

RHUBARB AND CUSTARD

By Henry Bechelet, Turfgrass Agronomist

A DESSERT TO FINISH

It is time for me to stop writing these perishing articles. I am happy to have had my say on the matter of sward progression. This is my final article in the Disturbance Theory series. In the articles www.stri.co.uk we have tried to cover all aspects of the maintenance necessary to favour the development of the finer grasses in your greens. We have told you how to think about the problem in a new way that brings better insight. I hope it makes enough sense for you to carry it on. Because I know many of you have already started down this line I don't want to leave any gaps. I want to finish this off properly for you and then hope that the theory can take on a practical life of its own, through you. This final article is about aeration and it should serve to confirm that you have attained the complete understanding. Call it the pudding and you can lean back when you've finished.

ALL GOOD?

Aeration strategy is everything in greenkeeping and agronomy. If you know anything about either then it's the one. "Aeration, aeration, aeration" is the common call for correct devotion, but is real life that simple? No. Don't let an appealing sentiment stop you thinking properly. Aeration is beneficial when it's done right but it can also be damaging without thoughtful care. Don't be blinded to the truth when setting down your principles to work by. Aeration can be dangerous even in sincere hands.

FIRM AND DRY

We aerate to maintain the correct soil conditions to enable us to create superior playing surfaces. We seek to create playing surfaces dominated by the finer grasses because they are naturally superior. Browntop bents and/or the fine fescues make better surfaces for longer in the year and with reduced vulnerabilities. A firm, fine, and dense sward with built-in hardiness. Fast, smooth, and true surfaces that are receptive to approach shots. The ideal species blend will depend on the style and nature of the course.

To achieve the finer grasses we need to maintain a surface that receives and transmits water quickly, we must produce a sand dominated upper soil profile with an open structure and also manufacture decent underlying drainage. A bad inheritance certainly needs a lot of hard work. A good situation also needs work to combat the pressures of play and to keep the soil ecosystem and drainage functioning properly. Slit tines, solid tines, chisel tines, hollow cores, tine heave, offset rotating blades, compressed air injection, deep scarification, sarel rolling are all available to do the job. You just need to put your programme together to create the correct soil conditions but without damaging the desired species or laying the sward open to invasion from weeds. Basically, you will only need to get fussy with your aeration after you've done the majority of the hard work.

BANZAI!

For our standard annual meadow grass dominated soil-based greens we need to get rid of the thatch quickly, create a sand dominated upper soil profile, work the structure to depth and maintain adequate

drainage rates. Don't waste time when removing thatch because you will loose the ground, it comes back. Stop creating the conditions for it to come back. Hollow tine to remove organic matter, integrate top dressing to replace it, solid tine to aerate, top dress to integrate, solid tine to aerate, top dress to integrate, solid tine to aerate, top dress to integrate, hollow tine to remove, integrate top dressing, deep scarify to remove, integrate top dressing, verti-drain, verti-drain, verti-drain, slit tine, solid tine, structure and drainage etc. You get the picture. Get the soil conditions right in your own way but be careful not to loose sight of playing quality with your eagerness. Only aerate when surface, soil and growing conditions are right and take real care with the top dressing and tidying up. Don't forget about the golfers for goodness sake. Overseed throughout this time because the finer grasses start to take hold as things improve. Seek to reduce fertiliser and irrigation inputs to manage healthy turf through the change. Don't go silly at this stage because stress is no good to seedlings.



GUNG-HO!

Continue to aerate with a passion through the transition phase to create the ideal environment for early establishment. Disturbance is not an issue here if we fill the gaps with our own choice of quality seed. In addition to your aeration zeal, try to maintain healthy turf without imparting undue stress or producing too much growth. Just think of the seedlings as they come because they need your help. Stay on top of dry patch to maintain consistency. Reduce competition by keeping growth as quiet as possible. Plant growth regulation is achievable in a number of different ways. Try them, talk about them, learn about them.

Ultimately, we don't want to have to resort to too much aggressive verticutting and mowing to maintain playing qualities because it places too much pressure on the finer grasses. Spike, top dress and seed, brush around, prick, roll, roll, roll. Spike, top dress and seed, brush around, prick, roll, roll, roll. Spike, top dress and seed, brush around, prick, roll, roll, roll. Good surfaces. Nice method. Undertake light verticutting if needed but hear the seedlings wince.



