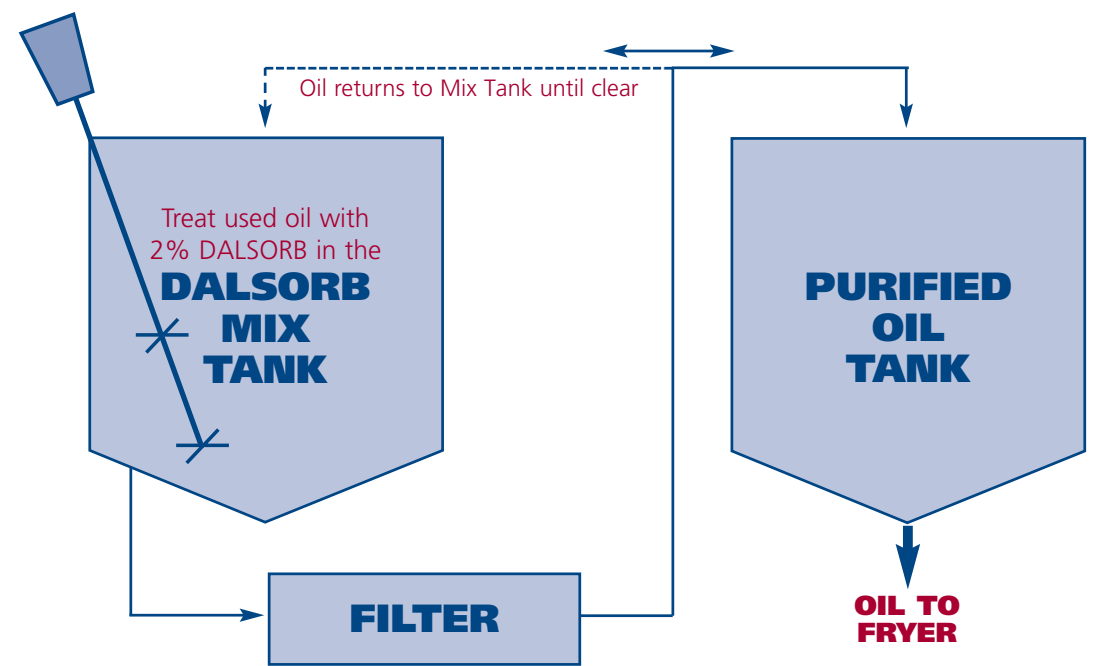


DON'T WASTE ANOTHER Drop!

TREATMENT DIAGRAM



- Total Control of Free Fatty Acids
- Up to 70% Color Reduction
- Control Polar Compound Formation
- Reduce Off-Flavors and Odors
- Consistent Frying Oil Quality
- Better Fried Foods
- Increase Profits



ADSORBENT TREATMENT OF FRYING OIL

Case Study: Treatment of Used Frying Oil with DALSORB to Maintain Oil Quality

BACKGROUND:

- The commercial chicken frying operation used for this study fries fully cooked, bone-in, battered and breaded chicken parts in partially hydrogenated soybean oil.
- The frying oil is treated with DALSORB (at 2% by weight of the oil) on a daily basis.
- The treated oil is used to fill up the fryer each day. Virgin oil is added throughout the day to replace oil removed with the fried product.

DEGRADATION COMPOUNDS:

EFFECTS ON FRYING OIL AND FRIED PRODUCT QUALITY

- Free Fatty Acids
 - Decrease smoke point of frying oil
 - Further catalyze oil degradation
 - Decrease shelf stability of finished fried product
- Polymers
 - Cause oil to foam
 - Buildup causes decrease in heat exchanger efficiency
 - Increase oil absorption into food
- Color Bodies
 - Effect fried product color
- Flavors
 - Scorched oil causes negative flavor characteristics
 - Carryover can occur from one fried product to another

BEFORE THE USE OF DALSORB:

- Oil was discarded every 2-3 days due to high Free Fatty Acid Values (>2%)
- Polymers built up on all oil contact surfaces
- Fried Product was inconsistent in flavor and color, depending on age of oil
- Frying room was filled with smoke

AFTER THE USE OF DALSORB:

- The oil treatment at this operation was started in January 2003 and has continued to date, with no oil discard.
- Oil samples were collected daily for a period of six months (January 2004 - July 2004).
- Continued frying operation with NO OIL DISCARD and NO SMOKE IN THE FRY ROOM

Daily Oil Samples

Weekly Oil Samples

