Where will Rescue be used around the course?



Rescue can remove Ryegrass on greens, to provide a far superior putting surface. The use of Rescue avoids the need for aggressive verticutting or time consuming hand-weeding. Also for use on surrounds and approaches, to minimise further Ryegrass incursion and enhance visual appeal and playability.



Ryegrass plants on fairways cause unsightly clumps with inconsistent ball bounce and difficult lies. Ryegrass is visually unattractive, and difficult to mow cleanly. Using Rescue on fairways will produce better playing conditions and minimise Ryegrass spread into other areas.



Rescue control of Ryegrass on tees will produce a more consistent and easier to manage playing surface with superior aesthetics and playing characteristics, without the need for repeated verticutting or scarifying which can lead to the need for unpopular temporary tees.



ough and semi-rough

Removal of Ryegrasses from rough and semi-rough areas with Rescue to leave a more open sward will improve playability, aid ball recovery and speed up play. Trials have also shown that creating a more open sward will encourage greater biodiversity and assist the creation of beneficial environmental areas.



West Hill Golf Club

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course. Our trials consistently improve Kings Hill Golf Club the appearance and quality of our turf."

Trials have shown that Rescue can be used to remove Ryegrass and other weed grasses, such as Purple Moor-grass, from heather areas on the course, without any adverse effects on the heather.

Rescue - environmental impact assessment

Rescue has undergone full and rigorous risk assessments of the potential environmental impacts throughout the UK registration and approval process. The evaluation of the ecological studies has also fully satisfied the independent regulatory authorities.



PASSED risk assessments used by the Regulatory Authorities for arthropods, bees and soil organisms, including earthworms. There was no effect on either nitrogen or carbon mineralization at doses up to nearly 5 times the predicted environmental concentration in soil.



PASSED assessments of risk from spray drift during application for all aquatic organisms, including plant species. Rescue has no LERAP buffer zone requirement meaning that treatments can be made alongside water courses.

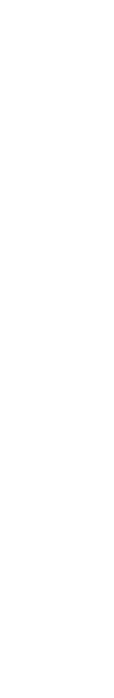


PASSED risk assessments carried out on operator exposure, bystander exposure and re-entry of treated areas by children



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Clean out the coarse

for finer turf quality

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What is Rescue?

Rescue is an exciting new selective herbicide from Syngenta, for the control of Ryegrass infestations in fine turf swards.

For the first time, golf course managers have the opportunity to quickly and effectively reduce invasive clumpy Ryegrass that adversely affects the quality and playability of turf, without recourse to expensive, mechanical verticutting, laborious hand-weeding or even re-turfing.

In just one or two applications over a season, Rescue can reduce Ryegrass and, with the help of over seeding, reinstate finer species to create consistent high quality playing surfaces.

Occasionally some temporary yellowing may be seen on Colonial/Browntop Bentgrass and Smooth-stalked Meadow-grass following Rescue application; this effect is transient and is outgrown in good growing conditions. Highland Bent has however shown some susceptibility. Trials have shown Rescue can also control some other undesirable coarse grasses, including Yorkshire Fog and Purple Moor-grass.

What is the Rescue programme?

The Rescue Programme has been developed from extensive replicated field research and user trials. It represents the best advice on how to remove unwanted Ryegrass and reinstate finer species without interruptions to play. It incorporates the use of Rescue, over seeding and Primo Maxx in a programmed approach to restore turf quality.

Rescue has been extensively trialled and proven on all golf course types where invasive Ryegrass cause perpetual problems:







RESCUE syngenta.



Benefits of Rescue

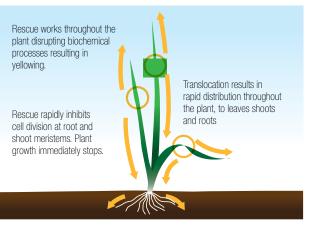
- Removes Ryegrass and some other invasive grass species
- Safe for use on fescues, Poa annua and some other fine turf species
- Suitable for use on all golf course situations
- Specifically developed for golf course applications

How does Rescue work?

