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MSS. intended for publication and books, etc., intended for review should be sent to The Editor of Science, Garrison-on-Hudson, N. Y.

ECONOMIC TOXICOLOGY

CALIFORNIA annually spends more than a million dollars in the control of insects and fungi infesting citrus trees, and possibly a million more for a like purpose on deciduous trees. To these startling figures may be added no small amount expended in the control of the pests of garden and field crops, stored grain and seeds, and a large sum in the preservation of timber against the attack of wood-destroying fungi. The vineyards need protection from the ravages of mildew. Nor does this conclude the list. There must be added a considerable sum for the control of the parasites of man and beast. Tons of poisoned barley and quantities of expensive chemicals are used to rid the fields of vertebrate pests. The customary way of holding in check this formidable array of pests is by the use of chemicals of various sorts. Of recent years, chemicals have also come to be used to some extent for the control of weeds, and no little interest is being taken at the present time in possible developments in this connection under California conditions. It is said that California is the largest consumer of insecticides and fungicides of any state in the union. The state at least makes use of the greatest variety of these and other economic poisons on account of the great diversity of its agriculture.

These facts, from an economic standpoint alone, justify not only an intensive study of the proper use of the materials, but also a comprehensive study of the materials themselves. This station early recognized the need of the special knowledge of the chemist in the solution of the vexing problems that often confront the investigator who has to deal with the control of pests. Through the publication of Morse in 1887, the utility of hydrocyanic acid as a fumigant for the control of scale insects on citrus trees was first made public.