LOW TEMPERATURE COOKING INTRODUCTION

LOW TEMPERATURE COOKING FACTS

MEAT AND NUTRITION

Meat plays a significant role in the diet; therefore, one of the primary goals in food preparation is proper nutrition. Meat is one of the best sources of protein; is a rich source of B vitamins such as thiamine, riboflavin, and niacin; and includes fats, carbohydrates, minerals, pigments, enzymes and water.

All of these elements are affected by cooking, but over-heating destroys many of them. Low temperature Halo Heat cooking helps preserve unstable, heat-sensitive vitamins and nutrients. A report on the Nutrient Analysis of Roast Beef, conducted by the University of Wisconsin-Stout in July 1971, concluded, "…it is apparent that Alto-Shaam cooking method results in lower moisture losses. Even after a 24 hour holding period, the Alto-Shaam product is nutritionally equal to, and possibly better than beef roast cooked in a conventional oven and removed immediately after cooking."

Fat contributes greatly to the flavor of meat. During the cooking process, fat not only melts, but also changes chemically. With low temperature cooking there is less chemical change and less fat melt resulting in a more flavorful finished product.

The enzymes found in meat break down the tissues and act as natural tenderizing agents. A premium price is paid for aged meats where this enzyme action has already started, however; enzymes are destroyed by high temperatures. Low temperature cooking does not destroy these enzymes and, particularly in the hold cycle, creates this natural chemical action to tenderize or age the meat right in the oven. For this reason, it is important to use fresh beef and it is essential to allow the product to remain in the hold cycle for at least the minimum amount of time suggested in the individual procedures. The longer meat is left in the hold cycle the more tender it becomes, making the purchase of more expensive, aged meat unnecessary.

Meat is seventy to seventy-five percent water. High temperatures cause this water to evaporate during cooking resulting in loss of product moisture. Cooking at low temperatures in a Halo Heat oven retains the maximum amount of water content resulting in a juicier finished product and an extended holding life.

Along with better nutrition, a more tender finished product, less shrinkage and higher moisture content, meat will not require the addition of as much salt as needed with conventional cooking methods. Natural flavors are preserved. This is a significant factor in today's health conscious diets.