

How Green Do You Want Your Turf?



by
Grady Miller



Want it Blue?



History of Turfgrass Paint

- First used in the 1950's on Hollywood movie sets
 - Larry Krieger developed different dyes in a water-soluble acrylic latex base
- Golf course superintendents in southern CA adopted painting techniques
 - Limited information about overseeding
 - No reduction in course playability
 - Golfers accepted the practice

Painting's Popularity

- Drought resistant cool-season varieties used for overseeding have made the spring transition more difficult
- Painting is non-invasive and provides an attractive surface that is affordable
- Currently the leading alternative to overseeding
- Could be used on cool-season grasses during drought



Overseeding

- Seed Cost
- Preparation of area
- Additional water, little more fertilizer
- Transition back to warm-season turfgrass
- Alteration of herbicide programs



Painting Process

- Pick the colorant you want
- Purchase the colorant in appropriate quantity (not cut and dry due to dilution differences)
- Have a sprayer (some more useable than others)
- Mix appropriately
- Paint
- Re-application may be necessary over time

WINTERGREEN™ PLUS

SPRAYABLE TURF COVER AND COLORANT

CAUTION: KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

Before using this product, read the entire label including the conditions of sale. May cause irritation if swallowed or contact is made with skin or eyes.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators or handlers of this product must wear: long-sleeved shirt, pants, shoes and socks, chemical resistant gloves and splash-proof safety goggles. Consult the MSDS for further information.

STATEMENT OF PRACTICAL TREATMENT

If Swallowed: Do not induce vomiting or give fluids by mouth to an unconscious person. If person is conscious, give large quantities of water or milk and seek medical attention immediately.

If Inhaled: Remove to fresh air. If cough or other respiratory symptoms develop, seek medical attention.

If in Eyes: Wash eyes with large amounts of water for at least 15 minutes, lifting the lower and upper lids. Seek medical attention immediately.

If on Skin: Remove contaminated clothing and immediately wash contaminated area with soap and water for at least 15 minutes.

GENERAL INFORMATION

Wintergreen Plus is a nonphytotoxic, antidesiccant and colorant specifically formulated to protect sensitive turfgrass during dormant periods and accelerate spring green-up by attracting greater sunlight intensity with its deep green color. Wintergreen Plus may also be used in season as a permanent colorant on nondormant turfgrasses or during dormancy to impart a natural green color as an alternative to overseeding.

DIRECTIONS FOR USE

FOR USE ON ALL DORMANT AND NONDORMANT TURFGRASS SPECIES FOUND ON GOLF COURSE GREENS, TEES AND FAIRWAYS, COMMERCIAL, MUNICIPAL AND RESIDENTIAL LAWNS, PARKS AND ATHLETIC FIELDS.

~~Always mow turf to desired height prior to applying Wintergreen Plus.~~

- Apply Wintergreen Plus spray solution to dry turf with flat fan nozzles at 30-50 psi to create small spray droplets that are easily retained by turfgrass
- Avoid application conditions that favor drift. Wintergreen Plus will adhere to any dry surface. To minimize staining risk, wet concrete and masonry surfaces with water prior to application and rinse with water immediately after application.

SHAKE WELL BEFORE USING.

USE RATES

Use rates will depend on grass species, mowing height and desired color.

Sprayable Cover – Dormant Turf:

Apply 16 - 32 ounces (473 – 946 ml) of Wintergreen Plus with 2.88 – 2.75 gallons (10.9 – 10.4 L) of water for a total spray volume of 3 gallons (11.35 L) per 1,000 sq (93 m²). The most uniform color and coverage is achieved by making two perpendicular applications at the higher dilution rate. Reducing water volume will result in darker turf.

Colorant – Dormant Turf:

Apply 8 -12 ounces (237 -355 ml) of Wintergreen Plus with 0.94 – 0.91 gallons (3.6 – 3.4 L) of water for a total spray volume of 1 gallon (3.78 L) per 1,000 square feet (93 m²) or apply 2.7 – 4 gallons (10.2 – 15.1 L) Wintergreen Plus with 40.8 – 39.5 gallons (154.4 – 149.5 L) for a total spray volume of 43.5 gallons (164.7 L) per acre (0.4 ha).

Colorant – Nondormant or Discolored Turf:

Apply 8 ounces (237 ml) of Wintergreen Plus with 0.94 gallons (3.6 L) of water for a total spray volume of 1 gallon (3.78 L) per 1,000 square feet (93 m²). Alternately, apply 2.75 gallons (10.4 L) Wintergreen Plus with 40 – 54 gallons (151 – 204 L) of water for a total spray volume of 43 – 57 gallons (163 – 216 L) per acre (0.4 ha). Use higher dilution rate and make two perpendicular applications for easier blending with healthy turf.

MIXING

Fill spray tank ½ full of desired water volume. While agitating, add the appropriate amount of Wintergreen Plus. Finish filling spray tank to desired level.

STORAGE AND DISPOSAL

May be stored below 32°F if thawed and thoroughly agitated before use. Keep container closed in storage. Do not allow water to be introduced. Store only in original container. When empty, rinse and offer for recycling. Always dispose of container in accordance with local, state and/or federal regulations. Do not reuse empty container.

