GEM –
Global Equipment Management System

Colorbiotics® | **◻◼ BASF** We create chemistry

It's all about control.

When it comes to mulch coloring, using the right blend of raw materials, colorant and water makes all the difference. Your bottom line depends on these calculations being done correctly, every time. Variables like wood species, moisture content and grind size or even employee turnover can make this a major challenge — and send your production costs out of control.

There's an easier way.

The Global Equipment Management (GEM) system is proven to take the guesswork and waste out of mulch coloring. GEM automates the mulch-coloring process, so operators can do their job confidently and more accurately. Its user-friendly, touch screen technology works along with Sahara® X Series and Sahara Pro mulch-coloring systems. Since GEM does all the thinking, you get the most from your investment by:

Increasing quality control

Improving efficiency

Maximizing production

Minimizing user error

GEM takes your operation's productivity to a whole new level.

With GEM in control, your challenges are minimized. No matter the operator, you'll get the most from your machine and colorant investment. It's the smarter, easier and more accurate way to color mulch. GEM technology is the difference between a good job and a great one — which can turn a good year into a great one.

Less guesswork and waste.

Variable factors in your raw material, such as wood species, moisture content and grind size can cause output inconsistency in all coloring systems. As output changes, operator guesswork increases. Estimating the amount of colorant to use runs the risk of either over-applying or under-applying. These wide swings in colorant usage can impact quality — and your operation's bottom line.

More accuracy and consistency.

GEM works in tandem with Sahara® X Series and Sahara Pro mulch-coloring systems to monitor colorant and water input levels every five seconds. Then, it accurately and automatically makes adjustments, ensuring quality results you can count on, including drier mulch for reduced transportation costs.

GEM technology makes a positive impact on your business every day.

GEM works with Sahara® X Series and Sahara Pro mulch-coloring systems, allowing a single operator to remotely monitor multiple Sahara units from a computer or via a user-friendly touch screen — with convenient features like programmable recipe presets that calculate the water and colorant rate automatically.

GEM 2.0 makes quality control virtually effortless.

GEM 2.0 is where an easier, more efficient mulch-coloring process begins. Our standard package of features gives you the control and data you need to optimize labor and raw material costs.

GEM allows you to create and save colorant recipes.

Easy-to-follow screen displays allow you to set up and store up to 10 colorant recipes, based on the type of colorant and the amount of water and colorant needed per yard of mulch. The operator simply selects the mulch color desired per batch, and GEM takes it from there.
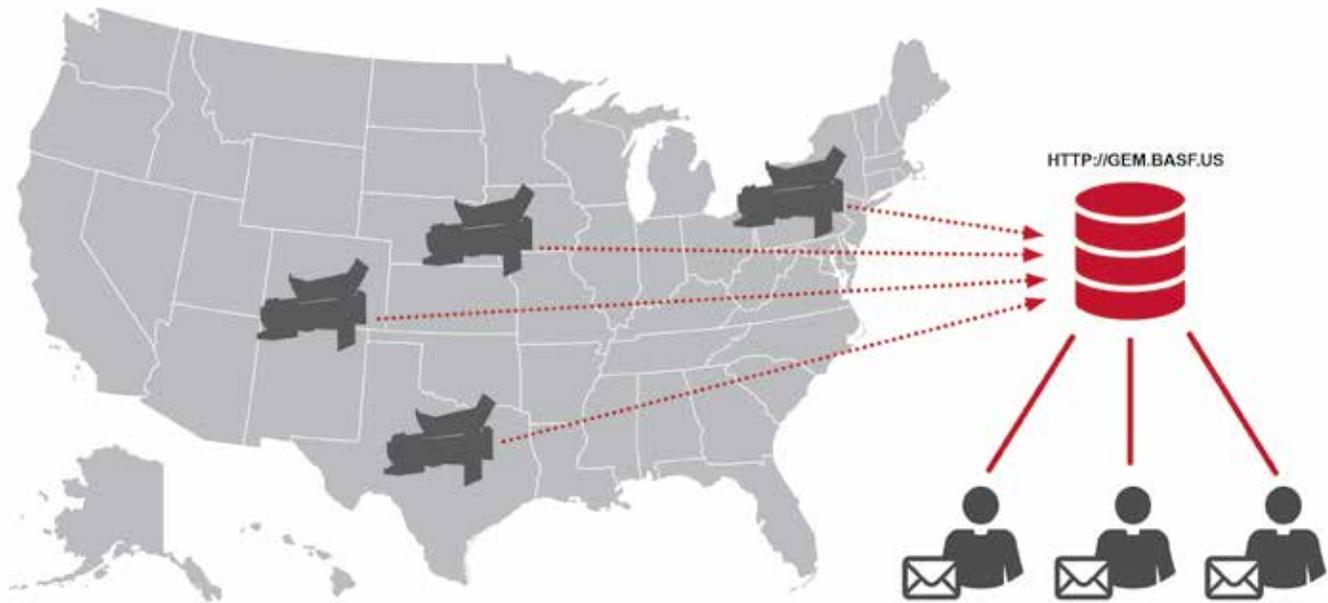
GEM monitors quality and makes adjustments.

The GEM system ensures the Sahara performs at the precise recipe setting. It continues to monitor colorant and water input levels every five seconds. Then, it accurately and automatically makes adjustments, ensuring quality results you can count on.

GEM delivers precision measuring technology.

GEM uses a series of ultrasonic sensors to provide a more accurate depth measurement of raw material.

Dynamic data recording, reporting and downloading.

