Wetting Agent Shows Results in Solving Water Troubles

Superintendents have been getting results that promise a reduction of watering problems and associated troubles, by use of a non-ionic wetting agent known as Aqua-Gro, say the makers of the material, Aquatrols Corp. of America, 730 Lancaster Ave., Bryn Mawr, Pa.

The material is water soluble and can be applied by sprayer or hose proportioning device.

In telling of use and nature of the material its makers say:

“Water did not solve the problem on No. 1 tee at Hercules CC, Wilmington, Del. It was a small tee, heavily used and compacted. Soaking was not effective; less than one inch of water penetration resulted. Water would puddle on the surface and dry by evaporation.

A plugging tool was used in an attempt to check water penetration, but it could not be forced into the ground.

Increases Penetration

“The stand of Bermuda grass was getting quite thin and an Aerifier, weighted down with 400 lbs. of sand, was run across the tee. No impression was made. A solution of Aqua-Gro was applied and the tee watered down.

“Twenty-four hours later the soil was tested with a hand plugging tool, and the depth of water penetration was greater than 6 in. The Aerifier was then run over the ground resulting in normal aeration. During the remainder of the season number one tee was no longer a problem, because the non-ionic wetting agent continued to make the available moisture wetter.

“There is a strong attractive force between highly polar water molecules similar to the attractive force between the poles of two magnets. Demagnetize the magnets and they fall apart. Mix Aqua-Gro with water and the water falls apart; i.e., the intermolecular forces are lessened. The wetter now readily penetrates compacted and hard-to-wet areas and moves more freely in the ground. In the early 1930’s there was some work done with the ionic types of wetting agents on golf courses, but the results were inconclusive.

Aqua-Gro is a non-ionic type.

Micro-organisms at Work

“The importance of micro-organisms in the soil is well known, but little known is the interesting fact that in every cubic foot of good topsoil there are millions of micro-organisms at work excreting a natural wetting agent. This lowers the surface tension of water and makes it wetter. Secondly, these micro-organisms increase the protein content of the soil which also acts as a peptizer. Microbiological studies were made to determine the persistence and biological effects of the addition of wetting agents to soils and the possibility of any detrimental effects.

“Conclusions from agriculture experiment station reports are:

1) It was shown that the non-ionic wetting agent was consumed by the micro-organisms, thereby preventing any excessive accumulation...
Give turf that professional look with
PROFESSIONAL 8-6-4 FERTILIZER
containingUREA-FORMALDEHYDE for longer
lasting feeding. We also carry Urea-Formal-
dehyde separately. Write for complete infor-
mation.

YOUNG & HALSTEAD CO.
Mount Kisco, N.Y.
Seed - Professional fertilizers - weed killers
insecticides - fungicides

of the agent in the soil.

2) The beneficial effect of increasing the
micro-organism count in the soil was observed
where the non-ionic wetting agent was used.

3) No significant effect on nitrification was
observed when the non-ionic wetting agent was
used.

"Indications are that the increase in micro-
organisms, following the application of a
non-ionic wetting agent, do not produce
rapid results. However, the maintenance of
a more uniform supply of moisture in the soil
provides a more suitable medium for the
further culturing of soil bacteria. By this
means the soil structure is improved by a
cumulative process.

"During the construction of a green or tee
the physical structure of the soil is altered.
Therefore, it is desirable to use a non-ionic
wetting agent in conjunction with mulches,
topdressings, and chemical nutrients, to pro-
vide a means of accelerating formation of
fertile soil. In greens that are high in organic
content, the lower interfacial tension of water
will free the moisture withheld by the
organics and make it more available to the
turf roots.

"Non-ionic wetting agents will cure areas
that suffer from the effects of thatch. LaFkin
Lawn and Golf Supply Co., White Plains, N.Y.
applied Aqua-Gro on a plot of badly thatched
grass where aeration and all other accepted
techniques failed to give any relief. The appli-
cation of the non-ionic wetting agent per-
mitted water to readily penetrate the thatched
roof. The previous history of wilting and
drowning out was no longer evident. The main-
tenance of a more uniform supply of moisture
in the thatch and underlying soil provided
a more suitable medium for the further cul-
turing of soil bacteria. It is believed that this
will aid in the eventual decomposition and
removal of thatch.