CONDITIONS OF SALE

Read the information contained herein before buying or using this product. If the stated terms are not acceptable, return the product at once unopened. It is critical that this product be used and mixed only as specified on this label. Neither the manufacturer nor the seller makes any representation or warranty, expressed or implied, with respect to the results from the use of this material. Buyer and user assume all risks of use and/or handling. Precision Laboratories, Inc., warrants that this material is reasonably fit for use as specified on this label. No agent or representative is authorized to make any other representations concerning this material. Unforeseen factors beyond manufacturer's control prevent elimination of risks in connection with the use of its chemicals. Such risks include, but are not limited to, damage to plants and/or crops to which the material is applied, or lack of complete control and damage caused by drift to other plants or crops. Such risks may occur even though the product is reasonably fit for use as stated herein and even though label directions are followed. Follow directions carefully. Timing, mixture, method of application, weather and other conditions are influencing factors in the use of this product and are beyond the control of the seller. Except to the extent prohibited by applicable law, the exclusive remedy of the user or buyer and the limit of liability of the seller for any and all losses, personal injuries or damages resulting from the use of this product, shall be the purchase price paid by the user or buyer for the quantity of product involved.



Green Lawnger®

Turf Paint and Divot Mix Colorant

GENERAL DESCRIPTION

Green Lawnger® restores the natural green color to turf during dormant periods. Green Lawnger is a permanent green pigment, not a dye, which contains no hazardous chemicals, heavy metals, or other inert ingredients harmful to turf. Green Lawnger may also be pre-applied to divot mix sand, giving the mix a natural green color.

DIRECTIONS FOR USE

Before applying Green Lawnger, cut turf to desired height.

Dormant (Fall) Application: Dilute one gallon (3.78 L) Green Lawnger with 7 to 9 gallons (26-34 L) water. For a darker turf color, reduce volume of water. Some experimentation may be required with the water to colorant ratio to obtain the exact color desired.

For best results, cover leaf blade completely with fine particle-size droplets using flat fan spray nozzles. Avoid excessive run off from the leaf blade to soil surfaces. Nozzle types, pressure, flow rate and spray angle will all affect product distribution.

Non-Dormant (Summer) Application: Dilute one gallon (3.78 L) with 15 to 20 gallons (56-75 L) water. Again, the application rate depends on the desired color. For best results on any discolored area, two applications are recommended to blend the colored area in with the surrounding healthy turf.

Divot Mix Sand: Mix 6 ounces (177 ml) of Green Lawnger with same volume water. Spray or pour the solution onto 100 lbs. (45kg) of divot mix sand in a cement-type mixer. Mix until colored. Adjust the colorant to water ratio to achieve the desired color.

Equipment Notice: Becker Underwood recommends the use of Teflon seals to aid in the prevention of leaks when using Green Lawnger in centrifugal pumps. Standard ceramic seals may leak during operation.

Avoid overspray on concrete, masonry, or any other objects where color is not desired. Permanent staining may occur. Accidental overspray may be removed by a water rinse prior to drying. Rinse spray tank, spray nozzles, and screens thoroughly with water immediately following use. Using Green Lawnger with centrifugal pumps fitted with ceramic seals may leak. For best results, use low to medium sprayer pressure.

If this product is mixed with pesticides, the entire mixture, including rinsate, must be handled and disposed of according to all applicable local, state, and federal guidelines.

RECOMMENDED RATES

One gallon (3.78 L) concentrate of Green Lawnger will treat 4,000 to 12,000 sq. ft. (370-1,115 sq. m) of turf when mixed with water. The area covered will vary with the rate of Green Lawnger used, type and condition of grass being treated, and turf color desired. Typically a 1:7 colorant to water ratio is recommended on dormant turf, and a 1:15 ratio on other turf.

PACKAGING

Available in 12x1 liter, 4x1 gallon, 2x2.25 gallon, and 30 gallon drum.

Green Lawngr® with ColorLock™ Technology is an advanced colorant formulation that resists the harsh effects associated with long periods of high temperature and intense UV light exposure.

Application tips:

Mix until colored. Adjust the colorant-to-water ratio to achieve the desired color. A spray shield is recommended for applications if overspray or drift is a potential problem.

Avoid overspray on concrete, masonry or any other objects where color is not desired. Permanent staining may occur. Accidental overspray may be removed by a water rinse prior to drying. To prevent rub-off on uniforms, allow Green Lawngr to dry prior to using athletic fields. Rinse spray tanks, spray nozzles and screens thoroughly with water immediately following use.

If this product is mixed with pesticides, the entire mixture, including rinsate, must be handled and disposed of according to all applicable local, state and federal guidelines.

Before applying Green Lawngr, cut turf to desired height. One gallon (3.78 liters) of Green Lawngr will cover 4,000 to 12,000 square feet (370-1115 m²) of turf. The area covered will vary with the rate of Green Lawngr used, type and condition of grass being treated, and turf color desired. Typically a 1:7 colorant-to-water ratio is recommended on dormant turf, and a 1:15 ratio on other turf.

For best results, cover leaf blade completely with fine particle-sized droplets using flat fan spray tips. Avoid excessive run off from the leaf blade to soil surfaces. Nozzle type, pressure, flow rate and spray angle will all affect product distribution. Use low to medium sprayer pressure.

Directions:

Dormant Application: Dilute one gallon (3.78 liters) of Green Lawngr with 7 to 9 gallons (26-34 liters) of water. For a darker turf color, reduce the volume of water. Some experimentation may be required with the water-to-colorant ratio to obtain the exact color desired. Green Lawngr's color will last the entire dormant season up to 6 months.

