

TINY MUSSELS...BIG MAINTENANCE PROBLEMS FOR GOLF COURSES

Invasive zebra and quagga mussels are small in stature, but there's power in numbers. As they spread to freshwater bodies throughout North America, these mussels are causing significant problems for golf courses that rely on raw, untreated water for irrigation.



When a course draws water from a mussel-infested water body, it runs the risk that mussels will colonize in the irrigation system. The resulting maintenance costs associated with established mussel populations and shell debris can be significant and may involve replacing and repairing clogged sprinkler heads, removing shell debris from greens, or replace clogged irrigation lines.



ZEQUANOX: EFFECTIVE, BIO-BASED MUSSEL CONTROL

ZEQUANOX[®] is the industry's only selective and environmentally compatible molluscicide for the control of invasive zebra and quagga mussels. ZEQUANOX delivers efficacy comparable to chemical-based solutions, but it does not endanger staff or players, nor will it damage turf or result in harmful impacts to the environment or other aquatic organisms¹.

ZEQUANOX is derived from a naturally occurring soil microbe and is perceived as a nonthreatening food source by zebra and quagga mussels. Once ingested, ZEQUANOX deteriorates the mussel's digestive lining, causing death. Mussel mortality begins within a couple of days of treatment and continues for several weeks following exposure.

HIGHLIGHTS

- Highly effective bio-based solution
- Controls mussel populations and reduces associated maintenance issues
- Nontoxic and chemical free
- Environmentally compatible
- Won't harm or discolor turf
- No wait time after application
- Poses no risk to players or employees¹

WON'T DISRUPT PLAY

ZEQUANOX is not persistent after application and leaves no residue; it is composed of dead bacteria cells, which are unable to reproduce and degrade rapidly after application. In addition, the product poses no risk to surface water or humans¹, and it does not require a waiting period after application (i.e., it has a zero-hour reentry interval).

WON'T HARM TURF

ZEQUANOX can be applied to water used for turf irrigation without concern of discoloration or damage. Extensive studies have been completed on numerous turf varieties and seeds, with no indication of any harmful effect on germination, growth, or health of turf.

WON'T AFFECT IRRIGATION TIMING

ZEQUANOX is classified as a reduced-risk aquatic pesticide, so it is not subject to regulatory restrictions on usage (e.g., time of year, frequency of treatments, etc.) and carries only minimal permitting requirements. The product can be applied using standard injection equipment, and applicators need only minimal personal protective equipment (PPE).

ZEQUANOX treatments are performed over several hours in one day and can be timed to coincide with your normal irrigation operations. The product is noncorrosive to equipment, does not require detoxification before water discharge, and allows irrigation to resume immediately after treatment.

For More Information

Toll Free 1-877-664-4476 • Phone 1-530-750-2800
info@marronebio.com • www.zequanox.com

¹At application rates that produced zebra and quagga mussel mortality, no mortality was recorded among any of the non-target species.