GOLF

## Mastodon skeleton unearthed in Ohio

NEWARK, Ohio — A mastodon skeleton dating to the Pleistocene epoch was unearthed in December from a peat bog at Burning Tree Golf Course here.

The bones are in excellent condition, and are estimated to be between 10,000 to 12,000 years old.

Sherm Byers, owner of the course, says drag line operator Phil Flowers, of Phil Flowers Construction Co., discovered the prehistoric pachyderm skeleton while clearing the bog to make way for a nine-hole addition.

"There is no doubt in my mind we have a complete mastodon," proclaims Byers. Paul Hooge, director of the Licking County Archeological and Landmarks Society, agrees that the remains seemed to be complete. Hooge supplied direction and expertise

during the excavation.

Mastodons were elephant-like creatures that grew to over nine feet tall. They became extinct about 8,000 years ago. Experts say mastodon remains are not uncommon throughout the Midwest.

The bones discovered were of a young female mastodon, and were well-preserved thanks to the acidic peat. Workers used a power shovel to scrape away the cover of the bog and picked through the peat with hands and shovels. Tusks, ribs, skull, upper and lower jaws, shoulder blades and pelvic bones were among the items unearthed.

No golf clubs were found near the remains.

At press time, plans were being discussed to build a museum on the site to house the remains.



This mastodon skull dwarfs a small boy (upper right) who was watching while workers unearthed its remains. (Photo by Tim Revell, courtesy of the *Columbus Dispatch*.)

SOL

## **ASPA urges 'Earth Day 1990' activities**

ROLLING MEADOWS, Ill.

— The American Sod Producers Association is urging its members to participate in local "Earth Day 1990" activities on April 22, calling the campaign "a great way to show off turf."

Earth Day is a nationwide celebration designed to raise awareness of the environment.

The ASPA suggests its members consider hosting an open house at their "fresh air factories," also known as turfgrass sod farms. By using scientific information presented by the ASPA, farms could set

up signs showing how a 50by-50-foot area releases oxygen for a family of four; how turf helps clean water; or how safe turf is by demonstrating the egg drop test.

Schools, garden clubs, landscape architects and contractors are just a few of the potential groups that could be invited to the demonstrations, in addition to media representatives, says ASPA.

To learn more about the event and local contacts, please write Earth Day 1990, P.O. Box AA, Stanford University, CA 94305. □

TURF

## Annual bluegrass is here to stay, notes Michigan turf panel



DowElanco's Dr. Tom Perkins: accept Poa annua.

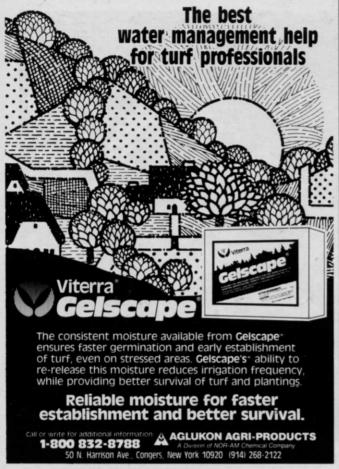
LANSING, Mich. — Poa annua (annual bluegrass) will remain an obstacle to superintendents well into the future, according to turfgrass experts at the Michigan Turfgrass Conference.

"We are never going to eradicate Poa annua," says Tom Perkins of DowElanco "The best that we can do is to educate everybody to its strong points and weak points, what you can and

cannot expect of it, and tell you of the different tools available to you, to either manage it for survival or to reduce its impact on your total turf population."

Dr. Joe Vargas Jr. of Michigan State believes poa's staying power should make superintendents realize the need to accept it as a matter of course, especially on all-bentgrass tracks.

> "We've seen a lot of golf continued on page 12



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courses in northern and southern Michigan built recently with bentgrass greens, tees and fairways," notes Vargas. "Once those (areas) get into shade, pretty soon you see a tremendous thinning of the bentgrass, and soon the annual bluegrass is in there.

"Whether you use PGRs, Prograss or whatever, you're going to have annual bluegrass in shaded areas. You're also going to have it in high traffic areas with tremendous amounts of wear and compaction. It's the only grass that can tolerate that compacted soil."

Perkins believes that "full-season survival (of annual bluegrass) almost becomes a genetic problem." He suggests that biotechnology could eventually be a solution.

DowElanco is embarking on biotechnology as it relates to green and growing plants. We haven't reached the point of manipulating the genotype that is Poa annua. That could be in the future."

Says Dr. Bruce Branham of MSU: "(Improving winter hardiness) is a question that gets into plant physiology and it is one that you can't do much about."

Branham believes poa's vulnerability to winter kill is one of the best reasons to try a different species.

"We're not going to manage our way out of winter hardiness without a much more genetic approach," Branham says.

RESEARCH

## Mowing effects on nutrition begun by Bolens

KUTZTOWN, Pa. — A study to measure nutrient levels in soil after repeated grass cuttings has begun. It is sponsored by Bolens Corp., Port Washington, Wisc., and the Rodale Research Center here.

The three-year test also will determine the nutrient benefits of returning grass clippings to the soil with a mulching mower versus the collection and bagging of clippings with a conventional walk-behind mower.

The study was announced jointly by Bolens product manager Tom Wellnitz and Dr. Robert D. Hart, director of the Rodale Research Center.

"Bolens and Rodale have agreed to run this experiment because the disposal of grass clippings has become a major environmental concern for communities all across the country. We both believe a mulching mower can offer a very viable and effective solution," says Wellnitz.

"We wanted to objectively and quantitatively verify previous assertions that mulching returns increased nitrogen and nutri-

ents to the soil."

Many of the reported benefits of mulching are based on a Michigan State University study done from 1972 to 1974. The study revealed that mulching produces a generally greener and healthier lawn because mulch particles decompose and are absorbed by the grass root system within 14 days.

Mulch, the study showed, returns nutrients to the soil and allows evaporation at the soil level without adding to thatch buildup.

The new tests, as announced by Bolens and Rodale, will be held at the research center's 305-acre facility in Kutztown, Pa.

Two identical grass-covered plots have been set aside. They will be mowed (the grass cut at specific heights) on a weekly basis—one with a Bolens walk-behind mulching mower and the other with a Bolens walk-behind rear bagging model with its collection bag attached.

Intermediate and deep soil cores will be taken before and after each growing season. They will be analyzed for leaching, nitrogen and other mineral and nutrient activity levels by the center staff and by Pennsylvania State University.