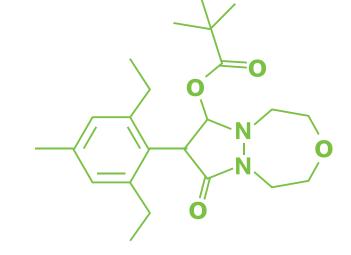
Rescue is an entirely new class of selective herbicide chemistry for the turf sector. Developed by Syngenta, specifically for the golf market, Rescue targets both root and leaf meristems of selective target grass species, to stop cell division and achieve a complete weed kill.

Rescue includes a built-in wetter to ensure the active ingredient is rapidly taken up by target plants and gets to work quickly - moving throughout the plant to reach growing tips and roots.

When applied as recommended during periods of active growth, the first visible effects are usually seen within 10 days of Rescue application, with complete foliar die-back within 3-4 weeks.



The Rescue molecule



Grass identification guide



Smooth-stalked Meadow-grass (SSMG) Effects on Colonial/Browntop Bent vary greatly according to conditions at the time of application, from no effect to some susceptibility. Temporary vellowin of Bentorass has been noted in some trials, which has typically been outgrow after 7-10 days during good growing

Control noted in trials -

Grass species susceptibility to Rescue



Accurate grass species identification is essential before the use of Rescue to know: (a) Which grasses will be removed (b) How much turf cover will be removed (c) Which grasses will be left



Perennial Ryegrass identification – key characteristics

- Red stem at the base of the plant
- The back of the leaf is **shiny**, and the tips of The leaf base has auricles that clasp the stem unmown leaf blades are tapered
- A rich green grass, with the leaf folded in the shoot

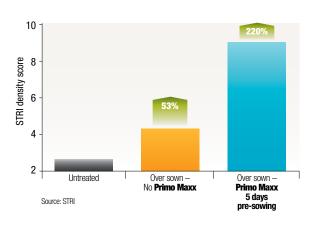
 - Inflorescence spike

Over seeding success

Over seeding following Rescue application will minimise Ryegrass reinfestation and rapidly restore fine turf surfaces. Over seed with seed mixtures containing fescues and other fine grass species which will enhance surface quality.

Time Rescue applications to tie in with conventional over seeding programmes and coincide with weather conditions conducive to seedling germination and establishment.

The ideal time for over seeding is when treated plants have died back and pass the 'Rescue Rub Test' – the treated Ryegrass plants break up when gently rubbed. However, user experiences have shown over seeding can successfully be undertaken before Rescue application or from 7 days after treatment when conditions are right. STRI trials have shown the success of over seeding programmes can be significantly enhanced with an application of Primo Maxx 5 days before sowing. The application of Primo Maxx to suppress existing turf growth and allow the seedlings to establish more effectively – achieved a 220% increase in turf density, compared to over seeding alone.

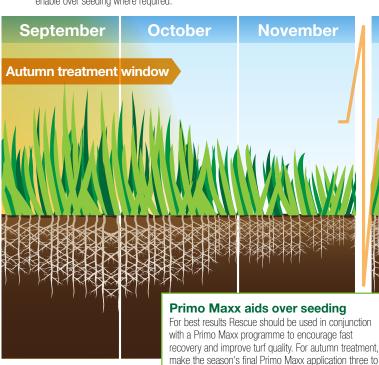


Apply Scotts Greenmaster liquid fertilizer 10-14 days after germination of over sown seed with another application 21 days after that. Primo Maxx programmes can continue on over sown turf as soon as seedlings reach the two to three leaf stage, to encourage rooting and improve turf density.

The Rescue fine turf programme



Trials have shown autumn applications of Rescue can give the highest levels of Ryegrass control. Apply in sufficient time to enable over seeding where required.



Spring treatment

The Rescue Programme may also be started in the spring. Any regrowth from initial spring applications tends to be soft and weak and easier to manage. A follow-up autumn application can complete the Ryegrass kill. Any regrowth from autumn Rescue applications can usefully

be controlled in the spring. Spring treatment window

Autumn treatment window

A subsequent autumn treatment may be beneficial to control heavy, well established Ryegrass populations.

ollow-up treatments

Autumn end

1 days later.

Autumn Rescue applications should be

empleted whilst weather conditions still allow

turf recovery and over seeding establishment.

During the autumn apply Primo Maxx 3-5

seeding with applications of Greenmaster

liquid nutrition 10-14 days after germination

of over sown seed with another application

days prior to over-seeding. Follow over

Follow up Rescue treatments may be required where new Ryegrass seedlings germinate and establish. A successful over seeding programme and applications of Primo Maxx to encourage a thicker sward will minimise the chance of Ryegrass reinfestation.

