

Perfect Pitch

In the competition to provide the best grass to football stadiums on all five continents, the Dutch are in the lead. They provide the perfect stage for the majestic movements of (soon-to-be) legendary footballers, which are captivating audiences all over the world.

Text Edwin Winkels

Seen from the air, the Netherlands appears to be one vast green pasture. Green stretches as far as the eye can see. Fields bask in joyous sunlight on some days, and are darkened by clouds on others. They are frequently irrigated by rainwater and demonstrate countless shades of green. The landscape is flat, of course. Not a single knoll in sight. As level as a chessboard, consisting of slightly irregular squares. Separated by roads, paths and mainly water. Indispensable water. Without it, those shades of green would never have become so vivid.

The Netherlands is one of the world's most densely-populated countries. However, airline passengers don't see endless metropolises as their flight descends towards Amsterdam Airport Schiphol. They mainly see green grasslands. And a great deal of water. This isn't an optical illusion: the Netherlands has one million hectares of grassland, a quarter of the country's total surface area. Another 18% is water, so grass and water account for nearly half of the country's surface area.

Grass is primarily intended for livestock, either fresh or dried as hay. The Netherlands is home to some 4.1 million cattle and 12.6 million pigs. But that's another story... We're focusing on the grass for now. Not just for grazing, but also for playing football. From Amsterdam to Rio de Janeiro, from Johannesburg to London, from Barcelona to Denver and from Beijing to Paris, Dutch green pitches can be found in the world's most famous stadiums.

Flat and humid land

Well... 'Dutch grass'? The most common varieties of grass used on sports pitches are English ryegrass in colder climates and Bermuda grass in warmer regions. And there are countless other varieties. So, the names and origins tell us that this famous Dutch grass isn't actually from the Netherlands. However, the companies that grow, sell, plant, develop and love that 'green gold' often are. This is the land of grass, which grows exceedingly well in the country's 4,000 *polders*, land reclaimed from the sea. This flat, humid country – mainly below sea level and full of peat bogs – is ideal for grass.

At pitches throughout the world, countless tears of joy and sorrow have been shed

The Netherlands is also known for its initiative, discoveries, export, commerce, technology and vision. "In 1908, the founder of our company, Joseph Barenbrug, penned a scientific study titled *Money in grasses*. "He was ahead of his time, with his ideas for improving grass and considering it a profitable product," says Jan van den Boom, Product Manager Recreational Grasses at Barenbrug. Still a family company, this firm is one of the largest global players in grass. The company is present in 18 countries, on all continents. Barenbrug has provided pitches for, amongst others, the Beijing National Stadium and several stadiums hosting the 2010 World Cup in South Africa and the 2014 World Cup in Brazil.

"The Dutch are commercially-minded and innovative, but in all honesty no one knows more about taking care of sporting grounds than the English," adds Marc Vercammen, the Flemish general manager of Dutch Desso Sports Systems. "The full-time groundsman's position has existed for a very long time and requires a great deal of education and knowledge. In this way, the British have built up a strong lead." This lead has evolved over the centuries: football was already being played at British boarding schools in the 19th century, and the country became the birthplace of modern organised football. On grass.

However, the British weren't exploiting this knowledge beyond their own borders. >

Green science

The scientific name of grass is *Poaceae* (formerly called *Gramineae*), a big family of flowering plants with one embryonic leaf. According to the *Encyclopædia Britannica*, the *Poaceae* are the world's single most important source of food. They grow on all continents, in desert, fresh water and marine habitats, and at almost all heights. Plant communities dominated by grasses account for about 24% of the Earth's vegetation. According to different studies, there are about 12,000 grass species, which make the *Poaceae* the fifth biggest family of flowering plants.

“The Dutch did exactly that,” says Vercammen. “We, at Desso, and the companies we work with, such as Hendriks Graszoden Group, export our knowledge and technology.” His company’s hybrid turf – artificial fibres injected into a natural field of grass – has claimed a significant share of the English market. Their GrassMaster system can be found in 16 of the 20 Premier League stadiums. And another Dutch Company, TenCate Grass, is the worldwide leader in artificial grass for sports pitches.

Oasis in the desert

Half a century ago, nobody seemed too worried about the state of football pitches. Even at the highest level, matches were played on ordinary grass intended for grazing livestock, albeit trimmed short. Fields were bumpy and lacked proper drainage. Such appropriately nicknamed ‘turnip fields’ would be soggy in the autumn and bone-dry in summer. Clubs would sporadically hire a single gardener to maintain them.

The 1970s and 1980s saw considerable development in the cultivation of dedicated ‘recreational grasses’. Nowadays, every leading football club employs a dedicated groundsman and an entire team of employees. Immediately after a game, they’ll be repairing damage to the pitch. Grass is mowed, uprooted soil pushed back or replaced, and patches of grass are re-sown. The groundsman is also well aware of threats to the grass, such as diseases, bacteria, drought et cetera.

Drought... Outside humid European regions, having a pitch was always considered a luxury, reserved for professional clubs. Junior and amateur games would be played on sand, gravel, or the steadily advancing artificial turf. Most football stars learned the game on poor pitches. Grass was something they barely saw in their youth, except for a few isolated patches, like an oasis in the desert.

