

Frylow



TEST REPORT

FRYLOW'S PHOTO-CATALYTIC CERAMIC DEVICE IN FRYING OIL

VERSUS

PLAIN FRYING OIL



Ferdinand Metz, CMC
Managing Partner
The Master Chefs' Institute
November 28, 2016



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EXECUTIVE SUMMARY

The Master Chefs' Institute is pleased to inform you that all six food items fried in oil with the Frylow's Photo Catalytic device have outperformed the same products fried in regular cooking oil in all of our 180 tests/observation points, conducted and evaluated by MCI.

Our team of Master Chefs concluded that the samples fried with Frylow's technology were found to be superior compared to the products fried in oil without Frylow in overall quality and general performance. As demonstrated in the graphs and tables below, the Frylow cooked samples were an overwhelming and consistent winner compared to the other six food items.

Throughout the entire testing, MCI evaluated the sensory attributes of all six products as they relate to foodservice operators and their customers. In addition, MCI was impressed by the potential savings and quality improvements, which the Frylow device offers.

In conclusion, the Master Chefs' Institute congratulates the entire team that has developed and managed this outstanding technology, which qualified for the Master Chefs Institute's Seal of Excellence.

A handwritten signature in black ink that reads "Ferdinand Metz".

Ferdinand Metz
Managing Partner
November 28, 2016



INTRODUCTION

The Master Chefs' Institute was asked to test and evaluate the effect of six popular food items fried with the Frylow technology as compared to the same foods fried without Frylow. Our test results, as presented in this report are based on the collective findings and evaluations of our Master Chefs' Team, which recorded over 180 test/observations in making its determinations. Based on the client's input we designed our testing to focus on the following popular food items:

Fried Calamari	Fried Chicken Wings
French Fries	Fried Onion Rings
Sweet Potato Fries	Fried Chicken Tenders

The overriding purpose of our testing was aimed to assess and document the characteristics, flavor profiles and special attributes of all products as they relate to today's practices and standards of the foodservice industry. At the same time, we have opted not to duplicate or confirm any analytical or scientific data, which are sufficiently documented in Frylow's sales and marketing materials.

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METHODOLOGY

TESTING PARAMETERS AND PROCEDURES

The Master Chefs' Institute centered its blind testing and evaluation on those aspects critical to the foodservice operator. In this process, we tested both products, which were previously frozen as well as freshly prepared items.

In our testing of all six food items, we applied the same frying time for each food item, but adjusted the frying oil temperature down to 335 degrees Fahrenheit for the Frylow oil, compared to the customary 350 degrees used for foods fried in oil without the Frylow technology.

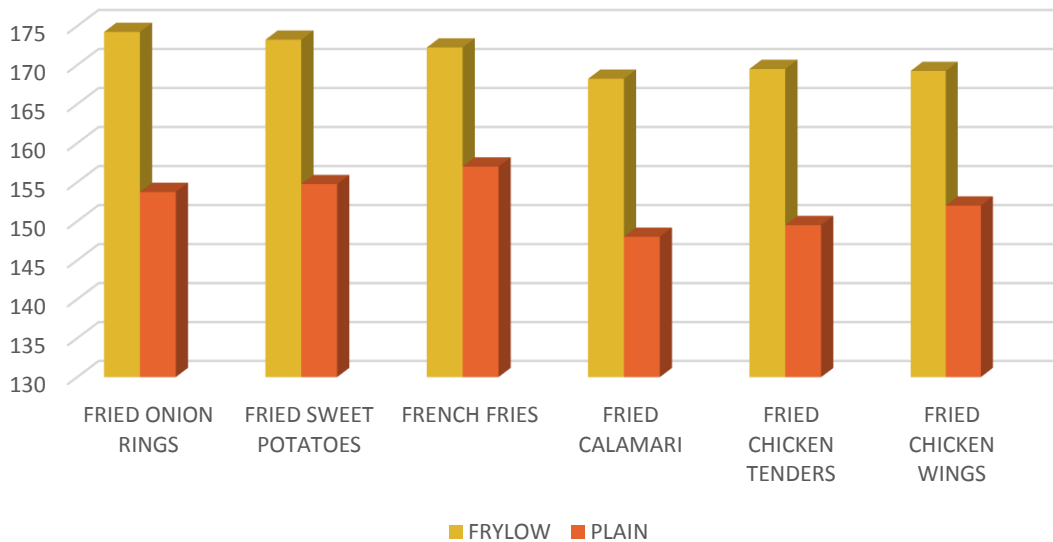
To assess any lingering fishy taste as often experienced with fried seafood items, we fried the calamari first without noticing any unpleasant flavor component in the food items, which were fried in the same oil. It should also be noted that the results could have been more favorable to the Frylow samples since the oil used for both fryers was at a degradation level of 30% instead the 80% recommended by Frylow. We did, however conduct additional test, which showed that the fried products were of better quality when higher degraded oil was used.

We also allocated a factor of 1.5 to all taste scores to highlight their importance to the foodservice operator and their respective patrons.

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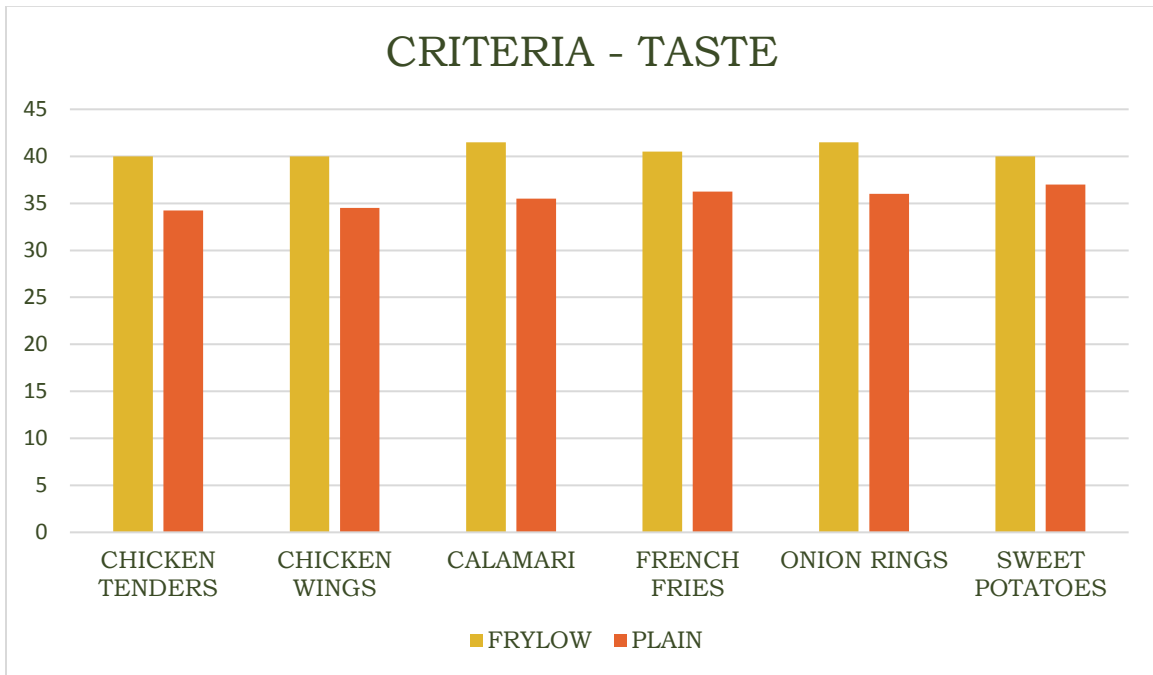


