We look at soil & water quality from a different perspective.

Yours.

Your course is like no other – especially when it comes to soil and water quality issues.

That’s why we’ve designed a comprehensive line of products to help you manage your unique soil-and water-related challenges. From salt stress to carbonate buildup, we’ll help you evaluate your turf’s needs and build a program that is both effective and affordable.

Contact your Aquatrols distributor for more information.

www.aquatrols.com
A golf course is no different than any other workplace. Workers must abide by safety procedures, and a safe environment must be provided for golfers.

by Bruce R. Williams, CGCS

Safety at the golf course is often overlooked until accidents or problems arise. Golf course maintenance is a business and safety should be a part of every business. Every golf course budget should have a line item for safety equipment, upgrades to facilities, adherence to laws and regulations and training for staff regarding the need for a safe workplace as well as providing a safe place for golfers to enjoy their recreation.

All too often safety becomes a priority after an accident has happened. At that point it may be a little late to be compliant – sort of like closing the barn door after the horse is gone. It also becomes a priority when inspectors arrive at your door to follow up on a call from a disgruntled employee.

Every golf course needs written sections on safety in the various documents that guide its operation. This includes standard operating procedures, long-range planning, your orientation and training manual and as a budgetary item.

So, you don’t have a safety program? Or, the existing one is weak at best. Where do you start? Either conduct an internal audit of your safety program or hire an outside consultant to do it for you. I have contracted people from insurance companies, consultants who may
Fast.
• Total fire ant control within 72 hours

Furious.
• Year-round fire ant protection

For fire ant colonies, it's a perfect storm.

Only one solution has the benefits of both baits and contact insecticides. DuPont™ Advion® fire ant bait is one of the fastest, most effective fire ant control bait products available today—eliminating the entire colony in just 24 to 72 hours. Advion® provides outstanding year-round protection in just one or two applications. And it does it all while also having a favorable environmental and toxicological profile. Advion® fire ant bait is registered as reduced-risk for use on fire ants by the U.S. EPA under its Reduced-Risk Program. Experience all-in-one fire ant control today. Please visit us at proproducts.dupont.com/fireantbait. Advion® Unbeatable results.
“Every golf course needs written sections on safety in the various documents that guide its operation. This includes standard operating procedures, long-range planning, your orientation and training manual and as a budgetary item.”

have been former inspectors and also consultants who have these skills as well as are knowledgeable of the laws and have spent quality time on golf courses.

POINtING OUT THE OBIvIOUS. It is pretty easy to do a walk-through at a turf-care center and find the obvious potential violations. Here are some common examples:

• Acetylene tanks are not secured to a non-movable object, such as a wall
• Improper spacing for guards on a bench grinder or mower grinders
• Improper ventilation
• Overloaded electrical wall outlets
• Floors littered with clutter
• Incorrect or unmarked walkways
• Inaccurate and out-of-date records, including OSHA forms
• Poor staff safety-training, including topics, signatures and training methods
• Incomplete first-aid kits
• Inaccessible MSDS sheet
• Poorly labeled emergency gasoline shutoff
• Improper pesticide storage that fails to meet state laws
• Disorganized copies of licenses for qualified applicators
• Poorly written safety plan that follows OSHA guidelines
• Lack of or poorly written emergency-response plan
• Lack of safety training for equipment operators
• Non-compliant fuel-can storage
• Rinsate recovery that does not meet state laws
• Emergency exits with improper signage
• No wash-water eye stations and/or showers
• Improper storage of motor oil and lubricants
• Compressed air lines that lack proper shutoffs and connections

While these topics are more concentrated inside the shop there are also a variety of them that have an impact on outside operations as well.

• Chainsaw safety
• First aid
• Defibrillator training
• Emergency evacuation plan
• Safety equipment training
When a product does its job day in and day out - it works. When it saves you time, money, or water - it's smart. When it does both - it's from Underhill.

Products that work...smart.
FULL THROTTLE

Single Variable Flow: Delivers steady, maximum volume fog, jet stream and fan patterns.

High Volume Model:
15-40 GPM (57-151 L/min)

Low Volume Model:
12-19 GPM (45-72 L/min)

TURBO SHIFT

Dual Variable Flow: Delivers light fog and low volume jet stream patterns before shifting to high volume jet stream and fan patterns.

