

THE VERTIRAKES

P.V.R. (*Pedestrian Vertirake*)

– for Golf greens, Bowling greens, Cricket pitches and Tennis courts.

J.V.R. (*Junior Vertirake*)

– for Golf course greens, Bowling turf, Fine lawns etc.

T.V.R. (*Tractor Vertirake*)

– for Golf course fairways, Municipal Parks, Sports pitches.



These three machines have been designed to remove all the thatch, thus stimulating recovery and growth of strong healthy grasses. You will find that each machine will clear the difficult, dead, matted, fibrous grass that is so often so difficult to get rid of.

We have a machine for every purpose from the small golf green to the largest Municipal playing fields. One great labour saving device we have fitted on our P.V.R. model is the very large glass fibre collecting box which saves an enormous amount of time and energy that would otherwise be wasted in sweeping up afterwards.

Start your New Year off well by writing for full information on VERTIRAKES to :

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The British Golf Greenkeeper

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Front Cover Picture

A THREE-UNIT Sisis Veemo turf maintenance machine removes turf fibre and cuts horizontal growth.

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new!



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All about spray gear

The Importance of Reliable Spraying Equipment Calibration and Maintenance

This is a synopsis of an illustrated paper presented recently at Turf '75, a day Seminar held at Reading University and organised by Synchemicals Ltd.

THERE ARE two basic types of spraying equipment, Air Blast—not usually employed in local authority work and Hydraulic used to handle herbicides, insecticides, fungicides, growth retarders, liquid fertilizers, trace elements etc.

Materials for the above applications fall into two types—true solutions i.e. liquid chemicals in water and suspensions i.e. wettable powders in water. True solutions are corrosive to a greater or lesser degree whilst suspensions are certainly abrasive and probably corrosive.

Spraying equipment compatibility and corrosion resistance vary. Among the pump types, diaphragm are corrosion and abrasion resistant, piston are corrosion resistant but susceptible to abrasion, roller vane are liable to corrosion and abrasion whilst centrifugal are also liable to corrosion and abrasion.

Turning to tanks, the hot dip galvanized mild steel type are very good and resistant to corrosion, internally coated tanks are good but susceptible to damage and deterioration. Plastics of various types are mostly compatible but are susceptible to ultra violet light, changes in temperature and certain solvents. Fibre glass are compatible but subject to deterioration and cracking if they are not thick enough and built to a good specification.

Controls and plumbing are either metal-ferrous, coated or galvanized, non ferrous untreated or plastics.

Hoses can be synthetic rubber braided construction or plain or armoured plastic.

Booms can be ferrous or non-ferrous

pipes and jet or plastic pipes and jets.

Types of Spraying Equipment

Tractor mounted—ground crop boom, carrier boom, hand lances etc.

Large trailer unit with ancillary equipment as above.

Land Rover with P.T.O. driven pump or separate engine driven pumping unit and range of ancillary equipment. Suitable also for Hafinger, Unimog etc.

Free standing tanks and pumping units to mount on flat bed lorry or trailer or to fit into a van or pick-up etc. Again a range of ancillary equipment.

Small trailer unit for mini tractors and equipment.

Small power operated, hand propelled unit for hand lance work.

Small pumping units c/w tank, petrol engine or electric drive. Suitable for hand lance work.

Suitable boom length and jet centres are half metre centres for herbicides and 9" centres for growth retarders.

There are basically three types of jets. Fan jets with 80° or 110° angle of spray, hollow cones and flood jets.

When considering the correct height setting of booms and jets overlapping of fan jets should be 4" to 8" depending on patterns and 50% overlapping of cones to avoid stripping.

Calibration

To determine output required, read carefully the instructions given by the manufacturer and then check the Output Chart of the sprayer to ascertain

[Turn to Page 7]

Give your roots an airing

When it comes to spiking and slicing you'll have to look a long way to find anything more effective than the Ransomes-Hahn TM Models.

The cultivating action of the aerating 'spoons' are the result of patient research into the surest way that the spiking will allow air, water and fertiliser to do most good. This action is unique to Ransomes-Hahn. Turf tearing is prevented by the patented 'Flexi-press' springs which fit over the spoons. Alternatively, the double point spiker blades cut cleanly and quickly. Three point tractor attachment makes the TM models highly manoeuvrable to deal with normally inaccessible areas.

Point for point you can't do better than employ Ransomes-Hahn turf maintenance equipment, talk it over with your Ransomes dealer.

Check these features

Two models TM140 or TM 80.

Full 6' cultivating width.

140/ 80 spoons of $\frac{3}{4}$ " open or thatch type with Flexi-press springs to match, or 140/ 80 blades

Built in weight rack as standard - also acts as effective safety guard.

