

An aerial view of a sports stadium. The top half shows a football field with yard lines and a scoreboard in the center. The bottom half shows a baseball field with its characteristic diamond and bases. The stadium seating is visible in the lower right. The text 'FIELD turf' is overlaid on the top half, and 'Performance Analysis' is overlaid in the center.

FIELD turf[®]

Performance Analysis

Whether you have been involved in a sports facility management role or not, the process of bringing an artificial turf field to life can be a tricky one. There are many steps and stages that need to be considered in order to ensure that the best interests of your facility, finances and future are being taken care of.

In an industry notorious for company bankruptcies and worthless warranties, FieldTurf stands apart. It has always been both innovative AND profitable. Through Tarkett, in operation since 1872, FieldTurf enjoys the strongest equity base in the entire industry. Profitable year after year, the sound financials of the company ensure that our customers' investments are fully and carefully protected.

When it comes time to making a decision which will have a significant and direct impact on the future of your facility, being well informed is the best way to ensure success. Some people with their own agenda attempt to sway people from purchasing synthetic turf citing various unfounded reasons. The research has been done. The studies exist. Get the facts and find out for yourself.



- 1 Proven Performance** - FieldTurf has what every athletic program needs. The most durable and the safest turf on earth. That reputation was built at America's Schools - one field at a time.
- 2 Customer Service Track Record** - FieldTurf maintains the only fully functioning and self-sufficient team in the business.
- 3 Financial Stability & Insured Warranty** - FieldTurf enjoys the strongest equity base in the entire industry.
- 4 Performance Infill** - By implementing a three layered silica sand and cryogenic rubber system, FieldTurf fields have been praised as the closest thing to natural grass.
- 5 True Monofilament Fibers** - Featuring a unique and durable spine within each fiber, FieldTurf's monofilament fibers have been built to last.
- 6 Quality Control** - From the beginning, FieldTurf's founders recognized that total quality control could only be guaranteed by being masters of their own destiny. FieldTurf's plants ensure a consistent high quality product and uniform installations around the globe.
- 7 Design Capabilities** - Using FieldTurf's design/build structure, you can assure that the best team is assembled - the best supplier with the best design team.
- 8 Installation Experience and Seaming Technology** - With so much riding on the quality of the seam construction, FieldTurf has chosen to invest in sewn seams rather than the cheaper glued alternative.
- 9 Long-Term Cost Savings** - Despite having a higher initial sticker price, FieldTurf still offers potential savings of almost \$1,000,000.00.
- 10 Testing** - A long-term, ongoing testing program has proven that FieldTurf is safer than any other turf system and equal to, if not better than, natural grass in most critical areas of player safety.

Annual Maintenance Costs

(Based on Field Size of 80,000 Square Feet)

| | Natural Grass Field | FieldTurf Field |
|---------------------------------|---------------------|-----------------|
| Mowing Equipment | \$7,000.00 | |
| Labor Cost (\$90/hour) | \$6,000.00 | \$10,000.00 |
| Clipping Removal | \$2,800.00 | |
| Fertilization | \$4,200.00 | |
| Overseeding | \$400.00 | |
| Crating | \$2,240.00 | |
| Regripping | \$9,565.00 | |
| Track Removal | \$185.00 | |
| Monitor Irrigation | \$846.00 | |
| Equipment Depreciation and Fuel | \$1,500.00 | \$1,000.00 |
| Water Cost | \$5,400.00 | |
| Tie-Staking Field Lines | | |
| Labor | \$5,200.00 | \$1,000.00 |
| Material | \$1,105.00 | \$1,000.00 |
| Total | \$52,500.00 | \$5,000 |

