Maintaining Good Golf Courses: Why It's Difficult In China?

中国为什么养不出好球场?

近年来，中国建造了很多国际型大球场，可是中国球场的养护状况却不容乐观。为什么中国可以建出好球场却养护不出好球场？是养护技术的落后，还是另有原因？本期的建造看点，邀请 Flagstick高尔夫球场建造管理公司的两位主要负责人为您道出他们眼中中国球场养护问题频出的根结所在……

建出好球场，却养不出好球场

毫无疑问，现在世界上建造的新球场中最优秀的球场都出在中国，尤其是最近五年来，中国向世界展示了很多出色的球场。但是，同时我们也清楚地看到，中国能建造出一流的球场，却往往在如何养护出一流的球场上困难重重。过去10年来，很多在中国新建的球场在遭遇了严重的养护问题后，不得不一再地找人翻修、重建或者给整个球场重新种草。原因何在？

我们不是农艺学家，我们的公司也不提供农艺学方面的服务。但是，在我们看来，中国的球场之所以出现以上问题，可能并不是由于“养护”本身的问题，当然也不是说中国的球场总监们能力差。那么，设计建造方面有没有问题呢？实际上，很多情况下，中国的很多高尔夫球场都是由很著名的公司负责设计建造，据我所知，他们所采用的技术一般都是得到业内的广泛认可的。那么，问题到底出在哪里？为什么这些起点都不低的球场，想要养护出好的打球质量却是如此之难？

建造材料的质量是关键

这个问题很难一而概之，但是基于我们的所见所闻，我们觉得中国的很多高尔夫球场，不管是以前建造的，还是在建的球场，很多都使用了不合标准的建造材料。尤其是，在采购沙子和灌溉设备时，无原则地削减成本和拿回扣已经成了一种风气。很多供应商在销售时，往往只关心怎样能拿到更多的利润，而“怎样更长远地有利于将球场养护至国际水平”则早已被抛到九霄云外。

就拿建造球场的沙子来说吧，沙子的质量或许最能体现这种现象对于球场的影响。无论在哪里建球场，想要建造出世界一流的高尔夫球场，沙子往往会成为球场建设最大的一项开支。每次，只要我们刚一说出我们有项工程需要沙子来建果岭或者给球道铺沙，那第二天早上在我的办公桌上准会出现40袋沙子样品！可是，就算我们细细检查了那些装有2升沙子的样品，我们第二天也依然很难确定是否要订购1万甚至10万立方这种沙子。因为我们不能确定到时拉到工地上的沙子的质量是否和样品袋里的沙子质量一样。

为什么这一点很重要呢？其实任何一个草坪总监都能理解，如果用于建造果岭的沙子质地过于细密，就会导致其推杆表面的排水不畅，而排水不畅的地段，土壤就会过度板结。这也就意味着，在土壤板结的地段，草坪草的根系就不会最大限度地深扎根，草坪整体的健康状况就不容乐观。而如果沙子太粗，则不能很好地涵养养分，同时也无法涵养足够的水分来促进草坪草根系的健康生长（而且大一些的沙砾最终也会慢慢地突出地面从而对剪草机的刀刃等造成伤害。）

我们公司在世界各地都建造了世界级的高尔夫球场。虽说采购质地均匀的沙子以及砾石材料无论在哪都不是一件容易的事，可是我不得不说，在中国，想要买到满意的沙子最为艰难。这里的很多供应商们总是在质量上一再妥协，以便自己能赚到更多的钱而很少考虑到球场以后的质量。

我们这些设计建造商们已经习惯了不断同这样的现象作斗争，但这不是我们想说的重点。我们还想提醒大家的是，在建造材料的质量方面一再退让会导致更多的问题出现，会损失掉很多业内人的利益。建造材料不合标准，球场的打球状态在短短几年的时间内就会直线下降，球场业主将会不得不投入大量金钱和人力来翻修甚至重建球场。再好的草坪总监，面对一个用不合标准的沙子建造起来的球场，也会变得束手无策，更别提什么养护出国际一流的打球状态之类的目标了。

根据我们的经验，一个使用符合标准的建筑材料、经过合理的设计、施工建造的高尔夫球场，其绝佳的养护状态一般能保证30-40年不变。然而，运往中国高尔夫球场的建造材料却往往都不符合规定。我们认为，这就是导致中国球场在很短时间内，其养护状态直接下降的原因所在。

