

YELLOW JACKET WATER MANAGER

Game-changer for turf managers.



YELLOW JACKET
WATER MANAGER

Powered by:
 **Aquatrols**

No water, no germination.

-  Yellow Jacket Water Manager ensures precisely the right balance of moisture for both optimum germination and establishment
-  Manages the amount of water around the seed and in the soil around the seedling
-  Improves germination and establishment in drier environments



7:45 AM - 3 Jun 2017



8:16 AM - 17 Aug 2017 from Fingal, Ireland



6:22 PM - 1 Sep 2017

OPEN CHAMPIONSHIP VENUE CALLS NEW GRASS SEED "SOMETHING OUT OF SCI-FI" Royal St George's Golf Club



Getting one of the world's greatest golf courses in pristine shape for one of the world's greatest golfing tournaments requires a combination of hard graft and nerves of steel.

It's all down to Head Greenkeeper Paul Larsen – who has been tasked with making the bone-dry Royal St George's Golf Club TV-ready for the 2020 Open Championships.

As one of the first-ever golf courses to use high-tech grass seed **Yellow Jacket Water Manager** which locks moisture inside a groundbreaking coating, he's seen a dramatic increase in establishment rates at the historic Kent links course.

"Considering we have one of the driest golf courses in the UK, we've been able to keep moisture levels consistent, while probably using the least amount of water of any course thanks to this new seed," says Paul, who has been at Royal St George's since 2011. "In the past, we would have to increase irrigation levels following overseeding to prevent seedlings from drying out. We don't have to do this anymore. And I can see the new seed making a massive difference to the way we manage our irrigation, after we seeded".

Open and shut

With such a large programme of improvements to make in the run up to the 149th Open – including the building of 40 bunkers and an entirely new irrigation system – the last thing a greenkeeper needs is a poorly performing grass seed.

Paul says the new Yellow Jacket Water Manager seed, which contains a patented wetting agent that improves germination and

seedling survival rates in areas of low-water availability, is "like something out of sci-fi".

Paul and his team sowed the seed as a trial run at the prestigious course at the beginning of September and have seen incredible results. "I'm trying to retain a 20 per cent moisture level across the board and in the past I've had to increase this to encourage good establishment, but with this seed I haven't had to.

"The seed came through in one week," says Paul, who has been a Greenkeeper for 17 years. "And by week two it was up and running. I wanted minimal irrigation on the greens, and now I've got it."

From the rough to the smooth

Having hosted Opens, PGA, Amateur Championships, and Walker and Curtis Cups, the 138-year-old course has been witness to more golfing history than any other in England, but like all links courses its humps and swales and fast-running fairways and deep bunkers can suffer from the intrusion of weed seeds– and this can be a perpetual headache for the Greenkeeper.

"Free draining, dry soils are perfect for our desired fescue grasses. We need to keep our irrigation levels low in order to favor the fescues and discourage unwanted grasses such as *Poa* and ryegrass", says Paul.

"Over the last few years we have used selective graminicide to kill off the unwanted coarse grasses. This has left us with areas of reduced grass cover which have required regular overseeding to restore full grass cover as soon as possible".

But since using Yellow Jacket Water Manager, Paul and his team have seen hugely improved results.

"The seed has germinated and established so well, even in difficult areas. The difference in performance with Yellow Jacket Water Manager is clear to see. "I can't afford to waste money putting in grass seed that might not grow; and I know with this seed that this won't happen."

Seed saviour

Hosting the Open for the 15th time in the Club's history, the pressure is most definitely on Paul to get the course right. But for him, Yellow Jacket has proved to be a valuable tool in his armory.

"I really rate this product; it's amazing" he says. "And I would happily champion it to anyone. There's still a lot of work to be done to prepare for 2020, but I can't wait to get my hands on more of this seed next year to help us get to the right place in time for the Open."

YELLOW JACKET WATER MANAGER



AREAS OF USE

- Divotting
- Newly sown areas on sand-based rootzone
- Oversowing fairways and greens

INFO

Pack size	15kg
Available with Products	FESCUE FAIRWAY

Game-changer for turf managers.

Available with FESCUE and FAIRWAY.

Yellow Jacket Water Manager is a game-changing seed enhancement product that improves germination and seedling survival in tough environments. The patented technology is the result of a research project by Barenbrug and Aquatrols and has been independently tested by the STRI.

Successfully trialled by four Open Championship venues in 2017. Craig Booth from Carnoustie Championship course, home to the Open Championship in 2018, says, "Barenbrug Yellow Jacket Water Manager has taken the sting out of overwatering landing areas on the fairways and par 3 tees. It is clear it does not require as much water for germination due to the coating, which seems to hold on to moisture and trigger a quicker germination".

