

Restaurant Food Sanitation Chemicals
A New Business Model
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This white paper presents a brief history of the food sanitation chemical industry, discusses problems with the current chemical provider business model, and proposes a new model. The new business model intrinsically and significantly reduces chemical waste (reduces operational costs), improves food safety (and health inspection scores), and allows for accurate budgeting by food service groups, franchised organizations, and independent restaurateurs.

The Food Sanitation Chemical Industry – Yesterday and Today

In the 1960's local public health departments began being established in almost every U.S. county and soon thereafter federal/state/local food service health standards were enacted and regulations began to be enforced. As food safety standards grew, the chemical sanitation industry grew with them. Fifty years ago, a typical restaurant used 1-3 chemicals (primarily detergents and soaps) – today, most restaurants use 8-10 different chemicals for everything from washing hands to sanitizing dishes to mopping the floors...and everything in between.

During the 1970s and 1980s, food sanitation chemical companies flourished, and the industry invested millions in formulation research to develop new and need-specific formulas. Capturing the food sanitation chemical market largely required only two imperatives: 1) price competitiveness; and 2) unique formulations (i.e. develop a formulation that your competitor did not have). Because of this, the industry was abundant with small and medium sized formulators that generally served local and regional accounts. At the same time, however, the large national chemical companies realized that in order to maintain their growth, they had to capture those local markets. Therefore, from the 1980s onward the industry consolidated through mergers and acquisitions of the smaller providers, until today where there are only a small handful of national providers (less than a handful actually) that dominate the restaurant industry, and very few remaining local/regional formulators.

Along the way, one game-changing invention changed the industry at its core: dilution control equipment. Previous to this innovation, the chemical providers were quite happy with what is known in the industry as “glug-glug” pouring and full-strength formulations – after all, the key to profits in the early days was VOLUME – the more volume sold, the greater the margins, and the large chemical companies always won that battle by out-producing the small formulators through reduced production costs. It is therefore not surprising that the invention of concentrated formulations combined with engineered/automated dilution control systems were developed first by one of the regional providers. This innovation changed the old “volume” paradigm and forced the large chemical companies to develop their own “concentrated” formulations and dilution control hardware – they did not do it willingly, the market required it. Today, a majority of modern American restaurants are outfitted with dilution control equipment that connects directly to their water lines and has the capability to accurately dilute concentrates.

The Current Industry Business Model

Beyond dilution control equipment, not much has changed for the large food sanitation chemical providers. Their business model remains based on selling more chemical volume (price competitiveness). Their sales representatives are still rewarded on sales volume (which equates to chemical volume) and in our capitalistic system - rewards drive behavior.

Consider the following: if a sales representative is financially rewarded on volume sales, what is he/she incentivized to do? He/she is encouraged to push chemicals on the customer.

- Is the rep encouraged to train restaurant staff on how to reduce chemical waste? No.
- Is the rep encouraged to work with the manager to reduce the restaurant owner's monthly costs? No.
- Is the rep encouraged to install the proper dilution control tips on the dilution control equipment? No.

When the sales rep is financially incentivized for ever-increasing volume sales he/she is forced to do everything possible to sell more chemical and more products than the customer actually needs. **This model encourages dishonest business practices (such as improper dilution control tipping).**

The detrimental impact of the current food sanitation chemical business model to the restaurateur can be summarized:

Objective of the Sales Representative	Customer Impact
Increase chemical volumes	More chemical used via waste – spends more than necessary
Increase number of products	Required to purchase products in cases and retain unused inventory – increased inventory and storage costs
Increase monthly revenue per store	Unpredictable, erratic, multiple and difficult-to-read invoices – increased administrative labor cost and inability to develop accurate annual budgeting

It is immediately obvious that this model serves the interest of the large food sanitation chemical provider, but not the restaurateur. This is not a win-win business model, and it flies in the face of making businesses financially and environmentally sustainable. The industry should be encouraging chemical waste reduction and environmental stewardship, not the opposite.

