cult to impossible. In fact, detailed laboratory and greenhouse pathogenicity studies frequently are necessary to supplement field diagnosis. Such procedure, as routine operation by the grower, is not possible. The logical approach to this problem, therefore, appears to be to develop an effective control for each of the important diseases singly, then to employ a combination of materials in a protective program against all of them. This would have the desirable feature of obviating the necessity of positive diagnosis. Such a program necessarily would involve soil treatment for the root and vascular diseases and foliar sprays for the leaf diseases.

Work has been underway for several years in Florida on control of celery seedbed diseases. In 1944 Townsend (*10*) reported on several years' work. He found that seed treatments were ineffective for the control of damping-off. The fumigants, formaldehyde and chloropicrin, provided a degree of control for this disease, but apparently were not completely satisfactory. He observed that use of these materials resulted in growth stimulation. Neither material has been used on celery seedbeds in the Everglades since Townsend's report. Townsend also tried several particulate materials—none of which showed any particular promise as pre-seeding soil treatments, and several were phytotoxic. Materials tested included ceresan (5 percent ethyl mercury phosphate), yellow cuprocide, basic copper sulfate, chloranil, ferbam and thiram. Both ferbam and thiram gave effective control of Rhizoctonia damping-off when applied as a plant spray (½ pound/50 gals., 15 gals./1200 sq. ft.), but prevented proper rooting of the seedlings. Chloranil also proved highly effective, but injury resulted when used at 2 lbs./50 gals. He suggested using 1½ lbs./50 for the first three sprays. Yellow cuprocide (¾ lb./50) also effectively controlled damping-off, but caused a slight stunting of small seedlings. Ceresan controlled damping-off, but was injurious when used over the entire season.

In 1946 Townsend and Felix (*12*) found that yellowing and stunting of plants due to brown root rot (red root?) did not occur where ammonium thiocyanate had been applied at 1000 lb./A. Sulfur and formaldehyde appeared to have little or no effect.

In 1952 Tisdale, Moore and Swank (*8*) reported that drenching sandy soils in the Sanford area with Spergon (chloranil), Z.A.C. (Ziram) and Tersan (thiram) caused no reduction in red root. Some of the particulate materials did have value, how-