SUMMARY OF ALL TESTS



FOOD ITEMS	FRYLOW	PLAIN
FRESH ONION RINGS	174.25	153.75
FROZEN SWEET POTATOES	173.25	154.75
FROZEN FRENCH FRIES	172.25	157
FRESH CALAMARI	168.25	148
FROZEN CHICKEN TENDERS	169.5	149.5
FRESH CHICKEN WINGS	169.25	152
TOTAL	1026.75	915

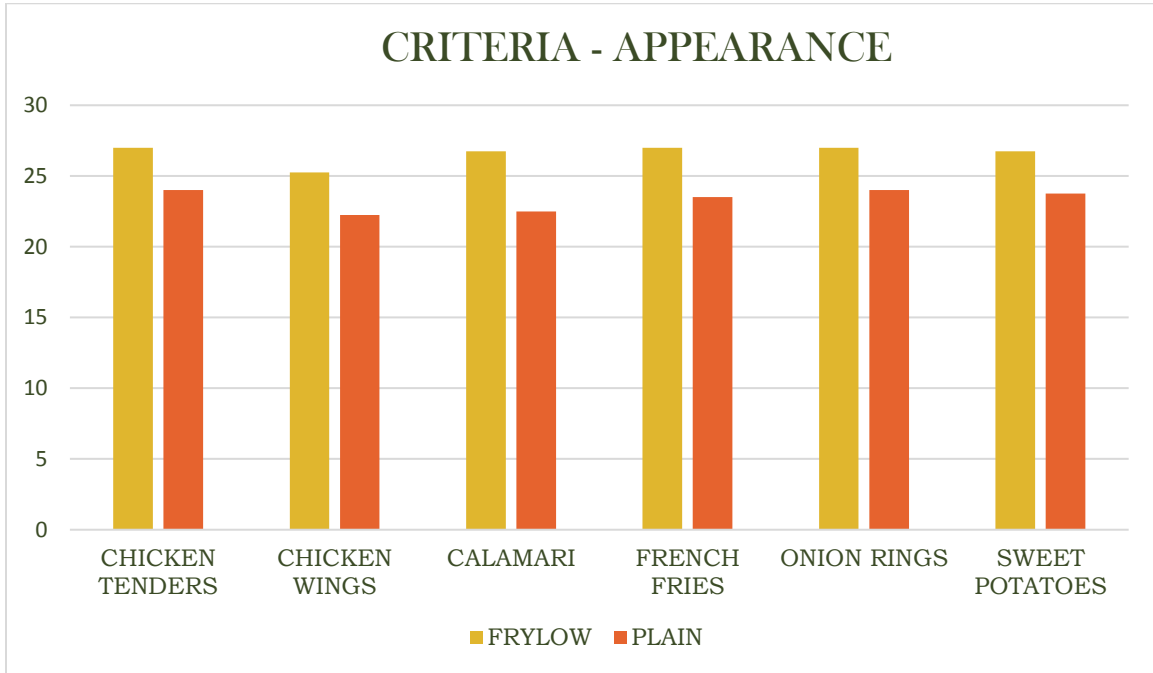
Fried foods using the Frylow technology consistently outperformed the conventionally fried food items in all six popular food categories.



FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	40	34.25
CHICKEN WINGS	40	34.5
CALAMARI	41.5	35.5
FRENCH FRIES	40.5	36.25
ONION RINGS	41.5	36
SWEET POTATOES	40	37

As noted previously, MCI allocated a factor of 1.5 to all taste scores to highlight their importance to both operators and consumers in their evaluation of any food item.

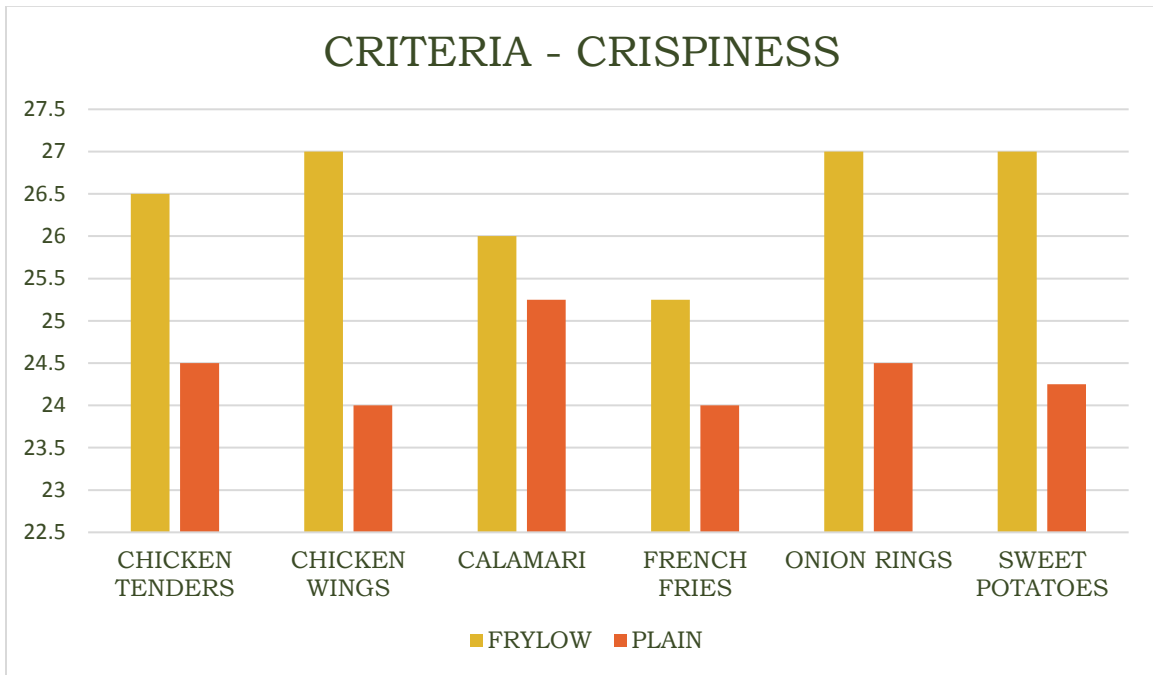
Again, the Frylow samples dominated this most important category.



