21st Year No. 100

Lawn Care

T.M. REG

PUBLISHED FIVE TIMES YEARLY FOR LAWNTHUSIASTS

LAWN SOIL CLINICS ESTABLISHED

A LONG-TIME research program on the fundamental problems of lawn soils has been inaugurated by O. M. Scott & Sons Company. The work is to be carried on at two of the country's outstanding independent scientific research organizations: Battelle Memorial Institute, Columbus, Ohio, and Boyce Thompson Institute for Plant Research, Yonkers, New York.

Many matters pertaining to lawn soils will be looked into, including the yet perplexing problems of acid and alkaline soils. It is known that pH measurements indicate the relative acidity of a given soil, but still further testing procedures are needed to determine the kind and amount of modifying agents required.

It isn't only acid soils that cause trouble. In some localities excessive alkalinity is becoming more and more of a problem and not much is known about offsetting this condition.

Better testing procedures are needed to determine soil reactions, materials to use when change is necessary and a simple chemical test that will indicate the amount of modifying agent needed and frequency of application.

Role of "Trace" Elements. Agricultural experiment stations have long been interested in the farm soil need of nutrient elements other than the traditional fertilizer ingredients. These include such trace elements as iron, copper, manganese, boron and zinc. Calcium and magnesium are also needed but in more than trace quantities. The role of these minerals in turf production has never been adequately explored.

A problem of grass growing in sections of the west has been that of chlorosis or temporary lapse of production of green chlorophyll during the height of the summer. There is a possibility that this may be associated with a shortage of trace elements, possibly iron.

Physical Soil Improvement. Before the automobile replaced the horse and modern city life made it impractical for families to have their own sources of milk and eggs, a steady supply of soil-building materials in the form of animal manures was usually

100th ISSUE

This unique bulletin service is now in its 21st consecutive year. While LAWN CARE has been reaching its majority, readership has grown from five thousand to an enthusiastic million.

available right on the property of those who wanted fine lawns. Now it's different and really quite a problem to obtain organic matter to improve the physical condition of a soil.

There is need for new materials or processes which will enable modification of the physical properties of soils at less effort and cost than at present. Such a search will be included as part of the soils clinic project.

Charting the Country. The sponsors of this soil research work visualize the accumulation of valuable data enabling them to identify soil conditions both physically and chemically in relatively small and distinct geographic subdivisions of the country. At least it is hoped to record the typical native soil in the more important suburban lawn areas.

Outstanding Organizations

It is fortunate indeed that the services of two such fine organizations could be enlisted for this soil research project. The Boyce Thompson Institute is slightly older of the two, having been established in 1924 through the generosity of Colonel William Boyce Thompson, the late copper magnate.

Besides endowing the institution, he turned over a large portion of his magnificent estate overlooking the Hudson. Although this land is now some of the most valuable in Westchester County, its use as a botanical garden and testing grounds has been continued. It is an ideal setup for research relating to growing things typical to the soils and climate of the eastern seaboard.

Battelle Memorial Institute of Columbus was envisioned and made possible through the generosity of Mr. Gordon Battelle. Since its inception in 1929, the Institute has grown until its staff of technologists and assistants now totals more than 1100. Active in many fields of technology, extensive studies of metals and chemicals pertaining to agriculture and horticulture are also included.

Soil Testing

Coincident with soil research, arrangements have been made to provide determinations of soil characteristics for those interested in lawns, golf courses or other turf projects. Facilities are being set up to study samples and to report on their physical condition, the pH and possible lime needs. Suggestions will be made as to the best management of the soil or soils in turf maintenance. Full particulars are printed on page 4 of this bulletin.

GRUB DAMAGE BLAMED ON OTHER CAUSES

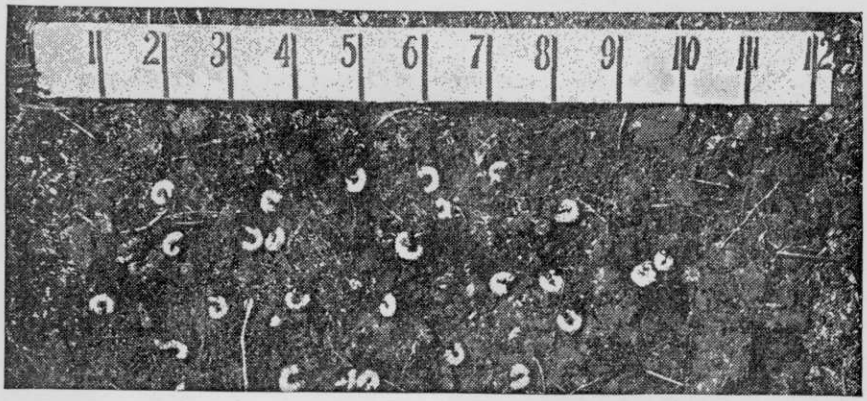
Reports of turf injury following applications of various materials were quite numerous in 1947. Investigation revealed that most of these were directly due to injury from grub activities or, in a few cases, Chinch Bugs.