"Tests are being conducted at agricultural
experiment stations to determine if non-ionic
wetting agents, in addition to curing the effect
of thatch, will, by their continued use, remove
the cause of thatch. Treatment for thatch on
fairways and tees is accomplished by a Spring
and Mid-Summer application for a total of
75¢ per 1000 sq. ft.

"Periodic applications of Aqua-Gro to greens
prevents the formation of dew droplets. The
cost of each application is slightly less than
20¢ per 1000 sq. ft. The material is applied
at one to two week intervals.

Application may be made in conjunc-
tion with soluble plant foods and fungicides. The
non-ionic wetting agent adheres to the blades
of grass and reduces the interfacial tension of
the dew drops as they form. The moisture can
no longer collect on the blades but runs down
the stem and into the ground.
MacGregor Has Picture Lessons on Putter and Wedge

The 1956 MacGregor wall hanger picture lessons are on the putter, showing Doug Ford putting; and on the wedge with Lew Worsham demonstrating the club.

Front and side continuity photographs are shown making the pictures clear and useful as lesson aids.

Comment on the frames of the motion pictures is provided by the two stars appearing in the feature.

The wall hanger is for pro shop display or where pros are giving class lessons. The chart has been sent to all pro shops in the U. S. Additional copies are available from The MacGregor Co., Cincinnati 2, O.

M-H-F To Make New Tractor

A new industrial division has been established by Massey-Harris-Ferguson, Inc., Racine, Wis., to market a full line of light and medium-duty industrial wheel tractors and allied equipment, L. M. Sweeney, vp in Charge of Sales has announced.

B. R. Bermann, formerly general service mgr., Ferguson Div., has been named sales mgr. of the new M-H-F Industrial Division.

According to Bermann, the line is competitively priced and is designed to fill a gap between present light and heavy industrial equipment.

"Present schedules call for the tractors to start rolling off production lines late in March," Bermann continued. Supplementing them will be a full complement of allied equipment for broad applications including construction, materials handling; use by municipalities, and for utility work by such enterprises as golf courses, nurseries, cemeteries, institutions, and recreational facilities of all types. Attachment will range from loaders, back hoes and lift forks to dozer blades, trenchers and mowers.

Wilson to Have New Branch Building for Detroit

Wilson Sporting Goods Co. has let bids for construction of a new branch in the 4300 block on Woodward ave., in Royal Oak, Mich., Detroit suburb.

Frank Dancer, Wilson Detroit branch mgr., says the new building will have 13,000 sq. ft. and will combine office and warehouse facilities. The Detroit move is the eighth branch expansion operation Wilson has made during the past two years.

PEE GEE BEE

The perfect practice ball, precision made of unbreakable plastic. Duplicates flight of regulation golf ball. Millions now in use.

PEE GEE TEE

Unbreakable plastic tee for regulation golf play. Easier to use and find.
MacGregor Introduces New Range Ball

MacGregor Golf Co., Cincinnati, O., is introducing a new range golf ball. Priced at $4.25 per doz., the ball is available in a choice of red, blue, green or orange stripes. The word "range" or a range's individual name, can be stamped on both poles.

The ball gives an actual game "feel," yet has a new extra-tough cover which results in longer use.

Livesey Named VP by Jacobsen Mfg.

Einar A. Jacobsen, vp and genl. mgr., Jacobsen Mfg. Co., Racine, Wis., producers of power lawn mowers, has announced appointment of Charles A. Livesey as vp in charge of sales. Livesey is a graduate of the Harvard Business School where he also was a member of the marketing faculty for five years. He joined Jacobsen as assistant to the pres. in 1947. He transferred to the sales dept. soon after and has been sales mgr. for the past five years.

Mosquito-Killing Fogger for Power Mowers

Donaldson Co., St. Paul, Minn., has introduced a simple fogging device that attaches to almost any make of power lawn mower.

For best results, the mower is left upwind on the lawn, and turned on. Ten minutes of spraying is enough to kill flies, mosquitoes and bugs in the average-size area. Larger plots can be covered by moving the mower to a new location after ten minutes.

A combination of DDT, aldrin and other ingredients, is sprayed through a specially-designed muffler in the operation. The insecticide is safe for plants and animals. The fogging unit screws onto any 4-cycle engine up to 2½ horsepower with ½-inch exhaust. No other attachment is needed.

