

GCSAA Announces Next Phase of Health Research Program

Plans have been made to implement the second phase of the association's planned in-depth study of occupational health issues. GCSAA will launch a new series of health research projects and expand its commitment to chemical application education.

The new series will advance a preliminary statistical study conducted by an independent research team from the University of Iowa College of Medicine. The results of the study, which was commissioned by GCSAA Scholarship & Research, were announced Feb. 6 at the association's annual conference in Dallas.

The study was a statistical analysis of death certificates among 618 former GCSAA members who died between 1970 and 1992. The Iowa researchers found that the group had a higher rate of mortality from lung cancer than the general population. They also found higher-than-average mortality for a number of other cancers, including brain, large intes-

tine, non-hodgkin's lymphoma and prostate.

The UI research team was led by Dr. Burton Kross, UI associate professor of preventive medicine and environmental health. Kross is associate director of the UI's Institute of Agricultural Medicine and Occupational Health.

"From a public and occupational health perspective, the excess number of lung cancer deaths is a primary concern," Kross said. Lung and other head and neck cancers have been strongly associated with cigarette and cigar smoking, but Kross strongly cautioned that no cause-and-effect relationship to any illness can be determined by this statistical analysis. According to researchers, a statistical study cannot be interpreted to link any particular factor to cause of death.

Stephen F. Mona, GCSAA executive director/CEO said, "GCSAA initiated and financed this study because we needed to establish a baseline for future research. We now have that baseline and can better identify what merits further investigation."

"Our mission in funding this independent mortality

Continued on page 7

Tips from the USGA Humates and Humic Acids

by Pat Gross,
USGA Agronomist

As you can tell from previous articles written by Paul Vermeulen and myself, new product evaluation is one of our favorite topics. We are often asked during our travels about the benefit or possible negative side effects of these new products. One of the latest trends is the use of humates or humic acids as a turfgrass growth enhancer or biostimulant.

Whenever evaluating new products or materials for use on the golf course, it is a good idea to get the unbiased opinion of turfgrass researchers and other professionals. We get several research reports and articles sent to our office, and this month I wanted to share with you some thoughts on humates and humic acid and their value to turf culture by Dr. Wayne R. Kussow, Department of Soil Science, University of Wisconsin-Madison. In a recent article in the "Wisconsin Soils Report," Dr. Kussow had several interesting things to say about humates and humic acids:

1. Humates generally contain a high carbon content and approximately 4% nitrogen. According to Dr. Kussow, this nitrogen is of little consequence to turf growth since only approximately 0.3% is actually available to the plant.
2. One of the beneficial properties of humates is its ability to raise the cation exchange capacity of soils. Some manufacturers recommend that humates be used to amend soil or a putting green root zone mix. It is important, however, to calculate the benefits and overall cost of adding humates to your soils before taking any action. Dr. Kussow estimates that adding 2 lbs. humate per cubic yard of 80:20 sand-peat root zone mix

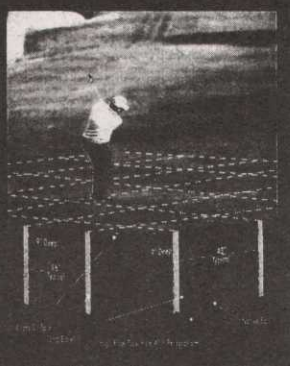
Continued on page 7

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USGA*Continued from page 5*

would produce only a 13% increase in the CEC. Given the high price of the humate used in Dr. Kussow's examples, he did not believe the cost justified the benefits.

3. Another benefit of humates or humic acids are their ability to solubilize micronutrients already in the soil. Dr. Kussow points out that turfgrass roots also excrete organic compounds that solubilize micronutrients and he believes that the chelating action of humic acid has to be considered of little benefit to turfgrass.
4. During Dr. Kussow's review of scientific literature, he noted several studies that indicated humic acids can absorb fungicides and herbicides. These studies indicated that surface applications of humic acids or humate can significantly reduce

the effectiveness of systemic pesticides by reducing their absorption by plant roots and soil-borne pathogens and insects. Another study noted that humic acid and humate products showed no significant improvement of root length or root number in creeping bentgrass.

5. Dr. Kussow concludes his article by saying that there are situations where significant positive responses can occur in turfgrass, however, positive effects should not be expected over a wide range of conditions.

Obviously, there is a need for more research in this area before the true merits of these products can be determined relative to their cost. It is not my intention to discourage the use of any particular products. The turfgrass industry continues to produce products at a rapid pace which may show significant benefit to turfgrass growth. The best advice is to test these products on a limited basis and be cautious, particularly when it comes to products for use on putting greens.

environment."

The next phase of the overall effort could include helping association members stop smoking, expanding GCSAA's current education and training programs, and completing a statistical mortality ratio study to put UT's preliminary data into context.

"We also think this gives us an opportunity to forge a new partnership with groups that can help us accomplish our mission," Mona said.

"For example, the chemical manufacturer's have made great strides in packaging and formulation over the past decade. This is one more reason to work closely with them in an effort to develop new technology in products and packaging. Another example could be working with an organization like the American Cancer Society on the smoking issue. This also gives GCSAA the opportunity to continue to strongly encourage and support the Environmental Protection Agency."

GCSAA HEALTH PLAN*Continued from page 5*

study was to begin the first phase of an overall look at occupational health and safety

issues that affect our members," Mona continued. "This is a long-term commitment to ensuring that superintendents work in a safe and healthy

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