KARMA

When the finer grasses have assumed dominance (or if they started with it) you need to ease back on the throttle. Now is the time to learn to live again. Well done and relax or good luck and start panicking, depending on how you got here. Suddenly annual meadow grass invasion is your primary concern. Take care not to damage the finer grasses or leave the surface open to annual meadow grass seed invasion. See the impact of everything you do. If you're here because you've managed to make the change then well done and keep doing what you are doing but gradually turn the volume down as the need for intensive treatments naturally declines. Keeping up the intensity at this stage might prevent you from kicking forward by keeping the surface too open. If you are managing a completely new establishment or have inherited some kind of fine turf heaven then it is time to start getting super protective.

NATURE AND NURTURE

New bent/fescue greens are a problem because they are so young and they react against the increased intensity of maintenance and the pressure of play. They can weaken quickly if allowed and rip to pieces under play without proper care. We have all seen the ensuing rout and find it easy to blame the method of construction or establishment. Maintain strong growth in the early days and don't take liberties with your cutting heights. Don't create the gaps for annual meadow grass seed invasion, concentrate on closing them down. Dust down with top dressing, brush lightly, roll, roll, roll. Repair pitch marks and manage marginal play properly. Take the greens out of play if you need to. Put your arms around them. Resilience comes with time and only after patient early care. Prepare the playing surfaces in an aggressive way and use them regardless if you want annual meadow grass invasion.

BACK ON TRACK

Certainly don't go berserk with the spiking on bent/fescue greens. Don't do any if you don't need to. Constantly observe the situation to determine exactly what is needed to maintain the ideal soil profile. Take advice if you need to get your eye in. Understand exactly what it is the various aeration treatments actually do. Minimise sward damage and the creation of gaps during high-risk periods. Sarel roll to prick the surface open if you need to keep the upper soil profile receptive to effective water infiltration during the Poa seeding seasons. Quickly fill open micro solid tine holes with top dressing and seed to improve the turf base without inviting disaster. Choose a most effective but damaging method only when the risk is minimal and the pay-off essential. Hollow tine, top dress and overseed if needed when quick recovery is available, when our seed germination and establishment is optimal and when there aren't too many annual meadow grass seed heads around. It always depends on the weather so think on your feet and be alive to all opportunities. Good greenkeeping requires foresight.

AND NOW THE END IS NEAR...

All these things you know. Now is the time for you to do what is needed. You know that this way of thinking holds the answer you need because the answer comes from you. The Disturbance Theory has only been about giving enough of an understanding and also the confidence for you to take up sward progression for yourself. Now you just need to persevere, listen and learn as you go, know when to work hard and when to take it easy and be sure to strike cleanly. I look forward to seeing the results and hearing of the journey.

At the end of all this you must promise to tell of your success to help those that want to learn and follow. The Danish success comes from good communication and their real sense of brotherhood. They help each other. British greenkeeping needs to wake up to itself in this regard and stop holding the secrets of success as personal treasure. Fools gold. The Danish model was also driven by legislation. At the moment we are largely doing this because we want to but, imagine ever-hotter and drier summers coupled with water restrictions and you might start to think that you have to make the change. I applaud The R & A for their movement into this area www.bestcourseforgolf.co.uk and hope that we are all happy enough to see the sense and join in. Working groups, seminars, articles, Internet forums, classrooms and lecture theatres are all to the good and should be used by the good for the common good. We are all going to need to help each other if we are to carry everyone along to a successful and more easily sustainable future. Rhubarb? We'll see.

UNTIL TOMORROW MY FRIENDS.

There will be further Disturbance Theory articles from other contributors and a number of seminar days are being arranged for the autumn so keep in touch with the website. We also conduct advisory visits if you need any further help or support. All the articles will remain freely available at www.stri.co.uk, just click on.

...AND FINALLY

The prize for the "Is verticutting necessary?" caption competition goes to Mr. K Singleton from Colne in Lancashire for his most concise answer... "Yes it bleedin' well is, now get on with some work...I mean, for crying out loud!" Thanks Kevin, will do and well done, your report is in the post.

