

Control Of Chara With CASORON AQ

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CASORON¹AQ, Dichlobenil aquatic weed killer, 2,6-dichlorobenzonitrile, is one of few aquatic herbicides that is extremely effective against the attached algae, chara.

Chara is most often associated with waters that are alkaline. Frequently the plant may be incrustated with calcareous deposits which probably also influence control with many foliar absorbed or contact aquatic herbicides.

Chara is apparently widely distributed throughout the United States but is probably most troublesome in the Western states.

TIME AND METHOD OF APPLICATION

CASORON AQ may be applied at anytime for control of chara.

Application should be made in essentially nonflowing water or to exposed dry areas such as pond bottoms after drawdown.

CASORON AQ should be applied at the rate of 125 to 200 pounds of 4AQ formulation per acre with the heavier rate used in waters exceeding 3 feet in depth. Recent research results indicate rates lower than these to be effective against chara.

Trials in Illinois indicated CASORON W50 at 1 ppmw injected into the water to be effective as a post-emergence treatment. The AQ formulation was effective in Georgia fish ponds as a post-emergence treatment at 4 lb. ai/A.

MODE OF ACTION

Normally CASORON is root absorbed by most aquatic and terrestrial weed species. Since both CASORON 4AQ

and W50 appear to be effective against chara and since chara has no root system, it is difficult to assign the route of absorption and mode of action. CASORON acts rather slowly with little effect usually noted for 4 to 8 weeks. This may be an advantage in hatchery ponds as an oxygen deficit would not likely occur.

FISH SAFETY AND TOXICOLOGY

The acute oral mammalian toxicity of CASORON ranges from 2460 to 3160 mg/kg. CASORON would be considered relatively safe to use when used according to directions.

The LD 50 to most fish species is between 15 to 30 PPM. These levels indicate a 10 to 20X safety margin to most aquatic fauna. CASORON levels in water rarely exceed 0.5 ppmw when treating whole ponds with the 4AQ formulation.

Efforts are presently underway to establish a residue tolerance in fish with this tolerance expected to be established sometime in early 1968.

ADVANTAGES

1. CASORON is effective on a wide range of aquatic weed species and is extremely effective against chara.
2. CASORON usually kills slowly thus not creating oxygen deficits in hatchery ponds.
3. CASORON is easy to apply since rates are based on surface area.
4. CASORON is well suited to partial pond treatment and effectiveness is rarely noted outside of the treated area when utilizing the 4AQ formulation.
5. CASORON is extremely safe to most aquatic fauna, noncorrosive and safe to the handler.

¹CASORON is a research discovery of N. V. Philips-Duphar, U.S. Patent 3,027,248. USDA Reg. No. 184-673.