

# **IRRIGATION CONVEYANCE SYSTEMS AND OTHER MOVING WATER (DRIP SYSTEM APPLICATION)**

## General Information

### DIRECTIONS FOR USE

Symmetry NXG is for the application to fresh water lakes, potable water reservoirs, ponds (including golf course ponds), fish hatcheries, irrigation canals, laterals, and ditches and other such slow moving or quiescent bodies of water. Symmetry NXG successfully controls diverse algal types including branched, filamentous, and planktonic species. To obtain optimal control, apply Symmetry NXG in accordance with label directions at the first appearance of algae bloom. Water treated with Symmetry NXG must be used immediately to irrigate crops, golf courses, ornamental plants, and turf areas.

Surface applications of Symmetry NXG must be made using a land-based sprayer, or spray boat. Weighted trailing hoses are required for subsurface applications. Where appropriate, Symmetry NXG must be applied as an invert emulsion, or as an admixture with a suitable polymer, (see specific instructions, and select only adjuvants approved for application in food crop production).

Decomposition of dead plant material will result in dissolved oxygen depletion and subsequent fish kill. High water temperatures and dense weed infestation are exacerbating factors. To avoid excessive oxygen depletion and fish kill, treat no more than 1/2 of the water body at one time. Do not apply more Symmetry NXG than required for the treatment area, and allow at least 14 days before making application to the remaining portion of the water body. Avoid trapping fish between the shoreline and treatment areas by treating from the shore outward toward deeper, untreated water.

Algae in the water column or on the weed surfaces can reduce the effectiveness of aquatic herbicides against *Hydrilla verticillata* and other vascular weeds. Unless specifically prohibited by the mix partner label, Symmetry NXG can be tank mixed with products containing the active ingredients, copper, fluridone, diquat and endothall, to improve aquatic weed control. If a product is tank mixed with Symmetry NXG, the more stringent requirements of the Symmetry NXG and mix

partner labels must be met.

NOTE: Symmetry NXG and solutions of Symmetry NXG with cupric ion concentrations in excess of 1.0 ppm can cause non target plant injury. Do not allow sprays to drift over crops, ornamentals, grass or other desirable plants. Observe all label restrictions.

## Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for aerial applications:

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application:

- Do not apply with a nozzle height greater than 4 feet above the crop canopy.

## FISH NOTE

Symmetry NXG is toxic to fish and other aquatic invertebrates. The risk of fish toxicity generally decreases as the hardness of the water increases.

## IRRIGATION WITH TREATED WATER

Water treated with Symmetry NXG in accordance with label directions shall be used for irrigation immediately after treatment.

## Limitations, Restrictions, and Exceptions

## IRRIGATION CONVEYANCE SYSTEMS AND OTHER MOVING WATER (DRIP SYSTEM

## APPLICATION)

In irrigation systems, application must be made prior to appearance of algae. Delayed treatment can allow growth of algae mats that can impede the flow and delivery of water through obstruction of system components including lateral headgates, pumps, pumping systems, screens, and siphon tubes. It can be necessary to increase water flow rates during treatment to achieve good chemical distribution and effective algae control.

Application rates are calculated based on water flow rate in cubic feet per second. Prior to application of Symmetry NXG, determine the system flow rate using devices which give accurate water flow measurements (e.g., weirs, or orifices).

Lacking these devices, the rate of flow can be estimated by the following formula:

Average Width (feet) x Average Depth (feet) x Average Velocity (feet/second) x 0.9  
= Cubic Feet per Second (C.F.S.)

Velocity can be estimated by measuring the time it takes a floating object to travel a predetermined distance down the middle of the canal. Velocity (feet/second) is then the distance traveled (feet) divided by the time (seconds) required. The average velocity is the arithmetic mean of the results obtained from a minimum of three individual velocity measurements. Use this average velocity (feet/second) in the formula above to determine the flow rate (C.F.S.).

Determining Amount of Symmetry NXG: The target copper concentration is obtained by multiplying the rate value read from the table by the target concentration in ppm. As it is necessary to maintain the target application rate for a minimum of 3 hours (180 minutes), the minimum amount of Symmetry NXG needed to achieve effective control is calculated multiplying the adjusted Qts./Hr. rate by 3, the adjusted mL/Min. rate by 180; or adjusted Fl. Oz./Min. rate by 180. Apply Symmetry NXG in the channel at weirs or other turbulence creating structures or at several injection points across the flow to ensure thorough mixing and uniform dispersion.

Calibrating For Drip Application (Gravity Feed): Add the amount of Symmetry NXG required for 3 hours treatment (as calculated above) to a drum or tank equipped with an adjustable constant flow valve. Adjust the flow rate to the target value by dripping the Symmetry NXG into a clean graduated container while measuring the

time required to reach a given volume. Several iterations can be necessary to achieve the target flow. Symmetry NXG captured during the valve calibration can be returned to the tank. NOTE: it can be necessary to readjust the constant flow valve if the drip rate changes during the 3 hour treatment period. If electricity is available, a small adjustable metering pump can be used as a more accurate means of introducing Symmetry NXG into the water.

The severity of algae infestation will dictate the distance that algae control will extend from the application point. Any subsequent applications must be made at points 3 hours downstream from the prior point of application. This step can be repeated as necessary until the entire infested area has been treated. Season long control can require periodic retreatment.

Method

[Irrigation](#)

Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

[field\\_rates 2](#)

[field\\_rates 3](#)

•

Timings

[At the first appearance of algae and when water temperatures are above 60°F.](#)