

RA - TOR
Radium Fertilizer



Soil properly treated with Ra-Tor Radium Fertilizer will double the crop yield and improve the flavor and general showiness of plants of all kinds. Trees, flowers, shrubs and lawns show a marked increase in glossy, luxuriant growth. Read what able scientific investigators say of this wonderful plant stimulant.

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THE idea of using Radium—the most precious of all substances—as a fertilizer at first thought seems strange and illogical. Such a use has not become common because of the great scarcity of Radium. It's beneficial, stimulating effect on plant growth, however, has been established by repeated, scientifically-conducted tests. A quantity of Radium so small, that if separated in a pure state would be invisible to the unaided eye, properly disseminated over one acre of ground, will double the plant yield. It is a well known fact that the energy of Radium is 300,000 times greater than any other substance. Soil, water and air are all slightly radioactive, the penetrating cosmic rays are universally present, and it is becoming more and more evident that radioactivity is the mainspring of life—the vital spark.



A potted bulb, kept in the dark, rots and dies, but under the influence of Radium—in total darkness—it develops and blooms. Many scientists the world over have attested to the stimulating effect on plant growth. Dr. Charles Stewart Gager says, "The rays of Radium act as a stimulus to protoplasm—acceleration of growth indicates stimulation between a minimum and optimum point."

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Prof. Roux of the Pasteur Institute of Paris and Prof. Butler Burke of Cambridge University greatly stimulated plant growth by use of Radium. Bedford and Bright of the Harvard Medical School found seeds exposed to Radium were far more vigorous.



The classic research work in this subject was conducted by Dr. Julius Stocklasa, Director of the Chemical-Physical Institute of Prague, with a corps of able assistants and exceptional facilities over a period of seven years. He found that large amounts of Radium were toxic, but small amounts greatly stimulating;—that formation of starch and plant activity—even to blossoming—went forward in the dark;—that the sugar content increased, making finer quality fruits;—and also that Radium greatly increased the activity of nitrogen fixing bacteria in the soil with a resultant increase in plant food of 32% to 76%—a fact of tremendous importance. Dr. Stocklasa states, "All of our researches point to the fact that Radium emanations with a low activity favorably increased the caryokinesis of the cell, the entire development of the plant, the mechanism of metabolism, the photochemical assimilation in the chlorenchyma, bud formation and finally fruitification." The germination of seeds was increased from 70% to 130%. Drying and weighing

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two sets of plants, one treated with, and one without Radium, after 48 days growth, the radiated plants showed an increase of over 200% in peas, over 100% in beans and lupines and nearly 900% in barley.



In the United States, Prof. H. H. Rusby, Dean of the College of Pharmacy of Columbia University, has done some very excellent work conducting careful tests with Radium fertilizer on a hundred acre farm in Ohio and a two acre plot in New Jersey. Exact measurements against control plots where no Radium was used, showed increases in the Radium fertilized plants as great as 129% in New Jersey and 135% in Ohio. Using 100 pounds of Radium fertilizer to the acre on the larger farm the average increase in yield, over several varieties of crops, was 64.7%.

Prof. Rusby says, "The quality of the Radium grown vegetables was a matter of special comment by all who tasted them and this proved true of all vegetables raised elsewhere under the same treatment."

"The effect of the Radium fertilizer on a second crop on the same ground was greater than on the first."

"The earliest effect of Radium is to increase the root growth. Often the stem growth will be retarded for a time, but will later undergo a greater acceleration. Per-

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haps the most important effect of the Radium was that of improving the edible properties of the products. Potatoes were more mealy. Root crops were remarkably tender, sweeter and of finer flavor. Beets, carrots, sweet corn and similar vegetables were markedly sweeter. Tomatoes were also sweeter and chemical analysis showed them to contain less water and more sugar. Radium grown string beans and peas were of particularly fine flavor."



It is to be noted that lawn grasses have been particularly benefitted because of the special activity of Radium on young, growing leaf tissue. All observers have remarked the improvement in the showiness of flowers. Their coloring, texture and luxuriant flowering, and rich, glossy foliage so increase their loveliness as to make them appear, by contrast, as new sorts.

