining the advantage offered by bulk buying of chemicals, literature, equipment, etc., is as follows:—

Accept one of the following offers to further your interest in Hydroponics:—

1/- stamps, P.O. or cash brings you illustrated magazine, "Hydroponics," packed with all the latest news from members and overseas authorities.

10/6 enrols you as an Associate Member and entitles you to the comprehensive Manual Study Guide, including plans and diagrams of suitable tanks; the quarterly publication "Hydroponics" for one year; mineral salts for 50 gallons of nutrient solution.

21/- enrols you as a Life Member and entitles you to all necessary supplies for full 12 months, with privilege of obtaining future supplies at cost.

Life Members receive free on enrolment:

1. Minerals for 25-gallon tank for 12 months' supply.
2. Comprehensive Manual, including plans and diagrams of suitable tanks.
3. The quarterly publication "Hydroponics" for first year.
4. A liberal supply of sundries, fibre, wood wool, etc.
5. Free 5-gallon tank, complete with wire tray, all ready for use.

FILL IN THIS COUPON

To the Secretary,
HYDROPONICS INSTITUTE,
Dept. L, P.O. Box 632, WELLINGTON.

I enclose herewith.....
Please rush information and supplies to:



SEND FOR
ILLUSTRATED
MAGAZINE



Radishes! Grown in fairly large gravel and no soil whatsoever. The pebbles are sufficiently large to allow the nutrient solution to percolate freely through the roots and eventually into the catchment area.