

Everything you wanted to know about artificial turf

[Rachel Brady](#)

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A coalition of female World Cup soccer players have filed a gender discrimination complaint against FIFA and the Canadian Soccer Association, for [failing to provide real grass for the upcoming Women's World Cup in Canada](#)

[\[http://www.theglobeandmail.com/sports/soccer/experts-say-players-present-strong-gender-discrimination-complaint/article20903800/\]](http://www.theglobeandmail.com/sports/soccer/experts-say-players-present-strong-gender-discrimination-complaint/article20903800/). They contend the organizations are discriminating against women by holding the 2015 Women's World Cup on artificial-turf fields in Canada, because men have only ever played their World Cups on grass and will play their next two on

the natural stuff as well.

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What's the current state of artificial turf?

One of the main differences between synthetic turf used today and older versions is the use of infill material, which gives the surface far more cushioning and acts as artificial earth, providing more shock absorption and natural footing. That infill is made of materials such as sand and rubber crumbs produced from ground-up recycled tires. Older versions of synthetic turf had shorter piles of synthetic grass blades that were more abrasive to the skin, and used just sand as infill, or none at all. Today's have longer piles made of plastic fibres, which feel softer than in the past.

What is FIFA's standard?

The artificial-turf pitches for the 2015 Women's World Cup must be 2-Star recommended fields, the highest standard within the FIFA Quality Concept for Football Turf. The pitches can only be from one of FIFA's select group of approved manufacturers. All competition and training fields from the six host Canadian cities must be rigorously tested within one year of competition. The physical materials are measured and tested, as well as the field's durability, the reaction of the ball on the surface and the reaction of a player to the surface.

Has natural grass been installed over artificial?

Yes. When the United States hosted the men's 1994 World Cup, FIFA installed real grass on top of the artificial stuff at the Pontiac Silverdome, then the home of the NFL's Detroit Lions. It was the first time World Cup matches would be played indoors. Experts in turf-grass management at Michigan State University spent 18 months trying to figure out how to keep grass alive inside a domed stadium for the month-long tournament, and came up with the world's first portable natural-turf-grass system: 1,900 hexagonal aluminum trays, each containing about 50 square feet of grass, which would be wheeled in and out. That single-field conversion cost FIFA about \$2-million (U.S.).

How could the artificial turf be converted to grass for the women's tournament?

If organizers had to put the tournament on grass, they would either move the games to appropriate grass fields or put temporary natural grass right on top of the artificial-turf surfaces. The cost estimates for conversion vary wildly, but one expert estimated about \$600,000 to \$700,000 a field. It would likely be done by putting a series of trays of soil on top of the synthetic surface, and then putting thick sod on top.

Why do many soccer players prefer natural grass?

Synthetic surfaces are used for soccer at many levels around the world, as well as field hockey, rugby and NFL and NCAA football. It is used in CFL stadiums – five of which are being used for this Women’s World Cup (Edmonton, Montreal, Ottawa, Winnipeg and Vancouver). In fact, many of the women who will play in this World Cup play in small artificial-turf stadiums in the National Women’s Soccer League, saying they do what they must to build a foundation for their young league. The ball moves differently on synthetic turf, changing the way the game is played and the abandon with which they play it, many soccer players say. Sliding on it can be more painful than on natural grass and diving headers more risky. On a hot, sunny day, artificial turf heats up, thanks to its black infill and synthetic grass fibres, and watering it only does so much to cool it down.

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