A typical case history is reported from the Boston area. The owner had a beautiful lawn, green and soft following the excessive rains of early summer. It was not only the best lawn he ever had but "the best on the street."

But let him tell it:

"In June Plantain and Dandelions showed up in my lawn so I chose the new Lawn Food plus Weed Control to get rid of them and applied it with your spreader. Now my grass has turned brown in patches. It's an ugly sight and I'm burned up about it."

Who could blame him? Yet the treatment and results didn't make sense so an experienced man was dispatched to



COURTESY U S DEPT OF AGRIC

Beetle grubs cut off grass roots just below the surface so the sod can be lifted like a carpet. This severing may take several weeks but the actual browning of the turf appears suddenly. The damage is usually in the open sun and in scattered spots varying from six inches in diameter to several feet.

Authorities are not sure the resurgence of beetles in 1947 was due to failure of the milky disease spores to properly control grubs. They state that a large part of the increase in beetle population in Westchester and Nassau Counties of New York was in the species other than the Japanese. These included the Oriental and Asiatic Garden as well as the annual form of June Beetles.

Until it is known that the milky disease affects these species, it seems better to not depend entirely on the spores but to use the newer insecticides, like DDT and Chlordane.

have a look and this is what he reported: In examining a dead spot a large chunk of sod was pulled up like a carpet, typical of grub damage. Other evidence of their activities was there but not the grubs themselves as they had by then pupated and emerged as adult beetles.

Here is what had happened. Beetle Grubs had severed the grass roots just below the surface. The grass thrived without benefit of attachment to the under-soil as long as growing conditions were perfect. At best this condition could continue but a few weeks as the grass would succumb as soon as subjected to extreme heat or drying, or other unfavorable circumstance.

This process would be hastened by application of fertilizer or weed control, or fungicide, or almost anything used to treat lawns. In this case the treatment appeared to be responsible but actually it only hastened the demise, delivered the coup de grace, as it were.

DON'T BE TAKEN IN

Periodically some grass is advertised as a brand new grass species. Extravagant claims about amazing performances are made and the lawn owner, who has become discouraged, suddenly gets new hope. He wonders why these things haven't been told him before.

The Department of Agriculture and various State Experiment Stations know these new and revolutionary varieties or strains do not appear suddenly. The ones now used have evolved over centuries of time and the improvement has been and will continue to be gradual as are all changes in nature.

Lawns in general continue to improve over the years as better quality seeds are harvested and recleaned and as progress is made in planting and maintenance procedures.

HOW TO SUBMIT SOIL SAMPLES

The soil testing service announced elsewhere in this issue is available for checking soils of old lawns or new, samples of topsoil, topdressing materials, humus or "black dirt" or any material being considered for lawn use.

Better criticism of soil from established lawns can be provided if a sample of sod is submitted. This should be representative of growing conditions in the lawn. If these vary greatly it would be better to send as many samples as required to illustrate the variations. Keep each sample separate.

Taking Samples. Cut actual plugs of sod from the lawn using a trowel or flat spade. Have them at least 4 inches square and 5 or 6 inches deep. Wrap in waxed paper so sample reaches laboratory as nearly as possible like it was when taken from the ground. Tin coffee cans make good containers.

Topsoil or other loose materials should be as representative as possible. About a pint of bulk is required. Take samples from various locations and mix these together to make a composite sample. Do not mix soils that are conspicuously different. Instead send a sample of each type.

Mailing Samples. Advise by letter the number of samples being sent, stating the lawn problem or question. If soil is from an established lawn describe past experience in as much detail as possible. Do not enclose letter inside package as that would subject entire shipment to first class postage. Instead—

1. Place letter in envelope properly addressed and carrying letter postage.

2. Paste this letter to outside of package. Place address on package, also affix stamps to package at parcel post rates.

If letter and package arrive at laboratory together, the reply will be quicker.

TWO LAB LOCATIONS

O M Scott & Sons Co
Ridgefield, New Jersey

O M Scott & Sons Co
Marysville, Ohio

Samples originating east of Ohio and Kentucky should be sent to the Yonkers address. Otherwise they should be forwarded to Marysville except where the Jap Beetle quarantine is in effect.

Do not send remittance with sample. A bill for the services will be rendered with the report on the basis of a flat fee of $1.00 for the first sample, 50c for each additional sample submitted at the same time.

SIRS:

The Lawn Food plus Weed Control worked perfectly last summer. We have a lawn about 75 ft. by 100 ft. open to full sun and had a terrific crop of plantain this year. About ten days after applying the weed killer they were all gone, including the chickweed and dandelions. It was interesting too, that where I failed to "overlap" with the spreader in one row—there was a narrow row of plantain! A handful scattered on them put them under too. You may use my name any time for all your products.

JULIUS F. MULLER

Princeton, N. J.