FOOD ITEMS	FRYLOW	PLAIN
CHICKEN TENDERS	27	24
CHICKEN WINGS	26.25	23.25
CALAMARI	26.75	22.5
FRENCH FRIES	27	23.5
ONION RINGS	27	24
SWEET POTATOES	26.75	23.75

As the second most important category, the appearance and appetizing appeal of any food product play a major role as to its initial acceptance and preference.

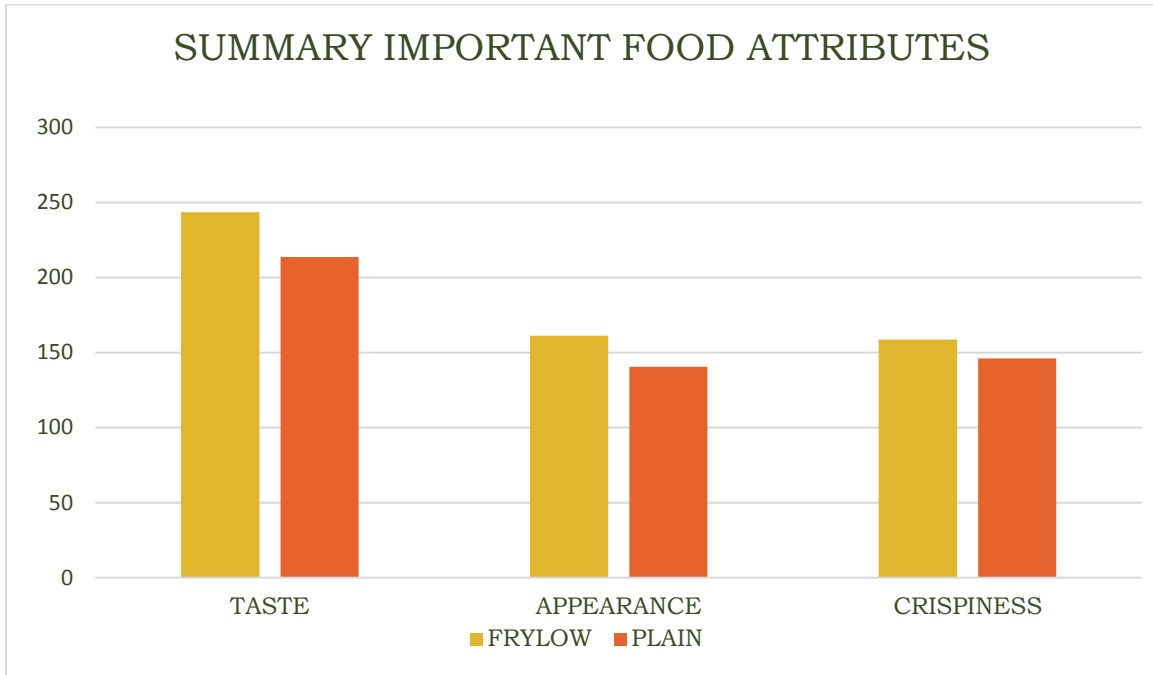
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FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	26.5	24.5
CHICKEN WINGS	27	24
CALAMARI	26	25.25
FRENCH FRIES	25.25	24
ONION RINGS	27	24.5
SWEET POTATOES	27	24.25

The third major category are texture and crispness when evaluating any fried foods. The samples using the Frylow technology outperformed all others.

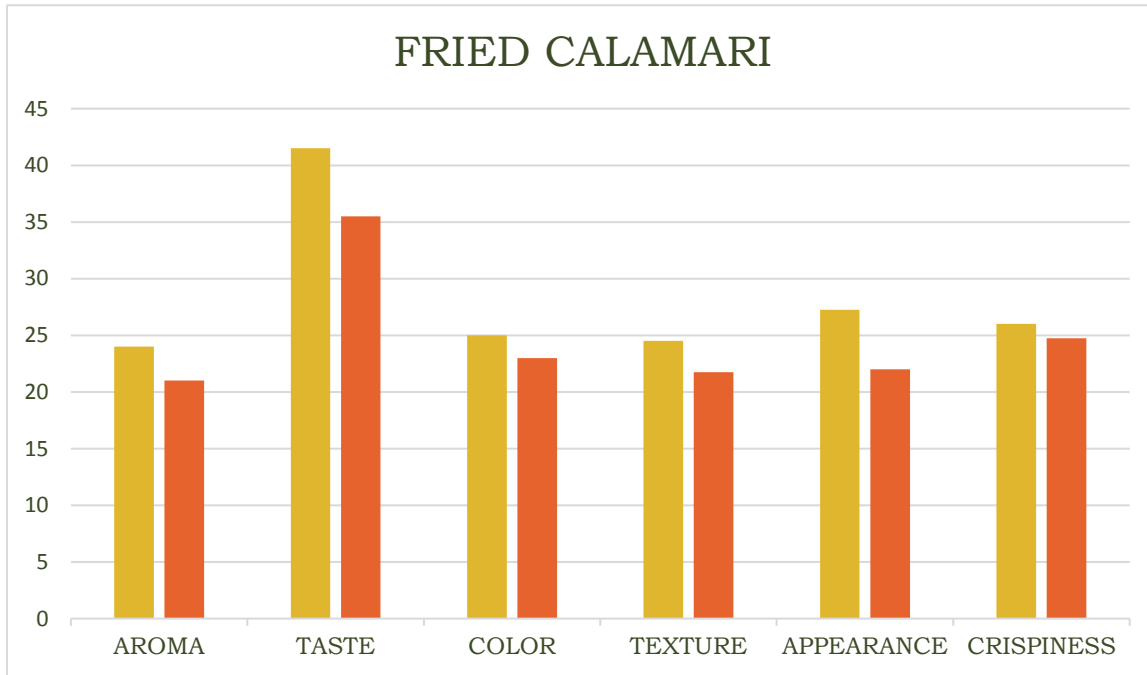
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ATTRIBUTES	FRYLOW	PLAIN
TASTE	243.5	213.75
APPEARANCE	161.25	140.5
CRISPINESS	158.75	146

