Comments and Communications

Animal Experimentation in the District of Columbia

On September 15, 1948, the executive committee of the AAAS adopted unanimously a resolution reaffirming its support for animal experimentation, in the interests of man and other species, and stating its belief that animals for research and teaching should be provided by legislation or ordinance where necessary.' Such legislation has been adopted in Michigan and Minnesota, and ordinances of the type supported are in effect in Chicago, Dallas, and many other cities. Similar proposals have been defeated in Pennsylvania and deferred in Maryland, Massachusetts, and elsewhere. The campaign nationally, under the auspices of the National Society for Medical Research, for positive legislation of this sort, is at a stage of rather precarious dynamic equilibrium.

In April bills were introduced in Congress to provide a fraction of the unclaimed impounded animals in the District of Columbia for teaching and research in local institutions inspected and licensed by the Health Department. At present, such animals are slaughtered. Because Congressional action is called for, a good deal of national interest has been aroused, although the bills are District of Columbia measures. The antivivisectionists, at least, realize the wider significance of the measures, and have organized a national telegram-and-letter campaign which, together with display advertising in local newspapers, has resulted in a flood of communications to Congressmen and the District of Columbia Commissioners. Since Senate hearings have ended, it is especially important that letters and telegrams of support be sent the District of Columbia Committees of House and Senate. The AV's have thousands of dollars in their local treasuries for this campaign.

The Committee for Health and Research, composed of local teachers, physicians, scientists and other friends of progress in medicine and related fields, have *no* funds and, since the Committee was organized only recently, few members. We cannot match, therefore, such efforts as the opposition's national mailing to members and friends of the American Humane Association. Through the columns of *Science,* however, we hope to galvanize the silent majority (amounting, according to sampling of the public, to more than 90% of the American people) on our side.

The Committee ask that readers of *Science* (1) write letters or send telegrams to the District of Columbia Commission and to the District of Columbia Committees of House and Senate, supporting H.R. 4349 and S. 1703; and (2) secure similar action by organizations of all types —parent-teacher associations, citizens' groups, unions, faculties of educational institutions, and professional, scientific and industrial bodies—of which readers are members.

The Committee will be glad to furnish copies of the bills and other information upon request. The fate of H.R. 4349 and S. 1703 will affect the supply of animals for teaching, research and consumer testing in every community in the United States. Quick support is essential.

WILLIAM F. HEWITT, JR.
Executive Secretary,
Committee for Health and Research

Interpretation of Lindner's Test for Plant Virus Diseases

In using Lindner's colorimetric test for the presence of plant virus diseases (*Science,* 1948, 107, 17) in a tissue culture of virus tumor discovered and isolated by L. M. Black in 1944, it became apparent that the method described by Lindner for virus presence is a modification of the Benedict test for reducing substances. The components of the reagent are similar to those in Benedict solution—an alkaline solution of copper sulfate. Lindner says, "Copper sulfate seems to catalyze the formation of the red color." Actually the copper sulfate is the reagent, being reduced to cuprous oxide, hence accounting for the red color produced. The blue-green color resulting when normal, virus-free leaves were tested probably came from the reducing substances normally present; and the red color, when virus-infected leaves were tested, from an abnormal accumulation of reducing substances. In Cook's *Viruses and virus diseases of plants,* there are conflicting reports concerning the accumulation of reducing substances in virus-infected plants.

The interfering factor, girdling, can be accounted for, since it is well known that the procedure causes accumulation of carbohydrates and apparently reducing substances above the ringed portion.

Lindner's interpretation of the test—that the virus may cause some disturbance in the phloem—can be extended to include the idea that it also causes accumulation of reducing substances.

The following materials were tested for the presence of virus disease, according to the method outlined by Lindner:

Material	Amount of red color produced (Cuprous oxide formed)
Glucose	+++
Virus tumor	+++
Agar on which tumor was grown	++
Virus-free pea leaves	+

This communication does not decry the usefulness of the test as a detector of virus diseases, but urges that