

**U.S. DEPARTMENT OF
AGRICULTURE; BUREAU OF PLANT
INDUSTRY - BULLETIN NO.76;
COPPER AS AN ALGICIDE AND
DISINFECTANT IN WATER SUPPLIES**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649246717

U.S. Department of agriculture; bureau of plant industry - bulletin No.76; Copper as an Algicide and Disinfectant in Water Supplies by George T. Moore & Karl F. Kellerman

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GEORGE T. MOORE & KARL F. KELLERMAN

**U.S. DEPARTMENT OF
AGRICULTURE; BUREAU OF PLANT
INDUSTRY - BULLETIN NO.76;
COPPER AS AN ALGICIDE AND
DISINFECTANT IN WATER SUPPLIES**

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^a Detailed to the Bureau of Forestry.

^b Detailed to Seed and Plant Introduction and Distribution.

^c Detailed to Botanical Investigations and Experiments.

^d Detailed to Bureau of Chemistry.

^e Detailed from Bureau of Chemistry.

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LETTER OF TRANSMITTAL

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY,
OFFICE OF THE CHIEF,
Washington, D. C., March 15, 1905.

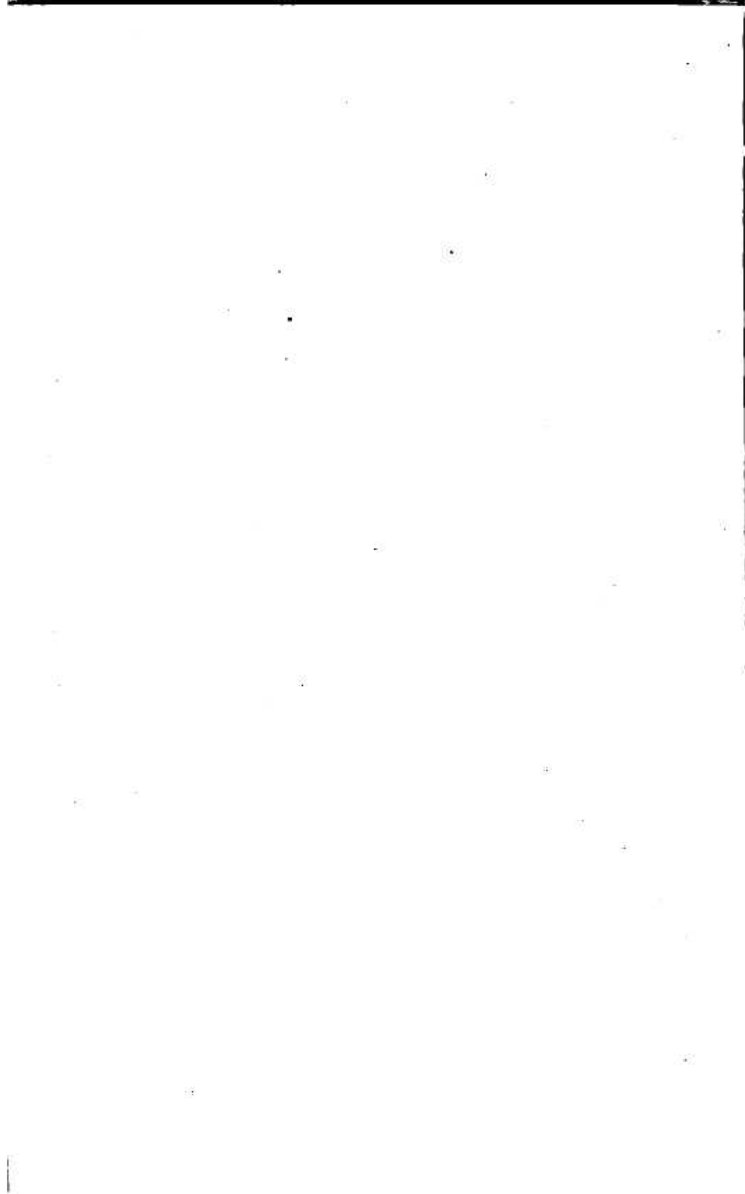
SIR: I have the honor to transmit herewith a paper entitled "Copper as an Algicide and Disinfectant in Water Supplies," and to recommend that it be published as Bulletin No. 76 of the series of this Bureau.

This paper was prepared by George T. Moore, in charge of the Laboratory of Plant Physiology, and Karl F. Kellerman, Assistant in Physiology, in the Office of Vegetable Pathological and Physiological Investigations, and was submitted by the Pathologist and Physiologist with a view to publication. It is supplementary to Bulletin No. 64, "A Method of Destroying or Preventing the Growth of Algæ and Certain Pathogenic Bacteria in Water Supplies," and will be of interest and value to all who have to deal with the problem of preventing algal and bacterial contamination of water supplies.

Respectfully,

B. T. GALLOWAY,
Chief of Bureau.

HON. JAMES WILSON,
Secretary of Agriculture.



P R E F A C E .

Investigations undertaken by this Office with a view to finding some cheap and practical method of preventing or removing algal and bacterial contaminations from water supplies have demonstrated the peculiar value of copper as an agent for this purpose. The possibilities in the use of this salt are briefly outlined in a previous bulletin (No. 64) entitled "A Method of Destroying or Preventing the Growth of Algae and Certain Pathogenic Bacteria in Water Supplies."

During the summer of 1904 many lakes and reservoirs were treated under the direct supervision of representatives of the Laboratory of Plant Physiology, and it has become desirable to present the data gained in the season's experience, together with definite recommendations in regard to the methods of procedure, so that those having to deal with the question of contaminated water may do so to the best advantage.

With reference to the occasional objections offered to the use of copper as an algicide and disinfectant, it ought to be amply sufficient to state that a careful study of all the leading authorities on the subject fails to reveal any argument or evidence which can be adduced in opposition to the use of copper for this purpose. Authorities everywhere unite in defending the use of copper as a means of destroying polluting organisms in water, and agree that it can be used with impunity as advised by the authors.

ALBERT F. WOODS,
Pathologist and Physiologist.

OFFICE OF VEGETABLE PATHOLOGICAL
AND PHYSIOLOGICAL INVESTIGATIONS,
Washington, D. C., March 14, 1905.



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