A New Model (Win-Win)

Though not widely known to the restaurant customer, optimum restaurant chemical usage (ORCU) can be accurately estimated for any facility. It can be determined using simple mathematics and an understanding of kitchen and restroom operations and the cleaning regimen. However, the current food sanitation business model does not encourage optimum chemical usage (it encourages maximum usage) and therefore it is rarely, if ever, evaluated. Our research, performed with data from over 1,000 restaurants over a 16 year period, shows that even when dilution control equipment is used, there remains an average **20-40 percent waste factor** in chemical usage. **Our extensive experience leads us to the conclusion that this waste is the direct or indirect result of the current flawed food sanitation chemical business model.**

A win-win business model should benefit the customer and the provider and should be an honest transaction, i.e. no deception involved.

We propose a new model with the following core elements:

- **Analyze and determine optimum monthly or annual chemical usage** based on appropriate chemical dilution ratios and cleaning regimens
- Develop/negotiate a **monthly fixed price based on optimum usage** that includes all chemicals
- Provide **staff training** on food safety practices related to chemicals and waste reduction
- Provide **bi-lingual, 3-way labeling** of chemicals (color, number, name) to prevent accidental inappropriate usage
- **Work in partnership with the customer** to identify and respond to practices that lead to chemical waste
- Eliminate Sales Representatives and **replace with Service Representatives** that are incentivized based on customer service quality feedback, not on chemical sales volumes

Under this model, the restaurateur receives significant benefits:

- **Operational cost reduction** – 20-40 percent monthly/annual savings can be realized
- **Trained Staff** with sound food safety and chemical conservation habits – results in higher health department inspection scores
- **Fixed monthly pricing** - allows accurate and easy monthly and annual budgeting with no surprises
- **Space savings** - due to not storing unused chemical inventory (this can be an important benefit at facilities where storage space is limited)
- **Single fixed-price monthly invoicing** – reduces administrative labor to rectify and pay multiple, complicated invoices
- **Financial and environmental sustainability** – paying for and using only what is needed
- **Better, faster service** – service representatives that are focused on service, not sales

Finally, consider some examples of the financial savings that are derived under this model (these are conservative examples using only 20% waste reduction):

Number of Restaurants	Old Model Ave. Monthly Chemical Cost (\$)/location	New Model Optimum Monthly Chemical Cost (\$)/location	Monthly Savings (\$)/location	Total Annual Savings
1	500	400	100	\$ 1,200
3	500	400	100	\$3,600
7	460	368	92	\$7,728
15	460	368	92	\$16,560
40	420	336	84	\$40,320
300	400	320	80	\$288,000
1000	400	320	80	\$960,000

Restaurant sanitation chemical cost estimates can also be roughly calculated as a percentage of Total Revenue. Under the old model, chemical costs have typically represented about 1-2 percent of Total Revenue (variation is dependent on operational waste). However, under the new model (with waste eliminated from the operation) the percentage falls to 0.45 percent of Total Revenue, producing the following scenarios; we have used a conservative old model average of 1.0 percent:

Restaurant Type	Total Annual Revenue (\$)	Old Model Chemical Cost (\$)/yr	New Model Chemical Cost (\$)/yr	Total Annual Savings
Fast Food (QSR)	600,000	6,000	2,250	\$ 3,750
Fast Casual	700,000	7,000	3,150	\$3,850
Casual Dining	800,000	8,000	3,600	\$4,400
Fine Dining	1,200,000	12,000	5,400	\$6,600

Conclusion

The restaurant industry has suffered for years from food sanitation chemical waste intrinsic to an outdated, unimaginative, and one-sided chemical business model. The old model encourages waste in order to increase volume sales, to the detriment of the restaurant owner. Under an innovative new model - designed to eliminate chemical waste, improve food safety, streamline invoicing, and allow accurate budgeting - the restaurateur can not only reduce their operational costs but also become good stewards both financially and environmentally.

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