In the past, your advertising has caused considerable comment among greenkeepers and agronomists. Do you believe there should be two grades of golf course, tournament and other?

Our position is one of reacting to the requirements of a market. If courses of varying grades are required by the playing public, then that is what they must be given. In golf, it is the course itself that is the player's opponent. How taxing that opponent should be is a question for the club authorities and the result should meet the needs and desires of their customers — the club players. Obviously, this can only be ascertained through discussion and comment and if our advertising has prompted this, then all to the good.

Are Fisons aware of all the research here, in Europe, the US and other areas of the world since the early 1900s, which confirms, beyond any doubt, that phosphates encourage annual meadow grass and potash discourages fine fescues? Do they accept that annual meadow grass is not only not inevitable, but the source of 90% of all greenkeeping problems? If they knew, was it commercially impossible to formulate (largely organic) nitrogenous mixes now used by the majority — going back to the standard practices of 40 and more years ago?

Our technical staff at the Levington Research Station keep fully abreast of the latest technical and experimental data from the UK and abroad. From that knowledge and their considerable experience, they do not believe that annual meadow grass is the source of 90% of all greenkeeping problems. Other factors contribute much more than 10% of a greenkeeper's troubles.

We agree annual meadow grass is not inevitable, but the influence of phosphate is only one factor in the balance of a grass sward. The species profile can also be influenced by, for example, poor drainage, inappropriate soil conditions, overwatering, misapplication of products, degree of use and so on.

Fisons' policy on fine turf fertiliser formulation is to offer the greenkeeper a reliable and effective choice. Used as recommended, the Greenkeeper 1 and 2 formulations (which contain phosphate and potash) are aimed at replacing the P and K nutrients removed in clippings. Over a year, the average phosphate and potash levels in the soil should not vary significantly.

Should phosphate and potash levels be considered adequate or even excessive, then the nitrogen-only formulation Greenkeeper Super-N is available.

We recently commissioned the Taylor Nelson Group — an independent market research company — to undertake a major investigation into fine and outfield turf care. Their report showed that those golf greenkeepers who used organic nitrogenous mixes did so principally because of the prolonged release characteristics. Using this information, we formulated Greenkeeper Super-N as a consistent and reliable slow-release nitrogenous fertiliser.

What would Fisons' defence be to the statement that the two worst causative factors so adversely affecting greenkeeping over the past two decades were agricultural fertiliser companies selling inorganic NPK fertilisers and inexperienced irrigation companies installing badly designed pop-up systems with the wrong equipment? The irrigation companies, starting later, were so much quicker to spot this error, setting up the BTIA and a generally agreed code of practice. Yet, only last year, Fisons were still plugging NPK formulations be used on fine turf. These products are totally inappropriate. We cannot comment on the activities of the irrigation industry, except to agree that poorly conceived and installed irrigation systems may have caused problems on golf courses.

A code of practice is only required where there is a substantial risk of the consumer being misled. With fine turf fertilisers, this is not the case. There is a large selection of formulations on the market and government legislation that demands a complete and accurate description of the contents of a fertiliser. This is clearly more binding than a voluntary code of practice.

Our recommendations regarding NPK fertilisers are covered in the answer to the last question.

Fisons sell autumn fertilisers. Virtually no greenkeeper would apply even low nitrogen fertilisers in autumn, partly because they are not needed and partly because they induce not only disease but, because of high phosphates, annual meadow grass as well. Would they contest the statement that autumn 'greenkeeping' fertilisers benefit only the sellers of those fertilisers?

Another significant point brought out by the Taylor Nelson Group survey is that 25% of all golf green fertiliser applications are made between September and March. This is corroborated by our sales figures, which show that a considerable number of golf greenkeepers do apply autumn fertilisers.

Published experimental evidence indicates that a low autumn nitrogen application encourages grass recovery from both summer stress and wear and autumn cultural operations, such as scarification. The implication is obviously that autumn treatments are considered by many greenkeepers to benefit the turf more than the fertiliser company.

Do Fisons think urea-nitrogen is equivalent to hoof and horn and dried blood? Do they know of the research that says urea is little better than sulphate of ammonia and a lot more expensive?

No, we do not believe urea is equivalent to hoof and horn. Urea can, however, be seen as a rapid-release
nitrogen source with a broadly similar effect to dried blood. One of our main aims is to supply a product that is safe, consistent, easy to apply and reasonably priced. We incorporate urea into the granular Greenkeeper nitrogen source because it is cheaper than dried blood and considerably less phytotoxic to turf than sulphate of ammonia.

Hoof and horn is a slow-release nitrogen source — quite an effective one, providing the particle size is right. We have formulated our slow-release nitrogenous fertiliser, Greenkeeper Super-N using IBDU, an organic compound reported by the STRI to be particularly effective on fine turf.

Why do Fisons advocate fertiliser treatment for fairways where there is no loss of plant nutrients, as the susceptible grasses and, worse still, produce leafy pastures from which it is impossible to impart backspin and, consequently, stop on a ball?

It is this area where the use of agricultural fertilisers rather than specialist formulations has had its most detrimental impact on golf.

However, fairways are like any other artificially maintained plant community — nutrients are lost through leaching, but there is an imperfect nutrient return. We recommend a modest fertiliser application to maintain nutrient levels and to support a healthy sward. This is certainly not designed to produce a leafy pasture.

Why do Fisons set so much store on soil analysis when all the results usually prove that P and K levels are too high?

In the past, we offered free soil analyses as a service to customers, many of whom were used to having greens analysed on an annual basis by previous advisors. We thought this was unnecessary and the company policy was to try and limit, where possible, the amount done. We now carry out virtually no turf soil analyses for customers.

Why did Fisons advisors (and perhaps they still do) invariably recommend liming fairways and greens? Do they think there is an ideal pH? If so, why do our best courses show such a wide range of pH values on fairways and greens—from just over 4.0 to well over 8.5 — yet the same grasses grow equally well at all parts of the pH range if phosphates and potash are kept low?

We have never recommended liming in that way — only where turf has suffered because the soil has been proved to be excessively acidic, leading to poor sward density, which cannot compete with weeds and moss. Indeed, we do not believe that there is an ideal pH for the soil of a golf course.

Is it not true Fisons were basically phosphate producers and had to buy their nitrogen from a competitor. So they had a vested interest in plugging the 'vices' of phosphate.

Fisons Horticulture Division has, for over 20 years, been totally independent of any agricultural fertiliser concern and formulates its own fine turf fertilisers. Considering the operational scale of major agricultural fertiliser companies, it is inconceivable that they would attempt to influence a market as small as the fine turf industry.

What is Fisons' view of rival companies selling organically based nitrogen, which most greenkeepers want and has been used for 60 years and more?

We believe in free and fair competition and also recognise that there are some sectors of the market for which we do not cater. However, our products are obviously filling a significant demand, otherwise they would not be commercially viable and would be dropped from the range.

Again, we do sell a product based on an organic nitrogen compound — Greenkeeper Super-N.

How would Fisons answer the charge that commercial interests have caused the deterioration of our golf courses and view the influence of the poorer club golfer, who cannot stop on firm greens and screams for more water and fertiliser? Would you agree it is up to the 'average' club golfer to improve his game rather than the greenkeeper produce a course that flatters it?

The 'average' golfer is the backbone of most golf clubs — they are the reason for the club's existence. The majority of clubs should, and must, cater for his needs. This does not mean bunkers should be filled in and the course levelled to make it easier. Clearly, there should be an appropriate level of challenge in the game. It is the greenkeeper's task to match that challenge, with his course, to the requirements of the club's customers.