Henry Bechelet is the STRI Turfgrass Agronomist covering North and Eastern England. Henry may be contacted by email at henry.bechelet@stri.co.uk or via www.stri.co.uk

Coffee anyone?

AFT 45 COST EFFECTIVE DRAINAGE

The AFT 45 allows for quick and neat trenching work as and when needed, at the lowest cost and with minimal disruption to play.

Tel: 01787 311811 Fax: 01787 310888

E-mail: info@trenchers.co.uk www.trenchers.co.uk

16/17 Addison Road, Chilton Industrial Estate, Sudbury, Suffolk CO10 2YW





In the Shed

Greenkeeper International brings you 'In the Shed', a puzzle page to keep you entertained when the weather forces you in or for when times are slow.

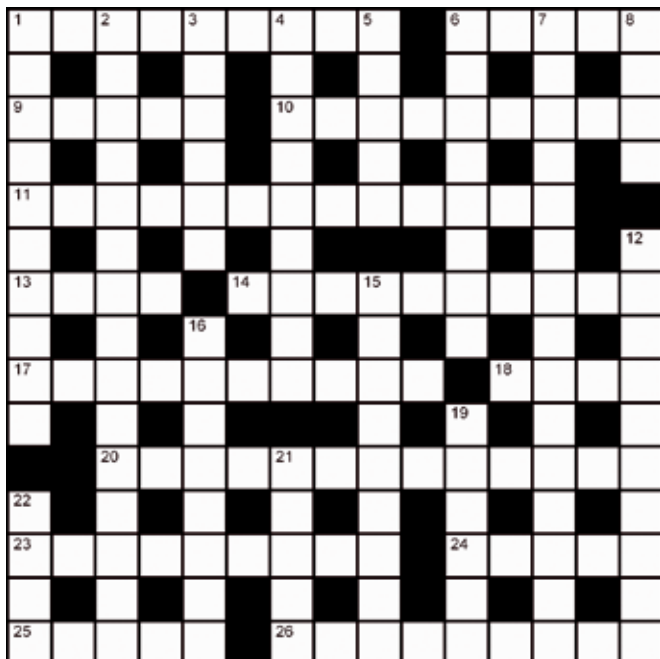
CROSSWORD

ACROSS

- 1 Decline, declivity (9)
- 6 Make suitable for a different purpose (5)
- 9 Strong smell or just a suggestion of it? (5)
- 10 English equivalent of a French policeman's matraque (9)
- 11 East London market location - or slip road? (9,4)
- 13 Long, usually arduous journey (4)
- 14 The court fool in Shakespeare's As You Like It (10)
- 17 At very low cost (2,3,5)
- 18 Child's toy of which, on average, every person on earth has 62 pieces (4)
- 20 South African city known "The Friendly City" (4,9)
- 23 The Italian version of "good evening" (5,4)
- 24 Bread fragment (5)
- 25 Hang around, loiter (5)
- 26 Green alga commonly found in freshwater areas (9)

DOWN

- 1 Early morning reconnaissance flight (4,6)
- 2 Series of visits, especially to small towns as part of a political campaign (7-4,4)
- 3 Ending which serves a common purpose for a number of words (6)
- 4 One of an East Germanic tribe who populated northern Italy around 500AD (9)
- 5 Break open (5)
- 6 The use of an antiquated word or phrase (8)
- 7 Ironically polite equivalent of "after you" (3,6,6)
- 8 Minuscule (4)
- 12 Irrational fear of strangers (10)
- 15 Mock serenade for newlyweds, usually with pans, kettles etc. (9)
- 16 Month named after Latin word meaning "purification" (8)
- 19 Cowboy, especially of the South American pampas (6)
- 21 Of a bet, winning the same as the amount staked (5)
- 22 Assist, especially in wrongdoing (4)

