



FRENCH FRY TROUBLE-SHOOTING GUIDE

Product

PROBLEM	PROBABLE CAUSE	POSSIBLE CURE
Color Too Light	<ol style="list-style-type: none"> 1. Oil temperature too low. 2. Fry time too short. 3. New oil. 4. Poor fryer recovery. 	<ol style="list-style-type: none"> 1. Check temperature and increase if necessary. 2. Do not remove fries before designated color/time required. 3. Break in oil with use. 4. Do not overload basket. Check heating element.
Color Too Dark	<ol style="list-style-type: none"> 1. Oil temperature too high. 2. Fry time too long. 3. Excessive natural sugar. 4. Oil is dirty (dark). 	<ol style="list-style-type: none"> 1. Reduce temperature. Check thermostat calibration. 2. Reduce fry time. 3. Combination of the above. 4. Change, filter or add new oil.
Excess Color Variation	<ol style="list-style-type: none"> 1. Some fries not under the oil. 2. Excessive natural sugars. 	<ol style="list-style-type: none"> 1. Do not overload basket (half full max.). 2. Fry longer at lower temperature.
Poor Texture	<ol style="list-style-type: none"> 1. Under-frying. 2. Salting too soon. 3. Leaving basket over fryer. 4. Held too long before serving. 	<ol style="list-style-type: none"> 1. Use proper time/temperature. 2. Salt lightly just before serving. 3. Basket should remain over frying oil just long enough to drain. 4. Shorten holding time.
Low Yield	<ol style="list-style-type: none"> 1. Excessive breakage. 2. Improper re-ry, too long or too hot. 3. Over-filling bags. 	<ol style="list-style-type: none"> 1. Encourage proper product handling. Review procedures. 2. Check fry time & temperature. 3. Weigh serving bags and review procedures.
Poor Length	<ol style="list-style-type: none"> 1. Broken pieces due to improper handling. 	<ol style="list-style-type: none"> 1. Check handling procedures at all points.
Excessive Oil Usage	<ol style="list-style-type: none"> 1. Frying from thawed state. 2. Improper draining. 3. Frying at too low a temperature. 	<ol style="list-style-type: none"> 1. Fry from frozen state. 2. Drain baskets properly (shake lightly). 3. Increase fryer temperature.
Product Sticking Together	<ol style="list-style-type: none"> 1. Over-filling the basket. 	<ol style="list-style-type: none"> 1. Fill basket half full and shake gently during frying.
Off Flavors	<ol style="list-style-type: none"> 1. Odor contamination/improper storage. 2. Old or dirty oil. 3. Over-frying. 	<ol style="list-style-type: none"> 1. Avoid storing product near items with strong odors. 2. Change oil or filter and add 20% new oil. 3. Reduce fry time/temperature.
Excessive Ice Crystals	<ol style="list-style-type: none"> 1. Product has been partially thawed and refrozen. 	<ol style="list-style-type: none"> 1. Check handling/procedures at all points and keep product frozen @ 0° F.

Oil

PROBLEM	PROBABLE CAUSE	POSSIBLE CURE
Foaming	<ol style="list-style-type: none"> 1. Soap residue. 2. Excessive oil breakdown resulting in high free fatty acids and polymerization. 3. Continued frying of foods with excess moisture. 4. Continued overheating. 5. Overloading fryer. 	<ol style="list-style-type: none"> 1. Check cleaning procedure. 2. Check addition of fresh oil to fryer. Added oil should totally replace used oil at least every 3-5 days. 3. Remove excess moisture before frying. 4. Check thermostat. 5. Reduce batch loads. Overloading introduces excess moisture, accelerates breakdown.
Gumming	<ol style="list-style-type: none"> 1. Heating oil too fast. 2. Shortening not stable enough. 3. "Hot Spots" on heating tubes or elements. 4. Continued overheating. 5. Oil broken down or "exhausted." 	<ol style="list-style-type: none"> 1. When changing fryer or starting up, heat oil gradually to avoid scorching. 2. Use a more stable shortening. 3. Check for "thin walls" causing hot spots on tubes or elements. 4. Check thermostat. 5. Make sure daily oil turnover is adequate (20% min.).
Grease Soaked Food	<ol style="list-style-type: none"> 1. Heat too low. 2. Shortening not stable enough. 3. Overloading fryer. 4. Excessive moisture on food. 	<ol style="list-style-type: none"> 1. Check thermostat. 2. Use a more stable shortening. 3. Maintain 1-7 ratio of food to oil (min.). 4. Drain and dry food before frying.
Smoking	<ol style="list-style-type: none"> 1. Insufficient oil turnover. 2. Excess moisture on food. 3. Contamination of oil by breading, flour, etc. 4. Overheating of oil. 5. Poor removal of water vapor from fryer. 	<ol style="list-style-type: none"> 1. Replace 20% of kettle capacity with fresh oil daily. 2. Drain and dry food before frying. 3. Filter or strain daily to remove sediment. 4. Check thermostat. 5. Check ventilation system, especially hood over fryer.
Darkening of Oil	<ol style="list-style-type: none"> 1. Salt on foods to be fried. 2. Contamination of oil by breading, flour sediment, etc. 3. Poor cleaning practices. 4. Overheating of oil. 5. Insufficient oil turnover. 	<ol style="list-style-type: none"> 1. Salt food after frying. 2. Filter or strain daily to remove sediment. 3. Clean thoroughly every other oil change; change if usage is heavy. 4. Check thermostat. 5. Capacity of kettle should be replaced by fresh oil every 3-5 days.



FANTASTIC FRIES MADE SIMPLE

Bountiful Harvest is committed to helping you serve the world's finest french fries. French fry quality is one of the most noticeable attributes of your operation, and therefore one of the most important. It involves careful storage and handling, proper cooking and serving techniques and good equipment maintenance. Correct procedures are not hard to follow, but to deliver the highest quality fries, they must be followed closely. Constant attention to fry quality will improve customer satisfaction and ensure repeat business. Following the techniques and tips outlined here will also help you improve fry yield and increase profitability.

- **Cooking Time**
Follow carton instructions
- **Temperature**
350°F - 360°F Follow recommended cooking temps
- **Shortening Maintenance**
Filter daily, skim often, cover and evaluate change

Undercooked

Characteristics	Cause
<ul style="list-style-type: none"> • Light skin • Hard center • Greasy appearance • Limp 	<ul style="list-style-type: none"> • More than 1/2 basket • Cook time less than recommended • Basket of fries is pulled before timer sounds • Fry temperatures less than 350°F - 360°F • Fryer recovery too slow

Overcooked

Characteristics	Cause
<ul style="list-style-type: none"> • Dark color • Hollow centers • Tough or too-crisp skin 	<ul style="list-style-type: none"> • Less than 1/2 basket • Cook time longer than recommended • Basket of fries is not pulled when timer sounds • Fry temperatures higher than 350°F - 360°F • Product thawed too long • Oil needs replacement

Just Right!

Characteristics	Cause
<ul style="list-style-type: none"> • Golden brown texture • Baked-potato texture inside • Not too limp or too crispy • Potato flavor 	<ul style="list-style-type: none"> • 1/2 basket • Cook time is per recommendation • Cooking temperature is 350°F - 360°F • Fryer recovery time is 2:25 or less • Good quality shortening • Served within recommended hold time

