SURE-FLO™

MANAGING DIESEL FUEL IN COLD TEMPERATURES

TWO REASONS FUEL FILTERS PLUG DURING COLD TEMPERATURES

✓ WAX

- Paraffin/wax crystals form as temperatures cool; crystals cluster together and plug filters
- Larger crystals settle to tank bottoms

✓ ICE

- Condensation introduces moisture into storage tanks
- Moisture freezes into crystals that plug filters and fuel supply lines

TWO WAYS TO TREAT FUEL AND PREVENT PLUGGED FILTERS

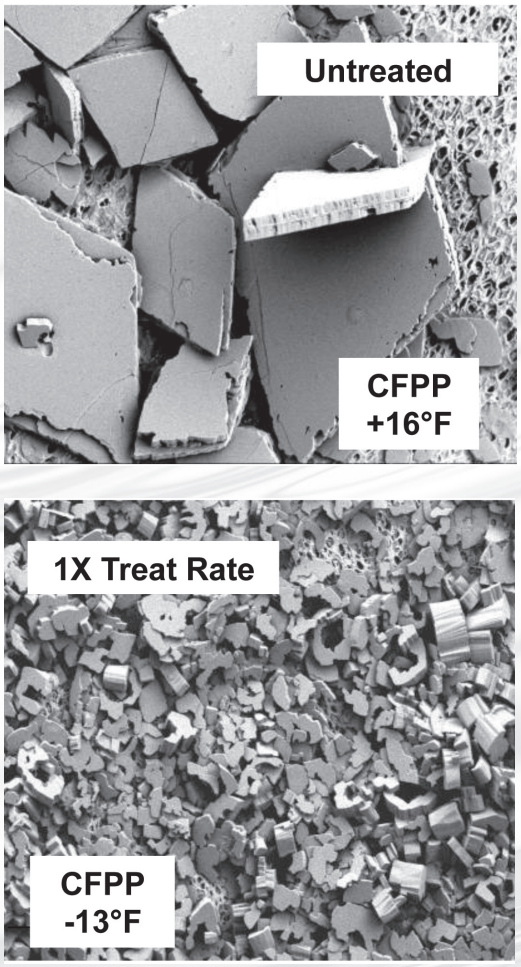
1) Use FS SURE-FLO™ with cold flow improver chemistry (cost effective)
   - ✓ Wax Modifiers
   - ✓ Wax Anti-settling Additive
   - ✓ Deicers

2) Blend #1 Diesel with #2 Diesel Fuel (not cost effective)

SURE-FLO WAX MODIFIERS

Heavy wax modifiers improve the operability temperature range of the fuel by lowering the Pour Point (PP) and Cold Filter Plugging Point (CFPP)

Both size and shape of "treated" wax crystals are altered to minimize filter and fuel line plugging



(Wax crystals at 1000:1 Magnification)

SURE-FLO WAX ANTI-SETTING ADDITIVE

- ✓ Reduces wax drop out
- ✓ Keeps wax molecules dispersed throughout the fuel profile
- ✓ Lower wax concentrations are less likely to plug filters

COMPETITOR

Competitive products allow wax molecules to settle to the tank bottom where they are pulled into the dip tube and ultimately plug filters.

SURE-FLO

FS SURE-FLO disperses wax molecules throughout the fuel.

SURE-FLO DEICER

- ✓ Due to condensation caused by fluctuating temperatures, fuel contained in storage, implement and saddle tanks always contains moisture.

- ✓ Non-alcohol jet fuel deicer, like that used in SURE-FLO, reduces the moisture freeze point to -20°F

#1 DIESEL FUEL BLENDS

ADVANTAGES

- Lower emission levels
- Higher cetane
- Storage stability
- Improved low temperature operability

DISADVANTAGES

- Higher cost than #2 diesel
- Less energy content (fewer BTUs per gallon)
- Loss of fuel economy and horsepower
- Lower lubricity increases injector and fuel pump wear
- No deicer

SURE-FLO ADVANTAGES

- ✓ Costs less and reduces the need for #1 blends
- ✓ Modifies wax crystals for increased cold temperature operability
- ✓ Helps eliminate power and fuel economy loss
- ✓ Helps prevent icing problems
- ✓ Reformulated for ULSD fuels and biodiesel blends

SURE-FLO ADVANTAGES

- ✓ Over 10 years of test results clearly show that SURE-FLO outperforms 80/20 blends
- ✓ Ongoing annual cold operability testing on fuels from Midwest terminals - the same fuels you use
- ✓ Professional blending with delivery ensures proper mixing and greater convenience

SURE-FLO ECONOMICS

VS.

80% #2 diesel blended with 20% #1 diesel fuel

(#2 diesel) $_____/gal x.80
(#1 diesel) $_____/gal x.20

Total $_____ /gal

100% #2 diesel with SURE-FLO (1 gal treats 1250 gal of fuel)

(#2 diesel) $_____/gal
+(SURE-FLO) $_____/1250

Total $_____ /gal

Note: An 80/20 blend results in a loss of approximately 800 BTU/gal.

