

DISPENSED FRENCH FRY POTATOES FROM DRY MIX

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I very much appreciate this opportunity to express and discuss my views on the future of what we call. . . "the dispensed potato."

Let me say at the outset that this will not be a scientific exposition - - at least not scientific in the concept of the physical scientist. My major experience has been in the field of marketing and such success as I have had has stemmed from the application of that experience in the field of franchised fast food service operations at the retail level. Through industry association, I am quite familiar with the entire institutional food market and I have devoted a good deal of study to the consumer in that market.

Probably many of you are wondering what a root beer man is doing at a potato conference. Well, strictly speaking, I'm not a 100 percent root beer man. I'm also a hot dog man -- a hamburger man -- a french fried shrimp man -- and a french fried potato man. In fact, I'm interested in anything that has to do with the operations of our A & W chain, especially if there's a chance to improve profitability.

To be quite candid, the profit motive inspired me to investigate the dispensed potato. I first heard of a presumably marketable Dutch french fry mix in 1963 and first saw it in 1964. At the time, I had no idea that American and other foreign scientists had been working to develop this type of product for many years, nor that at least one American company had unsuccessfully attempted to market a very similar product. I did have a fair idea of the magnitude of the french fry market in the United States and a good idea of the problems most restaurateurs had, and still have, handling and serving a consistently high quality french fried potato. I also had a very thorough knowledge of the goals of the A & W Root Beer Co., along with an understanding of the needs of that company's franchises, subsidiaries and associates. I regretfully discarded the idea of attempting to tie up the exclusive rights for my own personal gain because the only approaches available to me were impractical, financially unsound and just a wee bit unethical. So, with help from business associates on both sides of the Atlantic, an exclusive distribution contract for A & W Root Beer Co. covering the U.S., Canada and Mexico was eventually negotiated with the Dutch manufacturers. Additional improvements in the product have since been made by our sister corporation, the J. Hungerford Smith Co., which is now marketing the dispensed potato nationally.

Despite the unexpected, numerous, and complex problems which we have had to face, we're glad we made the move. The market for french fried potatoes is simply tremendous. Close to 700 million pounds of french fries are served annually to the American public

when it eats out. The food service establishments which serve french fries -- ranging from drive-ins to school cafeterias -- spend \$610 million yearly for the product.

Most of you in this audience are probably more familiar than I with the marketing problems encountered in the early years of the frozen french fry and of the instant mashed potato products. I feel that dispensed potatoes will command at least the same percentage of the total institutional french fry market as the frozen product within ten to twelve years. I further predict that aggressive marketing of the dispensed potato will add another 10 to 15% to the per capita consumption of french fried potatoes in this country by that time. Why? Because this product makes it possible and practical for many food service outlets to serve a french fry where labor cost makes the use of raws prohibitive or where the limitations of proper distribution and storage facilities made the frozen product unavailable or impractical.

Before going into the advantages of the dispensed potato, let me take a few minutes to explain what it is and some of the problems involved in making it a marketable product.

The dispensed potato is made from a dehydrated potato mix. The dry mix is stirred into approximately twice its weight of water to make a dough. The dough is extruded or dispensed by a special dispenser into french fry potato strips. These strips are then deep fried in just 90 seconds. The results are delicious tasting french fried potatoes.

Now all of this sounds simple enough, but for those of you in production and those in research and development will recognize that we have had to deal with three primary problems: Developing a sound formula, establishing quality controls, and developing or acquiring a suitable dispensing machine.

The development of a top performing formula for a dispensed potato mix requires a thorough knowledge of pre-cooked, dehydrated potatoes. A knowledge of such functional ingredients as vegetable gums, emulsifiers and browning agents is likewise necessary. Not only do such finished product characteristics as flavor, color and eating quality have to be considered, but also dough formation, extrusion performance and fat uptake.

Proper selection of a cohesive binder, such as a vegetable gum, is probably the most important single factor in successful formation of a dispensed potato mix. Factors which are affected by the type of gum include the following:

1. Mixing time or rate of mix rehydration.
2. Time of dough setting before extrusion.
3. Water measurement tolerance.

4. Aging characteristic of extrusion dough
(prevention of drying out or spoilage.)
5. Breaking of both uncooked and cooked pieces.
6. Sticking together of pieces before frying.
7. Amount of fat absorbed during frying.

A minor problem, but nonetheless a problem, concerns the variation in sugar content of the granules resulting from potato storage. In order to maintain uniformity of recipe, formula variations have to be made to yield a uniform color in the finished product. Time does not permit my dwelling on the subject of quality controls even if I were qualified to do so -- which I am not.

As for development of the dispenser, that has presented many problems which are now being solved. Right now our dispensers are manually operated, which is easy enough to do. But we already have plans for electrically-powered dispensers and even automated dispensers -- just press a button for the length of french fry you want -- and even the flavor -- and out they come, automatically.

