Another line of research consisted in preparing a number of derivatives of phenoxyacethydroxamic acid and determining their fungistatic activity against *Fusarium culmorum*, *Alternaria solani* and *Rhizoctonia solani*[6]. Chlor-derivatives of phenoxyacethydroxamic acid proved to exert a particularly strong fungistatic activity *in vitro*.

Thus 4-chloro-2-methylphenoxyacethydroxamic acid was effective against *F. culmorum* at a concentration 0·005 per cent in solid agar culture medium. 2,4-Dichlorophenoxyacethydroxamic acid was effective against all three fungi examined at concentration 0·025 per cent. Similar activity was shown by 3,4-, 2,5-di- and 2,4,6-trichloro-derivatives.

The same group of compounds was examined against pathogenic fungi. 3,4-Dichlorophenoxyacethydroxamic acid was found to be particularly effective not only against *Trichophyton* but also against various pathogenic yeasts. It completely inhibited growth of *Candida albicans*, *C. krusei*, *C. tropicalis*, *Cryptococcus neoformans*, *Geotrichum 1* and *Geotrichum malatensis 53* when used in concentration 0·003–0·025 per cent in liquid Sabouraud medium.

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Ethyl-3-Indoleacetate : an Artefact in Extracts of Immature Corn Kernels

The isolation and identification of 3-indoleacetic acid in corn kernels has been well established[1]. While characterization of ethyl-3-indoleacetate in ethanol extracts of corn kernels, *Zea mays*, variety Golden Cross, has been reported from this laboratory[2], it has been suggested that ethanol extraction may have resulted in the formation of an artefact[3].

To avoid esterification, peroxide-free ethyl ether was used as the extractant in the present study. Freshly harvested, immature (early milk stage) corn kernels, variety Golden Cross, were covered with ethyl ether and extracted for two hours at 2° C. ('free auxin' or first fraction). Additional cold ethyl ether washings of the kernels were added to the original extract. The kernels were again covered with ethyl ether and extracted for 48 hr. at 25° C. ('bound auxin' or second fraction). The first and second ethyl ether fractions were further separated into acidic and non-acidic ('neutral') portions by extraction with 5 per cent aqueous sodium bicarbonate. The bicarbonate solution containing the acidic substances was adjusted to *p*H 2·8 with hydrochloric acid and extracted with ethyl ether. The aqueous layer was discarded, and the acidic substances in the ether layer were retained. Acidic and non-acidic ethereal solutions were separately concentrated under reduced pressure with the bath temperature kept below 25° C. The constituents of the concentrated extracts were partitioned by paper chromatographic techniques (Whatman No. 1 filter paper, solvent mixture 2-PrOH : NH_3 : H_2O (8 : 1 : 1 v/v)[4]) and their biological activities assayed[5].

3-Indoleacetic acid was detected in the chromatographically separated acid fractions through biological assays, by development of characteristic colours with Salkowski and Ehrlich spray reagents, and ultra-violet absorption spectra. In addition, growth-promoting zones with R_F 0·25–0·33 and growth-inhibiting zones with R_F 0·60–0·70 were noted in both acid fractions. A similar observation of growth-stimulating and -inhibiting zones has been reported for absolute ethanol extracts of corn kernels (ref. 1, Kefford).

Growth-stimulating zones of R_F 0·80–0·90 were observed in histograms of neutral fractions. The R_F values were similar to those reported for ethyl-3-indoleacetate and 3-indoleacetonitrile; however, the presence of an indole moiety could not be established by ultra-violet absorption spectra or by the reactions to Salkowski and Ehrlich colour reagents. Absence of ethyl-3-indole-acetate in the ethyl ether extracts of corn kernels, *Zea mays*, variety Golden Cross, indicated that it was previously isolated as an artefact[2]. The characterization of this neutral growth substance is now in progress, and a more detailed report will be published elsewhere.

We are indebted to Dr. F. G. Teubner for his interest and suggestions throughout this investigation.

This work was supported in part by the National Science Foundation, Washington, D.C.

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Actinomycete Disintegration of Raw Wool

During the course of investigations on bacterial disintegration of raw wool, the presence of Actinomycetes in rotted wool was often noted. These organisms, however, rarely appeared in culture, perhaps because of the prevalence of *Pseudomonas aeruginosa* the antagonistic effects of which are well known. Eventually Actinomycetes were isolated