RollerPro™

PORTABLE SPRINKLER BASE
The 22” wide stainless steel roller of RollerPro™ provides a stable field position for supplemental watering. Designed for years of hard use, it is ideal for watering dry spots and newly seeded areas.

features
• 22” wide stainless steel roller is weighted to prevent movement during use.
• Standard 1” FHT inlet x 1” female NPT outlet.
• 3/4” inlet and outlet adapters included.

RollerPro™ works with both 1” and 3/4” hoses and sprinklers using the included adapters. Sprinklers sold separately on page 12-13.

ordering
Part # A-RP221 RollerPro™

Included with each RollerPro™:
Part # A-BA107FM 1” FHT x 3/4” MHT Brass Hose Adapter
Part # A-BA107MF 1” MHT x 3/4” FHT Brass Hose Adapter

For larger irrigation needs (much larger), Mirage™ sprinkler heads have a throw radius up to 164 ft.!
When customers requested a liquid version of the PelletPro™, the proven combination of our Precision™ Cloudburst™ nozzle and the high-flow composite/stainless steel valve had us halfway there. We added a chemical-resistant, UV-protected, lightweight siphon/mixing system in between to produce an applicator gun which can cover 1000 square feet in less than a minute. Now, with unmatched speed and uniformity, you can virtually “paint” your turf with liquid wetting agent, fertilizers, and micronutrients. And like the PelletPro, LiquidPro disassembles easily to create the Cloudburst™ High-Flow Valve syringe nozzle.

**features**

- Patented Precision™ Cloudburst™ nozzle evenly distributes wetting agent ensuring uniform coverage. Made of aircraft aluminum and stainless steel.
- Lightweight, durable nylon construction weighs only 3 lbs., UV-protected and chemical resistant.
- High-density polybottle has full quart capacity with easy-to-read measurements in fluid ounces and milliliters.
- Needle Valve Metering Chamber. Engineered venturi siphon mixes proper amount of wetting agent into the water flow.
- Pistol grip design with textured handle provides sure grip surface and reduces operator fatigue.
- Adjustable metering dial offers 10 additive settings including “Water Only.”
- Metering dial can be removed to prevent tampering with a predetermined setting.

**ordering**

Part # A-LPWA50K - LiquidPro™ Applicator Gun
Part # A-LPWAB-6 - 6-Pack of 32 oz. Polybottles

With the included 1” FHT x 3/4” MHT brass adapter, LiquidPro™ works with both 3/4” and 1” hoses.

**2 products in 1!**

The Precision™ Cloudburst™ nozzle and high-flow valve can be quickly assembled to create a powerful, 48 GPM syringe nozzle.

**time saver!**

Bring plenty of wetting agent, fertilizers, and micronutrients to the field all at once with our 6-pack of polybottles.
hose applicators

PelletPro™

APPLICATOR GUN FOR SOLID WETTING AGENT TABLETS
We outfitted our heavy-duty surfactant applicator with a high-flow composite/stainless steel valve and a Precision™ Cloudburst™ nozzle to produce the finest wetting agent gun available. The PelletPro™ accepts all wetting agent tablets and is designed to provide powerful, yet ultra-soft spray when watering or applying surfactants to tight, hydrophobic soils.

features
• 48 GPM capability gets the job done faster!
• Ultra Heavy-Duty - brass fittings, aircraft aluminum, stainless steel, and precision engineered glass-filled materials
• Patented Precision™ Cloudburst™ nozzle delivers large droplets in an outstanding fan pattern
• Pellet rotation (1 RPS) evenly dissolves/applies wetting agent tablet

features
2 products in 1!
Remove the PelletPro™ bowl and you have a superb syringe nozzle combo: the patented, 48 GPM Precision™ Cloudburst™ with our high-flow, oversized handle valve.

With the included 1” FHT x 3/4” MHT brass adapter, PelletPro™ works with both 3/4” and 1” hoses.