Wembley Stadium in London was always called the ‘holy grass’. For good reason: the perfection of its pitch was unattainable for most; the turf contributed enormously to its fame. Even experienced players were amazed. The original stadium – rich in symbolism, with its two towers and magnificent stands – was demolished in 2003.

Diego Maradona saw the ball jump around with a mind of its own on a bone-dry, uneven field

At Wembley and other pitches throughout the world, countless tears of joy and sorrow have been shed. Between the lines, the greatest players in history displayed their prowess. Millions watched them in real life, billions more saw them on television. Initially in black-and-white: Alfredo Di Stéfano and Pelé in the 1950s and 1960s. Then, in the 1970s, Johan Cruyff came along. The most famous Dutchman of all time was a flamboyant, graceful ballet dancer on the pitch. He learned to play football on the streets, on the asphalt between the houses in Amsterdam’s Betondorp district. Soon, he was making his way across the street, onto the green grass of the Ajax stadium, which he had always dreamed of.

No more bald patches

Football and grass enchant and inspire fine words, not just from ordinary fans. Uruguay’s most famous poet, Mario Benedetti, dedicated a short poem to grass: “The grass. From the terraces, it looks like a green carpet. Smooth, regular, velvety, stimulating. Looking from the stands, you might think it impossible to miss a scoring opportunity, or make a wrong pass. The player knocked down appears to fall onto a feather mattress.”

A velvet carpet, a down mattress... Van den Boom might agree. “It’s difficult to create a really bad pitch these days. The techniques, the breeding... everything has developed so much over the last 30 years. The grass on playing fields has nothing to do anymore with

grass in the meadows. If the structure of the soil, the type of grass and field management have all been taken care of, our experience and everything we have learned allows us to create top pitches anywhere.”

You’ll no longer find bald patches – especially in the goal areas – on the pitches of the major clubs. Things were different at the 1986 World Cup in Mexico. During his majestic movement towards the English goal – possibly the best run in football history – Diego Maradona saw the ball jump around with a mind of its own, on a bone-dry, patchy, uneven field. When fellow Argentine Lionel Messi copied this historic solo 21 years later in Barcelona, the ball rolled flawlessly from the centre line, as if the pitch were a pool table.

Ordering a new field

The builders and operators of new stadiums don’t make the grass masters’ work any easier, though. On the contrary: in the latest, almost fully covered stadiums, hardly any sunlight reaches the blades, and air circulation is less than optimal. That’s harmful to the grass, which is, after all, a living crop. Without water, air or light, it loses its fresh green hue.

What’s more, the grass has to handle more than football matches. Huge summer pop concerts are disastrous for the ground, which is covered up for the occasion. “If the grass remains covered for a week, it dies,” say both Van den Boom and Vercammen. “However, club or stadium owners make so much money from big events that they can simply order a new pitch,” adds Vercammen. An entirely new field of grass will cost between €100,000 and €150,000; a mega-event will bring in ten times that amount. However, the pitch needs to be ready to play on within a matter of days, and the Dutch make it happen, with a specially grown sod that quickly takes root. If a club seeds a completely new pitch, it can’t be played on for six to seven weeks.

Artificial grass could be a solution, but top stadiums won’t even consider this option; players aren’t used to it and don’t like it. Balls bounce and roll a little harder on artificial pitches. What’s more, international football associations don’t want their tournaments – international showcases for the sport – to be

played on artificial turf, unlike, for example, soccer and baseball in the United States.

There is increasing interest in an ‘intermediate solution’, though, which Desso has patented: the GrassMaster system injects 20 million artificial fibres at a depth of 20cm into a natural grass pitch. “This makes the field stronger, more resilient,” says Vercammen. “It can be played on for longer than purely natural grass. Pitch technology has improved enormously. The fact that it doesn’t look like artificial turf is an advantage to players. They don’t quite realise that there are fibres in the ground. Although they do sometimes take advantage of its properties: someone like FC Barcelona’s Neymar says he can now attempt feints that would normally cause him to slide across the pitch.”

Just walk onto a well-kept famous stadium pitch. It’s not only the surrounding grandstands that might impress you. You may also discover perfection on the ground: a seemingly endless lawn measuring 7,000m², with blades of grass between two and three centimetres high. “Grass is for cows,” former tennis pro Ivan Lendl once said, as he could never win on the grass of Wimbledon. Yes, the Dutch grass masters agree, grass is for cows. Grass is there to feed the world and always has been. But grass is also there to provide the world with the best entertainment. ■



‘Dutch’ stadiums

The grass of Dutch companies is used in many stadiums all over the world. Mostly in football stadiums, like Wembley (1) and the Emirates Stadium in London, Camp Nou in Barcelona (2) and San Siro in Milan, but ‘Dutch grass’ is also seeded or planted in a historical rugby ground like the English Twickenham Stadium (3). Also, the Dutch expertise has been used to provide perfect pitches for big international events, such as the 2006 and 2010 FIFA Soccer World Championships in Germany and South Africa, respectively, and the 2008 Olympic Games in Beijing.