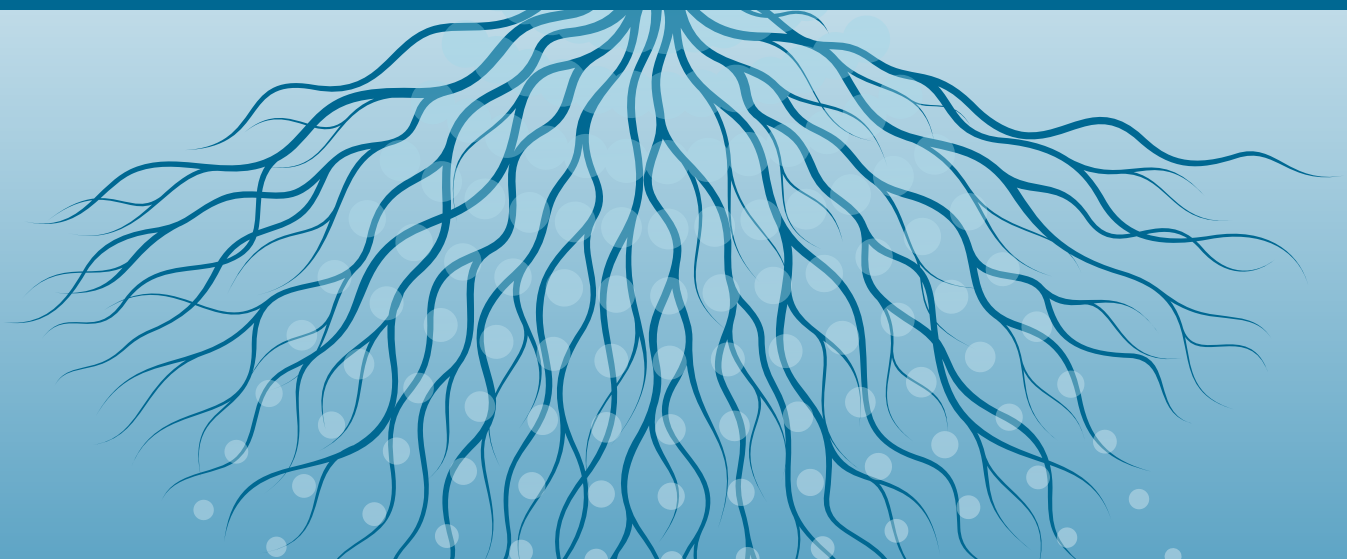




SOIL SURFACTANTS

*The right wetting agent to meet
your specific agronomic needs.*

**Harrell's
HydroMAX®**



THE SCIENCE BEHIND *HydrOtechH*[®]

HydrOtechH[®] is innovative chemistry – the combination of three soil and water management features. This multi-functional technology increases wetting agent performance and delivers consistent, predictable results no matter what soil, plants or weather conditions exist. *Only Fleet[®] and Symphony[®] wetting agents contain HydrOtechH[®] technology, have demonstrated proven performance on numerous turfgrass applications and are available exclusively from Harrell's.*

Multi-Branch Molecular Structure

HydrOtechH[®] has six to eight times more activity sites than traditional wetting agents. This feature may provide increased performance and consistency because of enhanced interaction between surfactant, soil and water.

HydrOtechH[®] is a multi-branched surfactant technology with a large poly-branched molecular structure. **HydrOtechH[®]** may be less affected by biodegradation than conventional surfactants and is thereby more likely to provide consistent performance throughout the application interval.

Hydrophobic Coating Solubilizer

HydrOtechH[®] has a hydrophobic coating remover that addresses one of the primary causes of soil water repellency and may provide improved water management efficiency. This feature allows more control over how water moves and everything water carries throughout the root zone.

Water Conditioning Agent and Bicarbonate Neutralizer

HydrOtechH[®] has a water conditioning agent that buffers tank mix pH and may reduce the negative impacts of soil bicarbonates such as micronutrient unavailability and reduced water infiltration and distribution.



#FLEET100-2.5 2.5 gal.
#FLEET100-30 30 gal.
#FLEET100-250 250 gal.