Disc weights available as optional extra.

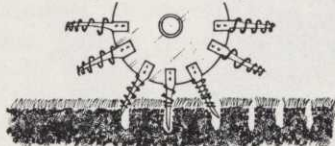
Draught eye as standard to attach drag mats.

Ransomes Sims & Jefferies Ltd., Ipswich.

RANSMES

Ransomes-Hahn TM-140 Aerifier ...and a complete range of turf improving equipment

Nothing beats cultivating action



Packed soil now has room to expand into the scooped out holes. The root-zone is opened out to enable air, water and fertiliser to have the most benefit. Strong root formation is made more easily in the surrounding soil.

**BUY OR
LEASE**

[Spray Equipment from Page 5]

the size of jet and pressure required.

N.B. Tractors based on 4 m.p.h. and Land Rovers on 8 m.p.h. Have available a container of water and measuring vessel.

The following procedure should then be followed:—

- (1) Fill tank with clean water.
- (2) Fit correct size jet.
- (3) Run up sprayer and check that the jets are working and anti-drips function.
- (4) Set Pressure Control Valve so that the pressure is as given in the Output Chart for the volume required. (Note any variances for any anti-drips fitted).
- (5) Switch Main Control cock to the "OFF" Position (Note all boom selection cocks are switched "ON").
- (6) Decide gear and engine revs to give 4 m.p.h. P.T.O. speed must be 540 r.p.m. when using wettable powders. If other forward speeds are required consult the Instruction Book under heading "Calculation Formulae", or chart giving jet outputs at different forward speeds.
- (7) With tractor or Land Rover on level ground, top-up tank to the lid rim.
- (8) With two flags mark out $\frac{1}{4}$ acre strip of ground to be sprayed. The distance between the flags will be determined by the width of the boom.

Boom Width

- 18 ft.
- 21 ft.
- 24 ft.
- 27 ft.
- 30 ft.
- 39 ft.

Distance to be covered to spray $\frac{1}{4}$ acre

- 202 yards
- 173 yards

- 151 yards
- 134 yards
- 121 yards
- 93 yards

Distance between flags

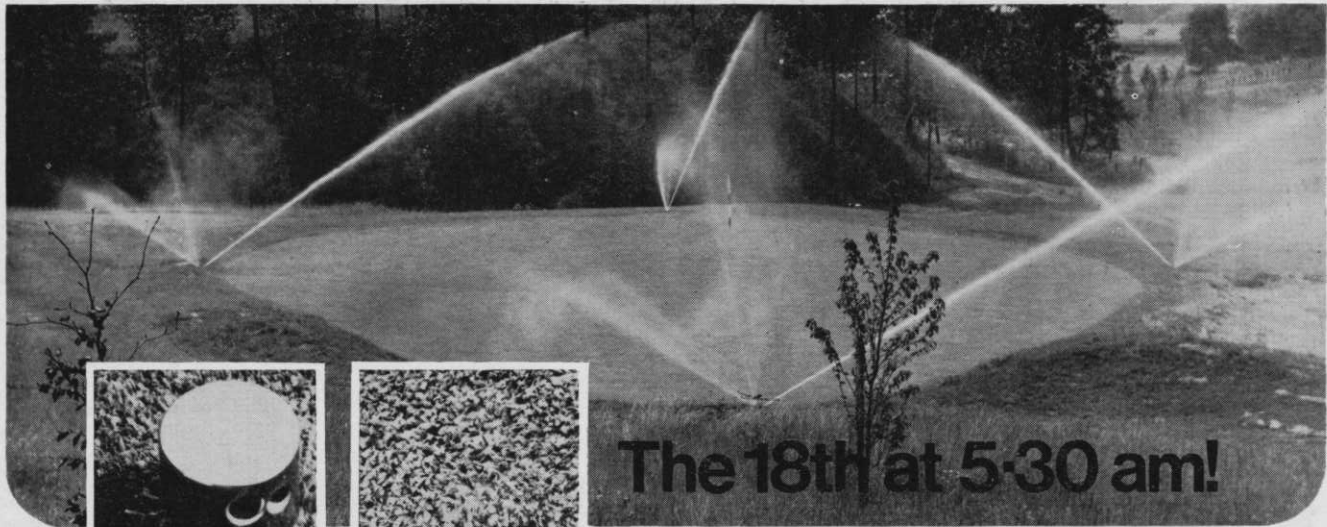
- 101 yards
 - 86 $\frac{1}{2}$ yards
 - 75 $\frac{1}{2}$ yards
 - 67 yards
 - 60 $\frac{1}{2}$ yards
 - 46 $\frac{1}{2}$ yards
- (9) Drive at 4 m.p.h. and when the boom is level with the first marker, switch main control to "ON".
 - (10) Drive on down to the second marker and when the boom is level with the second marker switch main control to "OFF".
 - (11) Turn tractor or Land Rover and repeat the spray run in the opposite direction.
 - (12) Return to position where the tank was originally "topped-up".
 - (13) Fill sprayer tank to rim, measuring the exact amount of water added.
 - (14) This will be the amount of water sprayed on $\frac{1}{4}$ acre, and to find output in gallons per acre multiply this figure by 4.
 - (15) If this is the correct output required make note of jet pressure, gear and engine revs for future spraying at this particular output.
If the volume is incorrect, adjustment can be made by either altering the pressure, or by adjustment on the speed of the tractor or Land Rover.

