



MORE EFFECTIVE OVERSEEDING

Miranda Harris offers some help when it comes to making overseeding decisions

Greenkeepers are under pressure from all sides; players who want to play all year round on fast greens and perfect tees; unpredictable and at times extreme climate; not forgetting the restricted use of water and chemicals as sustainable, ecological considerations become more relevant. Therefore practical management systems like overseeding, where new grass is introduced into the sward from seed could be a long term investment for any golf course.

Overseeding not only replaces grasses which are not renewed by natural regeneration, but offers the opportunity to introduce high performance grasses into the sward. The latest genetic improvements can be included which take advantage of the huge investment in research and development. Overseeding helps to maintain a diverse and balanced sward, reducing the invasion of unwanted grasses and weeds.

As the use of nitrogen, water and chemical inputs becomes more of an issue, overseeding can offer a sustainable management solution resulting in improved disease resistance as well as drought resistance and less need for fertiliser and chemical inputs.

The definition of sustainability in relation to golf course development and management, as stated by the R & A is, "optimising the playing quality of the golf course in harmony with the conservation of its natural environment under economically sound and socially responsible management". Overseeding definitely fits the bill.

Overseeding as part of renovation

Trials carried out by STRI in 2005 demonstrated that overseeding is an important part of any renovation programme in order to aid recovery after wear. The trials showed that the unseeded control failed to reach acceptable standards compared to the various treatments which had been overseeded. Interestingly enough, overall variation among seed rates (which varied from 12.5gm² - 100gm²) was markedly less than the difference observed between the overseeding treatments and the unseeded control.

How often

How often one should overseed depends on where. The optimum for fairways is annually but every 3 years is the absolute minimum, totalling 6 holes every year. Tees would be as soon as the tee master has been removed, whereas greens need to be oversown at least in the spring and autumn but ideally every month through the growing season. Remember that poa will seed daily between March and September and overseeding will reduce invasion of these unwanted grasses.

Overseeding Fairways

With much time and effort spent on the tees and greens, overseeding fairways can be overlooked and left to recover from wear and tear unaided. However with careful selection of effective grass seed mixtures and remedial

work, fairways will improve in the short term and exhibit greater resilience in future years.

The species choice must be matched with the character of the course and the practicality of successful establishment. The timing of the seeding operation and the method of application will have huge bearing on the outcome.

The backbone of most fairway mixtures utilises the fine fescue range including strong creeping red fescue, slender creeping red fescue and chewings fescue. Combinations of the latter two fescue establish rapidly compared to bent grass. This is primarily because of their larger seed size. Strong creeping red fescue tends to establish the fastest and produces rhizomes. Therefore it is useful in providing initial establishment and consolidating new areas while slower establishing grasses develop. If mowing heights are very close (below 10mm) then strong creeping red fescue will tend to lose ground cover.

Chewings fescue and slender creeping red fescue provide fineness of leaf and high shoot density. Slender creeping red fescue provides some resilience with rhizomatous growth and is quite drought tolerant.

A species worthy of consideration in freer draining low nutrient soils is sheep's fescue. The new turf type cultivars can withstand very close mowing and retain a deep green colour throughout the seasons, as well as being fine leaved. See picture of Quatro, sheep's fescue (below.)



Smooth stalked meadow grass is often included in fairway mixtures for wear tolerance even in close mown turf. It is important to recognise the limitations of smooth stalked meadow grass, unless the seed has been primed, as it will require relatively high ground temperatures to establish. It is also more suited to freer draining soils.

Bent grasses are useful in providing a dense base to the sward. The establishment of bent as with the smooth stalked meadow grasses can be slow and unpredictable due to their small seed size, requiring relatively high soil temperatures to germinate. The finer leaved bents will offer better disease resistance.

Overseeding Greens

As with fairways, the choice of species for overseeding greens is very wide with the final decision depending largely on the characteristics of the root zone and the environmental pressures both natural and imposed.

Many older greens are predominantly populated by bent grass and annual meadow grass. Recently constructed courses may have combinations of fescue and bent with small amounts of annual meadow grass. Finally we have the few courses with fescue dominated greens.

The characteristics of a green will to a large degree dictate the success or failure of establishing new grasses. Poor drainage, very low cutting heights and heavy use will not favour the latter. It is very important to recognise the need to improve the conditions within a green if seeding is to be successful. It is also important to recognise limitations of grasses within a green if very low cutting heights are imposed.

Once again the fine fescue range offer tremendous advantages; as well as high shoot density, they have low input requirements and relatively consistent growth patterns. They do not fair well in wet, heavier greens or under very low mowing heights (below 4mm). Fescues also benefit from less surface disturbance and regular light top dressings.

Traditional mixtures usually comprise fescue and bent in combination. It is fair to say that more greenkeepers are using pure bent and pure fescue mixtures for overseeding. Thanks to a growing environmental awareness and the R & A's vision of sustainable golf, interest in using red fescue for greens has increased significantly.

Overseeding Tees

Tees mixtures vary dramatically and choosing mixtures can be daunting. The choice of actual species and varieties will be heavily influenced by the tee usage and maintenance inputs.

Many courses now use modern fine leaved amenity ryegrasses simply to achieve quick establishment and high wear tolerance. Typically it is favoured in inland parkland courses.

The use of ryegrass however comes with the added burden of higher fertiliser input and increased mowing frequencies. The decision will depend on the existing sward composition and the tees usage.

As discussed earlier, chewings fescue and slender creeping red fescue provide high shoot density, require low fertiliser input and reduce mowing frequencies. Strong creeping red fescue provides relatively quick establishment and extensive rhizomatous growth. Bent grass forms a good base to the sward and can spread by rhizomes or stolons.

Smooth stalked meadow grass is very wear tolerant at low mowing heights and provides a good network of rhizomes. It also recovers well from wear damage. The main disadvantage of this species is slow germination and maturation time. As mentioned before, the introduction of primed seed may go some way to alleviate this.

How to overseed

As part of the preparation for overseeding it is necessary to create gaps in the existing sward to give seedlings a chance to compete and ensure the seed is in contact with the rootzone. This can be achieved through verticutting,



scarifying or aeration, or may form part of the role of the equipment chosen for the actual task of introducing the seed. Larger areas such as fairways may require a direct drill approach as seen at The Royal Lytham Golf Club (see photo). If carrying out small repairs such as divoting ensure seed is not incorporated too deeply and that sufficient moisture is available. Specialist greens seeders are now available with high accuracy of sowing depth and application rates.

Seed can be applied to the greens during regular coring work as long as the seed is brushed into the cores in the final dressing. This has the added benefit of providing a good depth of root zone below the seed. Surface scarification and top dressing can be utilised applying the seed within the top dressing.

For best results, overseed in good growing weather and relax operations which are likely to cause stress to emerging seedlings, e.g. top dressing, verticutting or close mowing. Overseeding to improve turf quality may well require the implementation of a programme of treatments. It will also be necessary to adapt the maintenance regime to suit the sown species, should this differ from that implemented to the original sward.

Whatever choice you make it is very important to recognise the maintenance requirements of these grasses and choose highly rated seed varieties if overseeding is to be successful.

Remember, this is a long term investment with both financial and environmental benefits.

For further information about overseeding and the choice of varieties from DLF Trifolium Ltd, please see www.dlf.co.uk/amenityseed/johnsonssportseed

Greenmaster – pure bent mixture for greens

J Fescue – pure fescue mixture for greens

Teemaster – Perennial ryegrass and fescue mixture for tees

J4 – pure fescue mixture includes Quatro, Sheeps fescue for fairways

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