Midwest Regional Turf Foundation, started in 1946 with approximately 100 memberships, now claims 260 members.

IMPORTANT NOTICE to Club Managers

Turn to page 142 — and make sure your active operating heads receive GOLFDOM in 1956.
FOR SALE

8 ELECTRIC GOLF CARS

Complete with large batteries. These cars are experimental models and vary somewhat in design and equipment. All are in top-flight mechanical condition. Will consider offer for group or individual car.

BOWERS
BATTERY & SPARK PLUG CO.
READING, PA.

New Marking on Colt Golf Balls

Colt Golf, Inc., has made changes in the marking of the Colt ball and display package. A horsehead appears on the ball and the new package (right) doubles as a counter display. Two different Colt balls are available. The "Colt Black" is a high compression ball for pros and low handicap golfers, and the "Colt Red" is a durable hard cover ball for championship play. They are available at pro shops or Colt Golf, Inc., 161 E. 37th st., New York City.

Personnel Changes Made by Shell Chemical Div.

Two personnel changes in Shell Chemical Corp's agricultural chemical sales div. were recently made.

C. H. Daniels has been appointed to the Atlanta district as a sales development field rep. Daniels graduated from Massachusetts State College and started with Shell in its Boston div. in 1947. He has been employed in the marketing phase of the company's agricultural chemicals since that time. O. W. Whitehead, formerly with the U. S. Dept. of Agriculture, has joined Shell's Atlanta dist. as a sales rep. Whitehead was district supervisor of plant pest control at Statesboro, Ga. Prior to his employment with the USDA, Whitehead attended Alabama Polytechnic, Albany, Ala., where he majored in agriculture.

Jacobsen Sales Continue at Record Tempo

Advance bookings placed by dealers for spring delivery in the first five months of the Jacobsen Mfg. Co., Racine, Wis., and its two subsidiaries, Oscar T. Jacobsen, pres., stated recently.

Nearly a 66 per cent increase in orders this year over the same period last year have been booked by the companies: Jacobsen; Johnston Lawn Mower Corp., Brookhaven, Miss., and Worthington Mower Co., Stroudsburg, Pa., manufacturer of multiple-unit large acreage mowing equipment and tractors.

Golf Score Cards

Get the BEST from "VESTAL"

CHARGE CHECK BOOKS
HANDICAP CARDS and PANELS
BAG and GUEST TAGS
(Write for Catalog)

VESTAL-MONROE PRINTING CO.
ESTABLISHED 1912
TELEPHONE HARRISON 7-6314
701 S. LA SALLE ST. • CHICAGO 5

Golf Shop Interiors

TEE to GREEN renovation of your shop achieving a retail layout tailored to your potentiality — Space-Saving Fixtures —

Robert E. Murray
associates
576-5 Ave. New York 17, N. Y.
Division Golf Shop Promotions
Agents for "Blue Chip" Merchandise

GOLF RANGES

MINIATURE GOLF COURSES

We Have a Complete Line of Supplies
Write for prices
EASTERN GOLF CO.
Dept A
2357 BOSTON RD.
BRONX 67. N. Y.
Large, Roomy Addition to MacGregor Bag Line

A new addition to the line of MacGregor Golf bags for 1956 is the L672, a large pear-shaped bag featuring colorful two-tone combinations of sturdy duck and embossed steerhide leather trim. It has a step-down Keystone collar and wing-type sling suspension. It is equipped with full-length streamlined clothing pocket with roomy ball and accessory pocket. Leather saddle on both sides prevent wear.

An attached hood conceals inside zipper opening on top of the clothing pocket. Divider strap need not be removed to erect the hood. Sling is foam rubber padded and attached with snap. The L672 is nylon lock-stitched throughout with white felt trim and large round leather bottom. It is available in canary body with black trim; cardinal body with black trim; and beige body with natural russet trim. It can be obtained from the MacGregor Co., Cincinnati 32, Ohio.

Mallinckrodt Disease Table Available for Supts.

"Turf Fungicide Application Record and Disease Timetable for 1956," published by Mallinckrodt Chemical Works, 2nd & Mallinckrodt Sts., St. Louis, Mo., is available for supt.s.

