

Crop Production: Practical Goal of Plant Pathology

Robert S. Cox's statement (*PLANT DISEASE* 64:133, 1980) on the practical reason for the existence of plant pathology should make possible overdue comment on integrated pest management with less justification for misunderstandings. In appropriate contexts, integrated control, pest control, and plant protection are acceptable. Integrated pest management is questionable. Integrated control in the sense of a combined approach to control of insects and diseases has an ancient history, as the fungicide-insecticide compatibility charts dating from the early decades of this century indicate. The emphasis on integrated control in the sense of the combined use of biologic, cultural, and chemical measures against insects in the 1950s marked the return of entomology to the old ways after disappointments resulting from reliance on insecticides alone. Plant pathology never departed from this traditional approach to control because the opportunity was lacking. Fungicides never became, even temporarily, as spectacularly successful as insecticides.

Plant protection is as acceptable as forest protection, an administrative flow diagram innovation that led to the characterization of the scientists thus compartmentalized as the "bug, blight, and blaze boys." Fire may affect disease, but the natural relationships of forest pathology are with forest management rather than fire control. Plant pathologists do find a peer group among weed scientists. Weeds affect disease, most obviously as disease and vector reservoirs, and are affected by disease. The basic relationships of plant pathology, however, are with crop management rather than weed control.

Integrated control refers to the integration of control measures. Integrated pest management refers to the integration of sciences. This is horizontal integration. It recognizes the essential

alliance between entomology and plant pathology but stresses extension of this association to a shaky partnership with weed science. At the same time, it obscures the traditional alliances of plant pathology with soil science and plant breeding. It is a broadening of the misconception of plant pathology as an applied science with an independent mission: disease control. Most importantly, this emphasis on horizontal integration distracts attention from the relationships on which attention must remain focused: the vertical integration of plant pathology with the crop sciences of agronomy and horticulture. The practical goal of plant pathology is, as stated by Dr. Cox, crop production.

This should not be interpreted as a war on the words "integrated pest management" or their use as a catch phrase in obtaining funding or other support, although in the long run the wisdom of this approach is debatable. The danger is in the misconceptions of plant pathology that may be encouraged by their use if the proper perspective is not maintained.

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Sweet Potato Disease on PD Cover Is Not Soil Rot

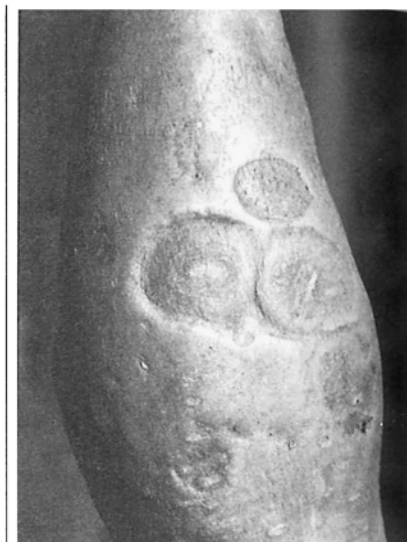
I am quite positively impressed with the format for *PLANT DISEASE* and I particularly look forward to the photographs on the cover. However, I feel I must call your attention to what I am confident is an error on the cover of the February 1980 issue. I am doing extensive research on soil rot of sweet potato caused by *Streptomyces ipomoea*, and I feel I can say with great certainty that the photograph on the cover is not of soil rot. I cannot say what disease is depicted, since several possibilities exist (surface rot, circular spot, black rot, etc.).

I am bringing this to your attention not because I wish to indulge in "nit-picking"

but because I am concerned that people not familiar with the disease may be misled at a time when there is increasing concern about this very destructive disease.

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The photo in question is from a slide labeled "soil rot or pox of sweet potato (*Streptomyces ipomoea*)" and distributed as a color transparency and on a color sheet of vegetable diseases. Perhaps one



of our readers can identify the disease depicted. Is it surface rot, circular spot, or an early stage of black rot? Or could it be an unusual symptom of soil rot on a cultivar now out of production?—*The Editors*

Send letters for publication to Letters Column, *Plant Disease*, 3340 Pilot Knob Road, St. Paul, MN 55121.