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METHOD FOR BIOASSAYING AMETRYNE IN WATER.

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The beneficial effects of herbicides are sometimes mitigated by their persistence in the environment. Water may be contaminated with herbicides from aerial spraying, runoff from land treated with herbicides, and direct introduction of herbicides into water to control aquatic weeds. The availability of a monitoring system for herbicides, particularly in flowing waters such as irrigation canals is essential so that damage to the environment and crop plants through the use of contaminated water can be avoided.

Therefore, a simple and rapid quantitative method is presented for the screening and determination of small amounts of ametryne in aqueous solution. This method is based on the activity of the ametryne in inhibiting the growth of the primary root and shoot of germinating *Lactuca sativa* seed. Solutions of ametryne of unknown concentration, may be subjected to the procedure herein described, and growth inhibition may be expressed in percentage of control. This may then be compared with the standard curve, and the presumptive concentration of ametryne may be thereby ascertained. It is sensitive to 0.02 µg/l and is applicable from this concentration to 2 µg/l. Initial surface sterilization of the seed, selection of pregerminated seed of certain root lengths, and special equipment are not necessary.

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