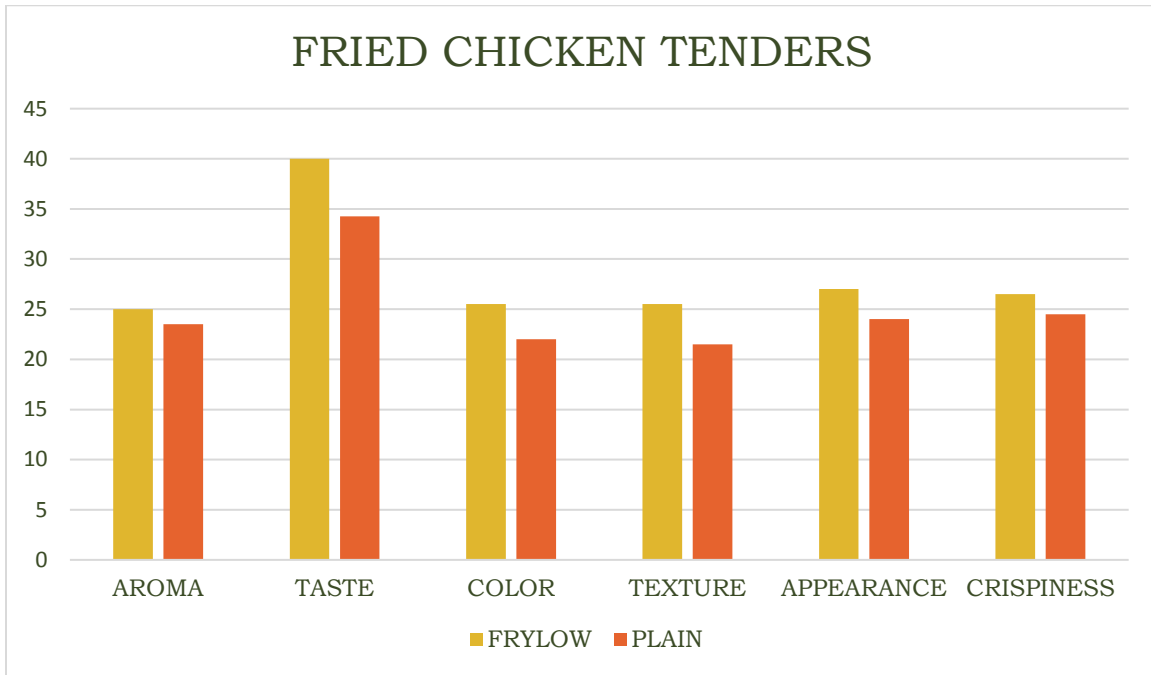
This graph and table represent a summary of the previous three pages and shows the consistent performance of the Frylow samples in the most important fried food categories.

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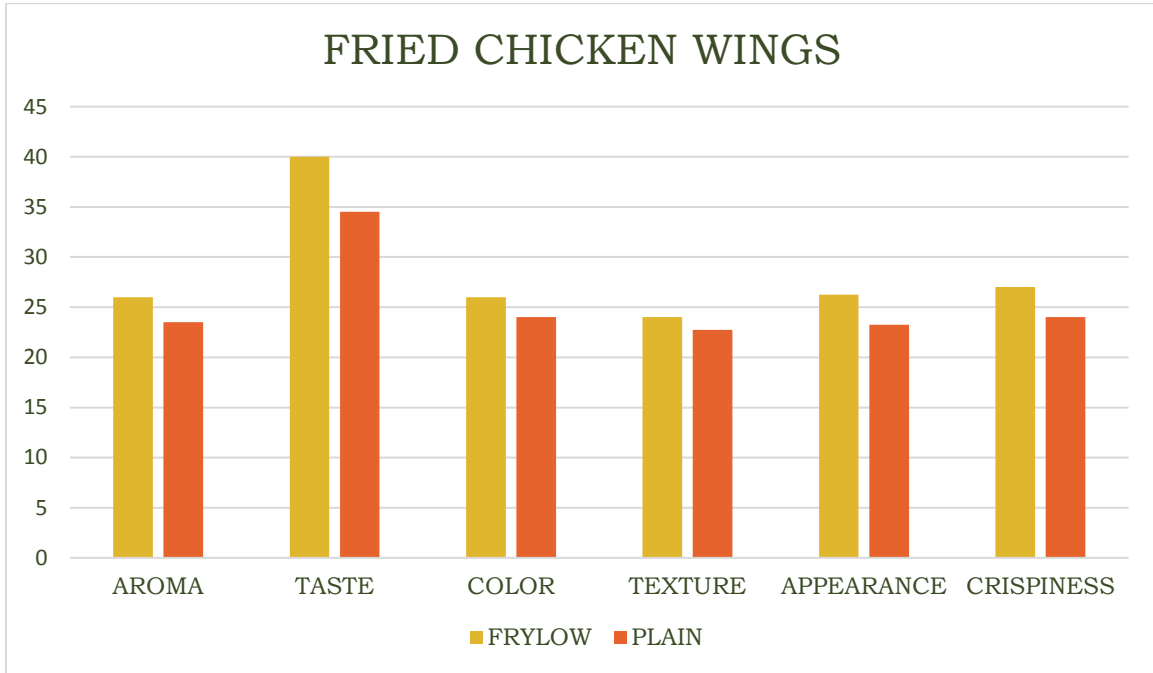
CRITERIA	FRYLOW	PLAIN
AROMA	24	21
TASTE	41.5	35.5
COLOR	25	23
TEXTURE	24.5	21.75
APPEARANCE	27.25	22
CRISPINESS	26	24.75

There was a clear preference for the Frylow samples across all sensory tests.



