



CANADIAN TURF PRODUCT GUIDE



PRECISION
LABORATORIES™

Results. Expect it.®



At Precision Laboratories, innovation isn't a buzzword – it's built into every product we design. Our products are university and field-tested to ensure biological performance and optimum value. Our specialized chemistries for plants, soil and water produce quality turf.

**INNOVATIVE, SENSIBLE,
EFFECTIVE PRODUCTS.**

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**TECHNICAL
EXPERTISE**



INNOVATION



**RESULTS.
EXPECT IT.**

PRECISION[™]
LABORATORIES

Results.Expect it.®

THE PROVE PROGRAM

Partner Research, Observation, and Validation Experience



The **PROVE Program** from Precision Laboratories demonstrates performance and value of new, innovative products for the marketplace.



P - Partner

We collaborate with partners interested in evaluating new technologies that will shape the future of the industry.



R - Research

Our efforts include large-scale, real-world applications, along with small-plot experiments that allow us to closely examine product performance.



O - Observe

The trial observations allow us to demonstrate that our products are innovative, sensible and effective for our end users.



V - Validate

Members of our Product Management and Marketing Team work closely with our PROVE Program partners to validate performance, fit and return on investment.



E - Experience

The PROVE Program provides first-hand experiences with new products, increasing confidence in and excitement for our latest innovations.

ENVY™ Turf Pigment

Pigment dispersion improves color, masks injury and enhances spray coverage.



Use Rates	Package Size
Turf: 16 oz + 50 gal of water/acre (473 ml/ 189 L)	4 x 1 gal
Trees and Shrubs: 16 oz + 50 gal of water	(4 x 3.78 L)

SOLAROUS™ Chromatic Plant Enhancer

Fuses a blend of chromatic reflective ingredients and innovative surfactant systems to increase coverage and adhesion on the plant.



Use Rates	Package Size
0.5 – 2 oz/1,000 sq ft + 50 gal of water/acre	4 x 1 gal
(15 - 60 ml/93 m ²)	(4 x 3.78 L)

REPLACE XL™ Commercial Sand Pigment

Unique pigment dispersion, formulated to impart a natural, dark green color to sand used for filling divots and topdressing playing surfaces on golf courses and athletic fields.



Use Rates	Package Size
1-2 oz/100 lb sand (30 - 60 ml/45 kg)	2 x 2.5 gal (2 x 9.46 L)
1-2 pt/ton sand	255 gal (965 L)

WINTERGREEN™ PLUS Sprayable Turf Cover

A nonphytotoxic, colorant and antidesiccant formulated to impart a natural green color to dormant or actively growing turf. Wintergreen Plus protects sensitive turfgrass during dormant periods and accelerates spring green-up.



Use Rates	Package Size
16 - 32 oz/1000 sq ft	2 x 2.5 gal (2 x 9.46 L)
(473 - 946 ml/93 m ²)	20 gal (75.7 L)

REGREEN™ Permanent Turfgrass Colorant

Nonphytotoxic colorant specifically formulated to impart a long-lasting, natural green color when applied to dormant and non-dormant turfgrasses.



Use Rates	Package Size
Dormant Turf: 12 oz/1000 sq ft (354 ml/93 m ²)	2 x 2.5 gal
Nondormant Turf: 8 oz /1000 sq ft (236 ml/93 m ²)	(2 x 9.46 L)

SIGNAL™ Blue Spray Pattern Indicator

Concentrated, temporary, blue spray pattern indicator and solution colorant designed to be added to plant protectants and other liquid spray solutions.



Use Rates	Package Size
1 qt/100 gal (946 ml/378 L)	4 x 1 gal (4 x 3.78 L)
	30 gal (113.5 L)
	55 gal (208 L)

**SIGNAL™ BLUE
EZ SoluPak™
Blue Spray Pattern
Indicator**

Highly visible blue spray pattern indicator provides temporary visibility of applications. Waterproof, foil-lined SoluPak prevents accidental staining.