Non-Dormant Application: Dilute one gallon (3.78 liters) of Green Lawngr with 15 to 20 gallons (56-75 liters) of water. Again, the water-to-colorant ratio is important.

applications are recommended to blend the colored area with the surrounding healthy turf.

Divot Mix Sand: Mix 6 ounces (177 ml) of Green Lawngr with the same volume of water. Spray or pour the solution onto 100 lbs. (45 kg) of divot mix sand in a cement-type mixer.

PRECAUTIONARY STATEMENTS

CAUTION

KEEP OUT OF REACH OF CHILDREN

Avoid contact with eyes and skin. May be harmful if swallowed. In case of ingestion, dilute with water and consult a physician. See Material Safety Data Sheet for additional information.

EMERGENCY CONTACT:

CHEMTREC 1-800-424-9300

Equipment Notice: Becker Underwood recommends the use of Teflon® seals to aid in the prevention of leaks when using Green Lawngr in centrifugal pumps. Standard ceramic seals may leak during operation.

WARRANTY STATEMENT

NOTICE: The statements on this label are believed to be true and accurate, but because use conditions are beyond our control, Becker Underwood, Inc. does not make, nor does it authorize any agent or representative to make any oral or written warranty, guarantee, or representation, expressed or implied, concerning this material or the use thereof beyond the statements of the label. Neither Becker Underwood, Inc. nor the seller shall be held responsible in any manner for any claim, personal injury, or property damage or loss resulting from handling, storage, or use of this material not in accordance with the written directions. The buyer assumes all risk and liability resulting from handling, storage, or use, and purchaser accepts and uses this material on these conditions. No other warranty exists.

Green Lawngr and ColorLock are trademarks of:
BECKER UNDERWOOD
801 Dayton Avenue • Ames, Iowa, 50010
(800) 232-5907
www.beckerunderwood.com

30-22-1000
Rev. 12/04



Green Lawnnger

Turf paint and dilut mix colorant

A long-lasting green paint for turf use

- Paints turf products green. UV resistant color.
- Recommended for athletic fields, golf courses, recreational and municipal areas.
- Also, healthy appearance and handy for all types of turf.

CAUTION

KEEP OUT OF REACH OF CHILDREN



NET CONTENTS: 1 GALLON

50
SPRINKING DEVICES, INC.

225



2325









Application Methods

- Issues with both application methods
 - Amount of time to apply colorant
 - Blending vs. Full Coverage
 - “Streaking”









NCSU Paint Research









Products Evaluated

(Fall 2008 – Winter 2009)

Manufacturer	Product Name
Becker Underwood	Green Lawngr
John Deere Landscapes	LESCO Green
Missouri Turf Paint	Mtp Turfgreen
Burnett Athletics, Inc.	Titan Green Turf
US Specialty Coatings, Inc.	Turf in a Bottle
Precision Laboratories, Inc.	Regreen
Precision Laboratories, Inc.	Wintergreen Plus
Match Play (Pioneer Athletics)	Ryegrass
Match Play (Pioneer Athletics)	Ultradwarf Super
Match Play (Pioneer Athletics)	Ultradwarf Plus
Match Play (Pioneer Athletics)	Bermudagrass
J.C. Whitlam Mnf.	Bermuda Green

Products Evaluated

- 12 products varied in:
 - Consistency (viscosity)
 - Recommended dilutions
 - Recommended application rates
 - Color
 - Cost



Viscosity

- “Honey-Like”
 - Ryegrass, Ultradwarf Plus, Ultradwarf Super, Bermudagrass, and Bermuda Green
- “Water-Like”
 - Green Lawngr, LESCO Green, Mtp Turfgreen, Titan Green Turf, Turf in a Bottle, Regreen, and Wintergreen Plus

Application Methods

Boom Applied



11 November 2008

Wand Applied



15 November 2009

What we USED

Colorant	App. Rate (gpa)	Dilution (colorant:water)
Green Lawnger	80	1:7
LESCO Green	80	1:10
Mtp Turfgreen	80	1:7
Titan Green Turf	80	1:10
Turf in a Bottle	80	1:10
Regreen	80	1:7
Wintergreen Plus	80	1:10
Ryegrass	80	1:7
Ultradwarf Super	80	1:7
Ultradwarf Plus	80	1:7
Bermudagrass	80	1:7
Bermuda Green	80	1:15
Green Lawnger	160	1:7
Turf in a Bottle	160	1:10
Ultradwarf Super	160	1:7
Regreen	40	1:7
Wintergreen Plus	120	1:10

Turfgrass Color

- Differences in turf color were found between colorants and grasses at every rating date
- Differences in grasses likely caused by the level of dormancy during colorant application