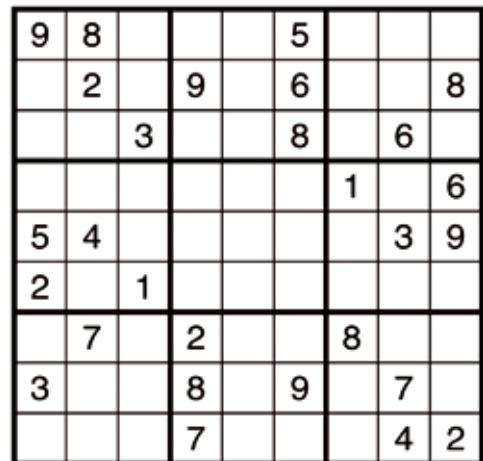


QUICK 'NINE HOLE' QUIZ

- 1 Which cricketer is England's leading run scorer?
- 2 How many events are there in a decathlon?
- 3 How many tennis grand slam events has Tim Henman won?
- 4 Which English premiership team are known as the gunners?
- 5 Which Spice Girl has the nickname 'Sporty'?
- 6 What colour blood do the Vulcans' in Star Trek have?
- 7 What type of plant is a prickly pear?
- 8 Which zodiac sign is of scales?
- 9 Which three colours are shared between the flags of Germany and Belgium?

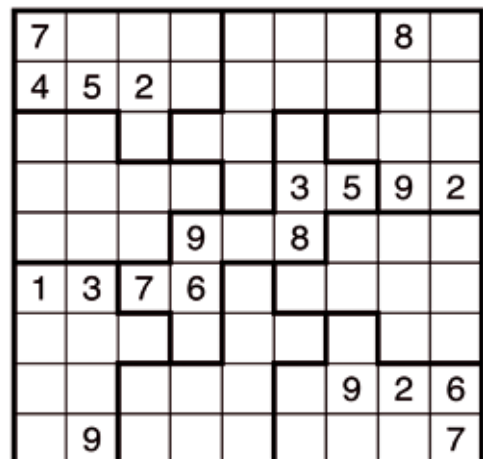
MONSTER SUDOKU

Fill in the grid so that every row, every column and every 3x3 box contains the numbers 1 to 9 and the letters A,B and C.



SQUIGGLY SUDOKU

Fill in the grid so that every row, every column and every 12 box shape contains the numbers 1 to 9.



IN THE SHED ANSWERS ON PAGE 61



IN THE SHED

NEW

Disease protection

Syngenta Crop Protection UK Ltd., Whittlesford, Cambridge. CB22 4QT.
Website: www.greencast.co.uk
Scotts UK Professional, Tel: 0871 220 5353, Email: prof.sales@scotts.com
DACONIL WEATHER STIK® contains chlorothalonil (MAPP 12636), BANNER
MAXX® contains propiconazole (MAPP 13167), HERITAGE® contains azoxystrobin
(MAPP 11383). DACONIL WEATHER STIK®, BANNER MAXX® and HERITAGE® are
registered trademarks of a Syngenta Group Company.
Always read the label. Use pesticides safely. ©Syngenta AG September 2007.



Daconil
Weather Stik®





***rainfast
within 1 hour***



that sticks and stays

New DACONIL WEATHER STIK gives complete protection from major turf diseases, even in the most difficult weather conditions.

The formulation of new DACONIL WEATHER STIK ensures strong bonding of the powerful fungicide to the leaf surface - ensuring it will not be washed off by rain and giving longer lasting protection from disease infection - and it is rainfast within an hour.

Used on its own or combined in a programme with other Syngenta fungicides, like Heritage and Banner MAXX, as part of an integrated management plan, DACONIL WEATHER STIK delivers excellent disease control whatever the weather.



SNAP HAPPY!

The results are in and the winners in this year's competition can be extremely happy with their efforts.

The second BIGGA Golf Photography Competition produced a huge variety of pictures from greenkeepers who see photography as both a hobby and an important communication element of their job.

Last year the winner was Swiss-based Steven Tierney who took a stunning photograph of his course, Golfpark Nuolen, near Zurich, and as a result featured in Greenkeeper International in August.

This year the winner is a little closer to home and comes from 21 year old Michael Cunningham, of The Duke's Course, Woburn, on which Michael works as an Assistant.

The competition was judged by three distinguished lensmen. Alan Birch is a long time friend of BIGGA whose photographs have been published extensively. The competition was his brainchild. Alan was joined by professional golf course photographer, Eric Hepworth, and, Matthew Harris, who has been one of the top photographers on the major golf Tours of the world for over 20 years.

"I thought it was a great photograph of a beautiful golf course," said Alan.

