

FERTILIZING BY FOLIAR ABSORPTION

The ability of plants to absorb internally many chemicals sprayed upon the leaves has developed a new method of plant feeding. 2-4D weed killers are absorbed thru the pores of the leaves and certain insecticides, known as systemic poisons are absorbed by the plant and kill insects that attempt to feed on the plants juices for months afterward. Because plants are not selective in the chemicals they absorb, only a true liquid plant food can show best growth response and safety of application.

Fifteen years ago, culture by hydroponics developed that plants can be grown without soil if the plant foods used are of purest form. It showed that soil bacteria etc. were not necessary except to make certain fertilizer materials available. With roots in gravel or cinders the fertilizing solution was absorbed and moved up thru the plant stems to the leaves unchanged in form. The complex manufacturing action for growth, which occurs in the foliage, completed the process and sap stream carried to other plant parts to nurture entire plant.

Fertilizing by foliar spraying of plant foods that agree with the plants growth processes, puts the elements for growth directly where they do their functions. Soil analysis is very valuable but often in comparison with tissue tests made of plants in the soil tested we find that the soil is rich in locked up plant food and the plant starving. Plants of all sizes, from seedlings to mature trees benefit from foliar feeding. Tree feeding by foliar absorption is of great economic importance. Trees in city parkways, where it is impossible to feed by the soil method, may be spray fed. In up to sixty minutes all the fertilizer so applied is absorbed and in the very place, the leaves, where the roots would translocate it by soil feeding. In from two to seven days the new color and growth is usually noted. Trees in clay or poor subsoil that are not doing well may be helped to health by foliar spraying fertilizer that could, perhaps in no other way, get into the sap stream. Evergreens readily take it in thru their needles and show very good growth response. A single treatment can not supply a trees needs for a season and three may be necessary but insecticides may be added to the solution to accomplish two jobs at one time. Improvement in lawn beneath trees sprayed may be seen due to drip from the leaves.

Of almost any plant, grasses are best able to benefit from foliar absorption of the true liquid solution. Nearly the entire plant above ground is storage for plant food. Low cut grass plants whether on greens, tees or fairway need a high amount of growth elements in the leaf in order to have the ability to withstand traffic of play and provide the close knit turf desired. An influence against clover and some other weeds is physiologically possible and has been reported but it is not fully known whether it has occurred because of the stronger growing grasses.

Plant tissue tests and reports from golf superintendents prove that the clippings from greens become a valuable fertilizer for use in flower gardens etc. due to the true liquid fertilizer that has been absorbed.

The run off of the applied solution is taken into the soil and becomes a supply between treatments, usually three weeks apart, for the quality of growth desired in modern greenkeeping. Because the applied solution is in ion exchange with the soil it does not become tied with other elements of the soil and so made unavailable for growing plants, and being a solution, a uniform depth of fertility is provided the soil. Of course fertilizing by foliar absorption method demands that the material applied should not be washed off or watered in after applying.

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BUYERS GUIDE

C. O. Borgmeier

June 30th is the year end for many concerns engaged in the seed, fertilizer and implement business. It is the time for harvesting instead of planting, the end of the spring rush. Machinery manufacturers now begin to plan their production schedules and models for next season. Seed crops are harvested and begin the process of curing and cleaning for another planting season. The fertilizer and chemical business, with tremendous tonnages involved, must secure the necessary raw materials for planned production.

The picture on every hand is one of shortages. Dry weather in the northwest has reduced Rye Grass, Fescues and Bent crops. In the middle west too much rainfall during June and early July has seriously interfered with the harvesting of Blue Grass and Red Top. There will be no large stocks of Grass Seed available for 1952. Lessened home building activity will probably reduce the demand and keep prices within bounds. Grass Seed is not covered by price control, however.

With Aluminum, Copper and stainless metals out of the picture for non essential use, the picture on mowers and other machinery for turf maintenance is very cloudy. Larger allocations of steel to mower manufacturers in the last quarter of 1951 may help, but right now the quantity and quality of machinery that may be available is very much of a question mark.

Reports from all over the country indicate good business at fee clubs as well as private golf clubs. New construction of recreational facilities is still banned, but this restriction will probably be eased or lifted if world conditions settle down and the probability of war becomes less. By next spring much dislocation should be ironed out and a clearer picture available in the recreational set-up.

BRIDGE BUILDING AT SYCAMORE

Emil Cassier, Superintendent of the Sycamore Park District, reports that he has just completed the construction of two new bridges across the Kishwaukee river on the Park District golf course. These bridges are 80 feet long and placed on 3½'x3½' piers, sunk 4½ feet below the river's bed. The framework of the bridges are 20 inch steel beams placed 6½ feet apart and cross irons welded in to lay plank on. The floor of the bridges is of 3 inch plank soaked in creosote and on top of this laid 3 inches of fine asphalt. Hand rails are welded on to steel beams. The cost of the two bridges was \$3500. Outside of a paint job once in awhile, expense and trouble should be kept down to a minimum and the bridges should last many years.

Emil Cassier has rebuilt his number 5 green, making the hole longer and the green larger than before. C-15 stolons were planted the last week in July of last year and today the green is in perfect shape.

Ira Jury, formerly foreman for the late Andy Gillette at Forrest Hills Country Club in Rockford, is now the Superintendent of Forrest Hills and is doing a fine job.

Ray Anders, Superintendent of Mauhahteese Golf Club at Rockford, reports that the 5½ inch deluge on Sunday, July 8, washed out some of his bridges and flooded the course.

Bel Mar Country Club at Belvedere, Ill. was still under water 4 days after the heavy rain. Six greens out of the nine were totally under water. Red Overmeyer is the new Superintendent at Bel Mar.

Amos Lapp reports that everything is in good shape at St. Andrews and that George Dahlman has things in fine shape at Coghill.

There have been reports of chickweed in putting greens. Pete Stewart reports that dusting with arsenate of lead has given good results.