Bermudagrass

Zoysiagrass



Miniverde Bermudagrass

0 Days After Application



Untreated Control



Green Lawngrer



Lesco Green



Mtp Turfgreen



Titan Green Turf



Turf In A Bottle



Regreen



Wintergreen Plus



Ryegrass



Ultradwarf Super



Ultradwarf Plus



Bermudagrass



Bermuda Green

Diamond Zoysiagrass

0 Days After Application



Untreated Control



Green Lawngr



Lesco Green



Mtp Turfgr



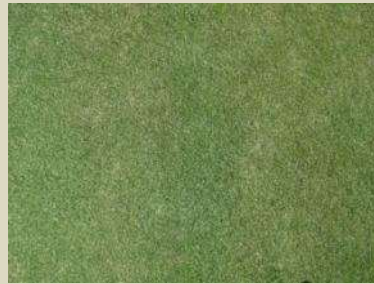
Titan Green Turf



Turf In A Bottle



Regreen



Wintergreen Plus



Ryegrass



Ultradwarf Super



Ultradwarf Plus



Bermudagrass



Bermuda Green

Miniverde Bermudagrass

0 Days After Application

Bermuda Green 80 gpa

Regreen 40 gpa

Turf In A Bottle 80 gpa

Ultradwarf Plus 80 gpa

Ryegrass 80 gpa

Untreated Control

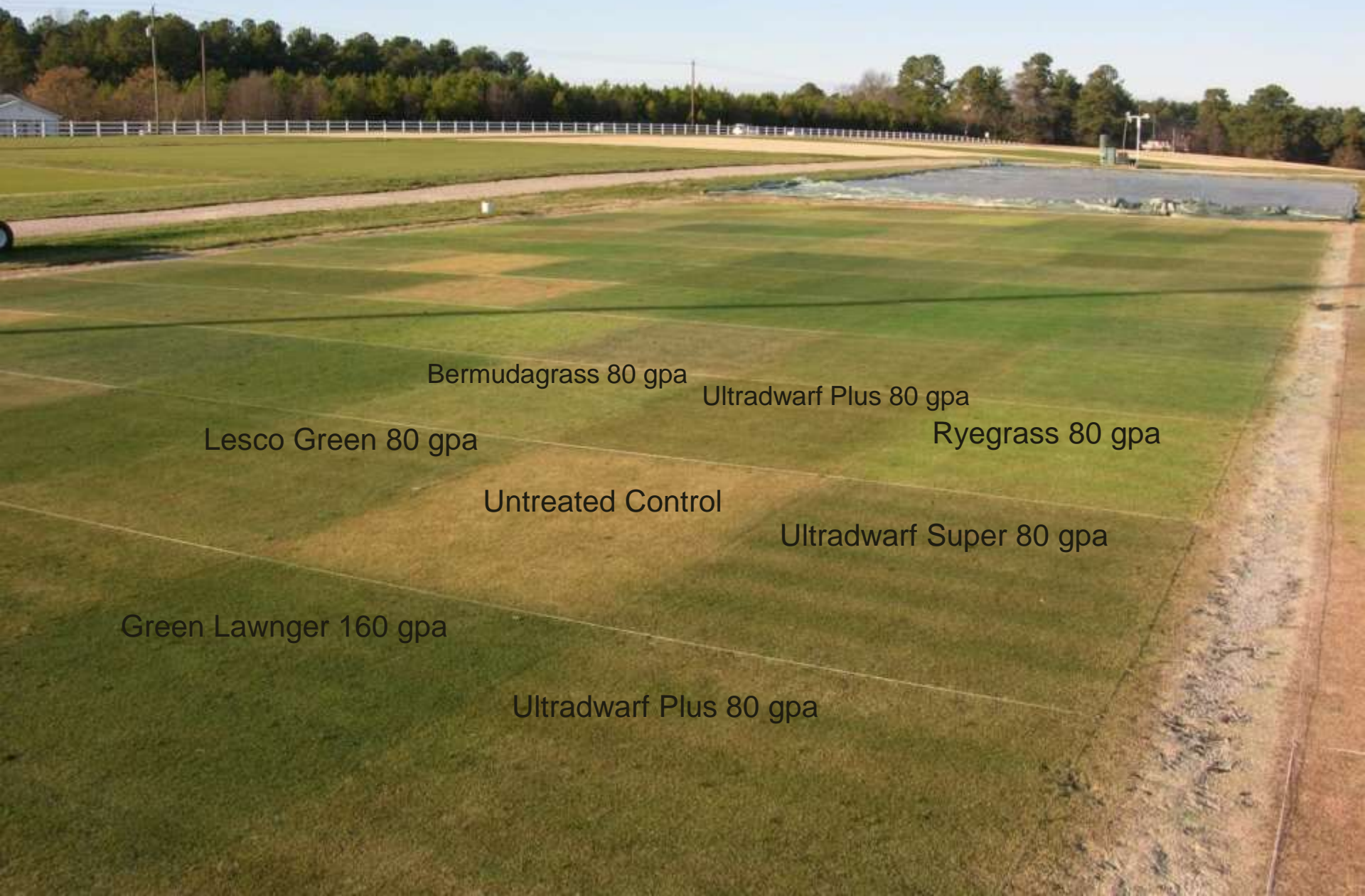
Wintergreen Plus
120 gpa

Mtp Turfgreen 80 gpa

Green Lawnger 80 gpa

Diamond Zoysiagrass

0 Days After Application



Bermudagrass 80 gpa

Ultradwarf Plus 80 gpa