Designed to be hung on a wall, the table shows when nine destructive turf diseases are most likely to strike; helps the supt. maintain a regular preventive fungicide schedule; and provides plenty of space for making notes on fungicide application.

Mallinckrodt is also making available for supt.s, a handbook published by the Brooklyn Botanic Gardens covering pests and diseases. Of particular interest to supt.s, are pp 63-68, which give a great deal of information on turf disease problems.

John Deere Booklet Describes New Equipment

John Deere, Moline, Ill. has issued a booklet describing its new line of tractors and equipment, copies of which are available upon request to the company.

Of special interest to golf supt.s, is the 420 Utility tractor, grassland drill, heavy-duty mower, Quick Tatch equipment for landscaping activity, gang and cutterbar units, rake, scraper and several others which are described in the publication.
Robert I. Wren has been named Advertising and Public Relations Director of Wilson Sporting Goods Co.

Associated with Wilson for nearly five years, Wren produced an outstanding record in his former capacity as advertising production manager. Prior to that time, he was a key man in the company's extensive public relations program.

President Fred J. Bowman called selection of Wren highly deserved and a particularly significant step forward in the Wilson policy of developing executives within the company.

Owner of bachelor of journalism and bachelor of arts degrees from the University of Missouri, Wren played end on the varsity football team four years and ran the dashes in track. Following his playing career, he helped coach the football, track and baseball teams and served as the University's assistant sports publicity director.

Wren, a veteran of three years in the Navy during World War II, joined the Wilson public relations department in 1951 and helped build it into one of the finest in the field. Later he assumed added advertising responsibilities which led to his appointment as production manager in 1953. His work in connection with catalogs and displays has netted Wilson nation-wide acclaim.

Confidence that his sales organization would set new records for volume this year, was expressed by Edie Sabayrac, standing, front row, after concluding staff meetings during recent PGA Seniors Tournament, Dunedin, Fla. Sabayrac, distributor to pro shops, handles several outstanding lines including Foot-Joy golf shoes, Hogan golf clubs, Palm Beach slacks, Coberknit jackets, Izod shirts. At the meeting were: front row (l. to r.) Sabayrac, John Burt, Sammy Sigh, James Burt, Bruce Hamilton, rear (l. to r.) Hal Whittington, Chester Kubik, Andy Augaitis, Don Parrilli, Michael Long, Grant Robbins, Al Roberson, Robert Cross, Daniel Lebodie, Leslie De Fino.

March, 1956
**ATTENTION**

Driving Range Operators and Distributors. We specialize in rebuilding golf balls with strictly new materials. Satisfaction guaranteed.

WAYNE GOLF BALL CO.
31117 Little Mack
St. Clair Shores, Michigan

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**Rubber Matting for Golf Club and Range Operators**

Send for descriptive illustrated literature on range mats, runners, and other specialized mats. Designed for years of hard wear with the ability to "Take it." Long service, high quality and modest price mean satisfied customers.

**Get the Facts — Today!**

ALVIN C. BAIN MAT CO.
Specialty Matting
HANCOCK 2, MARYLAND

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**Caddy-Lac Cart Offers Unusual Features**

Single-action opening and closing, a hinged seat which automatically springs into folder position when not in use, and easily adjustable handle height are features claimed for the "Caddy-Lac" golf cart manufactured by the Royal Co., Pleasant Plains, Ill. The new cart will soon be available in pro shops throughout the U. S.

The cart is constructed of high-strength aluminum tubing with castings of special alloy aluminum. Sleeve bushings through the tubing are used at pivot points. Ten, 12 or 14-in. wire spoke wheels are mounted on adjustable cone, double row hardened ball bearings. Tires are semi-pneumatic tubeless. Bags of any size are held in place by adjustable brackets and snap-action rubber straps. Caddy-Lac rolls open or closed and locks in either position.

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**Power Disc Spiker is Effective Aerating Tool**

Texas and Oklahoma supt.s. are reported to be well pleased with the power disc spiker manufactured by the Power Spike Mfg. Co., Walters, Okla. Until now distribution only has been made in these two states.

"Power Spike," trade name of the unit, is 24-in. wide and powered by a 2 1/2 hp engine with reduction gear. Traction is on the disc spikes with wheels being used only to make turns off the green. Power Spike covers 4,000 sq. ft. in about 10 minutes, but can be made to operate more slowly by thumb throttle control. Overall weight of 225 lbs. can be reduced to 180 lbs. by removing front molded cast weight.