GEM connects to the BASF GEM database, providing machine performance and maintenance data hourly. It analyzes production down to the minute with more accurate data, so the operator can make adjustments — maximizing efficiency and eliminating guesswork.

HTTP://GEM.BASF.US

- Reports are sent to you as PDFs via email or text — enabling the operator to review water and colorant specifications, chart the overall performance and make production changes.

- These automatic reports enable you to find the necessary information to monitor accounting and cost control, so you can make informed decisions about your business.

Machine monitoring and maintenance.

The BASF GEM database is set up to monitor machine hours and send maintenance reminders via email at the proper hourly intervals. It also stores a record of all the performed maintenance and allows for custom maintenance tasks. The alarm archive feature makes remote and on-site troubleshooting faster and easier.
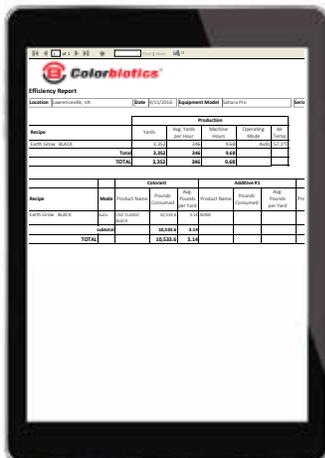
GEM 3.0 is the most advanced mulch coloring technology available.

GEM 3.0 analyzes data immediately, instead of the next day. Insights on raw material usage, output quality and machine operation are delivered instantly to your mobile device. This allows you to be proactive and make decisions that will maximize the quality of each batch of mulch — from wherever you are.

Real-time views of machine operation.

Operators can glance at the GEM screen or laptop to see colorant and water usage per minute, per hour and per yard of mulch.

You or your operator can monitor your machines remotely via a mobile device. GEM puts instant production notifications, machine alerts, hourly data reports and more right at your fingertips. You'll wonder how you colored mulch without it.
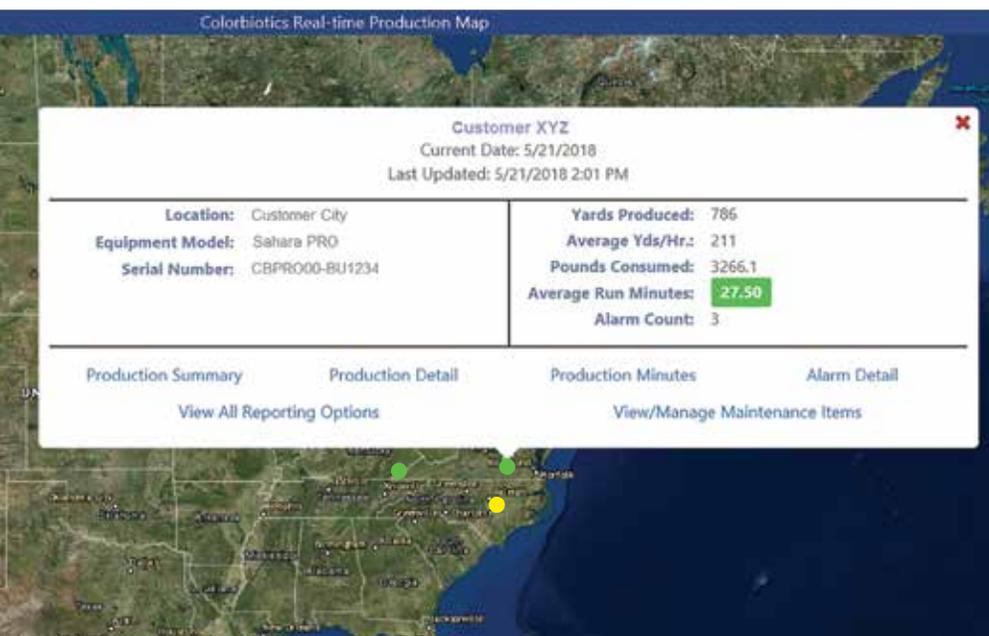

■ These immediate notifications — including application levels and potential operational inefficiencies — allow the operator to react instantly to ensure a high-quality product and avoid unnecessary costs.

■ GEM sends an immediate alert when colorant, water or additive varies from the level selected, comparing actual application colorant and additive rates to recipe presets.

■ GEM collects the mixer start and stop count — helping you maximize the average run time of the machine.

Features at a glance.

	GEM 2.0 Standard system	GEM 3.0* Most advanced mulch coloring technology
Virtually effortless control of your Sahara® units	X	X
Easy-to-follow system screen displays	X	X
10 Programmable recipe presets	X	X
Dynamic data recording, reporting and downloading capabilities	X	X
Automatic metering, monitoring and verification of colorant, additive and water output	X	X
Maintenance alerts	X	X
Monitoring and alerts delivered via email by 4 a.m. CT the next day	X	
Secure login to online database (gem.basf.us)	X	X
Remote access via mobile device		X
Recommended production thresholds		X
Average run time to improve color and water efficiency		X
Expandable reporting options with customizable features		X
Real-time monitoring and alerts delivered immediately via text or email		X
Data reported hourly — analyzing production down to the minute		X
Alarm archive feature for remote and on-site troubleshooting		X

*Contact your territory manager to learn how to upgrade to GEM 3.0 technology.

Interactive map.

- Provide real-time production data to help you make informed decisions.

- Color-coded production and maintenance thresholds ensure peak operation.

Colorbiotics® | □ ▪ **BASF**
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Get the Complete Package — Innovation, Service, Support and Products.
Call 888-663-6980 or visit us online at Colorbiotics.basf.us.

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