**SIGNAL™ GREEN
EZ SoluPak™
Green Spray Pattern
Indicator**

Green spray pattern indicator further reduces golfer awareness of applications compared to blue colorants. Waterproof, foil-lined SoluPak prevents accidental staining.



Use Rates	Package Size
1 Pak/50 gal (57 g/189 L)	12 x 2 oz (12 X 57g) SoluPaks per carton, 4 cartons per master case

Use Rates	Package Size
1 Pak/50 gal (57 g/189 L)	12 x 2 oz (12 X 57g) SoluPaks per carton, 4 cartons per master case

**SIGNAL™ GREEN
Green Spray Pattern
Indicator**

Green spray pattern indicator formulated to further reduce awareness of pesticide applications compared to ordinary blue spray colorants by providing a temporary green tint to treated areas.



**SUPER SIGNAL™ BLUE
Blue Spray Pattern
Indicator Concentrate**

Concentrated blue spray pattern indicator provides temporary visibility of spray applications.



Use Rates	Package Size
32-64 oz/100 gal (0.946 - 1.89 L/378 L)	4 x 1 gal (4 x 3.78 L) 55 gal (208 L)

Use Rates	Package Size
16-32 oz/100 gal (473 - 946 ml/378 L)	12 x 1 qts (12 x 0.946 L) 2 x 2.5 gal (2 x 9.46 L)

**SUPER SIGNAL™ GREEN
Green Spray Pattern
Indicator Concentrate**

Concentrated green spray pattern indicator formulated to further reduce golfer awareness of pesticide applications compared to ordinary blue spray colorants by providing a temporary green tint to treated areas.



**RUNWAY™
Turf Marking Foam**

Quick dissipating turf foam marker. Will not discolor sensitive turf like ordinary marking foams.



Use Rates	Package Size
16-32 fl oz per 100 gal of solution (473 - 946 ml/378 L)	12 x 1 qts (12 X 0.946 L)

Use Rates	Package Size
3 fl oz/2 gal of water (89 ml/7.57 L)	12 x 1 qts (12 x 0.946 L)

PRECISE POND™ Nutrient & Sludge Metabolizer

Combination of enzymes and bacteria that preemptively digest phosphorus and nitrogen in the water column, and accelerate the breakdown of partially decomposed organic matter, waste, and sludge.



Use Rates	Package Size
Initial dosage: 3 to 6 pounds per surface acre of water. (1.36 - 2.72 kg/0.4046 ha) Maintenance: 1.5 to 2 pounds per surface acre of water. (0.68 - 0.9 kg/0.4046 ha)	6 x ½ lb (6 x 227 g) water-soluble packets per carton, 4 cartons per master case 60 x ½ lb (60 x 227 g) water-soluble packets per case

SPECTRUM™ Aquatic Nutrient Metabolizer

Function-specific formulation of select bacteria strains improves water quality by reducing nutrient levels and suspended organic matter in the water column.



Use Rates	Package Size
Initial dosage: 3-6 lb/acre (1.36 - 2.72 kg/0.4046 ha) Maintenance: 1.5-2.0 lb/acre (0.68 - 0.9 kg/0.4046 ha)	6 x ½ lb (6 x 227 g) water-soluble packets per carton, 4 cartons per master case 120 x ½ lb (120 x 227 g) water-soluble packets per drum

DEVOUR™ Aquatic Waste and Sludge Reducer

Proprietary blend of enzymes, facultative and nonfacultative bacteria accelerates breakdown of partially decomposed organic matter.



Use Rates	Package Size
Initial dosage: 3-6 lb/acre (1.36 - 2.72 kg/0.4046 ha) Maintenance: 1.5-2.0 lb/acre (0.68 - 0.9 kg/0.4046 ha)	6 x ½ lb (6 x 227 g) water-soluble packets per carton, 4 cartons per master case 120 x ½ lb (120 x 227 g) water-soluble packets per drum

TRUE BLUE™ Lake and Pond Dye

Proprietary blend of environmentally friendly, nontoxic dyes reduces sunlight penetration and imparts a natural blue color.



