

# Efficacy Determination of Weight Loss through Use of Crystal Tastants

An independent, double-blind, placebo-controlled study

## INTRODUCTION

Excess weight is a serious health concern for a large number of individuals. Obesity also creates negative feelings about appearance as well as reduced mobility. Hundreds of diet programs have proven relatively unsuccessful in being able to combat overweight conditions.

The use of chemosensory (smell / taste) stimuli has been demonstrated to induce weight loss in previous clinical trials.<sup>(1)(2)</sup> In particular, the use of tastant crystals on food demonstrated an average weight loss of 30.5 pounds during a 6 month period.<sup>(2)</sup> The achieved weight loss was attributed to the use of the tastants to enhance sensory specific satiety resulting in decreased caloric intake.

The hypothesis for this study was to demonstrate that over a 6 month treatment period, use of tastant crystals promotes statistically significant weight loss compared to a placebo consisting of odorless, tasteless powder.

For this test, 83 subjects were enrolled and randomly divided into test and placebo groups. Subjects were weighed in a clinical setting on a monthly basis for a 6 month period to determine individual weight loss or gain.

## STUDY OBJECTIVE

In this double-blind, placebo-controlled clinical test, tastant crystals were applied to food prior to consumption to induce gustatory stimuli and reduce the caloric intake by recruited subjects over time. The positive outcome of this study was to be demonstrated by a reduction in weight by those subjects.

Tastant crystals consist of proprietary formulations of food flavors that have been tested and identified to initiate satiety response.

## METHOD

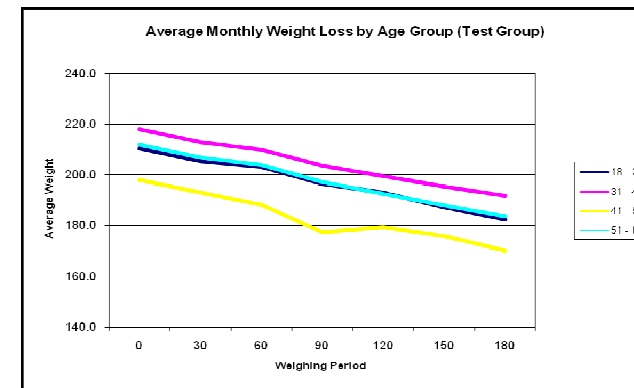
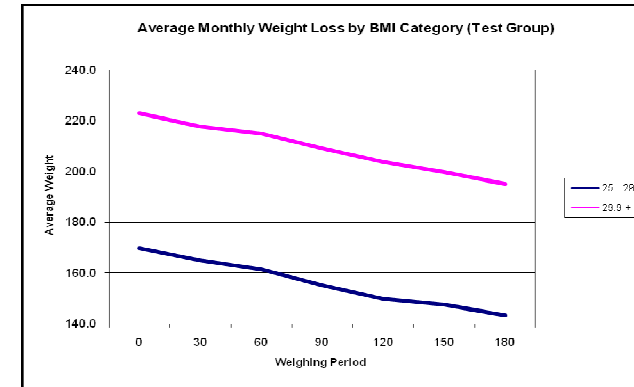
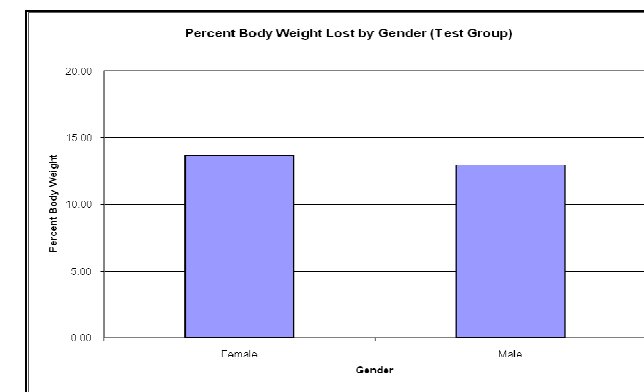
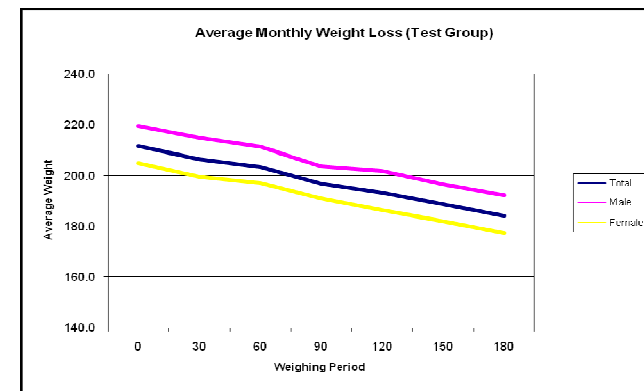
83 volunteer subjects were randomly selected to be part of one of two groups, test and placebo. Subjects were instructed about the product and its use. All

subjects were weighed at the beginning of the 6 month test period and at regular intervals during the period. Subjects were instructed to make no changes to their normal diet or physical activity patterns. 78 subjects completed the study.

## RESULTS

At the end of the 6 month study, weight evaluations indicated the following:

- Test group subjects demonstrated an average weight loss of 27.58 pounds.
- Placebo group subjects demonstrated an average weight gain of 0.34 pounds.



## CONCLUSIONS

Over the 6 month test period, those subjects applying tastant crystals to their meals demonstrated statistically significant greater weight loss compared to the placebo group.

Based on individual reports, as of week 6 participants reported having less appetite and acknowledged a reduction in the quantity of ingested food.

It was also concluded through body water measurements that none of the subjects suffered dehydration throughout the study and the weight reductions were not merely a temporary loss in body water content.

Male and female subjects seemed to show a similar ability to lose weight and the weight that was lost indicated a steady and gradual decline through the test time period.

Subjects seemed to show similar ability to lose weight during the 6 month time period regardless of age.

Overweight and obese groups as defined by BMI categories seemed to exhibit a similar ability to lose weight.

Percent body weight lost by gender:

- Female 13.7 percent
- Male 12.9 percent

No negative side effects related to the use of the test or placebo product were reported by test subjects.

Subjective responses indicated that test group participants experienced increased satiety resulting in reduced consumption of food during meals due to the faster satiety response.

## REFERENCES

(1) Hirsch, A.R. and Gomez, R., *Weight Reduction through Inhalation of Odorants*, The Journal of Neurological and Orthopedic Medicine and Surgery, Vol. 16, No. 1, 1995.

(2) Hirsch, A.R., *Use of Gustatory Stimuli to Facilitate Weight Loss*, Smell and Taste Treatment and Research Foundation, Chicago, IL.