"I'm particularly delighted that Michael is just 21 as having such a good eye for a photograph is going to stand him in good stead throughout his greenkeeping career. A camera is such an important tool now for any greenkeeper and an ability to take good photographs is a very useful skill to have.

"Marek's picture from Mount Juliet is a wonderful picture which highlights some of the work that greenkeepers do while the Chris' picture of Sunningdale is another super effort."

Eric was equally praiseworthy of the winning pictures.

"All the pictures which make the final three have something going for them."

With the Woburn shot there is a good use of the shadow area. If the picture had been cropped a little more from the bottom upwards the picture would have been so much better. For future pictures, try to place yourself so the green is cross-lit. With slightly less foreground, I would be pleased to have this within my library. It's a fine effort.

"With the Mount Juliet pic it was taken with the benefit of decent weather although the sky could have been improved if the photograph was taken when attractive cloud formations were present. A good effort though nonetheless.



Hankley Common by Gareth Roberts



Traditions by Laurence Pithie



Newmachar by Dale Robertson



Palheiro by Peter Wisbey



Windyhill by Darren Welsh



Colne Valley by Gavin Steed



“The Sunningdale picture is a classic view of the course. Good use of players in the picture to give the view some scale. I would have preferred that it was photographed though on a better day. The sky could have been a little better.”

Matthew, who has taken some extraordinary golfing pictures during his time as a professional photographer was complimentary about the overall quality of the pictures entered.

“I was extremely impressed by the standard of the standard and it is obvious that there are many talented amateur photographers within the BIGGA membership,” said Matthew.

The remaining pictures shortlisted by the judges will comprise the 2008 BIGGA Calendar.

They are: Hankley Common, Gareth Roberts; Perranporth, Billy Mitchell; Newmasher Dale Robertson; Traditions, Laurence Pithie; Cumberwell, Marc Haring; Colne Valley, Gavin Steed; Windyhill, Darren Welsh; Fleetwood, Roy Welsh and Palheiro, Peter Wisbey.

The three winners will receive an Eric Hepworth print of their choice, while Woburn will be profiled in the magazine next year.

1ST THE DUKE’S COURSE, WOBURN, MICHAEL CUNNINGHAM

2ND MOUNT JULIET, COUNTY KILKENNY, IRELAND, MAREK ZUBERT

3RD SUNNINGDALE OLD, CHRIS SHERRINGTON





SAFE AND WARM

By Melissa Toombs

For Course Managers and Greenkeepers there's more to preparing for winter than getting the course ready. Now is an ideal time to invest in some high-quality Safety and Winter Workwear.

Autumn is traditionally the time for workwear renewal and there are a number of improved fabrics on the market right now with many offering breathability as well as being waterproof. Waterproofs, gloves, fleeces, safety goggles and hard hats are the popular "kit" and, of course a decent pair of boots.

The Personal Protective Equipment at Work Regulations 1992 requires that personal protective equipment is supplied and used at work wherever there are risks to health and safety that cannot be adequately controlled by other means.

To ensure adequate protection is afforded to employees, risk assessments should be carried out and equipment carefully chosen and supplied by the employer. Ask your PPE supplier for advice if you are unsure, as various options may be available depending on the nature of the risks involved. All equipment purchased, however, should be 'CE' marked and comply with the Personal Protective Equipment Regulations 2002.

Risk assessments should include the following six main hazard areas. Types of PPE are shown in each case;

Eyes

Hazards: Chemical or metal splash, dust, projectiles, gas and vapour, radiation. Options: Safety spectacles, goggles, faceshields, visors.

All safety eyewear used in the work environment has to meet rigorous European safety standards. You might be familiar with the oft-quoted code EN 166 1F - Effectively each group of numbers tells you just how good these products are – EN designates the European Safety standard that is certified for the product. 166 is the designation for eyewear. 1F tells you that the glasses are grade 1 optical quality – and 'F' is a level of impact protection – this test standard demands the lens can withstand a ball bearing fired at 80mph without shattering.

Today's safety eyewear lenses are highly sophisticated and offer remarkable levels of protection. Clear lenses don't just protect against impact – they can be anti-scratch, anti-fog – or both. They also give 100% protection against harmful UV radiation.