But getting back into my role as a marketing man, let me dwell on the advantages of the dispensed potato:

A good marketing man considers the prospective customer first. If you have sat in one-tenth the number of drive-ins and hamburger stands I have, you have observed what the young people are doing to your baby these days. When they are through loading on the ketchup, vinegar, salt, pepper and anything else at hand, don't you wonder if the potatoes are still identifiable as such? I do. But being some kind of a stubborn Kraut by descent, I persist in the belief that, consistently high quality is the key to long term success in any endeavor, and any restaurateur worthy of the name has the same belief. All of us here have tasted excellent french fries prepared directly from raw potatoes and an equally good product prepared from the frozen french fry. The customers of 300 A & W Drive-ins and an even larger number of non-A & W restaurants have proven our belief that french fries prepared from our dispensed potato mix are at least equally acceptable, if not considerably better. However, the flexibility and ingenuity that may be exercised in formulation plus the controls that may be exercised in the processing and production, add up to the following benefits to the consumer (whether he truly appreciates them or not):

1. Top flavor. Some say it's the best french fry they ever tasted.
2. Consistent flavor, shape, texture, color, moisture, and fat content. There's no getting an overdone batch one time, a soggy mess the next. And there are no burned slivers in the serving.
3. Faster service. When a potato fries to perfection in just 90 seconds, there are no long delays in serving hungry customers, not even during rush periods.
4. Longer retention of flavor, shape, and texture after frying. The dispensed potato stays crisp under a heat lamp up to 2 hours.

Even if the customer takes his time eating, the last french fry on his plate will be as crisp and flavorful as the first.

5. Practically no grease to come off on fingers or napkins. As a matter of fact, you can serve dispensed french fries on a fine cloth napkin and you won't find a grease spot on the napkin when the fries are gone.

6. Uniform low year-round cost. Because the proprietor pays the same for his french fries no matter what the season, he can offer a steady price for great-tasting french fries all the time.

I said the dispensed potato offers top flavor a flavor that doesn't vary from batch to batch or from season to season. I know this may be hard to believe. If you ordered french fries from the same fine restaurant . . . using either the raw or the frozen product, once a week for ten weeks and each time tasted the same ordinary, bland, satisfying potato flavor -- that would indeed be a unique experience. Would you believe once a week for three weeks? I wouldn't -- yet 52 weeks of consistent quality are possible with the dispensed potato. It is also possible to make the flavor just a little different, perhaps, just a little more pronounced so that it comes through the ketchup and the other goop. Or, it's possible to captivate those "who think young" and "way out" with other flavors such as onion, garlic, pizza, cheese or you name it! And that flavor, unique or natural, can be consistent -- the same every time! Most of the other advantages listed need no explanation -- but, just a word about color. Would you find green? -- red? - purple? - incredible? It's possible -- just name it. And about shape? Would you believe round? hexagonal? pancake? ribbon? or star-shaped? -- also all possible. And, are you aware that restaurant take-home sales are growing at a much faster rate than on-premise sales, and that french fries are not growing in the take-home segment of this market because of their short-lived quality? The dispensed potato has it -- it's possible with a dry mix formulation.

The advantages enumerated for the consumer are likewise primary advantages for the restaurateur. Additional plusses include:

1. The dispensed potato dry mix can be stored up to 18 months at room temperature. No freezer or refrigerator storage is needed. There's no more problem of tying up valuable freezer space, or of running out of frozen potatoes during a rush period and not being able to get delivery because the frozen potato distributor is closed for the day or night.
2. Because the dispensed potato mix is dry, there's no need to store water. Based on yield, the dispensed potato requires 1 cubic foot of dry storage space, compared with 6 cubic feet of freezer storage for an equivalent amount of frozen french fries.
3. There's less frying shrinkage. The dispensed potato shrinks approximately 20 per cent, compared with 25 per cent for frozen potatoes.
4. The dispensed potato fries up larger and fluffier than the

the frozen or raw kind. A four-ounce serving of dispensed french fries looks like a four-ounce serving of the frozen fries.

5. The extrusion process allows for easy portion control. Cut 'em any length you like -- from 1-inch to 1-foot.

6. There's less fat absorption, and consequently longer use and life of cooking oil.

All of these plusses amount to bigger black numbers at the bottom of the restaurant owner's P & L statement.

All of the advantages enumerated for the consumer and for the restaurant owner are primary advantages for the processor of french fries as well as for the brokers and distributors. Can you imagine the savings in freight, storage facilities, handling and warehousing costs?

For the marketing people, the biggest problem lies in the overcoming the natural resistance of the order-taker to taking on something new, and the reluctance of the customer to do the same. Yet, twice in the last twenty years, you have proved your ability to overcome such obstacles, once with the frozen product and again with the dehydrated product. We welcome your competition in the marketplace. It would help all of us in the food industry.

Thank you very much for your courteous attention. If you have questions, I would welcome them now -- but let me capsulize my opinion about the future of instant french fry mix by saying: We are reading the first verse of the first chapter of a book with an infinite number of pages.