Simple grading method assures Tenderness of beef

Having steak or roast beef for dinner this evening? If so, your prime concern will be taste and tenderness, the most important palatability characteristics of meat. Beef can have good color and flavor, but if it is tough and cannot be cut or chewed, it is virtually inedible.

Tenderness is difficult to judge because there is no simple test other than cooking and eating the meat. However, there are hundreds of patents for tenderizing. For the housewife, a number of tenderizing agents exist which may make meat more palatable, but these preparations seldom can be spread uniformly. Thus, there will be some meat overtenderized and some undertenderized. Overtenderizing makes meat mushy. In addition, some people may develop allergies to tenderizing agents. Packing houses employ methods of tenderizing that break down muscle fibre and tissue, but this does not separate tough meat from tender, nor does it guarantee that tough meat will become tender.

Even the best quality meat offered to the consumer lacks uniformity in tenderness because two steers from the same herd, raised under similar conditions, slaughtered at the same time, processed under similar conditions, graded into the same class, and aged under identical conditions, can be vastly different with respect to tenderness. Standard practice for obtaining near maximum tenderness is to age meat for 14 to 15 days at temperatures of 34 to 36 degrees Fahrenheit. But these conditions were established without taking into account the influence of ante-mortem factors on tenderness.

In the last two decades, a large number of studies have been undertaken in an effort to understand postmortem tenderization of meat. These have indicated that the tenderizing process involves complex physical, physiological and biochemical changes which occur both before and after slaughter of an animal. Processes have been devised to influence post-mortem changes in order to

Dr. A.W. Khan monitors onset of rigor mortis and pH (acid content) of a sample of beef in the laboratory. • Le Dr. A.W. Khan repère le début du "rigor mortis" et mesure le pH, c'est-à-dire l'acidité, d'un échantillon de boeuf.