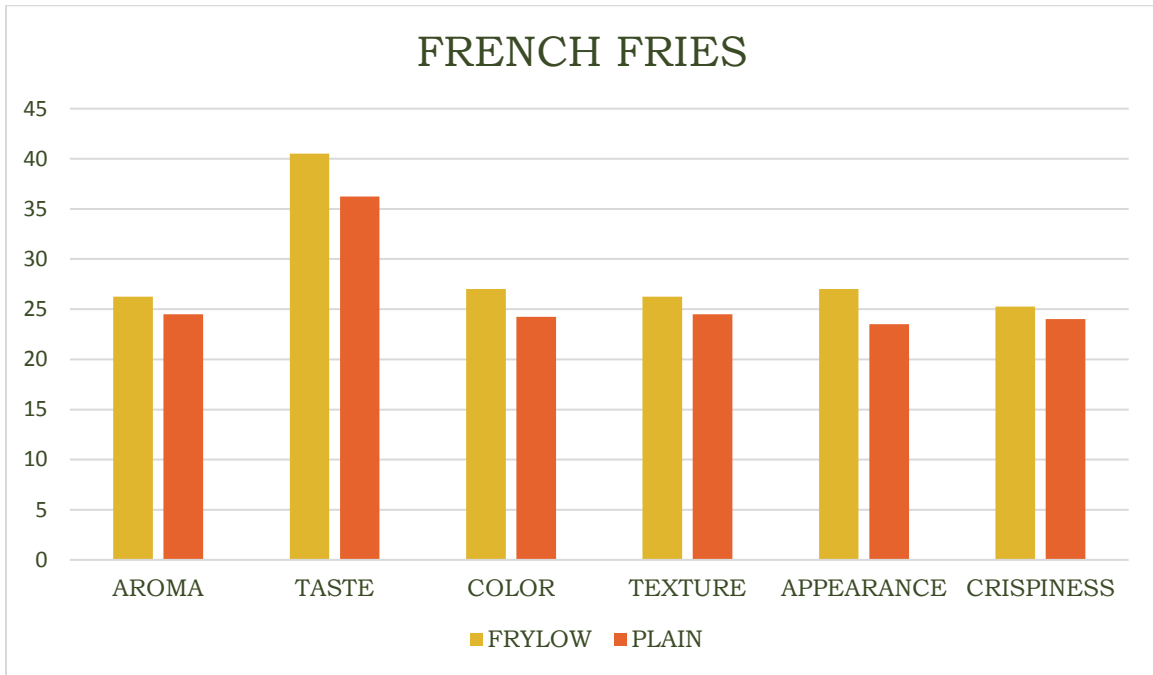
CRITERIA	FRYLOW	PLAIN
AROMA	25	23.5
TASTE	40	34.25
COLOR	25.5	22
TEXTURE	25.5	21.5
APPEARANCE	27	24
CRISPINESS	26.5	24.5

As one of the most popular food items, the Chicken Tenders enjoyed a consistent preference for the Frylow prepared items in all sensory categories.



CRITERIA	FRYLOW	PLAIN
AROMA	26	23.5
TASTE	40	34.5
COLOR	26	24
TEXTURE	24	22.75
APPEARANCE	26.25	23.25
CRISPINESS	27	24

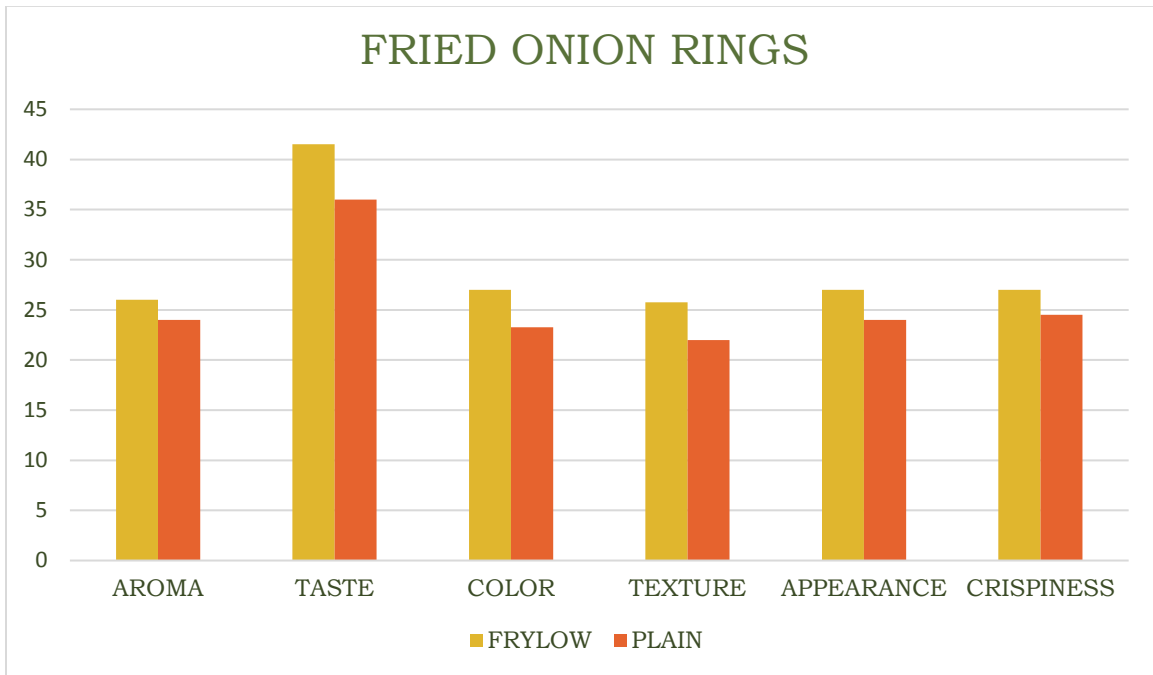
Frylow was preferred in all six sensory categories, most significantly in the areas of taste, crispiness and appearance.



CRITERIA	FRYLOW	PLAIN
AROMA	26.25	24.5
TASTE	40.5	36.25
COLOR	27	24.25
TEXTURE	26.25	24.5
APPEARANCE	27	23.5
CRISPINESS	25.25	24

Arguably, French Fries, as the most important fried food item favored the Frylow prepared samples on a consistent basis.

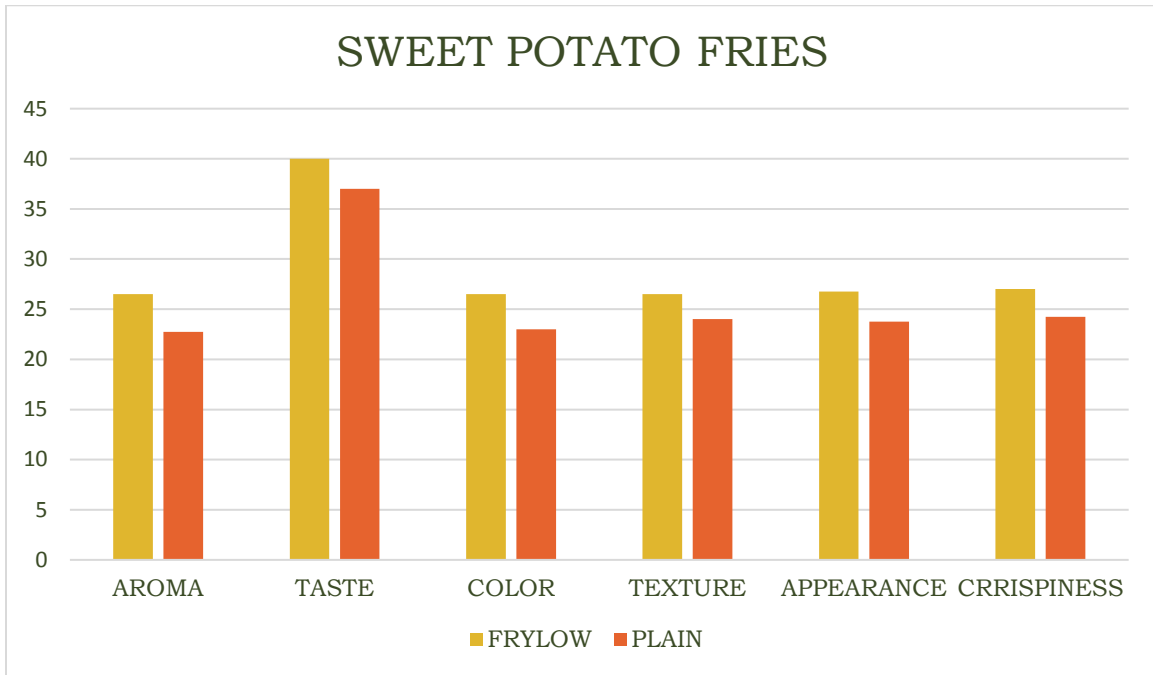
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CRITERIA	FRYLOW	PLAIN
AROMA	26	24
TASTE	41.5	36
COLOR	27	23.25
TEXTURE	25.75	22
APPEARANCE	27	24
CRISPINESS	27	24.5

