Fuel Right

"Removes All Water"…Beware

People often ask us if Fuel Right eliminates water from fuel tanks, and we say that we do not make that claim for Fuel Right products. They sometimes then ask if we are familiar with "xyz" additive that claims to remove water. Some cite a demonstration that a salesman made showing how their product removes water. Seems this guy took a small jar containing water, or water plus fuel, and poured in some of his additive. Either the additive and the water mixed together into a single phase, or the additive, water and fuel mixed together into a cloudy mixture. "This", says the salesman, "proves that our product removes water from fuel."
Such additives are usually alcohol, with or without a little of something else added for other purposes. To the best of my knowledge, oil heat equipment and diesel engine manufacturers generally recommend against putting alcohol into the fuel - for a variety of reasons. First, diesel and heating system gaskets and seals are usually not resistant to alcohol, and can swell and fail if alcohol-based additives are used. Second, alcohol plus water is more corrosive to steel tanks than is water alone. Thirdly, alcohols are often attractive foods for microbes that cause problems in fuel systems.

What really happens in a full-sized, real world situation with water in a fuel tank is that the alcohol goes into the fuel first. If there is only a trace of water (a couple of drops), the alcohol in the fuel might join with the water and form a micro-emulsion - tiny droplets of water mixed with alcohol that suspend into the fuel. This can have the effect of carrying that water out of the fuel system as the fuel is consumed. The suspended water in the fuel can also, however, cause rusting of the tank, filter housings, and any other ferrous metals in the system. Suppose, however, there is actually a *layer* of water in the tank – maybe a quart or more. The alcohol in such a case will not pick up the water and suspend it into the fuel. Rather, it will join the layer of water and form a deeper layer of water/alcohol mixture – with all of the concerns listed above. In other words, alcohol will not remove a *significant* amount of water from a fuel tank. If you want to reconstruct that experiment that the salesman ran and obtain a water/alcohol(additive) mixture, then add perhaps twenty or thirty gallons of additive to a 275 gallon tank and you are now doing what the salesman did that was so convincing.

Let me go on record as saying that I am all in favor of removing water from fuel systems, and, if I knew of a product that really does that well, I would be recommended that additive. Since I haven't yet found such a product, I will suggest you stick with drain valves or pumps to get large amounts of water out. Fuel Right itself removes small amounts of water *slowly* from tanks - but we don't make water-removal claims because this is a slow and gradual process, and we know that you want to remove water now. The good news about this is that Fuel Right treatment makes the water *not a problem* while it's still in the tank: It doesn't corrode the tank, doesn't ruin gaskets and seals, and doesn't support growth of microbes.

Incidentally, if you want to physically remove limited amounts of water from a tank easily and quickly, we sell a device called the Water Magnet – a sausage-shaped object on a string that you drop into the tank, let sit for several hours while it soaks up only water, remove from the tank, and simply throw in the trash (since it doesn't absorb fuel). Ask us about it – and stay away from additives that make "magical" claims!