Yellow and orange lenses enhance vision in poor light – and grey sun lenses filter out intense light to make working in bright conditions so much more comfortable – again while blocking harmful UV radiation.

Head

Hazards: Impact from falling objects, risk of head bumping, hair entanglement. Options: A range of helmets and bump caps.

Breathing

Hazards: dust, vapour and gas. Options: Disposable filtering facepiece or respirator, half or full face respirators, air-fed helmets, breathing apparatus.

Protecting the body

Hazards: temperature extremes, adverse weather, chemical or metal splash, spray from pressure leaks or spray guns, impact or penetration, contaminated dust, excessive wear or entanglement of own clothing. Options: Conventional or disposable overalls, boiler suits, waterproof jackets and trousers, specialist protective clothing, e.g. Hi-vis clothing, spraysuits, chainsaw wear.

Hands and arms

Hazards: abrasion, temperature extremes, cuts and punctures, impact, chemicals, electric shock, skin infection, disease or contamination. Options: Gloves, gauntlets, mitts, wristcuffs, armllets.

Feet and legs

Hazards: wet, electrostatic build-up, slipping, cuts and punctures, falling objects, molten metal and chemical splash, abrasion. Options: Safety boots and shoes with protective toecaps and penetration resistant mid-sole, gaiters, leggings, spats.

N.B. Hearing protection and respiratory protective equipment provided for most work situations are not covered by PPEW Regulations because other regulations apply to them.

Maintenance of PPE is important. It should be properly stored, cleaned and kept in good repair. Replacement should be in accordance with manufacturers requirements, e.g. Helmets, which are used daily and exposed to sunlight, have a realistic life span of about two years and should be replaced after this period, irrespective of any signs of wear or damage.

The wearing of PPE is akin to the introduction of compulsory seat belts use. After initial resistance it soon becomes second nature and people wear it without thinking making the workplace a safer environment.

GREENKEEPER WEAR FROM THE HOME OF GOLF

In all professional clothing and footwear, appearance and comfort are important considerations but most critical of all is the safety and wellbeing of those who are wearing it. Hoggs of Fife know that the right greenkeeping footwear is vital for a greenkeeper's comfort and safety. They know this because they have spoken to a good many greenkeepers as part of their ongoing product development programme and because they have been making fine working footwear since 1888. Right now, Hoggs can offer 21 different safety boot styles and more than a dozen non-safety styles and 17 of their work boot styles are fitted with fully waterproof and breathable membranes.



The recently launched GK Pro boots, were designed in association with greenkeeping professionals to provide the ultimate in comfort, safety and waterproof-ness.



A price notch down from the Gore-Tex® waterproofs are the Green King™ waterproofs, seen here on bunker raking duty. The Green King™ waterproofs range consists of Long Coat with built-in hood, Over-trousers, Leggings and Gaiters all made with a state-of-the-art hardwearing Ripstop™ fabric.

BIGGA members are eligible for a 25% discount off the already very keen prices. For more information contact Hoggs of Fife Ltd, Tel: 01334 653733 Email: sales@hoggs.co.uk Purchasing will be even easier from mid-October when a full e-commerce website goes live at www.greenkeeperwear.com

TAKING CARE ON THE COURSE

Course Care's range of workwear, foul weather wear, promotional wear and protective clothing meets all the needs of those working in Turf Maintenance.



As Autumn and Winter loom, most greenkeepers will be checking to see that they have serviceable waterproofs at the ready. The Working Climate Gore-Tex® waterproofs are made from triple-layer Taslan, the toughest fabric made by W.L. Gore, the Working Climate jacket and over-trousers are lightweight, fully waterproof and breathable and tailor-made for the demands of a rugged outdoor life. The Working Climate jacket is interactive which means that it can be paired up with a zip-in Windstopper® waistcoat for the colder months.



The Driza-Bone Greenkeeper Suit is waterproof, breathable, lightweight and practical. The jacket features fully taped seamed waterproof outer as well as lining, providing extra durability and weather protection while sacrificing very little in terms of lightness. There is a concealed hood and Velcro adjustments to cuffs. Trousers are also 2-layer and have 2 zipped pockets, a back flap pocket and drawcord adjustable waist.