PelletPro™ rotates pellets at 1 revolution per second (RPS) to evenly dissolve/apply wetting agent

PelletPro’s bowl, also sold individually, works perfectly as a replacement in-line filter bowl for most spray rigs. Heavy-duty, transparent plastic shows fluids. (No more cracked bowls during winter storage!)

ordering
Part # A-PPWA50K PelletPro™ Applicator Gun
Part # A-PPB In-line Filter Bowl and Gasket
Part # A-PPBG Bowl Gasket

866-863-3744 • www.underhill.us
Quick Coupler Valves & Keys

SOLID BRASS, SINGLE SLOT/LUG ESSENTIALS
Built to last, Underhill valves and keys are constructed of solid red brass and stainless steel.
Valves incorporate rugged one-piece design, and feature a spring-loaded high visibility vinyl cover.

Valve: Part # QV-075R (3/4” FPT inlet)
Key: Part # QK-075 (3/4” MPT x 1/2” FPT outlet)

Valve: Part # QV-100R (1” FPT inlet)
Key: Part # QK-100 (1” MPT x 3/4” FPT outlet)

Valve: Part # QV-150R (1-1/2” FPT inlet)
Key: Part # QK-150 (1-1/2” MPT x 1-1/4” FPT outlet)

Hose Swivels
Part # HS-075 3/4” FPT x 3/4” MHT outlet
Part # HS-100 1” FPT x 3/4” MHT outlet
Part # HS-101 1” FPT x 1” MHT outlet
Part # HS-151 1-1/2” FPT x 1” MHT outlet

EASY RETROFIT
Installs without cutting or removing valve box!

The Claw™
QUICK COUPLER MOTION RESTRAINT
When quick coupler valves become unscrewed from swing joints, it’s more than just a hassle - it can be dangerous. The Claw™, new from Underhill, offers a simple solution. Embedded in the soil below the quick coupler, and then securely attached to its base, The Claw provides significant resistance to rotational, vertical and horizontal motion, preventing the valve from moving. Made from high strength ductile iron, this compact anchor attaches easily with a single steel bolt.

Ordering
Part # QC-075100 The Claw™ for 3/4” and 1” valves
Part # HS-150 The Claw™ for 1-1/2” valves
Impact Sprinklers

SOLID BRASS, ULTRA-RELIABLE WORKHORSES
For reliable, trouble-free, high-performance year after year, you just can’t beat our brass impact sprinklers. Available in full circle and full/part circle, in inlet sizes of 3/4”, 1” and 1-1/4”

features
• Solid brass construction
• Stainless steel drive spring
• Bearing assembly hood for longer wear life
• Chemical resistant bearing seals
• Solid brass nozzle

3/4”
Flow: 5-15 GPM
Spacing: 40-60 ft.

1”
Flow: 15-45 GPM
Spacing: 50-80 ft.

1-1/4”
Flow: 25-120 GPM
Spacing: 75-110 ft.

Performance data shown at 80 psi. GPM and radius will vary with pressure at sprinkler

VersaLid™
UNIVERSAL REPLACEMENT LID FOR ALL VALVE BOXES
Reduce inventory and ordering hassles with the VersaLid™, the easy solution for broken or missing valve box lids. No need to guess what brand a buried box is or dig it up to find out - VersaLid’s locking system “steps” to fit most valve boxes.

features
• Stepped locking system
• T-Top design minimizes dirt in valve box
• Fits all 6”-7” round boxes
• Interchangeable, easy to install
• Greater top-load strength and more UV-resistant than structural foam lids

ordering
Part # VL-06 VersaLid™ 6”-7” valve box lid

orderin[g
Part # SI075F 3/4” MPT Full Circle Sprinkler 13 57
Part # SI075P 3/4” MPT Part/Full Circle Sprinkler 11 48
Part # SI100F 1” MPT Full Circle Sprinkler 23 71
Part # SI100P 1” MPT Part/Full Circle Sprinkler 23 71
Part # SI125F 1-1/4” MPT Full Circle Sprinkler 51 96
Part # SI125P 1-1/4” MPT Part/Full Circle Sprinkler 54 78