From other authoritative sources splendid results have been reported in treating the citrus fruits with Radium. These trees hold their set of fruit better and the flavor is decidedly richer. The foliage has a glossy, lively look, and the trees are more vigorous and healthy than trees in the same grove where no Radium was used. Fig trees treated with Radium fertilizer bore more fruit and came in earlier than trees in the same orchard not so treated. Melons with Ra-

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dium fertilizer were finely flavored, matured earlier, and were strong and luxuriant in growth.



Much of the good effect of Radium fertilizer is doubtless due to its catalytic action and the quickening of feeble natural soil disintegration processes. It comes under the heading then of a chemical fertilizer and does not replace such fertilizers as manure and straw which are needed for soil leavening. Radium fertilizer may be applied at any season of the year when it is possible to get it well into the ground. One application is sufficient for all time if it is done right and the soil is not washed badly. It should be placed a foot deep in garden soil and one to three feet deep around fruit and ornamental trees. The best method of applying Ra-Tor Radium fertilizer must be determined by the user in any given set of circumstances. No fixed rule can apply in all cases. Two things must be borne in mind, however, to insure success. **FIRST**, do not use a larger amount than is recommended. Over radiation is very harmful. **SECOND**, a perfect dissemination through the soil is all important. Do not mix the fertilizer in the soil carelessly. Clods and lumps must be broken up in order to mix the fertilizer evenly. Remember you are using the most highly energized substance in the world and it must be used sparingly.

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To save transportation costs this fertilizer is sold in a highly concentrated form and should be thoroughly mixed with the same weight of fine, dry sand before placing in the soil as the amounts used are too small to permit of ease in properly disseminating it. Garden plots, lawns and fields, radiated to a depth of one foot, require 100 pounds of Ra-Tor Radium fertilizer to the acre. One pound of the fertilizer is sufficient to treat a garden plot twenty feet square. Citrus and other fruit trees, fully grown, require more than other crops because of deeper radiation. Use from one to two pounds to each tree according to the size. The most efficient method of radiating trees is to make rings of holes around each tree, starting at a distance of 18 inches from the trunk, to a depth of two or three feet. Place a very small amount of the fertilizer in each hole, wash it well down with a cup of water, and fill in with earth, tamping lightly. Continue in this manner, always staggering the holes so they disseminate the fertilizer at different depths and as evenly as possible throughout the whole block of soil surrounding the tree. These holes can be made with a crowbar. Make the first circles three feet deep if possible, the second ones two feet deep and the last circle of holes only one foot deep.

All potted plants, and especially those excluded from the bright sunlight, should be treated with Ra-Tor Radium fertilizer in

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the following manner:—Prepare fresh soil and carefully radiate it with the fertilizer. Transplant the plants into this radiated soil allowing all old soil clinging to the roots to remain undisturbed. Use two grams—about a small thimbleful—of the Ra-Tor Radium fertilizer to a cubic foot of soil, mixing thoroughly.



We make up a beautiful device for activating all water plants. Placed in lily ponds, quiet pools or aquariums they vitalize and renew the chemical life-giving properties, stimulating plants to new beauty. Fish thrive and are greatly benefitted by these activated waters as Radium stimulates all life, both plant and animal. The prices vary according to the diameter of the pool to be activated. A device for a pool ten feet in diameter will cost \$5.00 and lasts for hundreds of years.



Ra-Tor Radium fertilizer is sold in one, five and ten pound bags at \$1.25 per pound, and in fifty and one hundred pound bags at \$1.00 per pound, transportation prepaid. Do not experiment with inferior substitutes whose radioactivity is due to short-lived thorium products. Insist on the genuine Ra-Tor Ra-

SPEC
Rare
HD
9539
R284
R30
19002
B/W

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dium fertilizer with guaranteed Radium content. Manufactured only by the Ra-Tor Mining and Manufacturing Company in their own laboratories at their Radium Mines near Tyrone, New Mexico. They also produce the famous Ra-Tor Plac for medicinal use, and Ra-Tor Beauty Clay, the new scientific beautifier. Write for literature.

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