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# On Playing Fields, Grass Is an Endangered Species

By DAVID GONZALEZ AUG. 13, 2007

Brandon Diaz ran across the springy grass infield, stood atop the pitcher's mound and, with a short windup, let loose with a curveball to his father, John. The hardball zipped through the warm air, landing squarely in his father's glove with a plop that could barely be heard above the raspy hiss and clang from a high-rise under construction across the street.

Though Brandon, 13, now plays in a Brooklyn league, he and his father love these fields of thick grass near their apartment in Battery Park City. In fact, a lot of people love the fields, which are home to youth baseball and soccer leagues, as well as adult teams. More young players are on the way, too, judging from the apartment buildings that continue to rise on nearby blocks.

The almost unnaturally pastoral feel of these green oases may be a thing of the past, however, because of the area's continued popularity with families. To avoid the ignominy of being trampled underfoot, the grass fields need to be idle all winter, and once a week the rest of the year. As a result, there is increasing pressure from league coaches to install synthetic turf to allow the fields to be used year-round to meet local demand.

Mr. Diaz would like to keep the local fields real. Then again, he has seen nature's niceties give way to the local building boom.

“I used to have a river view in my apartment until they put up another building,” he said. “Look at the shadows on this field. We used to have nice sun in the afternoons until the buildings blocked it off. I’m not crazy about artificial turf, but everything is doable, you know.”

A similar need to increase recreational space across the city has led parks officials to rely on synthetic turf to reclaim bleak asphalt yards or extend the life of scraggly soccer fields. Its proponents also cite its cheaper maintenance costs.

“New Yorkers expect to play where they want, when they want,” said Adrian Benepe, the commissioner of parks and recreation. “Our biggest need is to make a lot of places where kids can play so we can address health risks like obesity.”

But the use of turf has also prompted other health concerns, about the possible dangers posed by the materials used to make it, as well as its ability to soak up so much sunlight that it heats up to extreme temperatures.

Scientists at Columbia University who analyzed satellite thermal images of New York City the past two summers concluded that synthetic turf fields were up to 60 degrees hotter than grass fields. They attributed the difference to the pigments used in making the turf, as well as the turf’s reliance on filaments that increase the surface area that soaks up heat. More important, the turf lacked grass’s ability to vaporize water and cool the air.

Stuart Gaffin, an associate research scientist at the Center for Climate Systems Research at Columbia University, said the synthetic fields get almost as hot as a tar rooftop.

“I’ve been telling everybody that turf is among the hottest surfaces in the city,” said Dr. Gaffin, who is publishing the study later this year. “With the scale we are talking about here, I think they are going to be hazardous places to be during heat waves in the city. I know the public wants these spaces. My position is: Can we engineer a lower temperature?”

Even without the heat, some opponents of turf have raised questions about the recycled tire rubber that is ground up and sprinkled on the turf to give it added

cushion and springiness. William Crain, a psychology professor at City College who paid to have the rubber analyzed, said it contained “worrisome” levels of a known carcinogen, polycyclic aromatic hydrocarbon, or P.A.H. The manufacturer said the chemical could not be absorbed by the skin or stomach, but Dr. Crain insisted further study was needed.

His objections to turf go beyond any possible physical effects it may have. As a psychologist who has studied children and play, he insisted that natural fields stimulated children’s mental development by increasing their curiosity and their powers of observation.

“In a city where there is very little nature left, kids are already living in a synthetic indoor setting,” he said. “When they go outside, they should feel grass and soil. Instead, we’re putting artificial surfaces outside, too.”

Similar arguments are found in Battery Park City, as a task force studies the pros and cons of synthetic and natural fields. The group, whose members said they were leaning toward synthetic turf, will make its recommendation to the Battery Park City Authority, which oversees the area’s development. A final decision may come by the year’s end.

James F. Gill, the authority’s chairman, said he wanted to be sure that his concerns about adverse effects on health were addressed to his satisfaction. At the same time, he understands the unceasing pressure to provide recreational spaces in an area that has seen its population double in the last 10 years. While the area was built on landfill, some from the construction of the original World Trade Center, many residents are now proud of its environmentally friendly reputation.

“We have been on point with respect to being green and protecting the environment here,” Mr. Gill said. “I know artificial turf is not in keeping with that, but it is always a balancing thing. You get something, but you give something up.”

Mark Costello, a parent who is the president of the Downtown Little League, said synthetic turf would double the available playing time.

“The alternative for me is sports fields or my kid in front of a computer playing video games,” he said. “I would love my kids to play on grass for aesthetic reasons. That is just not the reality we are facing. Artificial turf serves urban leagues better.”

The prospect of losing the grass fields at Battery Park City has alarmed Christian DiPalermo, the executive director of New Yorkers for Parks, an advocacy group that last year issued a report urging caution on installing the fields.

“That would be a sin,” he said. “To take away grass in an area with a dearth of parkland just for a few more games? That does not make sense.”

The local support for the fields was typical, Mr. DiPalermo said, of other communities in the city where the turf is seen as a quick fix, rather than part of a long-term strategy. “We know the problem is overcapacity,” he said. “But where is the vision? We don’t even know how long this turf will last.”

Yet the city keeps installing the synthetic fields wherever possible. Commissioner Benepe said that while he was not aware of any hazards posed by turf, he had asked the Department of Health and Mental Hygiene to review the current research on synthetic turf and make recommendations if necessary. He added that his department was trying to see if changing the color or consistency of the rubber used for the fields would result in lower temperatures, too.

“There is nothing inherently dangerous to these fields,” Mr. Benepe said. “What is dangerous is letting kids play touch football on asphalt. There is a greater likelihood of head injuries in a fall than any danger from ingesting the rubber crumbs.”

A few days ago in Red Hook, Brooklyn, a handful of young people kicked soccer balls and ran drills on a smooth synthetic field. At a grass pitch across the street, only pigeons pecked though the scraggly blades that ringed the large bald spot between the goal posts.

The area is so popular that both fields are in nonstop use on the weekends. John Triana, a trainer and coach, said he kept his players off the grass field because it had too many rocks and sometimes even glass shards.

He admitted that the synthetic field sometimes looked like a desert in the summer, with shimmering waves of heat rising from its surface. On hot days, he makes his players take water breaks every six minutes. Sometimes they get blisters on their feet.

Still, he said, most players liked it.

“You can run faster,” he said. “It’s like playing on a pool table.”

Personally, he preferred playing on grass. It gave him a visceral kick back to his college days.

“You smell the grass and it reminds you of competition,” he said. “Dewy grass in the morning is like, wow, the preseason. It sends chills up my spine like nothing else. Artificial turf doesn’t give you that.”

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