Lesco Green 80 gpa

Ryegrass 80 gpa

Untreated Control

Ultradwarf Super 80 gpa

Green Lawngr 160 gpa

Ultradwarf Plus 80 gpa

Miniverde Bermudagrass

56 Days After Application



Untreated Control



Green Lawngr



Lesco Green



Mtp Turfgreen



Titan Green Turf



Turf In A Bottle



Regreen



Wintergreen Plus



Ryegrass



Ultradwarf Super



Ultradwarf Plus



Bermudagrass



Bermuda Green

Diamond Zoysiagrass

56 Days After Application



Untreated Control



Green Lawngr



Lesco Green



Mtp Turfgreen



Titan Green Turf



Turf In A Bottle



Regreen



Wintergreen Plus



Ryegrass



Ultradwarf Super



Ultradwarf Plus



Bermudagrass



Bermuda Green



Bermuda Green 80 gpa Ultradwarf Plus 80 gpa Bermudagrass 80 gpa

Ryegrass 80 gpa

Wintergreen Plus 160 gpa Green Lawnger 80 gpa

Untreated Control

Green Lawnger 80 gpa



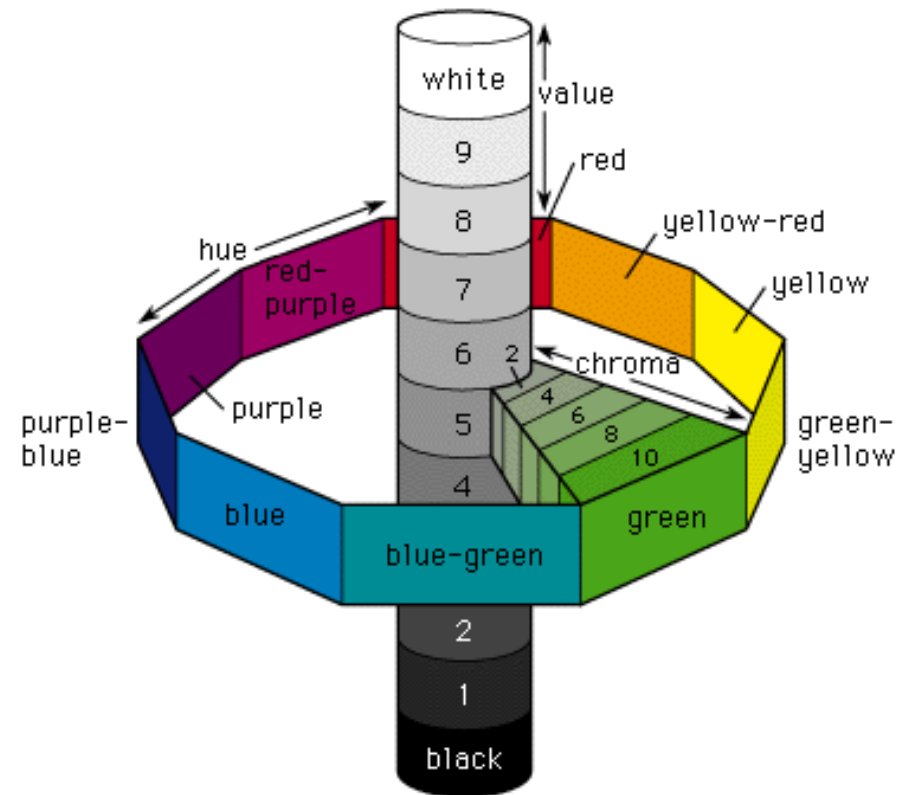
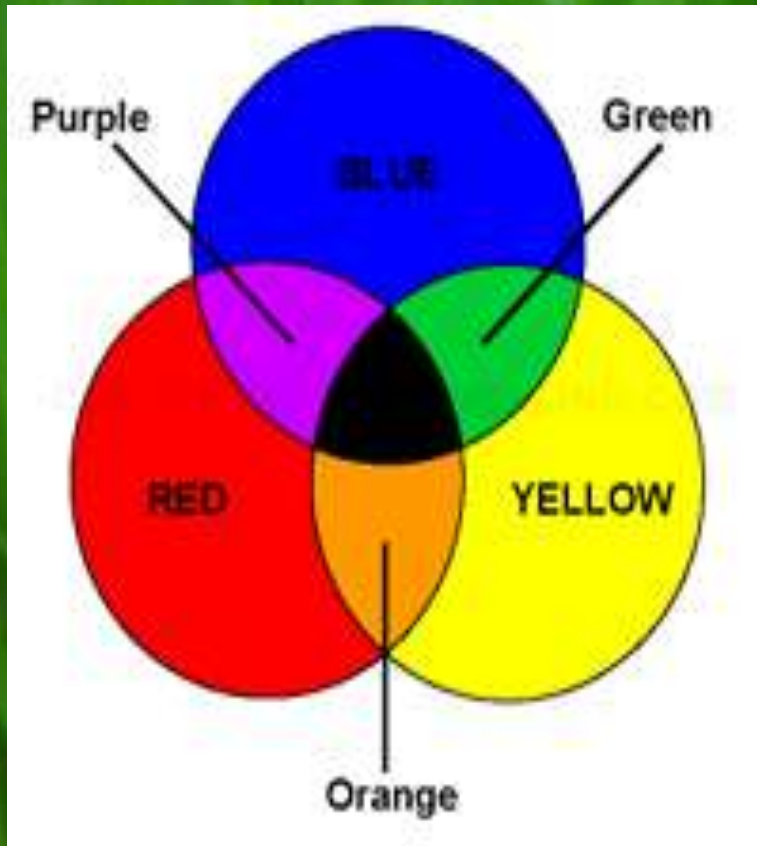
Bermudagrass 80 gpa Ultradwarf Plus 80 gpa Ryegrass 80 gpa