Fleet®

100

- Contains HydrOtech® – A novel surfactant technology
- Non-phytotoxic formulation
- Advanced hydrophobic coating remover technology
- Proprietary water conditioning agent

ACTIVE INGREDIENT

Polyoxyalkylene Polymers 100.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Fleet® is scientifically formulated to provide turf managers with advanced surfactant technology. Fleet® was developed to address the symptoms and direct causes of soil water repellency.

Rates:

5 - 8 ounces per 1,000 sq ft every 30 days
or
2.5 ounces per 1,000 sq ft every 14 days

Mix desired amount in 1 - 2 gallons of water and apply to 1,000 sq ft. Repeat application as noted above. Irrigate after application to move product into root zone using 0.5 - 1 inch of water.

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#SYMPHO 2.5 gal.
#SYMPHO1 30 gal.

Symphony®

Moisture Management

- Contains HydrOtech® – A new generation moisture control technology
- Advanced hydrophobic coating remover technology
- Turfgrass safe formulation chemistry
- Proprietary water conditioning agent designed to promote moisture management

ACTIVE INGREDIENT

Polyoxyalkylene Polymers 100.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Symphony® is scientifically formulated to provide turf and ornamental managers with advanced surfactant technology. Symphony® was developed to address the symptoms and direct causes of soil water repellency.

Rates:

Apply 5 ounces per 1000 sq. ft. in 2 gallons of water per 1000 sq. ft. every 30 days or 2.5 ounces per 1000 sq. ft. every 14 days. Irrigation after application is required to maximize efficacy. Irrigate 0.3 - 0.5 inch of water depending on the rootzone depth at which even distribution is desired.

L G

LET THE BENEFITS OF FLEET® SOAK IN



Fleet® is great for moving water off the surface and distributing it into the root zone – with these benefits:

- Combats salt build-up
- Provides consistent performance over application interval
- Helps minimize the key cause of LDS
- Helps neutralize soil bicarbonates
- Improves turf color and quality
- Provides fast and firm putting surfaces
- Enhances deep moisture penetration
- Increases uniform moisture distribution
- Provides hydration at all soil depths
- Improves soil oxygen



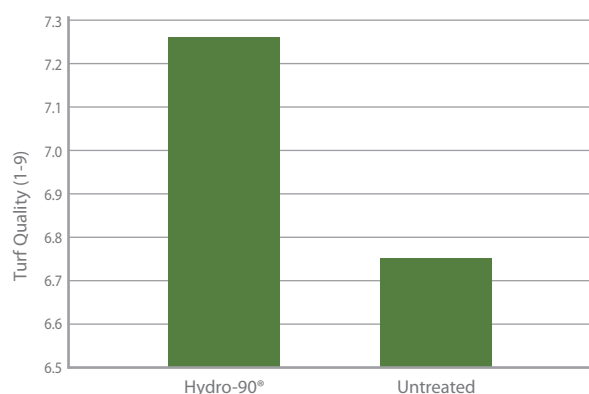
TO SEE FLEET® AT WORK
CHECK OUT THIS VIDEO.
www.harrells.com/fleet

L Liquid **G** Granular **P** Pellets

HYDRO-90[®] FIELD STUDIES

Effect of Hydro-90[®] on TifEagle Quality

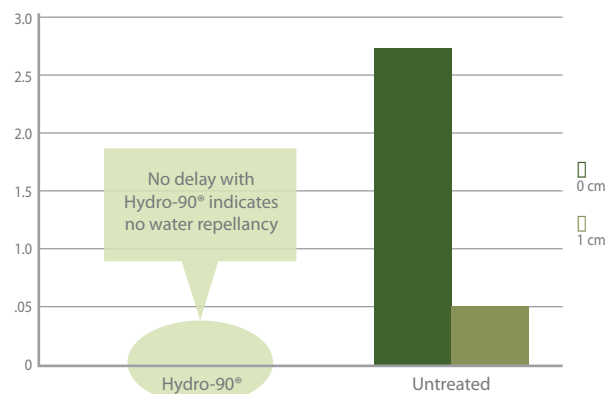
Hydro-90[®] applied twice, split 7 days apart at 8 oz./1000 sq. ft.
Product first applied 1/20/2011
University of Florida, IFAS-Fort Lauderdale



Observation date: 3/10/11

The Ability of Hydro-90[®] to Promote Immediate Water Drop Penetration at 120 Days Following Application

Hydro-90[®] applied twice, split 7 days apart at 8 oz./sq. ft.
Product first applied 1/20/2011
University of Florida, IFAS- Ft. Lauderdale



Observation date: 5/26/11

HYDRO-90[®] CASE STUDY

On a course in the northeast with no fairway irrigation, Hydro-90[®] was applied at a rate of 10 oz. on June 9. The course received virtually no rain for two months.