Performance data shown at 80 psi. GPM and radius will vary with pressure at sprinkler
DeepDrip™

**TREE WATERING STAKES**

DeepDrip™ stakes allow you to water and fertilize your trees at the roots, encouraging deeper roots and healthier trees. Water gets underground fast, so you can water for shorter periods and enjoy considerable water conservation. They also help to aerate the soil with oxygen, and you can add fertilizer into the shaft to direct nutrients to the root zone. These versatile stakes are designed to work with a hose or automatic landscape drip systems, and come in three sizes. The 14.5” unit is ideal for small trees and shrubs with shallow roots, like rose bushes and ornamental trees (or in commercial use for trees still in boxes). The 24.5” stake is well-suited for most other tree varieties except for palm trees and similarly deeper rooted trees, which will benefit from the longer 36” stakes.

The DeepDrip’s reinforced tip and cap are made from ABS and the upper shaft is made from Schedule 40 PVC. Multiple holes in the bottom half of the spike, internally covered by a mesh filter, allow water to flow out but keep dirt from getting in and clogging the tube. The UV-protected cap acts as a reinforced cover when pounding the stake into the ground, keeps debris from entering the shaft and holds a 1/4” drip line/emitter securely in place. By inserting a screwdriver through the two holes at the top of the upper shaft, stakes can be easily pulled up to remove/reposition or rotated to deter root invasion.

DeepDrip™ watering stakes can be installed during or after tree planting. Once in, you have instant access to the root system for fertilizer delivery or to set up deep automatic drip watering.

ordering

- Part # ME-SS-PK MicroEase™ Pro Kit with spray spikes (25)
- Part # ME-8SS-PK MicroEase™ Pro Kit with 8-stream spikes (25)
- Part # ME-SS-SCK MicroEase™ Conversion Kit with spray spikes (9)
- Part # ME-8SS-SCK MicroEase™ Conversion Kit with 8-stream spikes (9)

MicroEase™

**MICRO-IRRIGATION KITS**

Convert your current, inefficient irrigation into a highly effective, low-maintenance, water-saving drip system. MicroEase™ kits can connect to a water faucet, existing sprinkler system or 1/2” riser, providing efficient, low volume irrigation ideal for landscaping, shrubs and planter areas.

ordering

- Part # A-DD14 DeepDrip™ 14.5” watering stake
- Part # A-DD24 DeepDrip™ 24.5” watering stake
- Part # A-DD36 DeepDrip™ 36” watering stake
TurfSpy™

EARLY STRESS DETECTION GLASSES
Disease, drought and weed invasion are plant and turf killers. But by the time you see them it can be too late. TurfSpy™ glasses, with stress detection technology developed by NASA, lets you “see into the future” to identify problems 2-10 days before they are visible to your naked eye. Keep your turf and vegetation healthy BEFORE serious problems arise.

features
- Shatterproof/polycarbonate stress detection lens (ANSI approved safety lens)
- Wrap-around lens limits ambient light for optimal detection
- Sports frame with adjustable ear piece
- Lightweight case included

HOW IT WORKS: Dying vegetation absorbs and reflects sunlight differently then when its healthy. The earliest signals occur at the outer limits of the human visual spectrum, and are rendered invisible compared to the predominant middle wavelengths. TurfSpy™ filters the light in the center so that fringe spectra, which show early plant stress, become visible.