Cost per Use: Natural Grass vs. FieldTurf

(Based on Field Size of 80,000 Square Feet)

| | Natural Grass Field | FieldTurf Field |
|--|---|---|
| Base: | | |
| Excavation, preparation, engineering, Estimated cost | Same \$120,000.00 | Same \$120,000.00 |
| Materials: | | |
| Sod (\$2.75/sq. ft.) | \$220,000.00 | |
| Field Turf (\$1.00/sq. ft.) | | \$400,000.00 |
| Maintenance: | | |
| Insecticides, pesticides, re-seeding, water, mowing | \$52,500.00 x 10 yrs = \$525,000.00 \$1,085,000.00 | \$5,000.00 x 10 yrs = \$50,000.00 \$710,000.00 |
| Refracting possibilities: | 40 hrs x 25 weeks x 10 years = 10,000 hours | 68 hrs x 44 weeks x 10 years = 29,820 hours |
| Average cost per hour of use: | \$100.50 | \$25.74 |

10 Year Cost Analysis

(Based on Field Size of 80,000 Square Feet)

| | Natural Grass Field | FieldTurf Field |
|-----------------------|---|------------------|
| Initial Capital Cost | \$140,000 | \$720,000 |
| Year 1 | New sod, Drainage, Irrigation \$52,500 | \$0.000 |
| Year 2 | \$52,500 | \$5,000 |
| Year 3 | \$52,500 | \$5,000 |
| Year 4 | \$52,500 | \$5,000 |
| Year 5 | \$52,500 | \$5,000 |
| Year 6 | \$52,500 | \$5,000 |
| Year 7 | \$52,500 | \$5,000 |
| Year 8 | \$52,500 | \$5,000 |
| Year 9 | \$52,500 | \$5,000 |
| Year 10 | \$52,500 | \$5,000 |
| Ten Year Total | \$1,065,000* | \$770,000 |

*Does not include downtime for re-seeding/ seeding, or unfavorable field conditions.

Profitability Study – FieldTurf vs. Natural Grass



Playable hours per year

68 hours/week X 44 playable weeks

Total:

Average field rental rate/hour

2,992 hrs/year

\$100.00/hour

Potential field income/year

Playable hours/year

Average field rental rate/hour

Potential field income/year

2,992

\$100.00

\$299,200

These figures are based on average playable hours in a year and typical field rental costs across different climates and locations. Historically, FieldTurf fields have been rented for a higher dollar amount than grass fields.

Natural Grass

Playable hours per year

40 hours/week x 25 playable weeks (Downtime, re-sodding)

Total:

Average field rental rate/hour

1,000 hours/year

\$75.00/hour

Potential field income/year

Playable hours/year

Average field rental rate/hour

Potential field income/year

1,000

\$75.00

\$75,000



FieldTurf was not engineered to be the lowest bid. It was engineered to be the best product. As the years go by, the FieldTurf system will not only be safer and play more consistently, but will need less maintenance and will last much longer than our competitors' fields. Many in the industry like to make such claims, but simply have no proof to support it. FieldTurf fields have been in the ground for over 10 years of consistent play, season after season.

Many of our current clients selected FieldTurf despite low-ball offers of almost \$100,000 less from other turf companies. Why are they so happy with spending more? Because they did their research and opted for the long-term durability and consistency that only the FieldTurf system can bring to their programs. Years after installing FieldTurf, our clients are not only thrilled with their purchase but many have enjoyed a significant return on their investment – even after 10 years!

Quality is the primary determinant for the return on your investment.

| Artificial Grass Fields Still in Daily Use | FieldTurf | Competition Combined |
|--|-----------|----------------------|
| 5 + years old | 1087 | 90 |
| 6 + years old | 765 | 35 |
| 7 + years old | 538 | 14 |
| 8 + years old | 360 | 7 |
| 9 + years old | 235 | 1 |
| 10 + years old | 116 | 0 |
| 11 + years old | 54 | 0 |
| 12 + years old | 15 | 0 |
| 13 + years old | 4 | 0 |

Statistics as of June 2009





FieldTurf and the Environment

FieldTurf uses only approved and tested materials in all of its products. These have been tested to confirm yet again that FieldTurf's products are safe for all players, coaches and anyone else who steps on a FieldTurf field.