来看一下昆明春城湖畔球场，这座球场建造于20世纪90年代中期。当时，我（马丁·摩尔）是尼克劳斯设计公司的工程经理，参与了这座球场的设计建造。这么多年过去了，它仍然可以称得上亚洲地区养护的最好的球场之一。除了球场自身的努力外，设计建造使用材料的严格要求也是其中重要的原因。因为我们可以向你保证，这座球场建造使用的材料绝对是高质量且完全符合建造要求的。

我们公司在建造观澜湖和其他球场时也都使用了高质量的建造材料，这就是为什么我们能保证球场日后的养护一定能达到高标准的最重要的原因。

昆明春城湖畔球场

灌溉系统也要符合标准

近年来很多在中国新建的球场令人担忧。大家只看到大量球场在兴建，却往往忽略了其质量。导致这些球场养护频频出现问题的另一个重要的原因就是劣质的灌溉材料。一般，球场的灌溉线路都要经过专业的设计。可是，我们却常常看到，很多灌溉设备的批发商（并非设备的生产商）主动提出给球场重新设计灌溉线路以此来更好地推销自己的产品。有好几次，我们到达施工现场考察后发现，球场最初的设计其实挺好的，可是问题就出在后来又改变了的灌溉系统上。那些非专业的灌溉系统很多地方都不符合标准——喷头喷射范围不足，自动控制能力有限等等问题层出不穷，严重影响了球场的养护。

除了灌溉系统设计不合理外，给球场的长期养护带来更多危害的是球场用来建立灌溉系统的各种设备。很多球场的灌溉设备显然不能满足灌溉需求。我们看到有的球场的灌溉设备主线闸门阀竟然都是自来水厂专用的那种闸门阀。这些闸门阀一般不能直接埋在地下使用。有的时候，我们的客户经常提出要购买那种便宜的黄铜阀门，而这种阀门通常都太软了——有的时候关不紧，就会常常漏水。还有些客户总是想将一些同样不能用于直埋的金属线拿来用在灌溉系统上。这怎么能不出问题呢？灌溉系统很多可都是埋在地下的！

中国的球场草坪总监认为良好的灌溉是球场养护的支柱。但是我们看到很多的泵站都只配备了一些发动机，用来将水抽出来再通过管道输送到目的地，整个系统没有传送通信的功能、没有压力控制等等。这里我们想提醒一下大家，从长远来看，没有合理的灌溉设备和材料，草坪总监想要把草管理好是很难的。

那么解决之道在哪？我想单靠设计师和建造商的努力是不够的，球场草坪总监、球会经理以及业主们要和大家一起抵制那些样品提供和最终货品不一致的供应商，大家必须共同监督，确保球场使用合适的、专业的材料和设备。

惟其如此，才能让整个市场更加规范，同时也能保护那些优秀的产品供应商，以促进整个行业的健康发展。从长远看来，这不单为业主节省了开支，也使其他相关的业内人受益，最终塑造出高质量的球场。GP

（文/马丁·摩尔、托尼·坤佐）

Maintaining Good Golf Courses: Why It's Difficult In China?

In recent years, there have been numerous high-profile international golf courses built in China, but, despite that, it is hard to be optimistic about the state of golf course maintenance in China. Why is it possible to build great golf courses in China, but so difficult to maintain them? Is it a lack of course maintenance knowledge and skills, or something else? For a deeper look at recent construction issues, we invited the two principals of Flagstick Golf Course Construction Management to give you their take on the most common causes of maintenance problems…

Building Exceptional Courses... But Not Maintaining Exceptional Courses

There is little doubt that a majority of the world's finest new golf courses are being built today in China. One could argue this has been true for the last 5 years.

Yet it's also clear, to us, that too many Chinese courses have experienced difficulty maintaining world-class playing conditions. Far too many "new" courses — those built in the last 10 years — already face the prospect of renovation, rebuilding or regrassing in order to address these serious maintenance problems.

Why?

We at Flagstick are not agronomists, nor do we offer agronomic services. However, in our view, this is not a "maintenance" problem, nor is it evidence of any lack of skill from Chinese course superintendents. In fact, in most cases, these golf courses were built by reputable firms, employing established construction techniques.

