Healthy Golf Courses
By Jim McClain

Golfers love their sport. They spend a fortune on equipment, fees, lessons and gadgets to improve their scores. They expect a well-maintained course to play on. A golf course isn't all that complicated. It is a series of lawns – fairways, roughs, and greens – cut and groomed at varying lengths. Keeping that in mind, lawn care should be the focus.

The normal approach is with chemical fertilizers, disease and pest control agents, and lots of water. In some states golf courses are forced to fight for their water rights. While these dynamics are taking place, few golf course managements consider the health of the soil that supports the fairways, roughs, and greens, and, if they did, their job would be cheaper and simpler.

Healthy soil is, or should be, a teaming mass of life consisting of tons of microbes, fungi, algae, tiny animals, bugs, beetles, and earthworms in the top six inches per acre. The constant use of chemical fertilizers and agents kill the soil's natural microbes and other soil life. Microbes allow lawns to readily access available soil nutrition and help soil structure regulate water content – release water when there is excess and hold water when conditions are dry. Reducing soil toxicity is paramount to improve its health and reduce toxic runoff into the local water supply. The use of chemical fertilizers and agents perpetuate the vicious cycle of more fertilizer and more water to achieve the same result or even less.

Breaking the cycle of heavy chemical fertilizer and water usage is counter-intuitive to many. After all, "It's the way we have done things since I have been in the industry." In the natural order of things, there is the momentum to perpetuate the vicious cycle. However, if one wants to have healthy soil, a beautiful golf course, and use less resources, the cycle must be broken.

When normally applying fertilizer to your golf course, reduce the amount by 50% and add BIOMAX Soil Enhancer with SumaGrow™, a formula or microbes designed to allow grasses to access available soil nutrition more efficiently so less fertilizer is needed. A full-strength application of fertilizer would kill the microbes. BIOMAX Soil Enhancer with SumaGrow™ costs less than the fertilizer replaced.

As a result of applying BIOMAX, lawn roots go deeper and are larger. The hardier, thicker grass resists heavy traffic and chokes weeds so weedkillers aren't needed. New grass areas mature faster. The microbes also allow the soil to build structure that regulates the flow of water according to weather conditions. With the help of microbes, soil will release excess water during times of excess and hold water during draughts. In 2012, the Southeast US and Midwest experienced a draught with record heat and no rain. Two cornfields in Mississippi serve as an example. One field was treated with BIOMAX Soil Enhancer with SumaGrow™ and half the normal amounted of fertilizer. The other field received the normal amount of fertilizer without any BIOMAX. The treated field with BIOMAX had above average yield; the untreated field didn't

germinate due to heat and no rain. That is zero yield. During dry conditions, soil microbes are essential to maintaining the soil's water content and your golf courses' well-maintained look.

Long-term, BIOMAX Soil Enhancer with SumaGrow™ can help raise the organic matter (OM) found in the soil. Increases in soil OM over time raises its natural water content. Clipping and leaves are decomposed by microbes and other soil life into carbon and other lawn nutrients. As OM level increases so does the soil's natural water content. If there is an erosion problem, it is lessoned or even stopped as OM levels increase.

BIOMAX Soil Enhancer with SumaGrow™ can enhance lawns (larger and deeper roots), increase soil OM and water levels, reduce land and water toxicity cheaper than the cost of current golf course operations. Give Bio Agriculture and Horticulture a call (714) 728-0376 or email me at jim.mcclan1842@sbcglobal.net. I would love to have a conversation with you. All the Best and Much Success! Jim