Green Lawnger 80 gpa Untreated Control Ultradwarf Super 80 gpa

Green Lawnger 160 gpa Ultradwarf Plus 80 gpa

Treatment/Rate	Bermudagrass		Zoysiagrass	
	Day 0	Day 56	Day 0	Day 56
Green Lawnger 80 gpa				
LESCO Green 80 gpa				
Mtp Turfgreen 80 gpa				
Titan Green Turf 80 gpa				
Turf in a Bottle 80 gpa				
Regreen 80 gpa				
Wintergreen Plus 80 gpa				
Ryegrass 80 gpa				
Ultradwarf Super 80 gpa				
Ultradwarf Plus 80 gpa				
Bermudagrass 80 gpa				
Bermuda Green 80 gpa				

Paint Colors:



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chroma = saturation
value = brightness

Influence of Rate

Treatment/Rate	Bermudagrass		Zoysiagrass	
	Day 0	Day 56	Day 0	Day 56
Green Lawngr 80 gpa				
Green Lawngr 160 gpa				
Ultradwarf Super 80 gpa				
Ultradwarf Super 160 gpa				

Colorant Considerations

- **Desired turfgrass color**
 - Cost
 - Shade of green
 - Longevity of color
 - Color re-application
- **Application timing**
 - Level of turfgrass dormancy
- **Desired coverage**
 - Dilution
 - Application method
 - Application rate



What Can Be Achieved?











A wide-angle photograph of a golf course green. The grass is a vibrant, uniform green, likely due to a dye application. In the background, a dense line of mature pine trees stands against a clear blue sky. The trees are well-maintained and have a full, rounded canopy. The foreground is a smooth, flat expanse of green grass, leading up to the tree line. The overall scene is bright and clear, suggesting a sunny day.

Painted warm season grass







Based on Our Study and Then Current Cost

Product	Product Cost	Dilution	App. Rate	App. Cost
	\$ gal ⁻¹	paint: water	GPA	\$ acre ⁻¹
Pioneer Ryegrass	\$45.00	1: 7	80	\$450.00
Pioneer Bermudagrass	\$45.00	1: 7	80	\$450.00
Pioneer Ultradwarf Plus	\$45.00	1: 7	80	\$450.00
Pioneer Ultradwarf Super	\$45.00	1: 7	80	\$450.00
Precision Lab. Regreen	\$45.00	1: 7	80	\$450.00
Precision Lab. Wintergreen Plus	\$45.00	1: 10	80	\$360.00
Titan Green Turf	\$28.50	1: 10	80	\$228.00
Lesco Green	\$65.00	1: 10	80	\$520.00
Green Lawnger	\$49.58	1: 7	80	\$495.80
Missouri Turfgreen	\$49.95	1: 7	80	\$499.50
US Specialty Turf Dye	\$39.95	1: 10	80	\$319.60

* Product Cost as of September 2009 [updated on later slide]

Down Side to “Paint”?

- Research still needed on new products, dilution rates, application timings/methods, and evaluate the long-term effects on turfs
- Not a “wear-able” surface
- Must have “decent” grass to paint!
- There is a cost to the paint
- May require more than one application.

Down Side to “Paint”?

- Some products do not work well with centrifugal pumps (may leak) compared to diaphragm pumps
- Staining of porous surfaces
- Clean-up

Short-term green using tracker dye



Short-term green with tracker dye (Signal Green and Sync)



QUALI-PRO

Quality Turf & Ornamental Products

Know The Sign. Greater Than Or Equal To.

Foursome™

Spray Pattern Indicator

A unique formulation pigment additive designed to enhance and extend the aesthetic appearance of the turf site following a pesticide application. For use as a spray pattern indicator, Foursome helps promote uniform application of the pesticide, producing a more consistent turf response to the activity of the applied plant protectant.

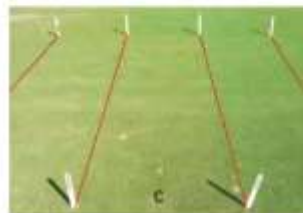
Packaging	1 quart bottle (12 bottles per case)
Application Rates	See label for specific uses and rates
Signal Word	Caution



A. Foursome on Creeping Bentgrass Putting Green.



B. FORT on Creeping Bentgrass Putting Green. (tested with 4 oz./1000 sq ft and 8 oz./1000 sq ft).



C. Left & Center - No Spray Pattern Indicator Applied. Right - Foursome on Creeping Bentgrass Putting Green.

Liquid "Overseed"

By Todd Lowe, senior agronomist, Florida Region
January 11, 2011



Spray program with Foursome pigment (L), and without Foursome pigment (R).

Several frosts have occurred since the previous regional update, and temperatures have dropped into the upper 20's at night on a few occasions. These temperatures have caused warm season turf to stop growing and go off-color, especially on golf courses with increased golf cart traffic. Several winter management strategies were discussed in the previous regional update and can be reviewed by clicking on the link below.

http://www.usga.org/course_care/regional_updates/regional_reports/florida/Jack-Frost-Is-Already-Nipping---December-2010/



Table 1. Colorant products for “new” study, label application dilutions, and 2012 estimated cost.

