PROPER FEEDING—FIRST STEP TO LAWN BEAUTY

Because scientists have found the humble blade of grass contains more vitamins than any vegetable now in the human diet, writers of sensational news copy have advocated "lawns for lunch." Paradoxical as it is, grass may be a high vitamin carrier but lawns themselves are invariably in need of food—not vitamins, but the plain, everyday necessities of the grass family.

Each of the millions of grass plants that make up a lawn is a living organism. It must obtain food and water from the soil and oxygen from the air. The quantity and combination in which these are available determine the vitality, the color and density of turf.

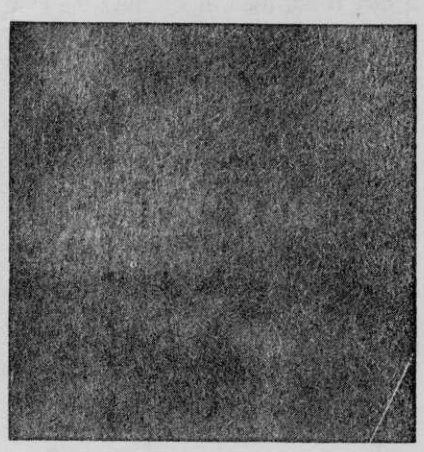
Unlike birds or animals, a grass plant cannot go wandering about in search of food. It must take what nourishment it can find in the limited zone of soil where it makes its home. Competing for the supply in the soil are 400 or 500 other grass plants on each square foot, all requiring more food for the continual production of green blades. Where soils are sandy or gravelly the rapid drainage of water carries away still further amounts of food.

The real exhaustion of fertility results from the growth of the lawn itself. In just one growing season, a single grass plant may develop as much as 36 inches of growth in stems and leaves. Unless the food consumed in producing this bumper crop is replaced, starvation must soon set in—and this is the most common cause of lawn failures. Such failures are easily avoided by a simple program of lawn feeding. The nominal cost returns generous dividends in green, healthy, weedfree turf.

The first and most apparent benefit of feeding is a richer, brighter and fresher color. This is what gives lawns their sparkle and makes them stand out in contrast to neighboring lawns.

A strong, sturdy growth is the second benefit. The deep, penetrating roots that result from feeding enable grass to draw on a larger volume of soil moisture, helping it to come through the summer triumphantly. The thick, vigorous topgrowth is more resistant to

A thin, starving lawn where weeds have a free hand.



This properly fed grass is deep-rooted, thick and weedless.

disease. If damage should occur from mistreatment, disease or insects, the well fed turf is better able to heal these injuries.

Moss is an often-present warning that soil is becoming deficient in plant food elements. Occasionally lime is needed but usually fertilizer is all that is necessary to drive out the moss and allow the grass to spread.

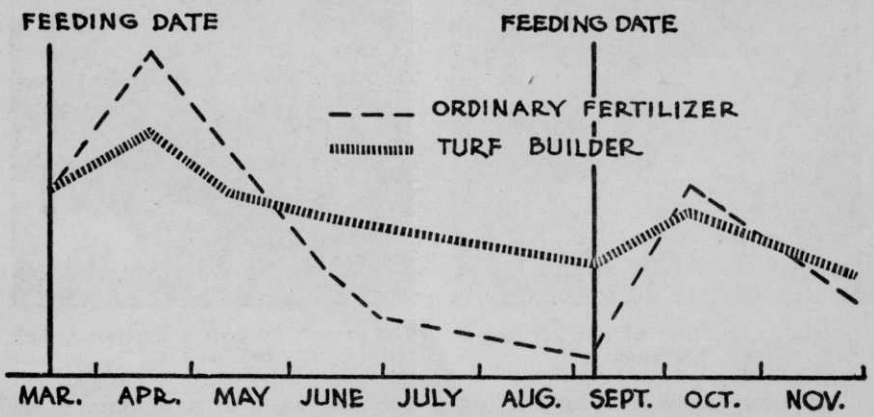
Curbs Weeds. The most valuable benefit from correct lawn feeding is that it keeps in check weeds which might otherwise flourish out of all control. These unsightly pests always frequent areas of wornout soil where the grass has become thin. Lawns weakened by lack of nourishment actually invite encroaching weeds. Weeds are the result of poor turf, not the cause of it. Well fed lawns become so dense, due to the reserve of soil fertility, that weeds are unable to make headway and soon disappear entirely.

The Right Food. All of these benefits will be of only temporary nature if care is not used in selecting the food that you apply. For instance, the bright green color will fade in just a few weeks' time instead of lasting for months. The topgrowth will be fast, spindly and soft, an easy prey to weeds, insects and disease.

The first step in choosing a fertilizer for lawns is to get one that is compounded especially to feed grass. A general flower and garden fertilizer won't do because it is prepared to encourage the production of blossoms or fruit. In contrast, the need in lawn feeding is to encourage green leaf growth and deep, sturdy roots.

Nitrogen, Phosphorus and Potassium are the only important soil elements which grass needs and which are deficient in most soils. Of these, the first is of primary importance because it is responsible for the green vegetative growth that is, after all, the lawn. A scientifically prepared grass food blends the three major elements so that Nitrogen substantially predominates.

The second step is to select a fertilizer with lasting powers. Common, general purpose fertilizers are composed entirely of minerals or inorganic chemicals. These dissolve in water and may be so rapidly absorbed that they result in overfeeding. This causes a quick but soft, lush growth. The effect is short-lived and there is no reserve left in the soil to fill the continuing



A specific lawn food provides a steady flow of nutrients between applications. An undesirable fluctuation in feeding results if a common fertilizer is used.

demands of the grass in periods between feedings.

