MAKING THE SWITCH... "HIGH VOLUME TO LOW VOLUME & LIQUID TO GRANULAR" Bruce Jacobs Dow Elanco Specialty Products, Lansing, MI

For the past 25 years, lawn care applications consisted of large volumes of liquid ranging from two to ten gallons per 1,000 sq. ft. In this day-in-age, the average volume of liquid applied ranges from one to four gallons per 1,000 sq. ft. Many lawn care firms who still possess the large 800 to 1200 gallon tankers are slowly converting to smaller vehicles. Another trend is to apply more granular products utilizing a spreader, while running a small spray tank for liquid broadleaf weed treatments. These changes can dramatically affect the final turfgrass results if the applicator is not properly trained for low volume applications.

Before making a drastic change in your application strategy, ask yourself three questions:

1. Will the change improve long-term profitability?

2. Will the change improve employee motivation AND property results?

3. How, where, and when do I begin?

Let's look at the pro's and con's of both volume and formulation issues, along with customer perceptions, equipment and employee needs, and also a comfortable phase-in period to make your necessary upgrades.

The old standard high volume applications had and still have many advantages. They are as follows; excellent spray coverage, less phytotoxicity and streaking with fertilizers even with a novice technician, all products can be applied in one pass, and only one required technician per truck. Even though high volume appears to be the best method, the list of disadvantages grows longer every day. The large, heavy truck is extremely hard to maneuver in downtown areas along with the many blind spots created by the large tank and equipment. Probably the more important issue is the public's "Big Tank" perception when dealing with pesticides. The general homeowner typically purchases diluted products from his or her local garden center, not realizing the product is mainly water. The large chemical tankers appear to be a "large jug of concentrate on wheels," while in reality there is very little active ingredient needed in the tank to receive outstanding results. Another important issue is that of spill containment. It would be extremely difficult to completely absorb several hundred gallons of spray solution with a reasonable number of pillows carried on the truck.

Let's discuss the advantages of low volume liquid applications.

A smaller vehicle can be utilized which will provide better mobility in congested urban areas. The truck will be carrying a more concentrated spray solution, but the liquid would be easier to

contain in a spill situation. The disadvantages of low volume are simply the opposite of the high volume methods. The technician will require further training due to the increased risk of turf phytotoxicity and streaking with a more highly concentrated solution. If the application is accidentally sprayed onto desirable trees or shrubs, the liquid could cause more injury than the higher volume (more dilute) spray solution.

Now let's discuss the decision to switch from all liquid to more granular applications. The Pro's of liquid would be that all products can be mixed in one tank, and can be applied as a one-pass operation. The granular application might need to be followed up with a liquid broadleaf weed herbicide in the spring and fall, requiring two trips across the property. Many long-term technicians prefer liquid applications because of their many years of past experience with the spray system and proper hose techniques. The liquid application has typically been a method that the homeowner could not perform themselves, and therefore reflects the professional nature of the treatment. The con's of liquid are the potential leaks and spills associated with the many working components of the system, along with the potential for foliar burn from fertilizer in high temperatures. Granular spreaders have less working parts, and typically less failure if properly maintained. Unfortunately there still will be a need for the sprayer for all the weed issues, but the technician will not have to utilize the hose as much as he/she would with a liquid only method.

Granular technology continues to improve, providing the applicator with more combination products to control insects, grassy weeds, and fertilize all in one pass. With the 1990's being coined "The Decade of The Environment," today's consumer perceives dry or granular products to be "safer" than liquids. This is typically not the case, but perception is reality when dealing with the uninformed public. There are a number of disadvantages with granular materials. Those are dealing with wet and broken bags, bag disposal on the truck, spillage when filling the spreader on-site, and vehicle weight capacity requirements needed to haul daily product needs.

A major factor in making a radical change in your existing business is the customer's viewpoint. Will your customer feel that they are receiving "less" for their dollar with your new low volume delivery? If a change is in order, a simple explanation on an invoice or monthly newsletter should handle the concerns. In many cases, the homeowner might not even realize the change.

When it comes time to make a change, try to gather as much information as possible from seminars and tradeshows to assist in the decision-making process. Be sure to include your own long-term employees with the information gathering search, and listen to their ideas. New pumps, easy-access reels, and high tech spray tips and spreaders are readily available to increase production efficiency. After the equipment decisions are made, it's time to train all existing and new technicians with the new equipment. Walking speeds, overlapping patterns, calibrations, and liquid concentrations will need to be revised. If granular products will be used in each round, will you need another technician per truck to perform similar production quotas? Typically two technicians in one truck cannot out-perform two employees in separate vehicles.

These cold and snowy Michigan months are opportune times to develop detailed one, three, and five-year plans. When it's time for new equipment, try to think of 1992 as 1997. Thinking ahead will help ensure that the appropriate items are purchased and do not become quickly outdated. Lastly, take a good hard look at your competitor's best attributes and consider incorporating several into your new look.