

# VM SOLUTIONS DRIVING INNOVATION

**Nutrien**<sup>®</sup>  
Solutions



LOCAL APPROACH.  
NATIONWIDE EXPERTISE.

# Aqumix<sup>®</sup> Solutions

by **Nutrien**<sup>®</sup>

## Custom Blending

### Herbicides and Premix Solutions for Closed-Loop Delivery Systems

As a vegetation management professional, selecting the right herbicides and tank mixes is essential to the success of your vegetation management program. Controlling target vegetation typically requires a variety of herbicide combinations and application techniques.

Advances in chemistry and application methods have significantly reduced the rates of herbicides used. Consequently, managing precise herbicide mixes can be challenging and time consuming.

Conventional mixing protocols have typically involved handling and measuring of concentrated herbicides provided as "packaged goods" in one-way disposable containers.

These newer low-rate chemistries are often expensive and require accurate measurements to be cost effective and to perform as expected. The use of Premix Custom Blends in the form of ready-to-use and dilute concentrates provides a practical and economical tool for vegetation managers to maximize efficiencies and

increase safety with returnable, refillable containers.

Nutrien Solutions is committed to offering the highest quality products in stable and uniform blends, specialized services, and unique solutions tailored to meet the vegetation management needs of our customers.

- **SAFER**
- **EASIER**
- **EFFICIENT**
- **EFFECTIVE**

## THE PROCESS

Nutrien Solutions works to understand your needs and goals then develops a program tailored for you.

### Our multi-step process includes:

- Assessment of current vegetation management program, including equipment types, tank sizes, products and treatment scenarios.
- Applicator support, training and in-field program design assistance.
- Custom blends tailored to fit your specific weed spectrum.
- All custom blends are carefully jar tested for compatibility and stability.
- A computerized system precisely measures by weight then blends the required active ingredient and adjuvants into a stable and uniform product.
- Quality control measures check compliance to the customer's specifications.
- Ready-to-use blends are prepared on-demand for field crews.

Permanent and unique ID bar codes are affixed to each drum for tracking. The bar codes, container contents and destinations are just a few of the pieces of information that are logged into an electronic database. This database provides access to real-time information, helping you better understand:

- Crew productivity
- Product purchases
- Product inventory
- Details on container contents and product quantity
- Solution mix rate
- Customer or contractor name
- Container ID and size
- Specific batch number of registered products

## CREATING SOLUTIONS

by reducing costs and improving vegetation management results through proven technology.



## IN THE FIELD

Custom blended herbicides increase the success of treatments by making it easier for your contractors in the field. Today's advanced prescriptive treatments now require a significant reduction in active ingredients on a per acre basis. As a result, in-field mixing errors are significantly compounded because measurements have transitioned from quarts and gallons to precise measurements of less than seven ounces per acre. Without a closed-loop system, there is an increased impact of small spills and mixing errors, as well as increased potential for worker exposure to concentrates. Closed-loop herbicide solutions provide vegetation management crews with increased credibility and eliminate exposure to crews who would be measuring, pouring and mixing into open mix tanks in public spaces. An added benefit is containers are returnable and refillable.



## SAFETY

At Nutrien Solutions, safety is our highest priority and we can help you create a safer work environment for your crews. Our custom blends and closed-loop system provides enhanced worker protection and reduced exposure to concentrated herbicides. It also eliminates in-field mixing, which reduces the risk of exposure to the public and the environment. We also provide stewardship and educational training that enhance your programs.

### Closed-loop systems provide:

- Reduced exposure to herbicide concentrates during mixing
- Enhanced worker safety
- Elimination of spillage-induced liability
- Demonstration of sound environmental stewardship



## WASTE REDUCTION

Our returnable and refillable containers eliminate the need for container triple rinsing and reduce inputs into the waste stream. The system also minimizes container storage needs, handling requirements, and associated labor, resulting in quantifiable cost reductions.

### Case Study Example:

A large utility user switched from “traditional packaged goods” to a custom blend system. The positive impact to the environment was significant:

*“Before the advent of contract mixing, AEP had no system in place to detour herbicide drums from landfills. To put it in perspective, AEP manages 186,000 distribution and 33,000 transmission line miles. Since adopting the returnable, refillable program, the utility has prevented the disposal of enough herbicide containers to fill two football fields. Not surprisingly, AEP now orders 90 percent of its herbicides via contract mixing services.”*

-Doug Kelly, American Electric Power

This technology will lessen environmental impacts and reduce program costs. This will allow you to use custom blends without increasing program budgets.

A vegetation management program that uses custom blends in a closed-loop system is one way you can effectively demonstrate that you are doing everything you can to be good environmental stewards.



## FLEXIBLE.

Customized solutions for your organization's needs.





## INCREASE PRODUCTIVITY

Custom blends increase productivity, decrease mixing time, reduce in-field mixing errors, simplify inventory and enhance container disposal and recycling opportunities. Quality control improvements reduce the potential for re-spray work the following year.



## REDUCE COSTS

What are your costs associated with triple rinsing, container disposal and recycling? Are your contractors properly disposing of containers? Reductions in labor will lead to an overall cost savings on both a per acre and overall program basis.



## INVENTORY MANAGEMENT

Nutrien Solutions guarantees a precise blend of the herbicides you need delivered just in time for applications. This eliminates the hassle of in-field mixing and helps make managing your inventory easy.

# Customized Solutions

- Improved safety
- Better results
- Guaranteed blends
- Simplified inventory
- Improved production
- Reduced liability



## CUSTOM BLENDING ALLOWS FOR EASY STANDARDIZATION OF VEGETATION MANAGEMENT PROGRAMS.

Nutrien Solutions is a different kind of distribution company. The cornerstone of our success is our highly educated and trained field staff. We employ a variety of seasoned natural resource professionals, including foresters, aquatic plant managers and utility specialists. Our goal is to use this experience and commitment to help clients stay ahead of the curve in the vegetation management field. We provide solutions for forestry, aquatic, utility, railroad, roadside and rangeland management projects throughout the United States. Nutrien Solutions is the country's leading vegetation management provider, and we're excited to introduce you to everything we have to offer.

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