CatchCan Pro™

SPRINKLER PERFORMANCE TESTING SYSTEM
Stop Overwatering and Save! Poorly performing sprinklers often go unnoticed as watering times are gradually increased to compensate. Catch them in the act - accurately measure sprinkler application rate with an Underhill™ CatchCan Pro™ system.

features
- Self standing easily anchors into turf, will also work on slopes
- Measures sprinkler application in inches or centimeters
- Unique design allows for shorter duration test
- Made of durable polypropylene engineered plastic
- Can be stacked for easy storage
- Each 10 pack kit comes with instructions

ordering
Part # NG655-01 TurfSpy™ Glasses and Deluxe Case

ordering
Part # CCPK-10 CatchCan-Pro™ 10-pack (includes directions)
BUCK IT UP

GIVE JUST $1 TO HELP MILITARY FAMILIES

Donate a single dollar (or $5 or $10) to Buck It Up for Military Families and help support our GreenCare for Troops initiative. Your contribution will not only allow us to continue providing much-needed free lawn and landscape care for families whose primary breadwinner is serving overseas—we will also be able to create scholarships to help their children further their education. Join us in our mission to ‘serve them while they serve us’ and donate at www.ProjectEverGreen.com by May 16, National Armed Forces Day.
Facility & Operations

value is often of primary concern in turfgrass sites, individual tolerance levels are variable. For example, on a high profile sports field, dandelions probably would not be tolerated. On a public use community sports field, dandelions might be completely tolerated. At the high school stadium field, a few dandelions might be tolerated, but when the weed population reaches a certain level, a decision is made to employ some type of control.

Some pests present health, safety or legal concerns, so thresholds are more clearly defined. Stinging insects that inhabit the soil or outdoor structures are not tolerated because of health, safety and liability issues. Poison ivy growing on fences or near places where children play is undesirable. Certain thistles are considered noxious weeds in some states and are prohibited by law.

Typically, most people think of biotic pest problems (weeds, insects and diseases) in relation to thresholds, but abiotic causes such as traffic wear, soil compaction, drought or excess rainfall can all have their own unique thresholds when a decision must be made whether or not to do something. This action threshold is an arbitrary limit that is established to determine that a response (or a treatment) is warranted to arrest a problem.

Consider the action threshold based on money (economic threshold). How much of the problem (pests or abiotic causes) can be tolerated before it begins to cost something either in repair costs or a quality devaluation?

Turfgrass managers may be willing to tolerate different levels of pests or environmental conditions in different situations and make site-specific management decisions. If a baseball game is cancelled because of wet field conditions at the community use level, people are inconvenienced and, at best, disappointed. But, when the problem becomes chronic, and people are unhappy and disgruntled enough, they might reach an action threshold and raise funds to correct the problem.

The first step in establishing a threshold is to develop quality standards for your site. Identify those areas that receive different priority levels of service. For each area make a list of the expectations of quality levels. Then, make a list of pests, conditions or environmental problems. For each item on that list, quantify the density of pests or the percentage of area that exhibits damage. Determine action thresholds for when a response will be made to address the problem. Finally, list all control responses that will be made starting at the gentlest and ending with the strongest response.

Many landscape and sports field managers base their threshold decisions on these factors:

- The problem in terms the pest or conditions, severity, and the type of damage.

### Sports Field Quality Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Sports Turf</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Sports Turf</td>
<td>The field is a showplace. The field was constructed properly, is highly managed, use is limited, blemishes are few and are corrected immediately.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Sports Turf</td>
<td>Very high quality sports field. The field was constructed properly, is properly managed, use is controlled, occasionally develops noticeable blemishes that are corrected promptly.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Sports Turf</td>
<td>Good quality sports field. The field is safe, playable and has an attractive appearance. May have chronic problems due to design and construction problems, but the field is properly managed, and well maintained. The field has some blemishes from use.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Sports Turf</td>
<td>Common sports field. The field receives basic maintenance. Might have oversee and drainage issues.</td>
</tr>
<tr>
<td>Level 5</td>
<td>Sports Turf</td>
<td>Poorly maintained, unkempt field receives maintenance sporadically. Has oversees and drainage issues.</td>
</tr>
</tbody>
</table>

### Examples of Threshold Differences Between Level 2 & 4 Sports Fields

Here are some examples of threshold differences for 2 different field quality levels. The examples shown are only suggestions, and are not meant to be all inclusive. Sports Field Managers are advised to customize their own lists for their respective sites.