High Volume Model:
Opens with 12-17 GPM (45-64 L/min)
Turbo Shifts to 20-43 GPM (76-163 L/min)

Low Volume Model:
Opens with 7-12 GPM (27-45 L/min)
Turbo Shifts to 14-17 GPM (53-64 L/min)

features / specifications
- Multi-Pattern Spray: Fog, Jet Stream, Fan
- Built for 1" and 3/4" Hose Flow Rates (range: 7-43 GPM)
- Materials: Aircraft Aluminum, Stainless Steel, TPR Rubber

UltraMAX Valves

Heavy duty ball valve, push-pull on/off control handle and exceptional build quality for long life under demanding use. Available in Firefighter Grip for two-handed operation or ergonomic Pistol Grip for comfortable, extended use. **Nozzles sold separately.**

orderings
- Part # NG550-DFH-75
- Part # NG550-DFH-10
- Part # NG550-DFL-75
- Part # NG550-DFL-10
- Part # NG500-SFH-75
- Part # NG500-SFH-10
- Part # NG500-SFL-75
- Part # NG500-SFL-10
- Part # SVPG-75
- Part # SV-10
- Part # SVPG-10
- Firefighter Grip Valve - 3/4" FHT inlet
- Firefighter Grip Valve - 1" FHT inlet
- Pistol Grip Valve - 3/4" FHT inlet
- Pistol Grip Valve - 1" FHT inlet

All flow rates based on 80 psi (5.5 bar)
**Magnum™**

**SOLID METAL HOSE NOZZLE**

Underhill™ Magnum™ contains no plastic internal parts to break, stick or wear out. Our unique ratchet mechanism easily adjusts from gentle fan to powerful jet stream and prevents over-tightening damage. Precision-machined, incredibly smooth operation and outstanding distribution patterns make it ideal for high-demand areas like greens and tees. Magnum™ is also an excellent equipment wash-down nozzle.

**features**
- Multi-pattern sprays - effortless control with hydraulic assist on/off
- Solid metal internal - no plastic parts to break or wear out
- Ratchet mechanism prevents over-tightening damage
- Ultra-durable construction withstands any abuse
- Fire hose quality nozzle feels great in your hands
- Beautiful, consistent spray patterns for life
- Built for 1” and ¾” flow rates

**specifications**
- Materials: stainless steel, aluminum, TPR rubber
- Flow: 37 GPM at 80 psi
- Inlet: ¾” hose thread (1” brass adapter available, see Page 4)

**CoolPro™**

**COOL WITHOUT OVER WATERING - NO ROOT DAMAGE**

A hot summer day can be murder on your greens. Use too much water and you risk damage to the roots. CoolPro™ is the first nozzle specifically designed for the single purpose of lightly misting the turf canopy to cool without over watering. And its 25 foot fogging pattern gets the job done quickly.

**features**
- Precision™ nozzle fogs at 70 psi to deliver a 25 ft. pattern with only 4-6 GPM
- ¾” inlet (1” brass adapter available, see Page 4)
- Ergonomic handle/valve provides easy grip and variable on/off control.
- Durable solid metal design: zinc, aircraft aluminum and stainless steel.

**ordering**
- Part # NG450 MAGNUM™ Hose Nozzle
- Part # HNC075 CoolPro™ Valve and Nozzle
- Part # HN0600 CoolPro™ Nozzle only
- Part # CV075L CoolPro™ Valve only

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Perfect for tournament play, CoolPro™ puts down only enough water to cool the turf canopy. It prevents wilting while maintaining good ball speed. CoolPro is a great tool for protecting grass on hot days without damaging roots.
Precision™

SOLID METAL, SPECIFIC TASK HOSE NOZZLES

Underhill Precision™ nozzles deliver millions of soft, uniform droplets to provide rapid yet surprisingly gentle water application over a huge range of flow rates. From soft watering to powerful drenching, patented Precision nozzles are designed with ideal flow rates and droplet sizes to fully irrigate without disturbing turf, dirt, seeds, etc., providing a precise solution for every hand watering application.

precision watering for specific tasks

Rainbow™ TASKS: Greens, tees, seed beds, transplants, delicate landscaping (15 GPM)

Rainmaker™ TASKS: Syringe and spot watering turf and hardy landscaping (23 GPM)

Cloudburst™ TASKS: Dry spots, drenching, and wetting agent application (35+ GPM)

Cyclone™ Pre-game skins watering, heavy watering of large areas (50+ GPM)

Note: GPM will vary with pressure at nozzle.

new!

Bumper Design

high-flow valves

COMPOSITE / STAINLESS STEEL: ¾" hose thread inlet/outlet, oversized handle, up to 55 GPM

SOLID BRASS: ¾" hose thread inlet/outlet, up to 50 GPM

hose adapters / quick-connectors

Precision™ Rainbow™ Nozzle Kit
Part # HN1500CV Precision™ Rainmaker™ Nozzle Kit
Part # HN2300CV Precision™ Cloudburst™ Nozzle Kit
Part # HN4800CV Precision™ Cyclone™ Nozzle Kit
Part # HN5000CV

Nozzle Kits include brass High Flow Control Valve and ¾" MHT x 1" FHT Adapter.

