

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*.)

SOD

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 50-by-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 annua*'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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12 LANDSCAPE MANAGEMENT/MARCH 1990

POA from page 11

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, Progress 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 bio-

technology 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. □



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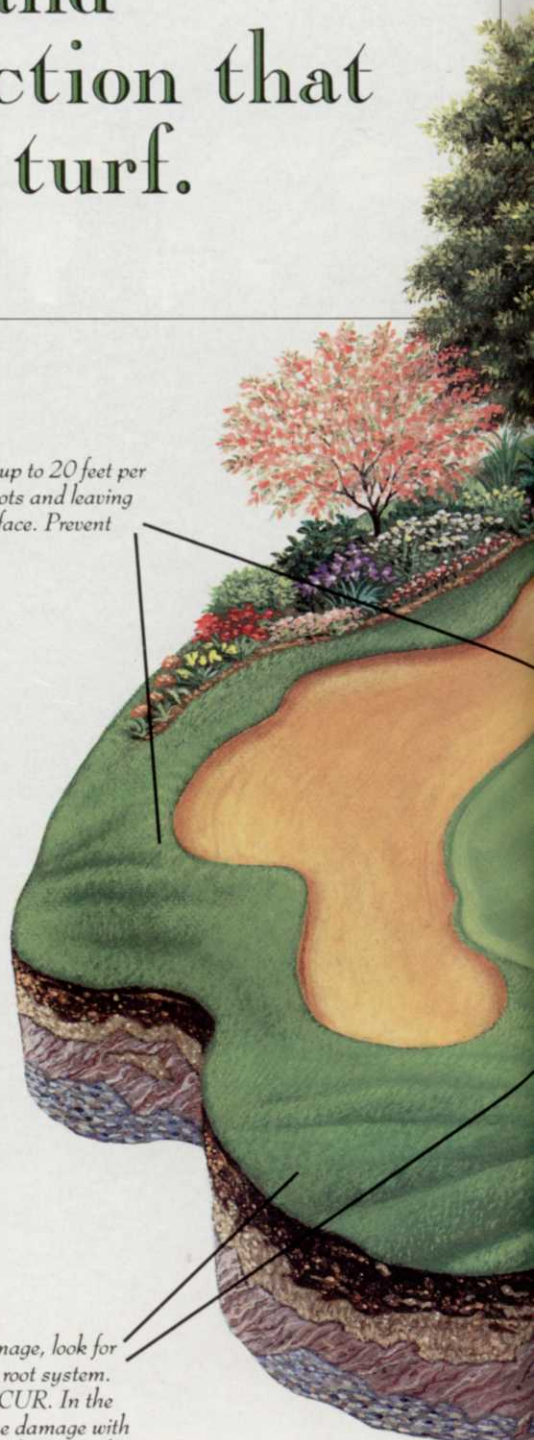
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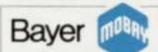
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SHORT CUTS

TIMING IS JOB 1... Irrigation consultant **Tamas Tanto** has learned that timing is important in more ways than one when dealing with irrigation installation. "Basically, clients like a company because it completes the job on time," he says. "There's a real danger that an irrigation company can spread itself too thin when there's a lot of work. By the time a new golf course is ready for irrigation, the job is already way behind schedule."

Often, Tanto notes, course planners don't realize they are behind until the irrigation contractor arrives. In most areas, there is a very small time window in which the grass must be established. "This time cannot be negotiated," he adds. "It's important that the irrigation company bring in a well-oiled machine that can knock the job out, hole by hole, making up for days already lost."

ON PAR IN THE '90s... Golf course architect **Arthur Davis** has some predictions on the direction of his profession in the 1990s. "I think (architects) are going to get away from outlandish architectural styles and ridiculous hole designs in favor of more playable and easier maintainable golf courses that can be constructed at reasonable costs," he says. "Courses that can be built for \$2.5 to \$3 million can now be justified from a player's, developer's and homeowner's point of view. We're going to have to keep golf course costs down but provide a quality product. That's the challenge we face."

FREE TREES... To celebrate Arbor Day, a Southern California nursery donated one tree to area communities for every tree purchased during February at any of its 18 locations. Armstrong Garden Centers is expected to donate about 4,000 shade and specimen trees to area communities during its Treepeat Purchase Program. The program was praised by Los Angeles Mayor Tom Bradley who said, "This program reflects the type of corporate involvement it will take for California to address environmental concerns in the upcoming decade."

THE NAME LIVES ON... For the seventh consecutive year, Lofts Seed, Inc. has awarded graduate students with scholarships in memory of Peter S. Loft. The \$1000 scholarships were awarded to Rutgers students Jane Breen, Leslie Rickert Campbell, Melodee Kemp, Kathi Hoffmann Knight, Karen Plumley, Suichang Sun and Margaret Waters.