#2 diesel fuel – 138,000 BTU's per gallon
#1 diesel fuel – 134,000 BTU's per gallon

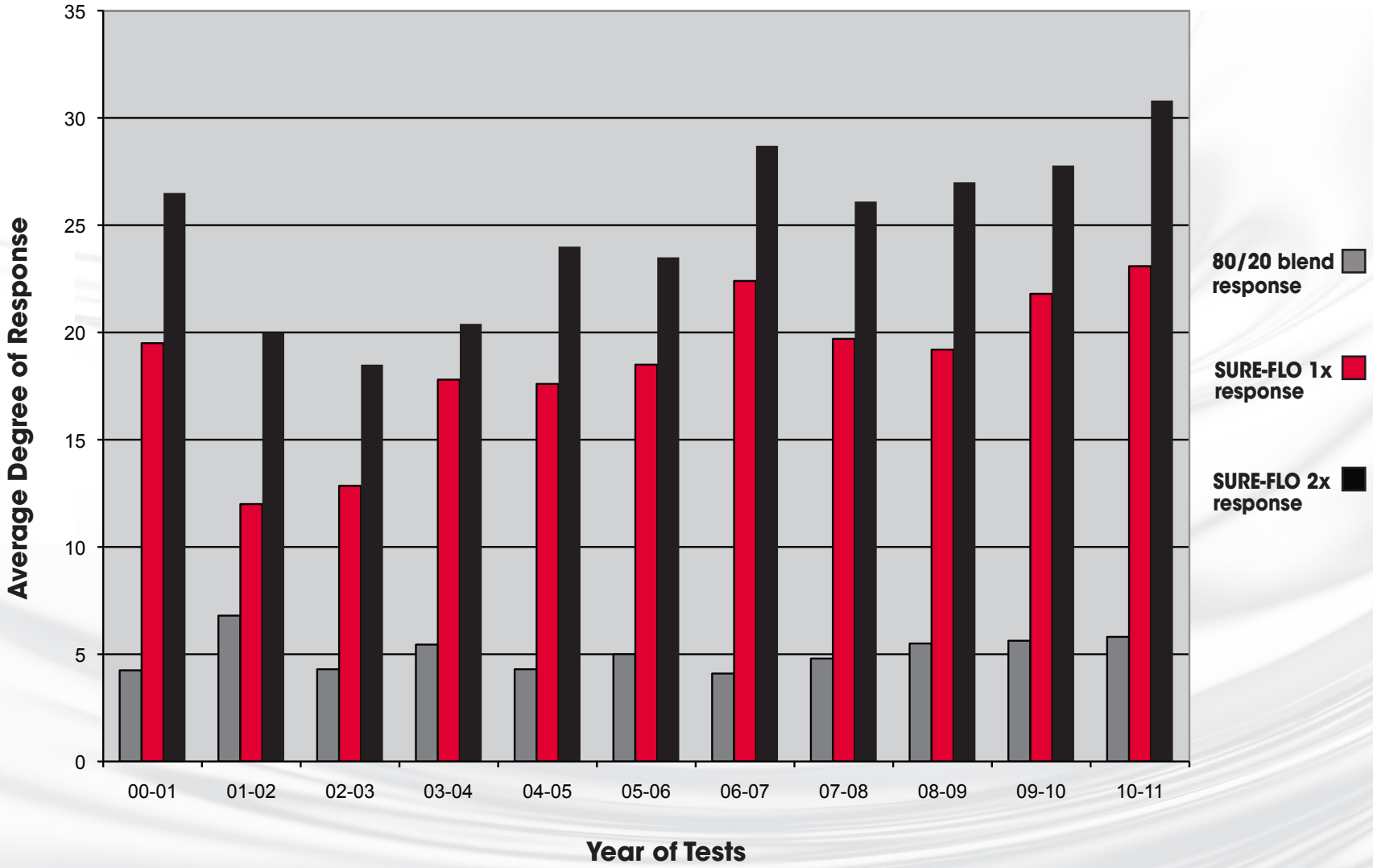
BEST PRACTICES

- ✓ Add SURE-FLO to the fuel at 10°F - 15°F above the cloud point. Adding SURE-FLO after fuel has begun to form crystals will only affect new crystal growth from that point; SURE-FLO has no effect on pre-existing crystals
- ✓ Start treating fuel early to be certain that the entire fuel supply contains at least a 1X rate of SURE-FLO by the time cold weather arrives

LOW TEMPERATURE FUEL TESTING "TERMS"

CLOUD POINT:	The temperature at which fuel first starts to become hazy (cloudy) due to wax precipitation
POUR POINT:	The lowest temperature at which fuel will still flow; the temperature at which the fuel becomes solid
COLD FILTER PLUGGING POINT:	A measure of the ability of a fuel to be filtered as a function of temperature; the temperature when fuel plugs a filter during a laboratory test

SURE-FLO OUTPERFORMS 80/20 BLENDS



©2023 GROWMARK, Inc. P107392 Item #237005