The unit is said to be ideal for aerating, introducing moisture, preparing soil for seeding, etc.

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**Manufactures Ball Marker**

Edwin W. Lane Co., 32 W. Randolph St., Chicago 1, makers of golf trophies and medals, has manufactured for the Illinois Seniors' Golf Assn. a ball marker containing the association's insignia. The idea has gone over so well other organizations are asking Lane to manufacture markers for them.
Trimalawn is Distributor for Parker Sweeper

Trimalawn Mower and Equipment Co., Dev- 
on, Pa., has been named a distributor for 
the heavy duty line of leaf, grass and litter 
sweeping equipment manufactured by Parker 
Sweeper Co., Springfield, O. Will Wall, Parker 
sales mgr., said the Trimalawn firm is acting 
as distributor in parts of Pennsylvania and 
New Jersey. The equipment is used primarily 
on golf courses, parks and large estates.

Sterling Practice Net Available in Two Sizes

The Sterling nylon golf practice net, made 
of 100 per cent nylon mesh, will not rot or 
mildew, according to the manufacturer. It is 
available in two sizes: 10 x 10 x 20-ft.; and 
16 x 16 x 20-ft., the latter to accommodate 
two golfers. Either size may be erected on 
poles or suspended by wire cables or ropes. 
No storage precautions are necessary.

More detailed information can be obtained 
from Sterling Net & Twine Co., PO Box 464, 
Boston 2, Mass.

No Sting, More Distance Claimed for Wilson Clubs

New Wilson Sporting Goods Co., Dyna-Pow-
ered golf clubs recently received wide ac-
claim in a United Press story written by Hal 
Wood. Special mention was given to the "no 
sting" factor and greater possible distance, two 
unique features of the club that make it such 
a revolutionary improvement in the golf 
equipment line. No matter where on the face 
of the club a ball is hit, it is claimed, greater 
distance will be achieved.

Veterans Sam Sneed and Patty Berg, both 
champions and both members of the Wilson 
golf advisory staff, praise the new clubs highly.
According to Wood, Sneed believes the clubs 
are the answer to the prayer for those desiring 
extra distance. Patty Berg is said to be 
hitting the ball farther than at any time in 
her illustrious career with the new clubs.

Appoint Mueller Sales Manager of Product Engineering

Appointment of Robert C. Mueller as 
sales manager for Product Engineering Co., 
Portland, Ore., manufacturers of Con-Voy 
golf carts, Seat Master cart seats and a line 
of toys, has been announced by Ralph Mc-
Givra, pres.

Mueller comes to Product Engineering 
with a broad background in sales and 
sales management. Since his graduation 
from the University of Michigan, Mueller 
has been engaged in national sales work 
throughout the United States and Canada.
Introduces 3 More Units for Toro Power Handle

Toro Mfg. Corp., Minneapolis, Minn. has unveiled three more units for its Power Handle. These include a generator (a “hurricane package”) and a lawn sprayer, bringing to eight the number of components that can be fitted to Toro’s Power Handle, a basic source of portable power for motorized grass cutting and gardening equipment.

Generator, pump and sprayer join five other components that can be fitted to the light-weight Power Handle, a self-contained detachable unit powered by a 2½ hp, 4-cycle Briggs and Stratton engine. The other units, introduced last summer, include the 21-in. self-propelled reel-type Sportlawn mower, 20-in. self-propelled rotary-type Whirlwind mower, 17-in. tiller, Trimmer-edger, and the 17-in. snowplow.

Specifically designed as an emergency unit for providing electricity during power failures, Toro Power Handle generator, 115 volt machine, can keep lights on in the house, and refrigerator or freezer unit going with its 1,000 watts. The portable nature of the Power Handle (handle folds to fit compactly in a car trunk) with the generator means a new source of power for those using equipment away from standard electrical outlets.

The Toro Power Handle Pump, combined with the generator in the “hurricane package,” can be used for pumping out flooded basements at 13½ gals. a minute. The Pump also can be used in watering lawns for homes located beside a lake.

A 10-gallon tank on the Toro Sprayer holds plenty of insect and weed spray, or liquid chemical fertilizer. Trees, as high as 25 ft., can be reached by its pin-stream spray.