Under near drought conditions, the entire fairway resembled the far right of the photo. On August 10 the course received significant rainfall, and by August 12 the fairway returned to the lush, vibrant playing conditions exhibited in the left of the photo.

The white line indicates the boundary where Hydro-90[®] was applied.





#HYDRO902.5 2.5 gal.
#HYDRO9030 30 gal.

Hydro 90®

- Designed to improve infiltration and promote uniform water distribution
- Formulated for longevity
- Alleviates soil water repellency

ACTIVE INGREDIENT

Alkoxylated Polyols 100.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Hydro-90® is a soil surfactant designed for use on turfgrass and ornamentals. Once in the root zone, Hydro-90® helps reduce soil water repellency, a cause of localized dry spot (LDS). When used as directed, Hydro-90® will help to improve the infiltration and overall movement of water in the root zone.

Hydro-90® is readily soluble in water and can be applied with conventional application equipment. Apply Hydro-90® early in the season prior to the onset of stress. Do not apply Hydro-90® to turf and ornamentals under stress.

Rates:

Greens, Tees, Fairways, Lawns and Sports Turf

Long-Term Rate: Apply 8 fl.oz per 1000 sq. ft. in sufficient water for thorough coverage. Follow up with second application of 8 fl.oz per 1000 sq. ft. 7-10 days later. Irrigation is recommended after each application in sufficient amounts to remove Hydro-90® from leaf surfaces. Reapply after 3 months or as necessary.

Short-Term Rate: 3 -6 fl oz per 1000 sq. ft. on a monthly basis or 2 - 3 fl oz biweekly. Irrigation is recommended after each application in sufficient amounts to remove Hydro-90® from leaf surfaces. Apply in sufficient water for thorough coverage.

Ornamentals

Potting Media Treatment: Spray 2 -4 fl oz per cu yd in at least 2 gallons of water per cu yd. Apply to media during blending.

Production and Pre-shipment: Drench 6-8 fl oz/100 gal water thoroughly wetting potting media.

Plug Production: Drench before germination or after first leaf stage with 2-4 fl oz per 100 gal water thoroughly wetting potting media.

Regular Irrigation Injection: 0.13 fl oz/100 gal of water (10 ppm) or 0.10 fl oz per gallon stock solution at 1:100 Injector Ratio.

Weekly Irrigation Injection: 1.3 fl oz/100 gal of water (100 ppm) or 1.3 fl oz per gallon stock solution at 1:100 Injector Ratio.

L **G**



#HYDROC2.5 2.5 gal.
#HYDROC30 30 gal.

Hydro-Cure®

- Designed to enhance infiltration and promote uniform water distribution
- Formulated for both injectable and ground spray equipment
- Alleviates soil water repellency

ACTIVE INGREDIENT

Polyalkylene Glycol..... 40.0%

INERT INGREDIENT

Water..... 60.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Hydro-Cure® is a soil surfactant treatment formulated to relieve existing water related problems such as localized dry spots. Hydro-Cure® is easy to use and will not harm turf and ornamentals when used in accordance with product directions. When used as directed, Hydro-Cure® can be applied at anytime of the year when water repellency and/or localized dry spots impact the appearance of turfgrass and ornamentals.

Rates:

Greens, Tees, Fairways, Lawns and Sports Turf

Ground Spray Equipment: Apply 5-8 fl. oz. of Hydro-Cure® per 1,000 sq ft in 1 gallon of water on a weekly basis until turf conditions improve, then begin monthly treatment or apply as needed at 5-8 fl. oz. of Hydro-Cure® per 1,000 sq ft. Irrigation is required after each application to remove Hydro-Cure® from the leaf surface.

Injection Application: Inject 0.5-2 quarts or 2.5-10 ppm of Hydro-Cure® per acre. Hydro-Cure® can be applied through all injection systems. Apply monthly or as needed throughout the growing season.

