

# Setting High Standards

**C**onvenient, customized, standardized, precise, refillable and just-in-time are a few “buzz” words circulating around the industry about contract mixing.

*But what does it mean?*

Controlling unwanted vegetation typically requires a variety of herbicide combinations and application techniques. However, managing herbicide mixes can be difficult and time consuming.

To gain efficiencies, right-of-way managers are turning to contract-mixing companies for custom-blended mixtures providing accurate measuring increments delivered in closed-loop returnable, refillable containers.

Dave Schoonover, president of Aquimix, Inc. (Cloverdale, Va.) — a company specializing in closed-loop systems for non-crop pesticide specialty markets — is a pioneer of contract-mixing development and standardization.

“Across the vegetation management industry, there is no real standard practice for mixing and handling herbicides,” Schoonover says. “The burden of developing mixing procedures is left upon crews. However, offering a contract-mixing service can alleviate this problem. When customers come to us, they get precise blends tailored to their right-of-way specifications, which can be mixed and measured simply and efficiently.”

To begin a contract-mixing program, Aquimix and the distributor evaluate the needs of the contractor or end user. Equipment types, tank sizes, products and treatment areas are assessed before an order is placed.



“Once we have the specifications, contractors place an order with the distributor for the amount of different products needed,” Schoonover explains. “We obtain bulk registered products from manufacturers and create mixes that meet the needs of our contractors or end users.”

## At the facility

Customers can request blends in ready-to-use formulations that transfer directly to a backpack or tank, or in a diluted concentrate form that is added to a carrier before use.

“No matter which form is chosen, we create mixes that measure readily in even one quart increments and are easy to handle in the field,” Schoonover adds. “With diluted concentrates, we fluctuate the

amount of water mixed with products, so an even measurement is achieved when blended products are added to carriers in the field. For example, mixture “A” mixes at one and one-half gallons per 100 gallons total solution.”

Applicators are not limited to a few herbicides or mixes. Instead, they can request mixes containing Garlon\* 3A, Garlon 4, Tordon\* K, Tordon 101M, Accord® Concentrate, Accord SP, Rodeo®, Glypro\*, Glypro Plus, Transline\* and DMA\* 4 IVM herbicides.

Plus, when customers order diluted concentrate mixtures, they receive the exact amount of components that make up a specific quantity of end user product, eliminating the hassle of leftover products.

Unlike standard containers, Aquimix's specially designed Aquapac® drums are narrower in diameter to give more accurate liter or gallon measurements. They have convex bottoms with 3-ounce center sumps, which allow users to retrieve all but 8 ounces of material, whereas flat-bottom containers retain 2 to 3 pints of material. The drums also contain convex tops, for complete drainage during the cleaning process.





worker exposure, improving safety standards on the job.

Containers are conveniently returned to the facility for inspection and refilling by calling Aqumix's toll-free number and requesting the pick up of empty containers.

"Before a container is refilled, we take great strides to ensure each drum is free from contaminants and safe for the end user," Schoonover states. "This is accomplished by inspecting the container for damage and evidence of tampering, cleaning the exterior, verifying contents of the

For shipment ease, groups of nine containers are packaged on plastic pallets that have lips around the inside to hold drums in place and plastic caps attached to the tops with Velcro straps to secure the containers on the pallet.

Before shipment to end users, Aqumix scans a permanent bar code affixed to the drums for tracking. The bar code number, container contents and destination are just a few pieces of information logged into an electronic database to ensure accountability.

"We can identify the specific batch number of registered products used from manufacturers, type of mix, amount of product, as well as many other variables, from the time the container leaves the facility to when it returns," Schoonover notes. "This provides product accountability."

### In the field

After packaging and scanning bar codes, contract mixes ship directly from the facility to applicators or end users.

Because containers are part of a closed-loop system, workers attach a

specially fitted coupler to extract materials. However, the filling head will not allow for materials to flow back into the container, removing any chance for contamination. Each drum also includes a tamper-evidence seal to ensure product quality and alert the user or Aqumix of possible tampering that could involve cross contamination.

After applying products, the end user's work essentially stops there. Since contract mixes are formulated to the user's needs and delivered in just-in-time shipments, there are no hassles with storage and inventory.

Furthermore, Aqumix's proprietary 15-gallon returnable, refillable containers eliminate triple rinsing and disposal from the process. The containers, combined with the closed-loop system, reduce the chance of environmental contamination and

### Receiving product:

- The Authorized Contract Mixer produces the mix and packages it in returnable, refillable containers. The containers are fitted with a micromatic valve system and are bar coded for tracking software.
- You receive your returnable, refillable containers from either the Distributor or the Authorized Contract Mixer.

### Ordering product:

- Determine the desired product based on the treatment site.
- Place order with your Distributor.
- Determine packaging size.
- The Distributor orders bulk product from Dow AgroSciences and places the order with the Authorized Contract Mixer of your choice.

