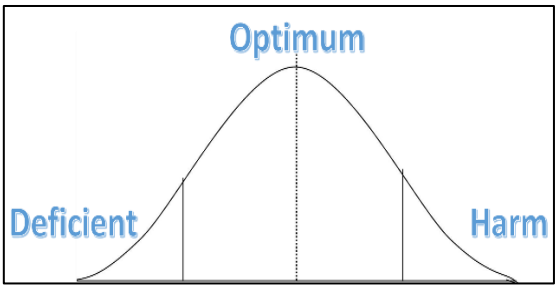
Fuel Additives: Too much? Too Little? Too Complicated!

Original equipment manufacturers (OEMs) frequently recommend fuel additives. They know that the fuel economy, emissions, and horsepower designed into today's modern engines may never be realized without them. In response, fuel additive companies determine ideal treat rates through numerous tests in a variety of operating environments to optimize performance and value. They formulate and balance components such as detergents, corrosion inhibitors, lubricity agents, stability agents, cetane improver, etc. to improve an engine's overall health and performance.

But how do you blend in the right amount of fuel additive? How do you know how much fuel is in the tank to be treated? As additive is poured out of a jug, how many ounces are in a "glug"? Undertreatment reduces performance, but overtreatment raises costs and sometimes does more harm than good.

Fuel additives are a mix of complex chemicals designed to work with the molecules in the fuel to perform a specific function. Their performance can be charted on a graph comparing the amount of additive to overall effectiveness. As more additive is used in a specified amount of fuel, performance benefits increase, but only to a point. Once the optimum level is reached, the effectiveness of additional additive begins to diminish. At first it only means that costs are added without increasing performance.



At a point, however, not only does additional additive cost more and diminish effectiveness, but harm may be done. Too much additive can become insoluble, separate from the fuel, and drop to the bottom of the tank, where it can be sucked up into the fuel system.

To ensure the most accurate treat rate, fuels should be mechanically additized. In a mechanical injection system, every time a fixed quantity of fuel is pumped, a pulse of additive is blended into the fuel. The result is a properly blended fuel with an accurate treat rate nearly impossible to attain by pouring in a "glug" of aftermarket additive. And while some additives may appear to cost less per treated gallon, the ultimate costs or potential benefits can be greatly distorted if treat rates aren't accurate.

Dieselex® Gold, Dieselex Gold with Sure-Flo™ cold-flow improver, and FS Clean Flow™ are finished fuels engineered and delivered at optimum treat rates. They are precision injected with the right blend of chemical components to deliver optimum performance, storage quality, winter operability, and efficient operation.