Maintenance

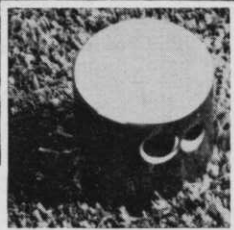
Daily—Sprayer

- (a) flush out with water.
- (b) remove all hoses and run pump dry.
- (c) drain tank.
- (d) wash down externally.

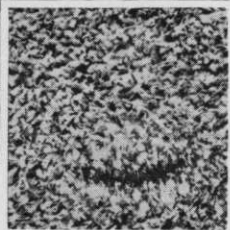
[Turn to Page 9]



The 18th at 5-30 am!



Now you see it . . .



Now you don't!

NEW! This Toro 'pop-up' sprinkler disappears below ground after watering. Its fully retracting head protects against damage by mowers or vandals . . .



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Toro 'pop-up' sprinklers water greens, tees and fairways through the night, automatically. Day time stoppages are eliminated, courses play consistently and of equal importance, greenkeepers can concentrate on other more demanding work around the course. Consider these benefits then ask Wright Rain to design a Toro 'pop-up' scheme for your club! Write for details and the name of your nearest appointed installer now . . .

[Spray Equipment from Page 7]

Filter

- (a) remove and clean filters.
- (b) check gaskets and seals.

Power Drive Shaft (if fitted)

- (a) grease.
- (b) check spring loaded clip.

Pump

- (a) grease if possible.

Pressure Gauge

- (a) check for zero reading and chemical blockage.

Booms

- (a) check jets for alignment damage and wear.
- (c) check hoses for fit and damage.

Storage & Frost Precautions

- (a) flush with water and scrub tank with washing soda.
- (b) flush out with water.
- (c) fill with water and de-watering fluid for metal tanks.
- (d) pump out but not through boom if plastic.
- (e) remove all jets, anti-drip devices, feed hoses and store in a dry, warm, dark place.
- (f) open all valves, remove all end caps and drain plug.
- (g) ensure pump completely empty of water.
- (h) grease and oil all threads, hinges and all surfaces requiring to be kept free from rust.
- (i) store the sprayer in a safe, dry place with the tank lid just open to avoid condensation.

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The Bluegrass that bounces back!

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- Withstands shade (up to 65%).
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- Produces a dense green sward of turf.

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1 Pound Sows
2,000 Sq. Ft.

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Would you buy a mower from a firm that has produced only half a million or so?

If you're looking for gimmicks of course you wouldn't. Because it smacks too much of traditional values - universal appeal, continuity of design, and so on - and a determination to keep it that way.

Fortunately for the world's sportsmen (and women), groundsmen throughout 73 countries think differently. They go for robust construction, proven design, ready availability of spares and a reputation for reliability that dates from 1921.

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Jacobsen mowers are available in the UK from a national network of distributors, all of whom carry good stocks of essential spares and offer an expert technical and after-sales service. Over 80% of spares are stocked by Rolfe, suppliers of an extensive range of turf care equipment and sole importers in the UK of Jacobsen mowers.

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ROLFE

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Greens King 62 - The latest in a long line of successful Green Kings, with improved control, tighter turning, 3-reel selection and 2 transport speed ranges. 14HP engine and hydraulic transmission standard. Mows 18 average greens in under 4 hours. Choice of 7 attachments.



Turf King - Improved version of the highly successful 76"/84" articulated reel mower. Gives 50% increase in mowing speed; 67% increase in transport speed. Superb manoeuvrability. Mows up to 30 acres in an 8 hour day.



Commercial 60 - A tough, all purpose 60" mower that goes round trees, up steep slopes, along smooth flats at up to 7 1/2 m.p.h.! 18HP engine, hydrostatic transmission standard. A joy to handle.



F133 - A superb 5-gang 4 wheel reel mower with an 11ft cutting width. Reduces to 3-gang for narrow areas. Mowing units ahead of wheels prevent uncut streaks of grass. Mows up to 50 acres per 8 hour day.