Use Rates	Package Size
1 qt/acre-foot (946 ml/1233 m³)	4 x 1 gal (4 x 3.78 L)

TRUE BLUE™ EZ SoluPak™ Lake and Pond Dye

Proprietary blend of environmentally friendly, nontoxic dyes reduces sunlight penetration and imparts a natural blue color. Waterproof, foil-lined SoluPak prevents accidental staining.



Use Rates	Package Size
1 Pak/acre-foot or 325,000 gal (148 g/1233m³)	6 x 5.25 oz (6 x 148 g) SoluPaks per carton, 4 cartons per case

JET BLACK™ EZ SoluPak™ Lake and Pond Dye

Proprietary blend of environmentally friendly, nontoxic black dyes reduces sunlight penetration and imparts a natural black, reflective color. Waterproof, foil-lined SoluPak prevents accidental staining.



Use Rates	Package Size
1 Pak/acre-foot or 325,000 gal (148 g/1233 m³)	6 x 5.25 oz (6 x 148 g) SoluPaks per carton, 4 cartons per case

**ERASE™
Spray System Cleaner**

Emulsifies oily residues in sprayer lines and hoses while elevating rinsate pH to degrade vulnerable crop protection products.



Use Rates	Package Size
1 qt/50 gal of rinsate (946 ml/189 L)	12 x 1 qt (12 X 0.946 L) 4 x 1 gal (4 x 3.78 L)

**INCIDE OUT™
Spray Tank Cleaner**

Liquid spray tank cleaner that emulsifies and bonds crop protection residues to rinse water for complete purging.



Use Rates	Package Size
1 qt/100 gal of clean water rinsate (946 ml/378 L)	12 x 1 qt (12 X 0.946 L) 4 x 1 gal (4 x 3.78 L)

**KNOCKDOWN™
Foam Suppressant**

Foam suppressant designed to quickly defoam spray solutions containing nonionic surfactants, silicone surfactants or crop oil concentrates.



Use Rates	Package Size
Anti-foam: 1-4 oz/100 gal of solution (29 - 118 ml/378 L) General Defoamer: 2-4 oz/100 gal of solution (59 - 118 ml/378 L)	12 x 1 qt (12 X 0.946 L) 4 x 1 gal (4 x 3.78 L)

**CONVERT™
Compatibility Agent**

Eliminates compatibility problems associated with tank mixing UAN solutions or suspension fertilizers with emulsifiable concentrates and flowable crop protection products.



Use Rates	Package Size
1-4 pt/100 gal (0.473 - 1.89 L/378 L) of spray solution to prevent antagonistic tank mixing conditions. 3-6 pt/100 gal (1.4 - 2.8 L/378 L) of spray solution to correct tank mix incompatibilities.	2 x 2.5 gal (2 x 9.46 L)

WATER MANAGEMENT

MAKE EVERY DROP COUNT

CREATE GREAT OUTDOOR PLAYING SURFACES USING LESS WATER

WATER WARS

What we know for sure:

- Competition and demand for water will continue to be fierce
- Water supply is decreasing
- You can be pro-active about water



WHOA NELLY, THAT'S A LOT

Gallons of irrigation water used annually on golf courses

2 BIL



That's all the water flowing down Niagara Falls for nearly 45 minutes!

BOTTOM LINE:

We need to improve water and energy use on turf.

WHAT YOU CAN DO:

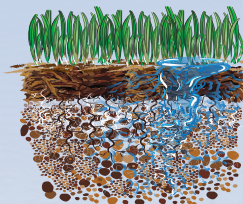
**ANNUAL AUDITS CAN
SAVE 10-15%
ON IRRIGATION COSTS**

- ✓ Audit your irrigation system
- ✓ Follow good agronomic practices
- ✓ Use innovative soil surfactants



UTILIZE SOIL SURFACTANTS

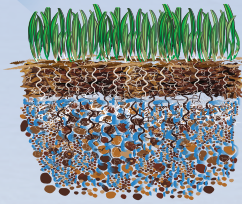
INFILTRATION SURFACTANTS



- Breaks down surface tension
- Reduces evaporation and run-off
- Moves water uniformly throughout the root zone

&

HYDRATION SURFACTANTS



- Holds water in the root zone
- Maintains water content
- Reduces plant stress

Precision Laboratories Can Help

We believe better water management makes an important, positive impact on the world and are committed to do our part through education, awareness, and development of innovative chemistries.