Num.	Product Name (Manufacturer)	Label dilution rate (colorant:water)	\$/Gallon [full price]	\$/Acre @ 80 GPA
1	Bermudagrass (Pioneer Athletics)	1:7-9	\$50	\$500
2	Endurant (Geponics)	1:16	\$45	\$210
3	Evergreen (Milliken)	1:10-15	\$45	\$325
4	Experimental 1 (Pioneer Athletics)	1:7-9	NA	NA
5	Experimental 2 (Pioneer Athletics)	1:7-9	NA	NA
6	Go Green (Enviroseal)	1:4-10	TBD	TBD
7	Green Dye Turf Colorant (World Class Athletic Surfaces)	1:7-9	\$38	\$380
8	Green Lawnger (Becker Underwood)	1:7	\$56	\$560
9	Green Lawnger Graphics (Becker Underwood)	1:15-20	\$49	\$245
10	Green Lawnger Lineman (Becker Underwood)	1:4	\$69	\$1100
11	Kameelyan – Bermuda (D. Ervasti Sales)	1:8	TBD	TBD
12	Kameelyan – Blue (D. Ervasti Sales)	1:8	TBD	TBD
13	Lesco Green (John Deere Landscaping)	1:10-20	\$72	\$520
14	Mtp Turfgreen (Missouri Turf Colorant)	1:7	\$53	\$530
15	Regreen (Precision Laboratories)	1:8-9	\$45	\$400
16	Southwest Green (Pioneer Athletics)	1:7-9	\$50	\$500
17	Solarogren Green Paint (Solarfast)	1:10	\$47	\$340
18	SprayMax Green Turf Paint (Harrell's)	1:16	\$53	\$250
19	Super Cover (J.C. Whitlam)	1:15	\$40	\$200
20	[Titan] Green Turf (Burnett Athletics)	1:10-15	\$30	\$220
21	Turf Cote (Poulenger USA)	1:1-8 (1:4)*	\$30	\$480*
22	Turf Worx – Original Green (US Specialties)	1:15	\$40	\$200
23	Turf Worx – Southwestern Green (US Specialites)	1:15	\$40	\$200
24	Turf Worx – Sugar Hill Green (US Specialites)	1:15	\$50	\$250
25	Ultradwarf Plus (Pioneer Athletics)	1:7-9	\$50	\$500
26	Ultradwarf Super (Pioneer Athletics)	1:7-9	\$50	\$500
27	Wintergreen Plus (Precisions Laboratories)	1:10-15	\$40	\$290