No water, no germination

- Yellow Jacket Water Manager ensures precisely the right balance of moisture for both optimum germination and establishment
- Delivers improved germination and establishment in drier environments
- Ensures an optimum moisture balance during both the seed's germination and the plant's establishment, even under extreme conditions
- A 15kg bag equals 7.5kg seed and 7.5kg of coating
- Improves water management enabling higher survival rates of seeds and seedlings, which more than compensate for a reduction in seed number when identical seeding rates by weight are employed
- In other words, the same VOLUME of seed/product produces better results!



Phase 1: Water distributes the Water Manager throughout the soil to create a Plant Survival Zone.

Phase 2: The Plant Survival Zone ensures that each seed has enough water to germinate and manages the moisture content around the seeding during its establishment.

Phase 3: The grass seedlings are less affected by abiotic stress, so more plants survive.

Difference in germination

Results from a trial at STRI highlights the Yellow Jacket Water Manager performance.

Chewings red fescue (*Festuca rubra commutata*) seeds, untreated and treated with Yellow Jacket, were placed in pots containing wettable soil in a glasshouse, irrigated under 1 of 3 regimes:

- Normal irrigation (N 2,000ml/year)
- Deficit irrigation (N 1,000ml/year)
- Severe deficit irrigation (N 330ml/year)

50% fewer seeds sown in the Yellow Jacket treatment (same weight/sowing rate)

Germination and establishment assessments were made over a 14 day period using a subjective visual assessment of establishment based on a 1-10 scale (where 10 is best).

Results (Figure 1) showed improved germination and establishment across all irrigation regimes. Even larger differences were evident under deficit and severe deficit irrigation.



Difference in germination

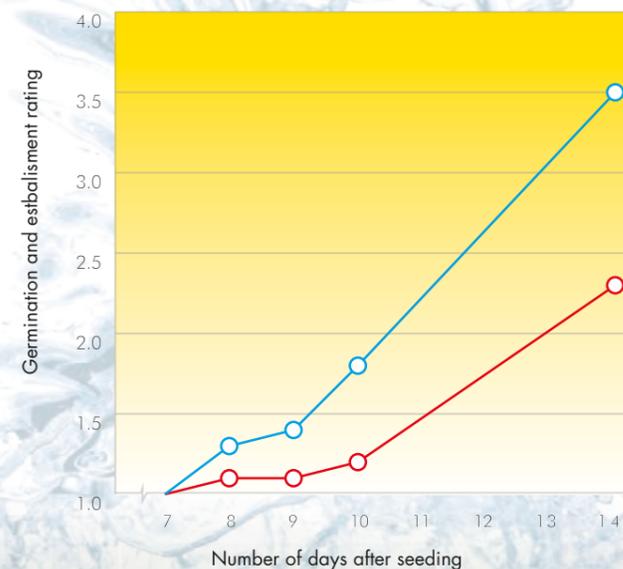
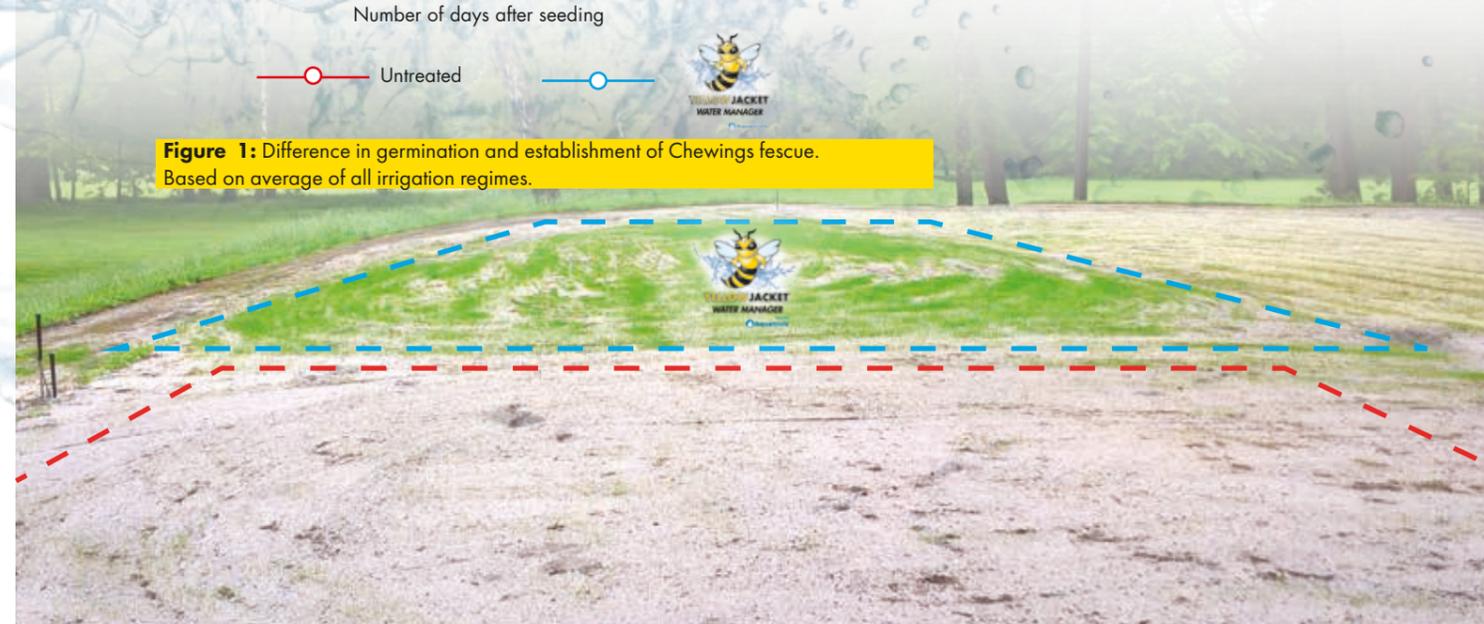