Visit PrecisionLab.com today to learn more about our new soil surfactants.

**ALYPSO™
Infiltration Surfactant**

Unique, naturally-derived surfactant that speeds up the infiltration of irrigation through thatch and into hard-to-wet soils.



Use Rates	Package Size*
Injection: 1 pt /acre (473 ml/0.4046 ha)	2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L)
Spray: 16 - 24 oz/acre (473 - 709 ml/0.4046 ha)	55 gal (208 L)

**ALYPSO™ PLUS
Water Conditioner**

Contains a naturally-derived surfactant that reduces the surface tension of water and improves the infiltration of rainfall and irrigation into and throughout the turf or plant root zone. The water conditioner in ALYPSO PLUS reduces pH and addresses issues associated with poor water quality. ALYPSO PLUS may be used in conjunction with other soil surfactants, plant protectants or plant nutrients.



Use Rates	Package Size*
Injection: 32 oz/acre (946 ml/0.4046 ha)	2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L)
Spray Application: 32 oz/acre (947 ml/0.4046 ha)	55 gal (208 L)

**DUPLEX™
Water Conditioner**

DUPLEX is a conditioner that sequesters hard water ions and reduces the surface tension of water.



Use Rates	Package Size*
Injection: 20 oz/acre (591 ml/0.4046 ha)	2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L)
Spray Application: 20 oz/acre (591 ml/0.4046 ha)	55 gal (208 L)

**VIVAX™
Hydration and Infiltration**

A combination of new surfactant technologies designed to manage water across a wide range of soil and turf types, making it ideal for use on golf courses and sports turf.



Use Rates	Package Size*
5 ounces/1000 sq ft (591 ml/100m ²)	2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L) 55 gal (208 L)

**CASCADE™ PLUS
Long-Lasting Water Infiltration**

A combination of nonionic surfactants that hydrate the soil and penetrate to provide deeper, more uniform water infiltration, Cascade Plus is used to prevent localized dry spot, correct hydrophobic soil conditions and provide firmer, faster playing surfaces under all conditions.



Use Rates	Package Size*
16 ounces/1000 sq ft (473ml/100m ²)	2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L) 55 gal (208 L)

**MAGNUS™
Hydration Surfactant**

A nonionic surfactant blend that produces uniform hydration in the root zone and optimized growing conditions for new seedlings, stressed turf and upper root zone species.



Use Rates	Package Size*
4 to 6 ounces/1000 sq ft (118 - 177 ml/100m ²)	2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L) 55 gal (208 L)

**CASCADE™ PLUS
Long-Lasting Water
Infiltration**

Specifically formulated to increase both the rate and depth of water and nutrient infiltration on hydrophobic soils.



Use Rates	Package Size
3.5 - 7.0 lbs/1000 sq ft (1.7 - 3.2 kg/100m ²) Each 42 pound bag treats approximately 5,700 sq ft at the 7 pound rate SGN: 105	42 lb bag (19.05 kg)

**PRECISION EZ TABS™
Rescue Tablet**

An easy-to-use tablet, containing the same active ingredient as Magnus, designed to hydrate the plant root zone and provide a rescue treatment for hot spots.



Use Rates	Package Size
One tablets covers approximately 12,000-18,000 square feet of turf (1115 - 1672 m ² per tab). Severity of localized dry spot, water temperature, water pressure and application technique may cause coverage to vary.	24 – 6 ounce (24 x 170 g) tablets per case

**VIVAX™ 10G
Hydration and Infiltration**

Combination of surfactants that increase volumetric water content and improve water infiltration across a wide range of soils and turf types. Its granular formulation makes Vivax 10G suitable for use on golf courses, athletic fields and other turf areas.