#### Level 2 Turfgrass Sports Field (Sample)

<table>
<thead>
<tr>
<th>Pest or Condition</th>
<th>Count or % per sq. ft. or Area</th>
<th>Action Level</th>
<th>Control Treatment</th>
<th>(optional) Proactive Treatment Next Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeds</td>
<td>&lt; 1 weed per 100 sq. ft.</td>
<td>Hand pull, Resod, Herbicide treatment</td>
<td>Improve cultural practices, Resod, Change soil, Premigrant herbicides</td>
<td></td>
</tr>
<tr>
<td>Harmful Insects</td>
<td>&lt; 1 body per sq. ft.</td>
<td>Insecticide treatment</td>
<td>Use insect resistant grass seed, sod, Biorational controls</td>
<td></td>
</tr>
<tr>
<td>Disease</td>
<td>2-3 patches/100 sq. ft.</td>
<td>Detection</td>
<td>Improved cultural practice, Fungicide</td>
<td>Use disease resistant grass seed or sod, Improve cultural practices</td>
</tr>
<tr>
<td>Drought</td>
<td>50% Management Allowable Depletion</td>
<td>Detection</td>
<td>Irrigation</td>
<td></td>
</tr>
<tr>
<td>Soil pH</td>
<td>6.2-6.8</td>
<td>When pH levels move to the range limits</td>
<td>Soil amendments</td>
<td></td>
</tr>
<tr>
<td>Mowing Height</td>
<td>3/1 to 3/8 inch turf height</td>
<td>When grass height grows by 1/4</td>
<td>Moving with sharp mower blade, Plant Growth Regulator</td>
<td></td>
</tr>
<tr>
<td>Turf Density</td>
<td>100%</td>
<td>Detection</td>
<td>Resod or seed as appropriate</td>
<td>Resod or seed as appropriate</td>
</tr>
<tr>
<td>Litter</td>
<td>Zero tolerance</td>
<td>Detection</td>
<td>Immediate cleanup</td>
<td></td>
</tr>
</tbody>
</table>

#### Level 4 Sports Field (Sample)

<table>
<thead>
<tr>
<th>Pest</th>
<th>Threshold Count or % per sq. ft. or Area</th>
<th>Action Level</th>
<th>Control Treatment</th>
<th>(optional) Proactive Treatment Next Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weeds</td>
<td>&lt;10% of area</td>
<td>10% of area</td>
<td>Improve cultural practices, Premigrant herbicides</td>
<td></td>
</tr>
<tr>
<td>Harmful Insects</td>
<td>&lt; 5 bodies per sq. ft.</td>
<td>If damage is noticeable</td>
<td>Insecticide treatment</td>
<td>Use insect resistant grass seed, sod, Biorational controls</td>
</tr>
<tr>
<td>Disease</td>
<td>Moderate amount of disease is expected</td>
<td>If damage is noticeable</td>
<td>Improve cultural practices</td>
<td>Use disease resistant grass seed, sod, Improve cultural practices</td>
</tr>
<tr>
<td>Drought</td>
<td>Field is not irrigated</td>
<td>Turf allowed to go dormant</td>
<td>Reduce activities, traffic and inputs</td>
<td></td>
</tr>
<tr>
<td>Soil pH</td>
<td>6.2-7.5</td>
<td>When pH levels move to the range limits</td>
<td>Soil amendments</td>
<td></td>
</tr>
<tr>
<td>Mowing Height</td>
<td>3 inches</td>
<td>When grass height grows by 1/4</td>
<td>Moving with sharp mower blade</td>
<td></td>
</tr>
<tr>
<td>Turf Density</td>
<td>75%</td>
<td>&lt; 75%</td>
<td>Resod or seed as appropriate</td>
<td>Resod or seed as appropriate</td>
</tr>
<tr>
<td>Litter</td>
<td>Light to moderate amounts</td>
<td>Police litter before moving</td>
<td>Cleanup</td>
<td></td>
</tr>
</tbody>
</table>