

# Cleanse

FROM THE GROUND UP

Cleanse is an advanced soil remediation agent. Unlike traditional soil surfactants that temporarily mask the symptoms of hydrophobic soils, Cleanse with SOIL SYNC attacks the problem by reducing hydrophobic organic materials throughout the root zone. Cleanse's dual agents work to dissolve and reduce hydrophobic organic acids (HOA) from critical turf locations. Now with SOIL SYNC, Cleanse contains key components to commence soil rejuvenation and bolster faster turf recovery.

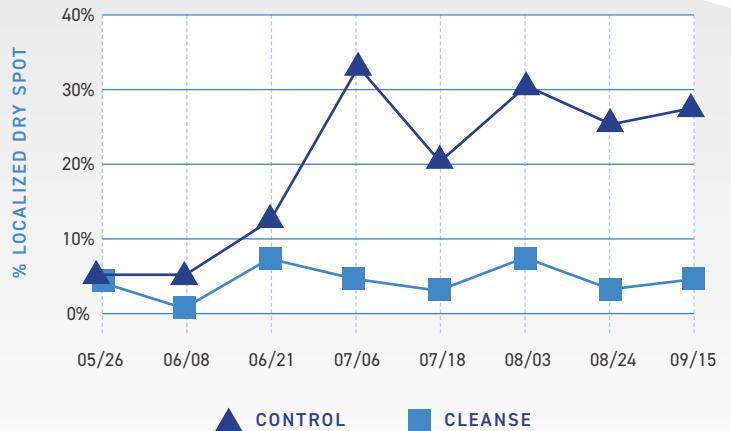
Cleanse is the first soil remediation agent that treats and reduces hydrophobic organic acid's while providing both soil/plant health additives for faster turf re-establishment.



## LOCALIZED DRY SPOTS

### RESEARCH

Research at the University of Arkansas has confirmed what many golf course superintendents have seen on their properties; a significant reduction in Localized Dry Spots. According to University of Arkansas research, "there were significant differences among treatments on four of the final six evaluation dates, as irrigation was applied more sparingly and the weather was more conducive to LDS development."



2017 UNIVERSITY OF ARKANSAS CLEANSE RESEARCH

### LOCALIZED DRY SPOTS

Localized Dry Spots develop when hydrophobic organic acids build up and coat soil and sand particles with a water repellent coating. The creation of hydrophobic sand and soil is an inevitable process as plant exude this material from the roots. Humic and Fulvic acid in the soil can contribute to LDS when those materials weather and lose their natural polarity. No amount of water will infiltrate and re-wet localized dry spots when the condition is severe. Applied rainfall and irrigation water will shear off the LDS area and drain through surrounding soils that are not hydrophobic.

### REAL WORLD

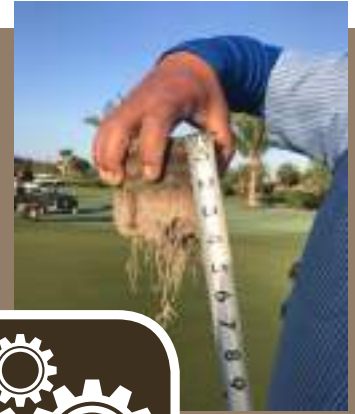


# SOILSYNC

Soil Sync represents the latest upgrade to the Cleanse platform. Soil Sync technology includes enzymes and secondary metabolites that have been carefully isolated to aid in the function of removing hydrophobic material coating sand and soil particles. The secondary metabolites in Soil Sync are

a catalyst for enhanced microbial activity and root stimulation. Since Cleanse is used to remedy poor soil conditions, the inclusion of Soil Sync dramatically enhances the recovery time of turf suffering from poor soil.

**SOIL SYNC** promotes rapid root and plant recovery growth in areas where LDS has set the health of the turf back.



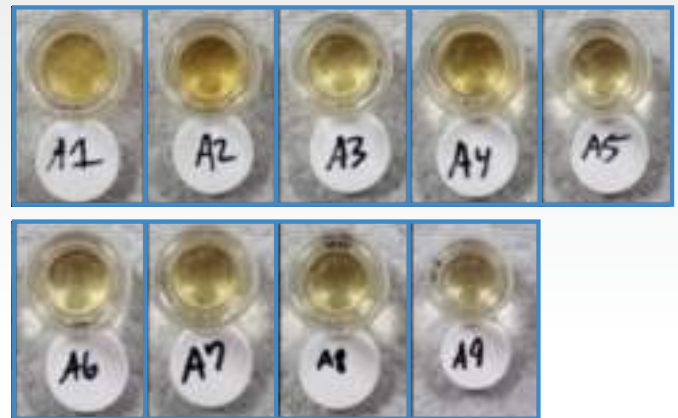
## HOW DOES CLEANSE WORK?

This magnified image shows sand that has been treated with Cleanse. The specially selected cleansing agents and enzyme remove the brown hydrophobic coatings, restoring the sand to its natural highly functioning state.



Leachate collected from soil that was flushed with water (top) and diluted Cleanse (bottom). Each image is a subsequent watering event.

### CONTROL



### CLEANSE

