

**Agronomist Eddie Connaughton, of Grass Technology International Ltd, kicks off a two-part feature on annual meadowgrass by looking at what it is. Next month he provides tips on managing it**

**T**he subject of *Poa annua*, or annual meadow grass as we commonly refer to it, has had many thousands of words written about it over the last 50 years. Much of this has been to castigate it or recommend ways of eliminating the evil weed. However, little that I am aware of has been printed on how to manage annual meadowgrass where it forms the majority of a grass sward in our greens.

The aim of this two-part article is to discuss what annual meadowgrass is, how to control the invasion of greens and how to manage the species if so desired.

#### **Decisions**

One of the most difficult decisions facing the golf course manager/head greenkeeper is do you fight *Poa annua* or do you live with it? It is interesting to note that this is not a modern management decision but one that has been faced by people managing grass since the 1920s. As early as 1948, Dr Fred Grau, then national director for the USDA, published an article entitled '*Poa annua* - Friend or foe?'

As recently as ten years ago, I attended a conference in Milwaukee, Wisconsin, USA, where the leading university researchers, agronomists, superintendents/course managers/greenkeepers and industry representatives gathered for three days to discuss the facts and fallacies of *Poa annua*. At the end of these presentations, speaking for and against *Poa annua*, the summing up statement was '*Poa annua* - Friend of foe?'

A decade on, through my agronomy work, I have seen many different situations of course managers and head greenkeepers having to make the choice of living with annual meadowgrass or seeking to get rid of it. This very point was highlighted during a visit I made to a course extending from nine holes to 18. The 9-hole course was 70 years old with established soil-based greens that evolved from continuous mowing and treatments of the area at the end of the fairway which became the green.

The club decided to extend to 18 holes and had modern sand-based greens built with fine fescues and bents sown after

construction. After allowing time to establish and then opening for play with great excitement, the new greens went 'bad' after a year of play. The fine fescues and bents declined and in came the annual meadowgrass in its coarsest form. The club was now experiencing the wrath of annual meadowgrass in its purest form, tufts of coarse-bladed grass taking over from fine-leaved fescues and bent. The *Poa annua* made it virtually impossible to produce any kind of level putting surface.

After my course inspection to determine why the club was having problems, and having explained that the fine grasses were declining and meadowgrass was taking over because of the construction, rootzone material and aftercare management, the captain and committee were confused. In their opinion, they had commissioned the construction of new greens with the best grasses and three years later 'meadow-

grass' was causing a problem. In the committee's innocence during all of this discussion, they asked what was the main species of grass in their existing nine greens. I explained that the old greens were predominantly fine-leaved established meadowgrass and I was immediately told that if the new greens were half as good, they would not need my advice.

The moral of relating this true story is that while I, as the agronomist, could find fault with the construction and the aftercare management, the ordinary golfer was only recognising that the old greens were good and the new greens were bad. It did not matter what the grass species was, but merely how the greens performed when using the putter. This type of experience makes you think on a broader level, that it is not only about the grass species present but about preparing the best greens possible with

the conditions and resources available to your particular site.

Every situation is different and individual to everyone's site but there is one constant in our climate and that is "wherever you are managing fine turf, you are going to deal with annual meadowgrass and the problems or challenges it creates". As an example, to compare the links of Great Britain which host the Open or Open qualifying with the heavy parkland low budget course is not a fair comparison for attaining the ultimate of fescue/bent greens as opposed to meadowgrass greens. Therefore, the management decisions of the links courses as opposed to the heavy parkland courses with regard to meadowgrass is quite different and it is important to realise this.

To further explain this, let's look deeper into what is *Poa annua*.

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# Poa RELATIONS

## How to tackle annual meadow grass on the golf course



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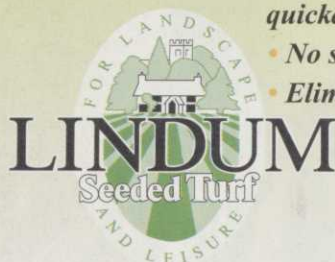
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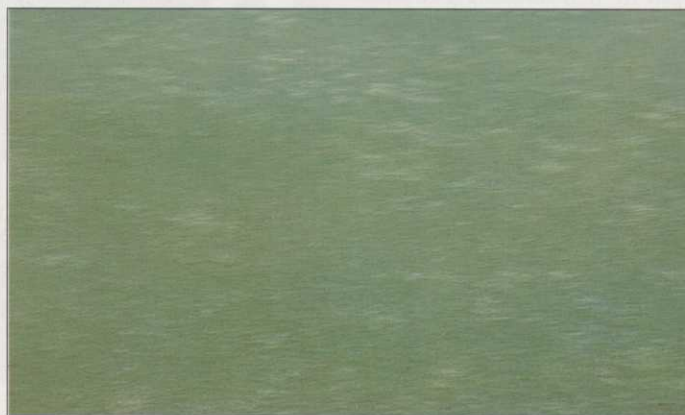
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Poa annua invasion of fine turf



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### What is *Poa annua*?

It is reported to be the evolutionary offspring of *Poa supina* and *Poa infirma*. It probably originated in the area between Pakistan and Yugoslavia. There are two recognised types of *Poa annua*:

1. *Poa annua* var 'annua' which is a bunchgrass with an upright habit of growth and produces a limited number of shoots and roots and normally survives from one to one-and-a-half years, and
2. *Poa annua* var 'reptans' which exhibits a perennial, stoloniferous habit of growth which seems to be much more prolific in stem and root production and continually replaces itself vegetatively.

### However...

*Poa annua* by its very nature is basically a winter annual plant.

That is, its seeds, which are produced in the spring, germinate in the autumn and the new seedlings rapidly develop into a mature plant. Going dormant over winter, annual meadowgrass breaks dormancy early in the spring and later develops the profusion of seed heads which complete the life cycle for this type of plant. Thus, physiologically, after the seed head production period *Poa annua* has completed its life cycle and is ready to die under summer stress, or other related conditions.

Therefore, today's golf course manager/head greenkeeper has the ability and decision to make, do I live with annual meadowgrass or do I get rid of it?

More on this subject next issue.