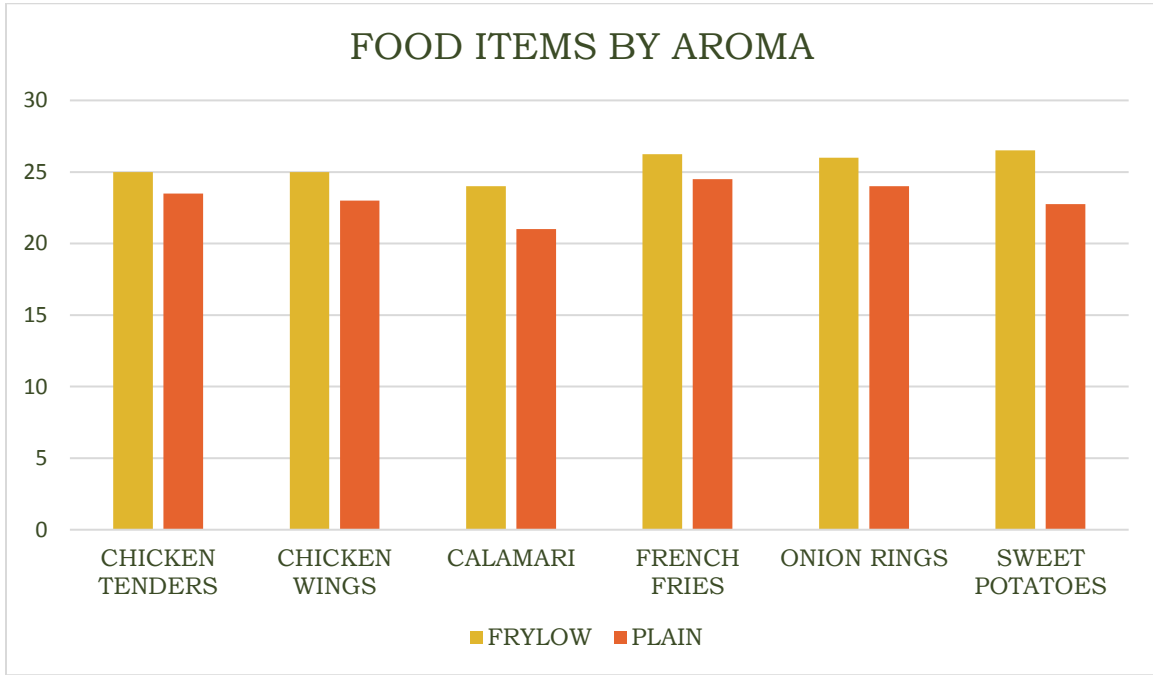
The Frylow prepared onion rings achieved consistently higher scores than did the food items fried in plain oil

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CRITERIA	FRYLOW	PLAIN
AROMA	26.5	22.75
TASTE	40	37
COLOR	26.5	23
TEXTURE	26.5	24
APPEARANCE	26.75	23.75
CRISPINESS	27	24.25

While the Frylow prepared samples were judged to be consistently better, we also found that the crispiness advantage was maintained even twenty minutes after they had been fried.



FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	25	23.5
CHICKEN WINGS	25	23
CALAMARI	24	21
FRENCH FRIES	26.25	24.5
ONION RINGS	26	24
SWEET POTATOES	26.5	22.75

Again, the Frylow technology produced superior and more pleasant aromas across all tests

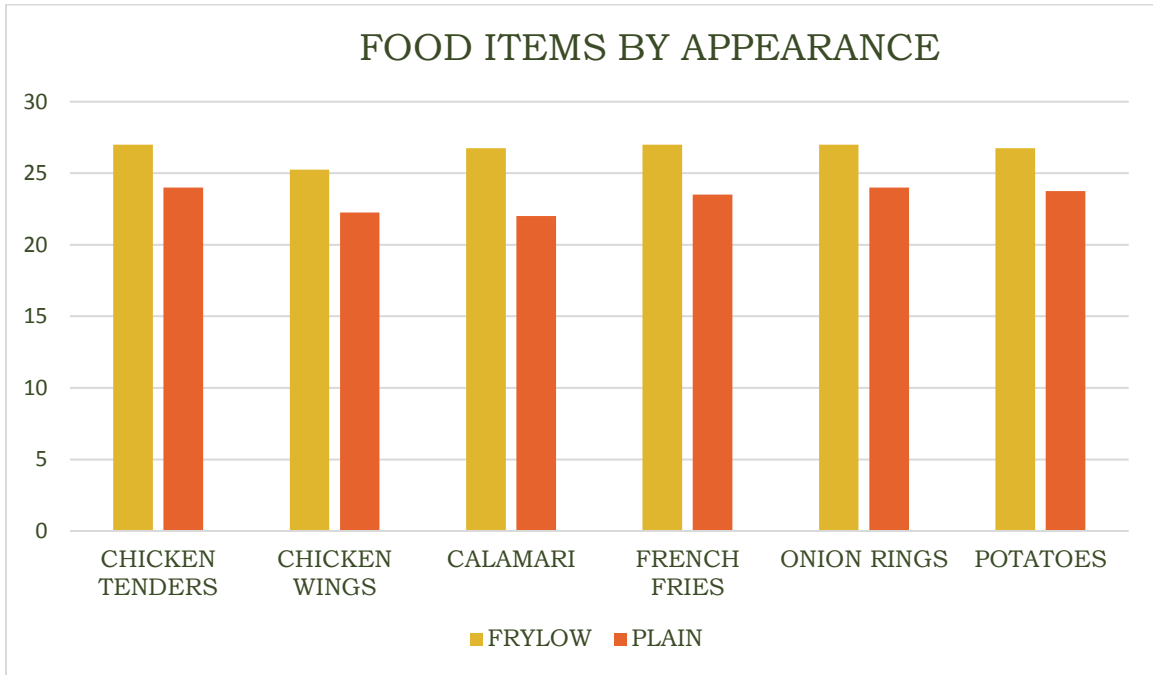
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FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	40	34.25
CHICKEN WINGS	40	39.5
CALAMARI	45.5	39.5
FRENCH FRIES	40.5	36.25
ONION RINGS	41.5	36
SWEET POTATOES	40	37