Figure 1: Difference in germination and establishment of Chewings fescue. Based on average of all irrigation regimes.



FESCUE

GOLF GREENS, TEES, FAIRWAYS BOWLING GREENS

Outstanding blend of 50:50 Chewings and slender creeping fescues for the overseeding and construction of free-draining fine turf.

- 50:50 blend of Chewings and slender creeping fescues offers the best solution for year-round performance and growth in fescue-dominant turf
- Chewings fescues are most active in spring through to mid-summer
- Slender creeping red fescues are most active in early summer through to autumn
- Contains both the top-rated Chewings (*Barlineus*) and slender creeping (*Viktorka*) cultivars for greens use (BSPB Turfgrass Seed 2018)

Cultivar	%	Mean Score	Rank	Shoot Density	Rank	Disease Resistance	Rank
VIKTORKA Slender creeping red fescue	25%	7.6	1	7.7	2	7.8	3
BARCROWN Slender creeping red fescue	25%	7.5	3	7.7	1	8.4	1
BARLINEUS Chewings fescue	25%	8.2	1	8.3	1	7.4	3
BARGREEN II Chewings fescue	25%	7.5	7	7.5	8	6.6	14

Scoring and ranking of FESCUE cultivars from Turfgrass Seed 2018 for golf greens use.

Discover our **FESCUE** FACTSHEET to find out more about how and why this mixture works so well.
www.barenbrug.co.uk

IN THE BAG

- 25% **VIKTORKA**
Slender creeping red fescue
- 25% **BARCROWN**
Slender creeping red fescue
- 25% **BARLINEUS**
Chewings fescue
- 25% **BARGREEN II**
Chewings fescue

HOW TO USE IT

Sowing rate	25-35g per m ²
Oversowing rate	15-25g per m ²
Sowing depth	8-12mm
Mowing height	down to 4mm

INFO

Pack size	20kg
Yellow Jacket	15kg

FAIRWAY

FAIRWAYS, TEES, ROUGHS

Dedicated 100% fescue blend for fairways and other areas of the golf course. Features consistent and highly ranked cultivars.

- Contains four fine fescue species, delivering a premium mixture designed for overseeding, divoting and constructing free-draining turf areas on the golf course
- *Hardtop* hard fescue offers superior performance under stress of drought, heat, cold and low nutrition
- *Barcrown's* red thread tolerance (ranked #1 all red fescue cultivars) an important factor in fairways under low nutrition
- The red fescue cultivars are all consistent performers, and ranked highly in the BSPB Turfgrass Seed 2018

Discover our **FAIRWAY** FACTSHEET to find out more about how and why this mixture works so well.
www.barenbrug.co.uk

IN THE BAG

- 35% **SERGEI**
Strong creeping red fescue
- 30% **BARCROWN**
Slender creeping red fescue
- 20% **HARDTOP**
Hard fescue
- 15% **BARGREEN II**
Chewings fescue

HOW TO USE IT

Sowing rate	20-35g per m ²
Oversowing rate	15-25g per m ²
Sowing depth	8-12mm
Mowing height	down to 7mm

INFO

Pack size	20kg
Yellow Jacket	15kg



Grass experts since 1904

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