Use Rates	Package Size
3.5 lbs/1000 sq ft (1.6 kg/100m ²) SGN: 105	42 lb bag (19.05 kg)

**CASCADE™ PLUS
Fertilizer 0-0-20
Hydration, Infiltration &
Fertilizer Technology**

Combines the proven wetting agent technology of Cascade Plus with a unique fertilizer blend.



Use Rates	Package Size
5 lbs/1000 sq ft to obtain 8 oz of Cascade Plus per 1000 sq ft (2.27 kg/100m ²) SGN: 120	50 lb bag (22.68 kg)

**VIVAX™ TABS
Hydration and Infiltration**

Easy-to-use tablet that contains Vivax. Designed to improve water infiltration into and throughout localized dry spots (LDS) and provide relief from plant stress across a wide range of soils and turf types.

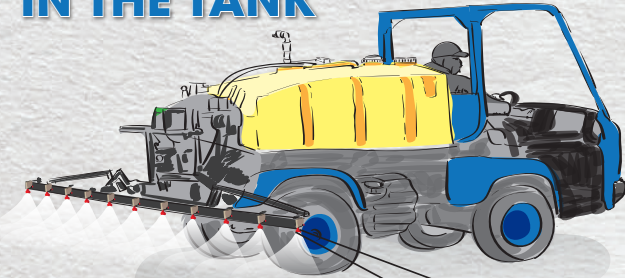


Use Rates	Package Size
One tablet covers 12,000 - 18,000 sq ft of turf (1115 - 1672 m ² per tab).	24 – 6 ounce (24 x 170 g) tablets per case



TSDM

IN THE TANK



Drift control isn't enough, you need

TOTAL SPRAY DROPLET MANAGEMENT®

GET IT RIGHT - FROM THE START

- **CLEAN THE ENTIRE SPRAY SYSTEM**

Residual active ingredients from previous spray mixes can interact adversely with current spray mix.

- **CONSIDER WATER QUALITY**

Water conditioning agents may be needed to ensure performance of the spray solution.

- **MIX IN THE PROPER ORDER**

Adding products in the incorrect sequence may cause compatibility issues.

- **FOLLOW LABEL RECOMMENDATIONS**

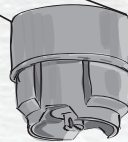
THROUGH THE AIR

WATCH THE WEATHER

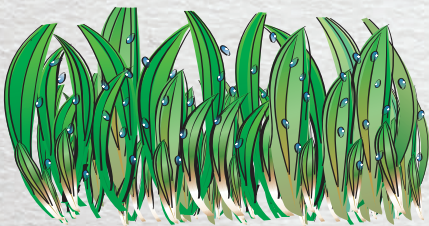
- Wind speed and direction
- Temperature and humidity
- Thermal inversions

WHAT YOU CAN DO

- Select the correct nozzle
- Spray at the correct pressure
- Use drift reduction adjuvants



ON THE TARGET



INNOVATIVE CHEMISTRIES THAT ENHANCE:

- **DROPLET RETENTION**

Reduce kinetic energy of spray droplets to minimize droplet bounce and maximize retention.

- **DROPLET COVERAGE**

Spread the product over the leaf surface for superior coverage.

- **PRODUCT ABSORPTION**

Promote product movement into the target plant for increased absorption.

Get more successful spray applications with our innovative solutions that improve droplet retention and coverage while dramatically reducing off-target movement and exposure.

To learn more, go to www.PrecisionLab.com

SILICONE SURFACTANT

**SPEED™
Nonionic Surfactant**

SPEED is a low-foaming, low-use-rate nonionic surfactant. When applied to moist sand after top-dressing, SPEED reduces or eliminates the buildup of sand on mower reels, mower bed-knives and golf balls.