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Banff

Kentucky Bluegrass

Banff is a vigorous dwarf variety that was discovered on the Banff Springs Golf Course in Alberta, Canada. There, Banff survived twenty years of continual heavy watering, repeated attacks from snow mold, and close mowing on a putting green. Just imagine what it could do for you. Banff establishes quickly and forms a disease resistant, cold tolerant, dark green turf.

Touchdown

KENTUCKY BLUEGRASS

Since Touchdown's discovery by the late Tom Rewinsky on the National Golf Links of America on Long Island, this elite bluegrass has become the top choice of sod producers. Its aggressive growth habit and rapid establishment crowds out weeds and Poa annua while developing an even, dark green turf.



Mustang is the tall fescue that looks like bluegrass. Its finer texture, darker green color, and wear and drought tolerance have made it the choice for sports field, sod, park, and home lawn use. Mustang is available straight or in TEAM – a three-way turf-type tall fescue blend that also contains Maverick II and Thoroughbred.



Colt is an Oregon produced variety that offers you domestic seed production benefits. It combines superior turf performance and turf quality with genetic adaptation to North American growing conditions. It is dark green, shade tolerant, disease resistant, and very winter hardy. Colt is a vigorous, low-growing variety that has excellent overseeding qualities.



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Spartan is a robust, advanced generation of hard fescue that is dark green, leafy, and persistent. It demonstrates excellent cold tolerance and creates attractive, low growing, low maintenance turf. Spartan mixes well with perennial ryegrass, Kentucky bluegrass, and other fine fescues. It is an outstanding component in many shady and low maintenance mixes suited for use on home lawns, parks, and golf course roughs.

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America is a low maintenance Kentucky bluegrass that has a dense dwarf growth habit, dark green color, excellent disease resistance, and good shade tolerance. Perfect in mixes, America is ideal for golf course fairways, sod production, playing fields, and home lawns.

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Shortstop is the little guy with big benefits. As its name implies, Shortstop is a slower and shorter growing variety of turf-type tall fescue. But don't let its stature fool you. Shortstop is plenty tough. It has heat and cold tolerance, disease resistance and is widely adapted. Shortstop forms a beautiful, dense, uniform turf of finer, darker green leaves.

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Bronco is a very wide bladed Kentucky bluegrass that was developed specifically as a mix companion for turf-type tall fescue. While its texture and color gives it the appearance of a tall fescue, the comparison between the two ends there. Bronco is elite Kentucky bluegrass all the way. Its been bred to be less dense so it won't crowd out tall fescue and yet still aggressive enough to fill in and repair damaged areas quickly. That's what makes Bronco ideal for sports turf use.

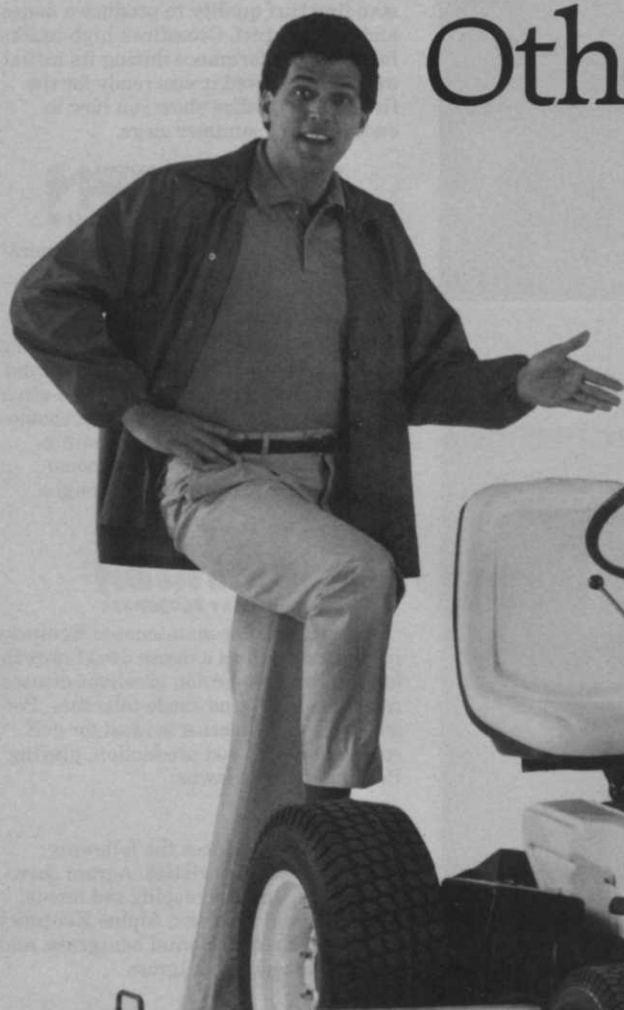
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