Ornamentals

Potting Media Treatment: Spray 4 -8 fl oz per cu yd in at least 2 gallon of water per cu yd. Apply to media during blending.

Production and Pre-shipment: Drench 12-16 fl oz per 100 gal water thoroughly wetting potting media.

Plug Production: Drench before germination or after first leaf stage with 4-8 fl oz per 100 gal water thoroughly wetting potting media.

Irrigation Injection: Regular irrigation: 0.26 fl oz per 100 gal of water (10 ppm) or 0.20 fl oz per gallon stock solution at 1:100 Injector Ratio.

L **G** **P**



#HYDROINJ2.5 2.5 gal.
#HYDROINJ30 30 gal.

Hydro-Inject®

- Designed to enhance infiltration and promote uniform water distribution
- Formulated for both injectable and ground spray equipment
- Alleviates soil water repellency

ACTIVE INGREDIENTS

Alkoxylated Polyols 17.0%

Inert Ingredients 83.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Hydro-Inject® is designed to enhance the infiltration and penetration of water applied through irrigation systems. Hydro-Inject® can be applied through all conventional irrigation systems or by conventional ground spray equipment. When used according to directions, Hydro-Inject® will not harm fine turfgrass or ornamentals.

Rates:

Greens, Tees, Fairways, Lawns and Sports Turf

Injection Application: Inject 1-2 quarts or 5-10 ppm of Hydro-Inject per acre. Hydro-Inject can be applied through all injection systems. Apply monthly or as needed throughout the growing season.

Ground Spray Equipment: Apply Hydro-Inject at 1-2 fl.oz. per 1,000 sq. ft. in 2 gallons of water. Best performance will be obtained if syringe cycle is activated following application. Irrigation is recommended after each application to remove Hydro-Inject from the leaf surfaces.

Ornamentals

Potting Media Treatment: Spray 8 -16 fl oz per cu yd in at least 2 gallon of water per cu yd. Apply to media during blending.

Production and Pre-shipment: Drench 24 - 32 fl oz per 100 gal water thoroughly wetting potting media.

Plug Production: Drench before germination or after first leaf stage with 8-16 fl oz per 100 gal water thoroughly wetting potting media.

Regular Irrigation Injection: Use 0.52 fl oz per 100 gal of water (10 ppm) or 0.40 fl oz per gallon stock solution at 1:100 Injector Ratio.

L

PELLETS



#HYDROCPEL
Net Weight - 16 x 8 ounces (226.8 g)



#HARROO
Net Weight - 16 x 8 ounces (226.8 g)

Hydro-Cure® Pellets

- Promotes uniform soil moisture distribution
- Reduces soil water repellency

ACTIVE INGREDIENTS

Polymeric Polyoxyalkylenes, Polyalkane
Diyl and Alkyl Ethoxylates..... 100.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Hydro-Cure® is a soil surfactant treatment chemistry formulated to easily and effectively relieve existing water related problems such as localized dry spots or wet spots. Hydro-Cure® is easy to use and will not harm turf and ornamentals when used in accordance with product directions. When used as directed, Hydro-Cure® can be applied at anytime of the year when water repellency and/or localized dry spots impact the vigorous appearance of turfgrass and ornamentals.

Rates:

Golf/Turf: Insert one Hydro-Cure® pellet into the wetting agent applicator. Use Hydro-Cure® pellets every time hand watering and/or syringing is required.

General Turf: Use Hydro-Cure® Pellets every time you hand water throughout the growing season. Soak hard-to-wet areas, annual planting beds, landscaping planting beds, quickly drying mounds, newly sodded areas and highly compacted areas.

[L] [G] [P]

RootMAX Pellets

- Promotes uniform soil moisture distribution
- Reduces soil water repellency

ACTIVE INGREDIENTS

Polymeric Polyoxyalkylenes, Polyalkane
Alkyl Ethoxylates..... 98.0%

INERT INGREDIENT

Seaweed Extract..... 2.0%

NON-PLANT FOOD INGREDIENT

Product Information:

RootMAX is the combination of a penetrant surfactant and seaweed extract which reduces water repellency and promotes root growth. RootMAX Pellet provides consistent results for 7-14 days, depending on weather and soil conditions.