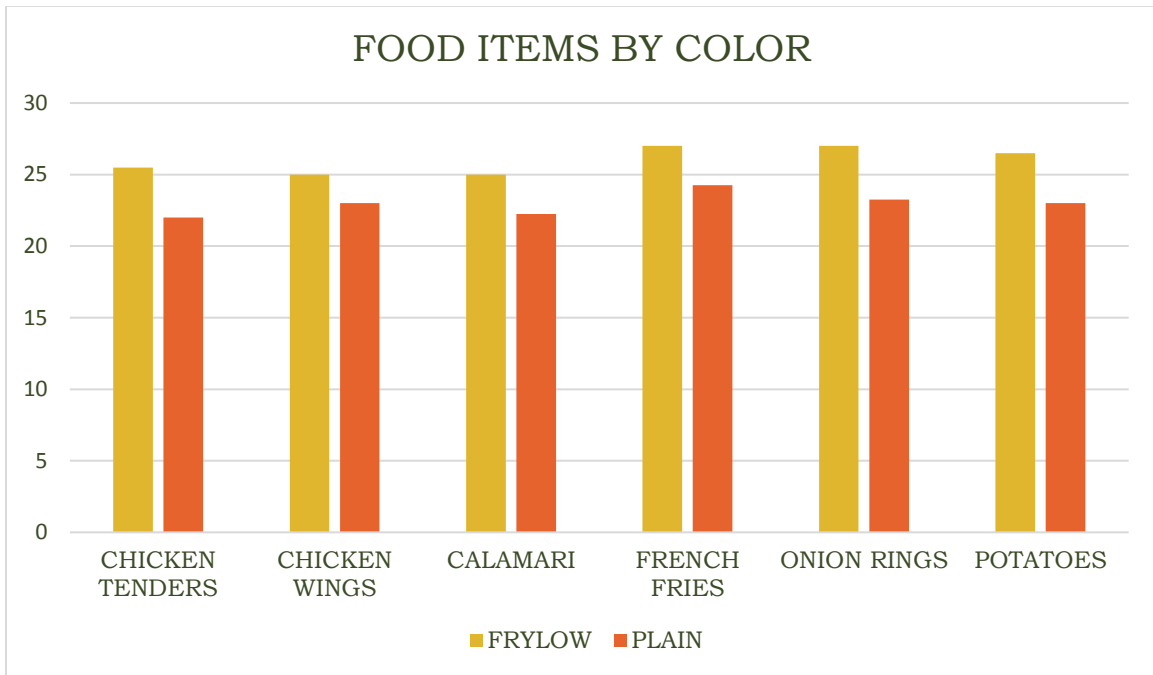
In the most important category of Taste, the Frylow samples scored higher across the board

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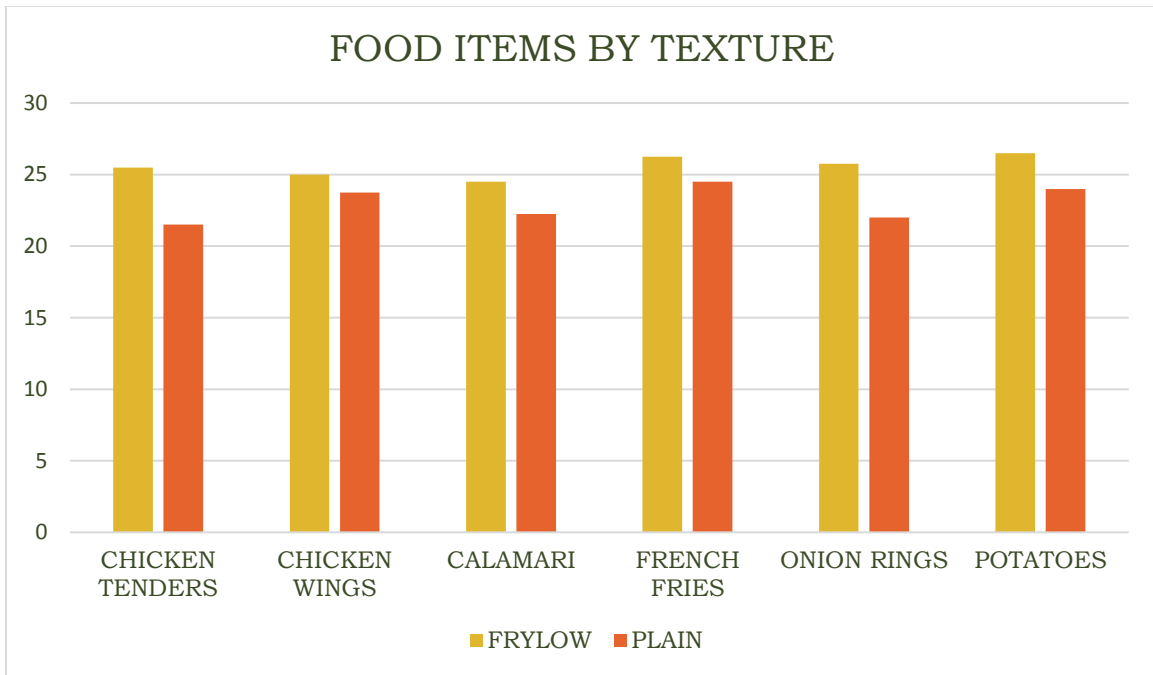
FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	27	24
CHICKEN WINGS	25.25	22.25
CALAMARI	26.75	22.5
FRENCH FRIES	27	23.5
ONION RINGS	27	24
POTATOES	26.75	23.75

All Frylow prepared foods had a more pleasing, appetizing appearance.