Spray water volume

Spray Rescue in 250–500 litres of water per hectare. Ensure good coverage of the target leaf surface, but avoid over wetting that can lead to excessive run-off and reduced efficacy. Syngenta spray trials have shown application at the lower recommended water volumes through appropriate nozzles can improve spray retention on turf leaves, as well as increasing sprayer output per hour for more timely application.

amenitý golf course sprayer

Rescue application advice

Rescue can be applied

with any conventional

including knapsacks.

Rescue should not be tank mixed with other plant protection products.

Spray quality

Rescue is approved for application using conventional flat fan nozzles producing a fine to medium spray pattern – typically an 02 to 04 nozzle operating at 2-3 bar pressure. Trials have shown the Syngenta Foliar Turf Nozzle can achieve excellent leaf coverage and enhanced spray retention on the target, with significantly reduced risk of drift.

Visit the Greencast Application Zone at www.greencast.co.uk for further information.

Minimise risk of drift onto non-target areas by spraying in suitable conditions, appropriate nozzle selection or the use of covered boom sprayers.



Knapsack application

Rescue may be applied by knapsack for treating small or inaccessible areas. Achieving satisfactory coverage and spray retention on the target leaf can prove difficult, especially in rough or dense turf situations. Best results have been achieved by mixing 10-13.3 ml Rescue in 2.5-5.0 litres of water to treat 100 sq. m (10 ml per 100 sq. m only in autumn).

Rescue application rates

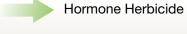
Rescue® Herbicide	Spring treatments	Autumn treatments	Maximum number of treatments
Golf course greens, tees, fairways and rough	1.0-1.33 l/ha	1.0 l/ha	Two per annum
Water volume	250-500 l/ha		
Nozzle type	Flat fan 02 or 04 producing a medium quality spray Rescue is rainfast in 1–2 hours Do not tank mix Rescue with any other products		
Knapsack application	10-13.3 ml/100 sq. m	10 ml/100 sq. m	Two per annum

Sequencing advice with broad leaved weed herbicides

Hormone Herbicide

applying Rescue.





Wait 7 days after applying

Rescue before applying a

hormone herbicide.

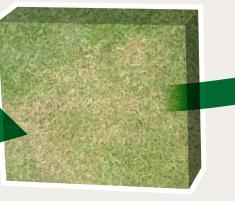
Wait 21 days after applying hormone herbicide before

What can you expect to see?



Before application

create an uneven and unsightly surface that is difficult to maintain and unpopular with players. Rescue application is a quick and effective route to restoring fine turf quality.



five days prior to over seeding. See 'Over Seeding

▶ 7–21 days after application

weed grasses start to go pale yellow and begin to die back. The timings at which effects are seen will be weather dependent; in good growing conditions results are faster but in dry or poor conditions it will take longer for Rescue to have the



Wait for active growth

growth of seedlings.

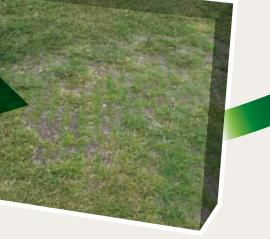
Apply Rescue when turf is actively growing to achieve rapid uptake

and temperature to sustain recovery of remaining turf and new

and optimum effects. Ensure sufficient soil moisture

▶ 7-21 days after application Do the "Rescue Rub Test". When the treated patches have died back, rub the

patch with the palm of your hand. If the treated turf surface breaks up it has 'passed' the Rescue Rub Test. Any temporary yellowing on Bentgrasses should be outgrown. Over seeding can take place at any time when weather and soil conditions



Primo Maxx and nutrient programmes

During the spring apply Primo Maxx 3-5 days prior to over

seeding. Apply Scotts Greenmaster liquid fertilizer 10-14 days

after germination of over sown seed with another application

21 days after that. Routine applications of Primo Maxx can

The Primo Maxx programme should continue through the

season remembering to tank mix with liquid nutrition.

nmence when new seedlings are at the two true-leaf stage.

▶ 4–8 weeks after application

Target Ryegrass and other weed grasses will have died right back. Over seeding should have taken place and, in good conditions, new seedlings will be starting to emerge.



▶ 8-10 weeks after application

Ryegrass and other grass weed species will have been controlled. Any plants that have survived treatment will show weakened growth and susceptibility to a second Rescue application. Seedlings from over seeding programmes should be well established.

The finished result

intenance of a high quality, fine turf playing surface