Rates:

Golf/Turf: Insert one RootMAX pellet into the wetting agent applicator. Use RootMAX pellets every time hand watering and/or syringing is required.

General Turf: Use RootMAX pellets every time you hand water throughout the growing season. Soak hard-to-wet areas, annual planting bedss, landscaping planting beds, quickly drying mounds, newly sodded areas and highly compacted areas.

[P]



[L] Liquid [G] Granular [P] Pellets



#SYMPHOG50
50 lbs (22.7 kg)

Symphony® G

- Contains HydrOtech® – A new generation moisture control technology
- Designed to promote moisture management
- Designed to promote infiltration and uniform water distribution
- Alleviates soil water repellency

ACTIVE INGREDIENT

Polyoxyalkylene polymers 20.0%

INERT INGREDIENT

Porous Ceramic Carrier 80.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Symphony® Granular is a soil surfactant that will help break surface tension and promote water infiltration. Symphony® Granular is easy to use and will not harm turf or ornamentals when applied at the recommended rates.

Rates:

Turf

General Turf - Greens, Tees, Fairways, Lawns and Sports Turf (Covers 20,000 sq. ft. at 2.5 lbs./1,000 sq. ft.)

Water Management Program: Apply Symphony® Granular at 2.5 lbs./1,000 sq. ft. on a monthly basis. Irrigate after application.

High Water Repellent Conditions: If turf is under high stress, begin with 3.75 lbs./1,000 sq. ft. of Symphony® Granular and follow with 2.5 lbs./1,000 sq. ft. on a monthly basis. Irrigation is necessary to release Symphony® Granular of its carrier. Irrigate before next mowing or leave baskets off. Irrigate after application.

Seeding: Apply Symphony® Granular at a rate of 2.5 lbs./1,000 sq. ft. 2 weeks prior to seeding. Irrigate after application.

Sodding: After laying sod, broadcast Symphony® Granular at 2.5 lbs./1,000sq. ft. Irrigate after application.

Recommended Spreader Settings*

| BRAND TYPE | SPREADER SETTINGS | |
|--------------------------------|----------------------|-----------------------|
| | 2.5 lbs. /1000 sq ft | 3.75 lbs. /1000 sq ft |
| Scotts (Pro Turf) R8A / Rotary | D/E | G |
| Spyker 88 / Rotary | 3.6 | 4.0 |

* To assure accurate applications, calibrate your spreader periodically.

Weight to Volume Equivalents for Symphony® G Granular Formation 2.5 lbs. = 6.3 fl.oz.

Ornamentals

Growing Media Incorporation: Incorporate Symphony® G at a rate of 1 – 1.5 lb/cu yard by thoroughly mixing or add while tumbling.

Broadcast Applications for established ornamentals: Apply using a rotary spreader. Follow recommended rates and timing of applications based on conditions and desired results as stated in the Turf Section above.

[L] [G]

[L] Liquid [G] Granular [P] Pellets



#HYDROCG
50 lbs (22.7 kg)

Hydro-Cure® G

- Designed to improve infiltration and promote uniform water distribution
- Alleviates soil water repellency

ACTIVE INGREDIENT

Polyethylene Glycols 20.0%

INERT INGREDIENT

Porous Ceramic Carrier..... 80.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Hydro-Cure® is a granular soil surfactant treatment formulated to relieve existing water related problems such as localized dry spots. Hydro-Cure® is easy to use and will not harm turf and ornamentals when used in accordance with product directions. When used as directed, Hydro-Cure® can be applied at anytime of the year when water repellency and/or localized dry spots impact the appearance of turfgrass and ornamentals.

Rates:

Turf

Greens, Tees, Fairways, Lawns and Sports Turf (Covers 20,000 sq ft at 2.5 lbs./1,000 sq ft)

Water Repellency Management Program: Apply Hydro-Cure® G at 2.5 lbs./1,000 sq ft on a weekly basis until turf conditions improve. Irrigation is necessary to release Hydro-Cure® G off its carrier. Irrigate after application to wash particles from leaf surfaces and to move the surfactant from the carrier into the soil profile.