The installation of FieldTurf eliminates the use of harmful pesticides, fertilizers, herbicides and fungicides, while at the same time removes thousands of tires from landfill sites. FieldTurf requires no mowing, fertilizing, reseeding or watering and promotes a healthy lifestyle. FieldTurf helps organizations earn the necessary points needed for U.S. Green Building Council LEED certification. FieldTurf's reused rubber content and water use reduction, among other factors, can contribute multiple points towards LEED certification.

The components in the FieldTurf system, installed on more than 3500 fields worldwide, have a positive impact on the environment. The FieldTurf system has worked wonders for organizations all over the world as a product that reduces water consumption and pollution caused by chemical use, while increasing playing time, reducing injuries and promoting a healthy lifestyle.

FieldTurf saves a billion gallons of fresh water every year. Coupled with reduced labor costs related to maintenance, equipment and elimination of costs for supplies such as fertilizers, herbicides, and pesticides, many of our clients report a reduction in maintenance costs of as much as \$60,000 per field, per year.

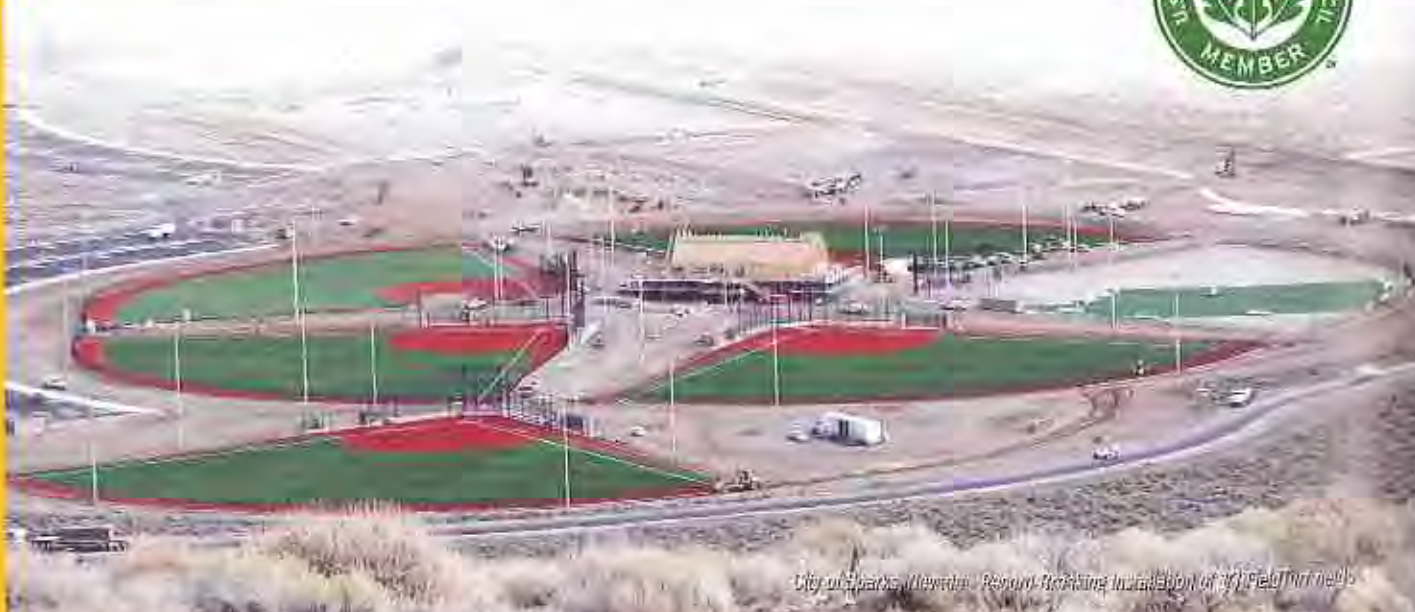
"We're very happy to have FieldTurf join the GreenScapes team in our efforts to help to prevent pollution and conserve resources in our landscapes," stated U.S. Environmental Protection Agency (EPA) Greenscapes Program Manager, Joan Schwab.