Use Rates	Package Size
Always use the rate of nonionic surfactant recommended on the pesticide label.	4 x 1 gal (4 x 3.78 L)

DRIFT REDUCTION TECHNOLOGY

**BORDER™ 2.0
Drift Control Agent and
Deposition Aid**

A concentrated liquid adjuvant for spray droplet management. It enhances the performance of spray applications by modifying the physical characteristics of the spray droplet, improving droplet retention while reducing off-target movement.



Use Rates	Package Size
0.25%–0.50% v/v (2–4 pints)/ 100 gal (0.946 - 1.89 L/378 L)	2 x 2.5 gal (2 x 9.46 L) 12 x 1 qt (12 X 0.946 L)

ANTI-TRANSPIRANT

**AQUALOCK™
Anti-Transpirant**

AquaLock is a unique wax dispersion that forms a thin, flexible, water-repellent layer on plant surfaces. AquaLock protects plants against drought, extreme temperatures, wind and sunscald. AquaLock may extend watering intervals for turf and ornamental crops.



Use Rates	Package Size
Turf: 2-8 oz/ 1000 sq ft (60 -236 ml per 100m ²) Ornamentals: 4-8 oz in 1 gallon of water (118 - 236 ml in 3.78 L)	2 x 2.5 gal (2 x 9.46 L)

NONIONIC SURFACTANT

**LV™
Humectant and Water
Conditioning Agent**

LV is a low-use-rate blend of water conditioning agents specifically formulated for low volume sprays. LV is designed to block hard water cations from interacting with pesticide molecules. Ease of use and mixing characteristics make it ideal for equipment with limited agitation.



Use Rates	Package Size
0.125% - 0.5% v/v (16-32 oz./100 gal) (473 - 946 ml/378 L)	12 x 1 qt (12 X 0.946 L) 4 x 1 gal (4 x 3.78 L)

OIL-BASED ADJUVANT

**COMPOUND™
Water Conditioner
and Deposition Agent**

COMPOUND is a specialized utility modifier and deposition agent that acts as a pH adjuster and water conditioner. COMPOUND maintains the integrity of the spray diluent (water) and protects tank mix partners from deactivation by hard water cations.



Use Rates	Package Size
1 – 6 pt/100 gal (0.125% v/v - 0.75% v/v) (0.473 - 2.84 L/378 L)	12 x 1 qt (12 X 0.946 L) 2 x 2.5 gal (2 x 9.46 L) 20 gal (75.7 L)

ADJUVANTS

Tank Mixing Sequence Guidelines

General Recommendations

It is recommended that a compatibility test be done prior to mixing any combination of crop protection products.

If using a mixing vat or inductor, make sure there is adequate agitation and a minimum of 15% of the desired finished spray volume carrier in the mixing vessel prior to diluting the crop protection products. If the mixing vessel cannot hold the required minimum volume, open the valve and add the crop protection products in the recommended order.

Mixing Sequence

1. Sulfonylurea Herbicides

**Add before reducing pH, or pre-slurry in 5 gallons of water at pH 8.5-9.5, and add once completely dissolved.*

Use 2-4 oz of household ammonia in 5 gallons of water to raise pH to desired level.

2. Compatibility Agents and Defoamers (*Convert™/Gundown Elite™, Knockdown™*)

**Compatibility agents will reduce spray solution pH.*

3. Dry Products

- a. Ammonium sulfate and dry micronutrients
- b. Drift retardants
- c. WP, DF, WDG, SP formulations

4. Liquids

- a. Drift retardants
- b. Suspo Emulsions (SE)
- c. Aqueous Suspensions (AS)
- d. Flowables (F or FL)
- e. Micro encapsulated (ME)
- f. Suspension concentrates (SC)
- g. Liquid Concentrates (LC)
- h. Emulsifiable concentrates (EC)
- i. Solutions (S or SL), liquid and concentrate suspension fertilizers, chelated micronutrients and growth hormones
- j. Capsule Suspensions (CS)
- k. Adjuvants
 - i. Crop oil concentrates
 - ii. High surfactant oil concentrates
 - iii. Methylated seed oils
 - iv. Oil-based DRT
 - v. Nonionic surfactants
 - vi. Water conditioning agents

Did You Know?

