

# OVERSEEDING

## GET BETTER RESULTS THIS SEASON

*Overseeding can provide a highly cost effective route to introducing desirable new grass varieties and improving turf quality on greens, tees and fairways. But success for many has, in the past, been limited. Keith Kensett gives his top tips and advice to get better results this season.*

### Get into the groove to over seed

In recent years seed breeders have developed some superb new varieties of bent grasses and fescues that are better suited to changing UK growing conditions and respond more effectively under sustainable Integrated Turf Management programmes. Overseeding gives the opportunity to gradually introduce the new varieties, with the advent of new techniques to assure faster and more consistent results.

New equipment, such as linear groover machines, can achieve far more reliable germination and establishment, while new techniques such as using a growth regulator programme to reduce competition from the existing sward while the seedlings establish, further improves the chances of success.

Overseeding is also going to become increasingly important with the advent of new selective herbicides which, in trials, have successfully taken out aggressive, low-quality rye grasses, while leaving desirable fescues and bents. Overseeding will be an integral part of filling the gaps to quickly restore turf quality and prevent invasive weeds and grasses establishing.

### Solve problems

So how do we assure the best possible results? Overseeding into a strong, well established turf that is growing well can, with the right techniques, prove highly successful. But if the programme is being used as part of a rejuvenation of tired, poor turf, managers must first assess why existing turf is struggling - as trying to establish new seedlings into conditions where existing plants can not thrive is almost certainly doomed to failure.

Drainage must be put right before starting, with verti-draining and sand-injection potential

options to alleviate compaction. If it is an area subjected to heavy wear, overseeding with wear resistant varieties will help longer term, providing walkways can be diverted long enough for plants to get established. The soil pH may be a factor, where again choosing the right new variety to over seed will help, but it could prove more effective to cure the cause first. Shade is also an issue, but introducing shade tolerant varieties can enable defining landscape features to be retained along with improved quality turf.

Where once overseeding was considered an early autumn operation, in practice it can be undertaken at any time from early spring and, with the trend towards milder, more open autumns, extended right through to mid-October. Overseeding in spring and summer, when soil temperatures are rising, can help achieve faster germination and, providing there is sufficient moisture, stronger establishment. For irrigated tees and greens, overseeding can take place at any time during the growing season.

### Regulate competition

One major advance that we have seen in recent years is the use of a Primo MAXX programme to regulate growth of the existing sward prior to overseeding. This essential part of the over seeding programme reduces competition to the establishing seedlings and enables them to get started more effectively. Further applications - once the seedlings reach the two leaf stage - promotes tillering of the seedlings to fill gaps and encourages faster, stronger rooting. Keeping the turf in regulation also reduces the frequency of mowing and any stress on the establishing seedlings.

The Syngenta programme, developed following research by STRI, advocates that where turf is actively growing an application of Primo MAXX







Keith Kensett with slot seeder



should be made three to five days prior to the planned over seeding. This is followed by a half rate application once seedlings are up and established, with a three-quarter rate four weeks later and then back into the standard programme.

### Remove thatch

From experience, the thatch poses the single greatest threat to successful over seeding. Thatch prevents seed making good contact with the soil. If seeds do germinate, the poor air flow will exacerbate seedling diseases and damping off. Seeds growing in thatch are likely to quickly burn off under any drought stress. Reducing thatch is an essential part of the over seeding process programme.

It is possible to over seed after hollow tine coring, and brushing in seed with a sand backfill. But in practice, some of the seed is buried too deep in the holes to ever emerge, whilst generally two of three seeds per hole will try to establish - with each competing for water, light and nutrients and resulting in three poor plants instead of one good one. Even with coring at 5 cm spacing, it is still only 400 new plant spacings per m<sup>2</sup>, which will have little beneficial impact on overall turf quality.

Studies by the USGA have shown that hollow tine coring will impact on less than 5% of the soil surface, compared to around 15% with a Graden machine cutting groves in the soil to remove unwanted material and create an effective seeding slot.

### Linear groove

Overseeding into a linear groove cut into the turf is far more likely to prove successful. Seed distribution is infinitely more uniform, it can all be placed at precisely the right depth for optimum establishment and, most importantly, there is far better seed to soil contact that is essential for effective germination and strong, rapid establishment. Typically, with a Graden

### Water management

Irrigation is probably the most crucial factor under the greenkeepers' control. During germination the surface ideally needs to remain permanently damp, as a good indication that there is sufficient soil moisture available. The more sophisticated the irrigation system the better this can be achieved.

Once germination has occurred, however, water applications should become more infrequent and heavier, allowing time for the surface to dry between applications to reduce the risk of damping off diseases developing. Good air flow through the dethatched sward will help, but a fungicide application such as Heritage can help to reduce the incidence and effects of disease attacks.

Over sown turf will be subjected to the same management and mowing regime as the existing sward, to maintain playing conditions. But where possible, raising the height of cut even one or two mm can make a significant difference in

helping the seedlings establish. Again the use of Primo MAXX is an advantage, with cutting height raised slightly to alleviate stress, with no loss of playing quality or ball speed on the greens. The soft new leaf growth of the new seedlings means it is essential to ensure that cylinder mowers are razor sharp and carefully set up to avoid tearing and damaging the leaf.

The new seedlings will also require sufficient nutrients to promote strong root growth and establishment. Take special care to ensure there are sufficient macro nutrients - N, P & K - but also manganese and magnesium trace elements important for new seedlings. Experience last year highlighted that, in wet conditions, nutrients can be quickly lost, especially on light soils or sand-based constructions. Feeding little and often can help to alleviate stress on new seedlings and established turf.

With an on-going programme of over seeding, turf managers can now successfully introduce new grass varieties, to significantly enhance turf quality and improve future management.

### About the Author

Keith Kensett is the director of R&K Kensett Ltd, which specialise in the renovation of all sports turf surfaces. Kensett Sports are the sole UK importers of the Australian Graden turf management equipment.



(Above) Keith Kensett's results from trials undertaken at Hadley Wood Golf Club in Hertfordshire.



(Above) Overseeding STRI trial - untreated left, Primo right.