High Water Repellency Conditions: If turf is under high water repellency conditions, begin with 3.75 lbs./1,000 sq ft of Hydro-Cure® G and follow with 2.5 lbs./1,000 sq ft on a weekly basis until turf conditions improve. Irrigate after application.

Seeding: Apply Hydro-Cure® G at a rate of 2.5 lbs./1,000 sq ft 2 weeks prior to seeding. Irrigate after application.

Sodding: After laying sod, broadcast Hydro-Cure® G at 2.5 lbs./1,000 sq ft. Irrigate after application.

Recommended Spreader Settings*

| BRAND TYPE | SPREADER SETTINGS | |
|--------------------------------|-------------------|-----------|
| | 2.5 lbs. | 3.75 lbs. |
| Scotts (Pro Turf) R8A / Rotary | D/E | G |
| Spyker 88 / Rotary | 3.5 | 3.9 |

* To assure accurate applications, calibrate your spreader periodically.

Weight to Volume Equivalents for Hydro-Cure® Granular Formation 2.5 lbs. = 6.3 fl.oz.

Ornamentals

Growing Media Incorporation: Incorporate Hydro-Cure® G at a rate of 1 – 1.5 lb/cu yard by thoroughly mixing or add while tumbling.

Broadcast Applications for established ornamentals: Apply using a rotary spreader. Follow recommended rates and timing of applications based on conditions and desired results as stated in the Turf Section above.

[L] [G] [P]



#HYDRO90G
50 lbs (22.7 kg)

Hydro 90® G

- Designed to improve infiltration and promote uniform water distribution
- Alleviates soil water repellency

ACTIVE INGREDIENT

Alkoxylated Polyols 20.0%

INERT INGREDIENT

Porous Ceramic Carrier..... 80.0%

NON-PLANT FOOD INGREDIENT

Product Information:

Hydro 90® G is a soil surfactant designed for use on turfgrass and ornamentals. Once in the root zone, Hydro 90® helps reduce soil water repellency, a cause of localized dry spot (LDS). When used as directed, Hydro 90® will help to improve the infiltration and overall movement of water in the root zone. Hydro 90® is readily soluble in water and can be applied with conventional application equipment. Apply Hydro 90® early in the season prior to the onset of stress. Do not apply Hydro 90® to turf and ornamentals under stress.

Rates:

Turf

General Turf: Covers 20,000 sq ft at 2.5 lbs./1,000 sq ft. Apply two applications 7 to 10 days apart to achieve management of water repellent conditions.

Water Repellent Management Program: Make two applications 7 to 10 days apart to achieve management of water repellent conditions. Reapply 90 days. Irrigate after application to wash particles from leaf surfaces and to move the surfactant from the carrier into the soil profile.

Seeding: Apply Hydro 90® G at a rate of 2.5 lbs./1,000 sq ft two weeks prior to seeding. Irrigation is required after application to remove the carrier and surfactant from the leaf surfaces.

Sodding: After laying sod, broadcast Hydro 90® G at 2.5 lbs./1,000 sq ft. Irrigation is required after application to remove the carrier and surfactant from the leaf surfaces.

Apply two applications 7 to 10 days apart to achieve management of water repellent conditions. Reapply after 90 days if needed.

Recommended Spreader Settings*

| BRAND TYPE | SPREADER SETTINGS | |
|--------------------------------|-------------------|-----------|
| | 2.5 lbs. | 3.75 lbs. |
| Scotts (Pro Turf) R8A / Rotary | D/E | G |
| Spyker 88 / Rotary | 3.5 | 3.9 |

* To assure accurate applications, calibrate your spreader periodically.

Weight to Volume Equivalents for Hydro 90® Granular Formation 2.5 lbs. = 6.3 fl.oz.

Ornamentals

Growing Media Incorporation – Incorporate Hydro 90® G at a rate of 1 – 1.5 lb/cu yard by thoroughly mixing or add while tumbling.

Broadcast Applications for established ornamentals – Apply using a rotary spreader. Follow recommended rates and timing of applications based on conditions and desired results as stated in the Turf Section above.

[L] [G]

Harrell's Core Values

- Serve, Honor, and Glorify God
- Take Care of People
- Grow Our Financial Strength

Harrell's Four Pillars

- Humility
- Gratitude
- Intentionality
- Accountability



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Employee-Owned