We have a series of online videos that go into more detail about tank mixing sequence and compatibility issues.

Contact Information

Hours: 7:30 a.m.—4:30 p.m. CT

Phone: (800) 323-6280

24-hour Technical Service:

(800) 323-8351

Precision Laboratories is a leading provider of specialized chemistries applied to plants, seeds, soil and water to maximize resource and biological performance potential while stewarding the environment.

Guarantee

Precision Laboratories is recognized as having the highest level of customer service. We guarantee the integrity and quality of every product we sell and provide 24-hour technical assistance to ensure complete customer satisfaction. Our products are backed by university and independent research, and proven through field-testing by respected agriculture professionals.

Important: Read and follow all label directions before using any product. Additional product and technical information is available on our website; www.precisionlab.com. All products are trademarks or registered trademarks of their respective companies.

Don't Plug Your Sprayer

Correct Mixing Order and Procedures Increase Productivity, Reduce Risk.

Compatibility problems can cost applicators a lot of time and money — in wasted product, spraying time due to plugged sprayers and even lost customers — when the job isn't done correctly.

The Root of the Problem

Before glyphosate-resistant weeds began to emerge it was not uncommon for applicators to mix water-soluble liquids like glyphosate and surfactant together in an inductor or mixing vat with little or no water, and with little or no problems. But times are changing. More glyphosate-resistant weeds means more tank mixing with tank-mix partners that aren't water-soluble, leading to compatibility problems.

The two leading causes of incompatibility problems are:

- 1) Little or no water to dilute crop protection products when using a mixing vat or inductor cone
- 2) Improper mixing sequence

Mixing Vats and Inductor Cones

Are you creating a new crop protection formulation? When combining undiluted crop protection products and adjuvants in a mixing vat or inductor cone that's what you're doing. These new "combinations" were not formulated to be together, undiluted, so they often begin to gel or salt out quickly. The good news is they usually rinse out of the mixing vat or inductor cone easily. The bad news is you've now transferred the problem to your sprayer, leading to plugged screens, lines and nozzles.

The Mixing Vat Solution

If you're going to use a mixing vat or inductor you have two options to avoid tank mixing problems:

- 1) Add enough water to the mixing vat or inductor cone to dilute your tank mix partners. This is usually no less than 10-15% of the entire volume of the anticipated spray load. Example: 1,000 gallon load requires an inductor cone or mixing vat that can hold 100-150 gallons of water.
- 2) If your mixing vat will not hold the appropriate levels of water, then you should open the valve and add products individually in the proper mixing order. Follow each product with a water rinse before adding the next.

Improper Mixing Sequence

Even a slight change in mixing order makes a huge difference in product efficacy and compatibility. Something as simple as reversing the mixing order between a flowable (F) herbicide, like atrazine, and an emulsifiable concentrate (EC), like 2,4-D, can cause a cottage cheese-type consistency that will plug sprayers. Other mixing errors increase the amount of residue and buildup on the interior sidewalls of the sprayer's tank leading to longer cleanout times and the increased risk of cross contamination.

Fixing the Mixing Sequence

Make sure that you add products in the correct order. Most crop protection product labels state a preferred mixing sequence. If you're still not sure, simply conduct a small compatibility test to verify the mixing order that produces the most stable tank mix. Directions for conducting compatibility tests can be found on crop protection labels. If you want to learn more about proper mixing order, watch the compatibility video on our YouTube channel.



Stable tank mixes form milky emulsions, like those in the container on the left in the photo above. When using liquid nitrogen as a carrier, the addition of compatibility agents, like Convert™, can prevent tank mixes from quickly separating and leaving residues trapped inside the tank. Convert can reduce the risk of cross contamination and lower levels of weed control.

Did You Know?

Get your Compatibility Test Kits from Precision Laboratories. Call our customer service team at (800) 323-6280 to order a kit.

Or, you can download Mix Tank for iPhone and Android, which determines the proper mixing sequence based on the products selected.

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