Quality Construction Materials Are Critical

So, what is the problem? Why are these new golf courses proving so difficult to maintain to high standards?

It's difficult to generalize, but it's our strong feeling that too many Chinese courses were built, and continue to be built, with sub-standard materials. In particular, the sourcing of sand and irrigation equipment is too often compromised by a culture of cost-cutting and kickbacks. Too many suppliers are more concerned with making a profitable sale than ensuring the client's golf course is efficiently maintained, to international standards, over the long term.

Sand quality is perhaps the best example of this dynamic. Sand represents one of the biggest budget items in the construction of any world-class course. If we let it be known that a project needs sand for greens construction and fairway sand-capping, we will have 40 sand samples on our desks the next morning! Yet, when we examine a 2-liter sand sample, it's very difficult to ensure that when we order 10,000 to 100,000 cubic meters of sand, it will arrive on the project site with the same quality.

Why does this matter? Well, as any superintendent understands, if the sand used for a green's construction is too fine, that putting surface will not drain uniformly, which leads to excessive compaction, which means turf in compacted areas will not establish optimum root depth and overall health. If the sand is too coarse, it will not hold nutrients well enough; it won't hold water long enough to foster healthy root growth (and bigger particles will eventually rise to the surface and damage mower reels).

Our company has built world-class golf courses all over the world, and sourcing consistent sand and gravel materials is always a challenge, everywhere. But it's most difficult in China, where suppliers are too eager to compromise quality, thereby making a bit more money for themselves on each large-scale product delivery.

We are accustomed to fighting these battles, but that's not the point. These compromises on quality will eventually cost our clients, the course owners, a great deal of money when greens fail, conditions deteriorate and renovation or rebuilding becomes inevitable.

The most skilled course superintendent in the world is powerless to deal effectively with greens built using sub-standard sand.

A golf course built properly, using proper materials, should enable excellent course conditions for 30-40 years. Too often, however, the materials delivered to Chinese courses are not up to standard, and that's why we see the steep decline in maintenance performance in such a short time.

Consider the Mountain Course at Spring City near Kunming, where I, Martin Moore, was the project manager for Nicklaus Design when that course was built in the mid-1990s. It remains one of the best-maintained golf courses in Asia because we can assure you the materials used there were of the highest quality.

The Flagstick-constructed multi-course facility at Mission Hills, and our new course at Jin Hai Lake (scheduled to open this fall outside Beijing) were all built with excellent materials. We have no doubt these courses will meet the highest maintenance standards for decades to come.

Kunming's Spring City Golf & Lake Resort

The Irrigation System Must Meet Accepted Standards

The same cannot be said of too many new courses in China today, and another reason is poor irrigation materials. Many clients pay for proper irrigation design, but oftentimes distributors of irrigation equipment (not the manufacturers of that equipment) will offer to redesign the system at a lower price. Many times we've arrived on project sites where a technically sound system has been specified and designed, only to find that a sub-standard system with limited heads and limited automatic control has been installed.

Even more injurious to long-term maintenance capabilities is the equipment courses secure to build irrigation systems — equipment that is not designed or suited to the task. We've seen where irrigation systems have main line gate valves that were made for the water works industry. In other words, they were never intended to be used under ground! In some cases our clients were convinced to buy cheaper brass gate valves that are simply too soft — they don't close properly and leak constantly. Another problem is use of wire that is not made for direct burial — a big problem for irrigation systems that are, again, located under ground!

Course superintendents across China understand that proper irrigation is the backbone of course maintenance. But we've seen pump stations that are really just motors that push water through pipes — no communication capabilities, no pressure control. Without the right irrigation equipment and materials, a superintendent has no chance to grow grass and maintain excellent playing conditions in the long term.

What's the solution? Together, course superintendents, club managers and project owners must resolve to stop doing business with suppliers who don't deliver products whose samples match the eventual deliveries. We must all insist on golf-specific equipment and materials.

This unified action will grow the legitimate market for these products. It will strengthen the reputation of suppliers who deliver what is promised. It will save everyone money in the long run, and it will result in quality course conditions over the long term.

(By Martin Moore and Tony Cunzio)