

ILLINOIS NATURAL HISTORY SURVEY

Section of Applied Botany and Plant Pathology
Urbana, Illinois 61801 — September, 1965

COLLECTION OF SAMPLES FOR LABORATORY DIAGNOSIS OF WILT DISEASES

In making laboratory diagnoses of wilt diseases such as Dutch elm disease, oak wilt, verticillium wilt, and other wilt diseases, it is necessary to culture the disease-producing fungus from a tree showing wilt symptoms. To do this, samples must be taken from living branches with **actively wilting leaves**.

Dutch elm disease

Branch samples must show brown discoloration in the sapwood, either as a layer of brown streaks immediately under the bark or, embedded in the wood and visible on the cut ends of the branch sample. NOTICE: Samples of small twigs, dead or dry branches, bark, leaves, and elm branch samples **without** brown streaking are **not suitable for laboratory culturing and cannot be processed!**

Oak Wilt

Brown streaking may not always be present in branches that have recently wilted leaves. When streaking cannot be found, the collector should carefully select samples from branches that have both recently wilted leaves and green leaves. Oak wilt affects all oak species that grow native in Illinois.

Verticillium wilt

Many species of trees and shrubs are susceptible to the Verticillium fungus disease. Wood discoloration may be difficult to find in trees affected by Verticillium wilt. In maples, the wood discoloration is green; in ash it is tan; in magnolia, redbud, Russian olive and other trees it is brown. When streaking cannot be found, the collector should carefully select samples from branches that have both recently wilted leaves and green leaves. Shrubs should be sampled from the base of the wilting branch or stem.

METHOD OF COLLECTION

The branch segments should be collected from more than one wilting branch whenever possible. Samples should consist of **3 or 4** branch segments, $\frac{1}{2}$ inch in diameter and **6 inches long**. It is important to prevent excessive drying and exposure to high temperatures as most fungi cannot be recovered from dry wood.

The following information should be attached to each sample: 1. Collector's name and address; 2. Tree species; 3. Address or location of tree; 4. Date of collection.

MAILING OF SAMPLES

Branch segments from one tree should be grouped together and wrapped in a moisture-retaining material such as waxed paper, plastic bag, or tinfoil. Do **not** moisten samples as this only causes contamination. Samples should be mailed **immediately** after collection. If this is not possible, the samples may be wrapped and stored in a refrigerator at 40°F. for 24 to 48 hours. To avoid a weekend layover in the post office, samples should be mailed to the laboratory the **first part of the week**. Samples should be mailed to the above address.

The day becomes more solemn and serene when noon is past: There is a harmony in autumn and a luster in its sky which through the summer is not heard or seen, as if it could not be, as if it had not been.
— Shelley

Editorial

by Anthony Meyer
Superintendent Woodridge Golf Club

On July 19th, I was called by a Mr. Per Bye Ohrstrom of Maxicrop, U.S.A. Inc. as to whether or not I would take the time to show two English personnel of Maxicrop Ltd. C.B.G. on a tour of the Woodridge Golf Club, along with a Mr. Dennis C. Triplett of the Rockford Paper Mills, Inc., who is interested in trees, and wanted to observe the damage of the Locust, etc.

Here at Woodridge we do not have the dead terminal branches I have seen elsewhere, except on nine Elms that were flagging back since early summer.

Getting back to the two men from England, namely John Stevenson, son of the owner and founder of Maxicrop, and general manager John Ridgeon, an official of the company. They manufacture seaweed in fine, granular, concentrated, or liquid form. The raw product is taken out of the Atlantic ocean, washed, then ground, and made into powder. There is Pacific seaweed manufactured in California, along the coast, but it contains a higher sodium content. They tell me ground kelp is the main source of fertilizer on many golf courses in England.

It is wholly organic, and contains in addition to calcium, phosphorus, and potash, other major minerals and trace elements, and supplies natural plant hormones. It is used by Danada Farms of Wheaton as an additive in the feed ration of their race horses. It is also used as a foliar spray on fruit trees and vegetable crops. I have used it here at Woodridge in conjunction with other UF and inorganic fertilizers, and feel it has given good results. They took pictures of my bent C-15 and poa-annua greens, and Warren's A-20 and A-34 bluegrass tees. They were very complimentary and I enjoyed having them.

SEWERAGE COMMISSION OF THE CITY OF MILWAUKEE

Mr. Ray Gerber

Editor

The Bull Sheet

865 Hillside Avenue

Glen Ellyn, Illinois 60137

Dear Sir:

Thatch will be the subject discussed throughout the day and a half Wisconsin Golf Turf Symposium this year. The dates are October 24 and 25. Co-sponsors are the Wisconsin Golf Course Superintendents Association and our group. Outstanding, authoritative, speakers will cover all phases of the thatch problem. Among them are A. M. Radko, Dr. J. B. Beard, Dr. Doble, Tom Mascaró, Dr. Al Turgeon, Dr. Mal Shurtleff, Ted Woehrle, Clem Wolfram, L. G. Dubose, and C. G. Wilson.

Thatch is a greater problem on fairways than greens due to the acreage involved. This will be a major portion of discussions, so the Symposium will be of interest to everyone involved in any phase of turfgrass management.

We will appreciate your announcing this in your publication. This office will be happy to supply any further information needed.

Sincerely,

James M. Latham, Jr.

Chairman

Symposium Committee