Hundreds of studies have been completed to discover the truth about any potential risks of artificial turf. Government health ministries and environmental bodies around the world have commissioned extensive research.

So have world health organizations, leading universities and independent scientific committees. Elected officials have reacted to the concerns of their constituents by commissioning studies to get the facts. The research has been done. The studies exist. Get the facts and find out for yourself.

Read what the experts have to say in independent testing, studies and reports on the potential health and environmental impact of artificial turf.

For more information on FieldTurf and the Environment, please visit www.fieldturf.com/environmental-responsibility



Bio-Mechanical Properties for Safety & Performance

A long term, ongoing testing program has proven that FieldTurf is safer than any other turf system and equal to, if not better than, natural grass in most critical areas of player safety. No other company can make such a claim. Independent safety tests and in-house performance testing have been an integral part of our business philosophy since the very first field we installed. Testing proves that on FieldTurf:

- Traction, from a sports medicine standpoint, is better.
- Torsional release, critical to minimize non contact knee and ankle injuries, is quicker.
- Shock attenuation properties are ideal - in fact, vs. natural grass, FieldTurf reduced neural injuries by 55% and cranial/ cervical injuries by 47%.

We're committed to your safety! No one tests like FieldTurf.

Our safety is a proven fact, not an empty claim.

INJURY INCIDENCE, ETIOLOGY, AND SEVERITY OF GAME RELATED HIGH SCHOOL FOOTBALL INJURIES ON FIELDTURF VERSUS NATURAL GRASS:

New England Journal of Medicine - October, 2004

55% Fewer Neural Injuries

Type of Tissue Injured - Based on the total percentage of injuries reported on each playing surface, a significantly greater percentage of neural injuries were reported on Natural Grass vs. FieldTurf. (16.8% Natural Grass vs. 7.5% FieldTurf)

47% Fewer Cranial / Cervical Injuries

Anatomic Location of Injury - More cranial / cervical injuries were reported on Natural Grass than on FieldTurf. (19.2% Natural Grass vs. 10.2% FieldTurf)

45% Less Time Lost to Injury

Injury Time Loss / 22+ Days - Injuries which resulted in a time loss of 22 days or more were reported more frequently on Natural Grass than on FieldTurf. (13.6% Natural Grass vs. 7.5% FieldTurf)

38% Fewer 3rd Degree Injuries

Injury Grade - More 3rd degree injuries were reported on Natural Grass than on FieldTurf. (12.8% Natural Grass vs. 7.9% FieldTurf)

35% Less Time Lost to Injury

Injury Time Loss / 1 - 2 Days - A significantly greater percentage of injuries resulting in a 1-2 day time loss were reported on Natural Grass vs. FieldTurf. (28.0% Natural Grass vs. 18.4% FieldTurf)

Over a five year period of competitive play, significant differences in the incidence, type and severity of game-related injuries were observed between playing surfaces. In regards to reducing the number of game-related, high school football injuries, current findings suggest an advantage in selecting FieldTurf over Natural Grass.

A FIVE-YEAR PROSPECTIVE STUDY - MARCH 2003; - Bill S. Barnhill, MD, Michael Myers, PhD FASCAM



Comparing The Head Impact Response of Three Artificial Turf Systems

Laboratory impact tests compared the head response of three artificial turf systems: the FieldTurf system; a system comprised of rubber and sand infill; and a system of all-rubber infill. Drop tests were done from various heights, with impacts to the rear of an instrumented anthropomorphic mannequin headform. The greatest difference was observed at the lower drop heights. Peak headform acceleration was recorded for both helmeted and bare head hits. In helmeted tests, FieldTurf showed the lowest headform Gmax. In bare head tests, FieldTurf showed the lowest headform peak acceleration Gmax.



BIOMECHANICS AND ASSOCIATES - DECEMBER 2004