To order nozzle only: remove "CV" from part number.

Part # CV075H High-Flow ¾" Valve - Brass
Part # A-BV77FM High-Flow ¾" Valve - Composite/Steel
Part # A-BA107FM 1" FHT x ¾" MHT Brass Hose Adapter
Part # A-BA107MF 1" MHT x ¾" FHT Brass Hose Adapter
Part # A-BQ7M ¾" Quick-Connect, male end
Part # A-BQ7F ¾" Quick-Connect, female end
Part # HN075W replacement washer, ¾" hose

Products that work...smart.
PelletPro™

**APPLICATOR GUN FOR SOLID WETTING AGENT TABLETS**

Our heavy-duty surfactant applicator, high-flow valve and Precision™ Cloudburst™ nozzle combo comprises the finest wetting agent gun available. PelletPro™ accepts all wetting agent tablets and provides a high volume, yet soft spray for watering or applying surfactants to tight, hydrophobic soils.

**features**
- 35+ GPM to get the job done faster!
- Ultra Heavy-Duty - brass fittings, aircraft aluminum, stainless steel, and precision engineered glass-filled materials
- Patented Cloudburst™ nozzle delivers large droplets in an outstanding fan pattern
- Pellet rotation (1 RPS) evenly dissolves/applies tablets

**IN-LINE APPLICATOR OPTION**
Connect directly to a water source (quick coupler, HoseTap, etc.) to get the benefits of PelletPro with less handheld weight.

PelletPro™ rotates pellets at one revolution per second (RPS) to evenly dissolve/apply wetting agent.

**Two products in 1!**
PelletPro and LiquidPro’s Precision™ Cloudburst™ nozzle and high-flow valve quickly assemble to create a powerful, 35+ GPM syringe nozzle.

LiquidPro™

**APPLICATOR GUN FOR LIQUID WETTING AGENT**

LiquidPro’s chemical-resistant, UV-protected, lightweight siphon/mixing system can cover 1000 square feet in less than a minute! With unmatched speed and uniformity, you can virtually “paint” your turf with liquid wetting agent, fertilizers, and micronutrients. Adjustable metering dial offers 10 additive settings including “Water Only.”

**ordering**
- Part # A-PPWA50K: PelletPro™ Applicator Gun
- Part # A-PPQ-075: PelletPro™ In-line Applicator: ¾” FHT inlet, ¾” MHT outlet
- Part # A-PPQ-100: PelletPro™ In-line Applicator: 1” FHT inlet, 1” MHT outlet
- Part # A-PPB: In-line Filter Bowl
- Part # A-PPBG: Gasket
- Part # A-LPWA50K: LiquidPro™ Applicator Gun
- Part # A-LPWAB-6: 6-Pack of 32 oz. Polybottles and Carrier

With the included 1” FHT x ¾” MHT brass adapter, PelletPro™ and LiquidPro™ work with both ¾” and 1” hoses.

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SOLID METAL GOLF SPRINKLER NOZZLES
Upgrade your Toro® or Rain Bird® sprinklers with our perfect-fit Profile™ nozzles and you will see improved results immediately. And with ultra-uniform water distribution, you can cut back watering times to save millions of gallons of water every year. Over time, since Profile solid metal nozzles resist wear and clogging, you’ll enjoy these superior results for the life of your sprinkler...never needing to change out nozzles again. Nozzles so consistent, patterns so uniform... it's like rain on demand.™

Use less water, energy and manpower and get better course playability.

"Profile nozzles lived up to our expectations and eliminated patchy dry spots and donuts. We retrofitted all our fairways and now run a more efficient irrigation program."
Logan Spurlock
Superintendent, Sherwood Country Club

"It was like putting in a new irrigation system. I became a believer overnight."
Mike Huck
Irrigation & Turfgrass Services
Former USGA Staff Agronomist and Superintendent, Murrieta Hot Springs Resort

"The Profile retrofit program has also extended the life of our Toro system while improving course appearance and playability."
Dennis Eichner
Assistant Superintendent, Silverado Resort - Napa, California

"The real power is knowing that retrofitting sprinklers with Profile nozzles can be phased in to work within a course’s operating budget."
Kurt Thompson
K. Thompson and Associates, Irrigation Consultant and Trainer
Huntersville, North Carolina and Pace, Florida

Upgrade your entire course all at once - ZERO INTEREST FINANCING options available now!
See how Superintendents are upgrading their entire golf courses! Video online now at www.underhill.us

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