Miniverde Bermudagrass

1 Day After Application

Untreated Control

SprayMax

Solarogen

Enviroseal Go Green

Endurant

Super Cover

Bermuda

Lineman

Ultradwarf Super

Southwestern

Southwest Green

LESCO Green

Green Lawngr

Regreen

Titan Green Turf

Turf Cote

Green Turf Dye

Sugar Hill Turf

Mtp Turfgreen

Blue

Original

Ultradwarf Plus

Graphics

Bermudagrass

Evergreen

Wintergreen Plus

Miniverde Bermudagrass

29 Days After Application

Untreated Control

SprayMax

Solarogen

Enviroseal Go Green

Endurant

Super Cover

Bermuda

Lineman

Ultradwarf Super

Southwestern

Southwest Green

LESCO Green

Green Lawnger

Regreen

Titan Green Turf

Turf Cote

Green Turf Dye

Sugar Hill Turf

Mtp Turfgreen

Blue

Original

Ultradwarf Plus

Graphics

Bermudagrass

Evergreen

Wintergreen Plus

Miniverde Bermudagrass

58 Days After Application

Untreated Control

SprayMax

Solarogen

Enviroseal Go Green

Endurant

Super Cover

Bermuda

Lineman

Ultradwarf Super

Southwestern

Southwest Green

LESCO Green

Green Lawnger

Regreen

Titan Green Turf

Turf Cote

Green Turf Dye

Sugar Hill Turf

Mtp Turfgreen

Blue

Original

Ultradwarf Plus

Graphics

Bermudagrass

Evergreen

Wintergreen Plus

Miniverde Bermudagrass

85 Days After Application

Untreated Control

SprayMax

Solarogen

Enviroseal Go Green

Endurant

Super Cover

Bermuda

Lineman

Ultradwarf Super

Southwestern

Southwest Green

LESCO Green

Green Lawnger

Regreen

Titan Green Turf

Turf Cote

Green Turf Dye

Sugar Hill Turf

Mtp Turfgreen

Blue

Original

Ultradwarf Plus

Graphics

Bermudagrass

Evergreen

Wintergreen Plus

Miniverde Bermudagrass

1 Day After Application

Untreated Control

SprayMax

Solarogen

Enviroseal Go Green

Endurant

Super Cover

Bermuda

Lineman

Ultradwarf Super

Southwestern

Southwest Green

LESCO Green

Green Lawngr

Regreen

Titan Green Turf

Turf Cote

Green Turf Dye

Sugar Hill Turf

Mtp Turfgreen

Blue

Original

Ultradwarf Plus

Graphics

Bermudagrass

Evergreen

Wintergreen Plus

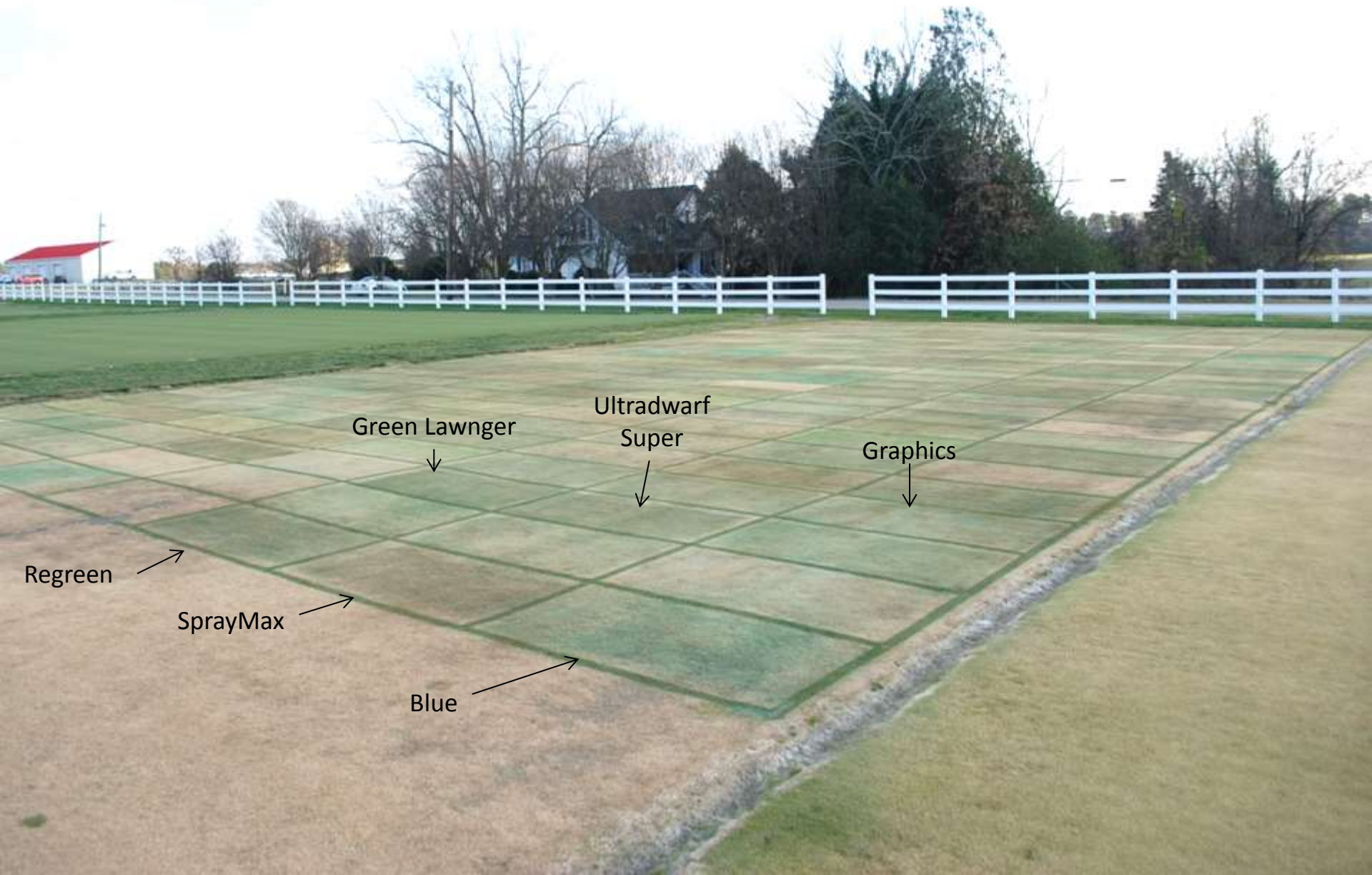
Miniverde Bermudagrass

15 Days After Application



Miniverde Bermudagrass

29 Days After Application



Green Lawnger



Ultradwarf
Super



Graphics



Regreen



SprayMax



Blue



Miniverde Bermudagrass

85 Days After Application



Green Lawnger



Ultradwarf
Super



Graphics



Regreen



SprayMax



Blue



Research

1200'ASL, 50 mm lens NCSU Turf Study 06.10.09

There is more information to follow:

Seaweed 2035-10	Cat's Eye 2036-10	Amazon Moss 2037-10	Celtic Green 2038-10	Deep Green 2039-10
Cactus Green 2035-20	Irish Moss 2036-20	Jade Green 2037-20	Irish Clover 2038-20	Emerald Isle 2039-20
Nile Green 2035-30	Green With Envy 2036-3	Kelly Green 2037-30	Prairie Green 2038-30	Cabana Green 2039-30
Stokes Forest Green 20	Meadowlands Green 2036	Adam Green 2037-40	Monmouth Green 2038-40	Teal Blast 2039-40
Spruce Green 2035-50	Marina Bay 2036-50	Greenwood Lake 2037-50	Return To Paradise 203	Mermaid Green 2039-50
Leisure Green 2035-60	Surf Green 2036-60	Santa Barbara Green	Tropical Pool 2038-60	Seafoam Green 2039-60
Italian Ice Green 2035	Crème de Mint 2036-70	Fresh Mint 2037-70	Irish Spring 2038-70	Refreshing Teal 2039-7



NC STATE
TURF RESEARCH

Questions?

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