The comparison to the human diet is that stimulation can be obtained from a beverage but real food that "sticks to the ribs" is needed to keep a sturdy body. Such solid or lasting food is supplied to lawns by organic ingredients whose effect is slow but durable.

The most beneficial lawn fertilizer is made of a combination of quick-acting chemicals plus organic ingredients. It gives immediate stimulation to the grass and provides long lasting nourishment in a steady flow.

The price per bag too frequently determines what fertilizer is purchased. The specifications for a good grass food as set down here are of much greater importance. The right fertilizer for lawns goes three to four times farther in feeding grass and in addition gives the best results. The lowest priced fertilizers are the most costly because they must be applied heavily and at more frequent intervals.

Manures And Peats. The use of manures is not as prevalent as formerly due to their scarcity, but many folks still have the erroneous idea that they are the best fertilizers. Such materials have little actual plant food value because they carry such minute quantities of available nutrients. A ton of manure is apt to provide a lesser supply of food than a hundred pounds of scientifically prepared grass fertilizer. Furthermore, manures are likely to introduce enormous quantities of objectionable weeds such as Crabgrass and Chickweed. The real benefit from manures and similar substances results from the humus they add to the soil, improving the physical rather than the chemical condition. They should be incorporated thoroughly in the soil before seeding or mixed with soil to provide topdressing material.

Other materials that fall into the class of manures, from the standpoint of being good sources of humus but negligible sources of plant food, include various types of peat, mucks, ordinary sludge and so-called "black dirt."

Lime is a soil amendment and helps to reduce excessive acidity but should not be considered a fertilizer substitute.

When To Feed. Feeding can and should be planned so it will produce the maximum lawn beauty for the greatest number of months. In spite of common experience to the contrary, it is not necessary to have a lawn off-color for more than a few weeks out of the year, and that only during near-zero temperatures.

Early spring feeding is advised to get grass off to a good start for the trying months ahead of it. Spring is the time when grass generates new roots and they can be made sturdy and far reaching by early feeding. In addition, this treatment places in the soil a reserve of those elements that the grass will need during the summer.

The first feeding of the year can well be made in late winter, while the ground is still frozen. Even if extremely severe weather follows, there is no appreciable loss of food.

Repeated feedings through the growing season may be needed if ordinary mineral fertilizers are used. It is much better to use the longer lasting types so that only two or three applications are needed each year, spring, summer, and fall.

A mid-summer feeding will help keep a lawn bright green in color and vigorous in sward. This summer application is especially needed when the lawn is growing vigorously all season because of frequent rains or regular watering. Care must be exercised in fertilizing in hot weather to avoid burn. The vegetation must be perfectly dry at time of application. Not more

than the recommended amount should be applied and afterwards this should be washed in well with the hose.

New grass should not be fertilized until the plants have matured, that is grown through two seasons. The soil of a new lawn planted in the spring should be fertilized well before seeding but the grass should not be fed until late fall.

The fall feeding helps grass recover from the effects of summer heat and drouth. It strengthens the roots and provides a supply of food for their use over the winter months. This is needed because there is root growth and activity even though the plants are dormant to all outward appearances. Fall feeding can be done any time after the nights start getting cooler until the ground is frozen solidly. This period usually extends from late August through November.

How To Feed. While it may be difficult to apply all-mineral fertilizers without some burning of the grass, this does not apply to fertilizers containing a substantial portion of organic ingredients. Regardless of the fertilizer used, it is always best to make applications when the grass is dry and at rates no heavier than recommended by the manufacturer. Special mechanical spreaders can be obtained at small cost to insure uniform distribution at correct rates or the fertilizer may be broadcast by hand.

SPECIAL PROBLEMS

There are certain special problems that necessitate a modification in the standard feeding procedure.

New Lawns. The incorporation of a liberal food supply in the seedbed prior to planting a new lawn is one of the best assurances of success of the lawn. No matter how dark or rich a soil may look there is pretty sure to be a need for additional nutrients if the young grass is not to be weak and stunted. Trial plantings and the experiences of lawn builders have proven conclusively that a carefully fertilized seed bed will more quickly develop a mature sod with deeper roots and fewer weeds.

Crabgrass. Many lawns become badly infested with the summer annual weed, Crabgrass. This pest makes its most active growth starting with the hot weather of June and July and continuing throughout the summer. Wherever it occurs, early spring feeding is doubly important so that the desirable grasses get the benefit and not the Crabgrass.

Shade. Grass under trees is at a particular disadvantage because tree roots compete so strongly for the limited nutrients in the soil. When one considers the food consumed in producing wheelbarrowful after wheelbarrowful of leaves, the tremendous drain on the soil begins to become apparent. It is generally advisable to feed the tree separately every few years by digging holes down below the grass zone and placing fertilizer in them. The tree roots are thus inclined to get their food from these reserves instead of from the surface soil where grass roots are confined. If tree-shaded lawns thin out in summer it often helps to make an extra application of food in early June.

Vitamins. Any article on feeding lawns would not be complete without reference to that seemingly magical word—Vitamins. This is especially appropriate now when there is so much talk about treating grass with concentrated solutions, particularly Vitamin B_1.

Since grass has the ability to synthesize vitamins, hormones and other growth substances in large quantities, there is no need to supply them separately. All that is necessary is to co-operate with Nature by supplying a well balanced diet, at proper intervals, and she will do the rest.