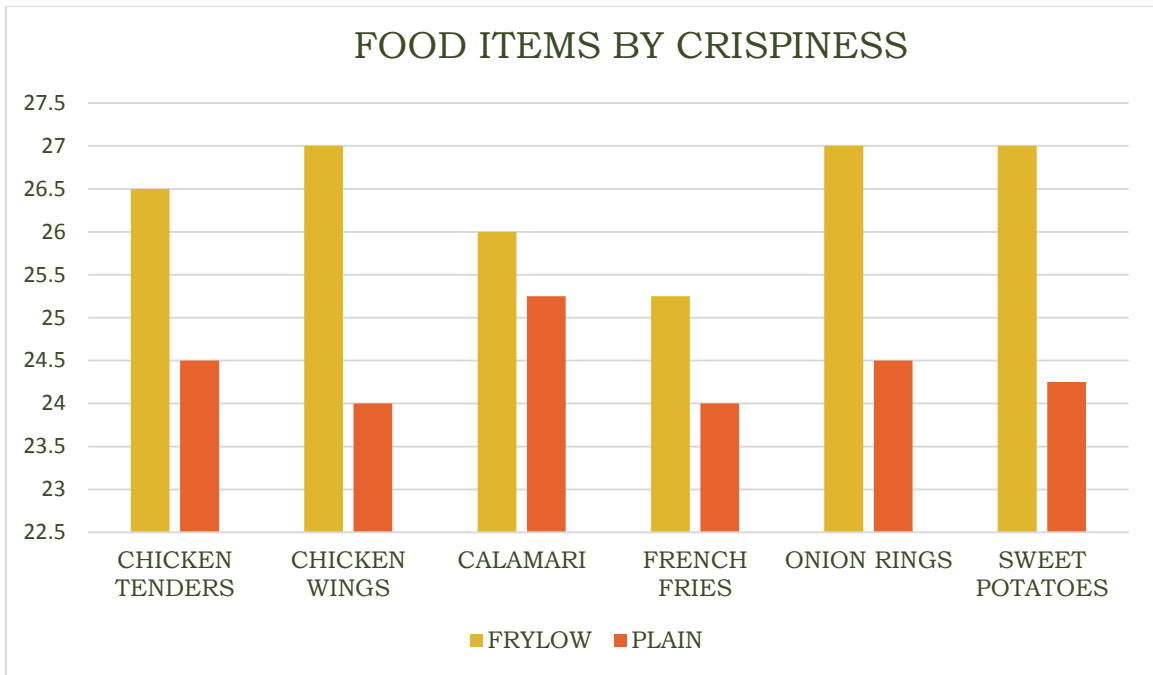
FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	25.5	22
CHICKEN WINGS	25	23
CALAMARI	25	22.25
FRENCH FRIES	27	24.25
ONION RINGS	27	23.25
POTATOES	26.5	23

The color of all foods fried with the Frylow technology were preferred over the plain oil samples.



FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	25.5	21.5
CHICKEN WINGS	25	23.75
CALAMARI	24.5	22.25
FRENCH FRIES	26.25	24.5
ONION RINGS	25.75	22
SWEET POTATOES	26.5	24

All food items fried with the Frylow technology were found to have better texture.



FOOD ITEM	FRYLOW	PLAIN
CHICKEN TENDERS	26.5	24.5
CHICKEN WINGS	27	24
CALAMARI	26	25.25
FRENCH FRIES	25.25	24
ONION RINGS	27	24.5
SWEET POTATOES	27	24.25

All food items fried with the Frylow technology were superior to the plain samples, most notably in chicken Wings, Onion Rings and Sweet potatoes



COMMENTS AND OBSERVATIONS

In addition to the narrative, graphs and tables in this report, MCI added this section to provide deeper insights as to the overall results of our testing and evaluating the respective food products.

Food items fried with Frylow technology elicited the following comments:

- “Less greasy and a pleasing fried taste”
- “A cleaner, not oily taste”
- “More pleasant aroma”
- “Less of an oily taste and appearance”
- “Displayed an appetizing color”
- “Had a crunchy texture even sometime after having been fried”
- “Amazed by the difference in color, cook time at lower temperatures and the positive results”
- “Meat items seemed juicier”
- “More crisp and less soggy than regular fried foods”
- “Pleasing, golden color and not gray and lifeless”
- “No burned tips”
- “Aroma of fresh frying oil”

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The comments and observations by the individual Master Chef represent on-the-spot impressions, which ultimately are reflected in the actual scores.

Frylow's ability to deliver high quality food products even when fried in dark oil points towards the additional benefits of extended oil life and a positive environmental impact.

In addition, the Master Chefs were very impressed with the ease of maintenance, which requires only a simple periodic rinsing and boiling process, without the use any soaps or chemicals. The Frylow device comes with a 5-year warrantee and provides for energy and oil savings, while improving the overall quality of the fried foods.



CONCLUSION

All the tests and evaluations performed by the Master Chefs' Institute focused on the evaluation of important sensory applications. Of the six food categories prepared with the Frylow technology all were judged to be of higher quality compared to similar foods fried the conventional way. Frylow samples also consistently scored the highest total points across the board.

In conclusion, Frylow's technology resulted in superior performance in all applications and the Master Chefs conclude that the positive results would be even more pronounced if older, more degraded oil was used.

The Master Chefs' Institute congratulates the entire team that has developed and managed this outstanding technology, which qualified for the Master Chefs Institute's Seal of Excellence.

The results and details of the data contained in this report are strictly confidential and will only be shared with representatives of FRYLOW CORPORATE. The Master Chefs' Institute may use this report for promotional purposes and only with the consent of the client. In such cases a generic version, which eliminates all reference to the Frylow device or competitive products will be used.



APPENDIX

DEFINITION OF EVALUATION CRITERIA AS USED BY THE MASTER CHEFS

FLAVOR

Overall sensory perception, combined with the sense of smell and sight, focusing on nuances in food.

TASTE

The perception of a specific element or substance within a complex profile.

BALANCE

The delicate combination and equal distribution of the basic taste characteristics, such as bitter-sweet-astringent and sour, without the domination of one single element.

AFTER TASTE

The lingering sensation, after the stimulating agent is gone, which makes one want more – or sometimes less of the food one is eating.

AROMA

The sensory element, which can enhance or detract from the flavor of food.



HOLDING QUALITY

The ability of foods to stay fresh for a certain time before serving, without losing its desired characteristics of crispness and fresh appearance.

APPEARANCE

Maintaining its appetizing appeal and fresh looks

TEXTURE

The ability to preserve the diverse densities/fibers of an entire dish, ranging from very crisp to soft, from smooth to grainy textures. Textures lend a unique dimension to foods and influence its appeal.

VERSATILITY

The ability to fit a myriad of uses, while enhancing the foods

CONSISTENCY

The viscosity of foods, which ranges from thick to thin, creamy to coarse and dense to light in their appearance and mouth feel.

ENHANCEMENT

The ability of any additive or technique to improve the flavor, texture, balance, aroma, etc.

ABILITY TO BLEND

The ability to create a homogeneous, lump free mixture within a reasonable time frame

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The Master Chefs' Institute appreciates the opportunity to test and validate your outstanding technology



THANK YOU!

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