

## Technical Tip

# Applying Borate Solutions

What is the best way is to apply Shell-Guard RTU, diluted Shell-Guard Concentrate and/or solutions of Armor-Guard? Without a doubt the easiest and most effective way to apply any of these products is with a simple compressed air sprayer, a fancy way of referring to an inexpensive pump-up garden sprayer available at most Do-It-Yourself outlets for less than \$20.00. Of course there are some available for a lot more money but they are really not needed for applying borate solutions. A basic pump-up garden sprayer works just fine.

What about using an airless sprayer? Airless sprayers put out a fine liquid mist. The droplet size is quite small and is easily carried away with even a slight breeze. In addition, the high surface area of the small droplets allows the water contained in the solution to rapidly evaporate leaving behind a high concentration of borate and mixed glycols. Rather than penetrate into the wood this combination forms a sticky film on the surface of the wood that takes a long time to dry. Not only does this negate the benefit imparted by a borate treatment but unless the sticky film is thoroughly washed off it will interfere with the adhesion of the finish. This can happen even if Shell-Guard RTU is applied with an airless sprayer. With solutions of Armor-Guard the loss of water results in a white coating of borate powder on the surface rather than penetrating into the wood and the white powder will show through our transparent finishes. In other words, don't use an airless sprayer for applying any of our borate preservatives.

For small jobs it's better to use a hand sprayer or a plant mister to apply borate solutions than it is to try and brush them on. Since the viscosity of the solutions is about the same as water it's just about impossible to apply any of them with a brush and not have them run down the wall.



**Applying a borate solution**



**Pump-Up Compressed Air Sprayers**



**Hand Sprayer**