THE NEED FOR A STUDY TO DETERMINE THE EFFECT OF QUALITY AND FINISH ON THE ACCEPTABILITY OF BEEF

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This report of necessity will be mainly a "conglomeration" of one man's opinion and statements from here and there. The main purpose in presenting this topic is to encourage discussion in order to bring out the rather "knotty" problems which would be encountered in such a study.

A few years back the U.S. Dept. of Agriculture made a survey of 4,466 housewives concerning consumer habits and preferences. In answer to the question as to quality of meat their dealers handle, 34% stated that their dealers handle the best quality, and 43.1% replied that they handle good quality. These women were not thinking in terms of the standard grades but were speaking in relative terms in comparison with what was available in their communities. It was quite apparent that carcasses grading prime and choice were not the only ones that are highly acceptable to many housewives. Well, what is quality?

In the same survey the more well-to-do traded longer with one dealer, whereas 56% of the so-called middle class had traded with their current dealer only two years or less. 44.2% of the white housewives traded with their particular butcher because they preferred the quality of meat supplied, while 25.5% were guided by convenience of location. Economical prices were mentioned only in cases of the poorer classes. In the cases where the housewife stopped trading with a dealer, more than one-half had stopped because of poor quality meat. Unsanitary handling and dishonesty were the other two most important reasons given.

In a 1948 study concerning consumer shopping habits regarding groceries with 600 Knoxville families convenient location was the most important patronage motive. The study showed a definite tendency for younger women to trade with chain stores and negroes to patronize independent grocery stores.

While these surveys are interesting and may contribute to the solution of the problem, they of course have left many unanswered questions. We have all been schooled on the effects of religion, geographical location, custom and habit, temperature and, most important of all, consumer income and purchasing power in determining the demand for meat products. In the cities more beef and less pork and poultry are eaten than in rural regions. The South uses more pork than the North. The West leads in the per capita consumption of beef. Most of the lamb is eaten in the middle Atlantic and New England states. We think we know what sections prefer specified weights and grades of beef. But do we?

Other factors may affect acceptability - in terms of "between" and "within" error - this may be a "within" difference. That is, various meat products compete with one another as well as with other foods. There are many people eating more pork this year than say, two years ago, not because

they like pork better than they did at that time, nor that poorer quality beef is available--pork is cheaper! These surveys made on meat acceptance to date have not taken into account specifically the effect of finish and quality of beef. We certainly can be "off the beam" as it has been expressed, on many of our ideas and thinking concerning quality and finish as it affects consumer acceptance.

"Let livestock eat up most our farm surpluses," is the idea of a larger number of influential agricultural leaders. This seems feasible when the economists tell us that an increase in our livestock population of 5% would use up all of our so-called grain surpluses. Also that if each of us spent on the average ten cents more per day throughout the year for high protein foods, there virtually would be no agricultural surplus. They point out that livestock can, not only eliminate most surpluses, but can at the same time improve the national diet, help conserve soil, provide for more employment within agriculture, and return more of the consumer's food dollar to the farmer. That's because a livestock feeder is not only a producer of raw products, but a processor. They point out that livestock farmers would have to have income support at some level, and in some fashion, but that the support might better be under livestock than under many things we now support.

There is a definite emphasis being placed on livestock in helping solve our agricultural problems in the United States. Do we as "meats men" and research people have enough information to advise our associates as to the degree of finish and quality most desirable to meet consumer acceptance and at the same time help solve the problem of grain surpluses.

What about grass economy? Workers at the University of California have estimated that 78% of the tonnage of beef in the United States is produced on grass and cheap roughages. Some workers have advocated increasing this tonnage of beef produced on grass by 10%. This probably means marketing heavier cattle, long two year olds. These heavier cattle will likely have a thicker covering of external fat with somewhat lower quality meat as we now think of it. Animal geneticists, of course, are hopeful of producing larger "rib-eyes" and more marbling with improved breeding programs. This increased tonnage may be the way to help provide the additional calories needed for the 5500 more people that will be eating breakfast tomorrow in the U.S. than were today. In other words, a population increase now at the rate of over 2,000,000 each year. On the other hand we aren't interested in producing excess fat or contributing to the general wastefulness of our country with grass economy. As has been pointed out in a recently proposed regional meats project, beef produced largely from roughage or grass lacks "quality" as defined by present standards. The lower quality results in branding as may not be justified on the basis of consumer acceptance. More serious, however, is that the broad name may suggest or mislead the consumer into assuming that a certain type of beef is undesirable from the satiety or nutritive standpoint when quite the contrary may be the case. Likewise, with our over finished carcasses the grade terminology may suggest to the consumer that excessive finish and hence high production costs is to be desired when this is not the case. The shortcomings of the present grade standards are to a large extent related to the lack of fundamental information to characterize the different qualities. It may be pointed out that in any system of beef production such as one requiring maximum utilization of pasture and roughage it is imperative that information be obtained on the factors of production which will produce the desired amount, character and distribution of finish along with other factors in order to meet certain standards of acceptability.

What effect the new proposed changes in beef grading might have on this subject, I don't know. But, we do need standards, objective standards, if at all possible, based upon a combination of production factors and consumer standards of acceptability. Also the effects of new kinds of merchandising, such as freezing and prepackaging is unknown. The behavior patterns of the consumer and his likes and dislikes are becoming more and more important to those engaged in the production and distribution of meat and meat products. It behooves us to find out what he wants.

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CHAIRMAN TOMHAVE: Thank you very much, Professor Cole.

Before calling on the discussion leader I want to present a couple of very fine gentlemen to this group.

The first gentleman at my right is Dr. Weber, Associate Dean of the Kansas Agricultural College, who will be speaking tonight. He is known to many of you, but take a bow, Doctor.

Over at the far end of the room is a man who has been very much interested in the Reciprocal Meat Conference ever since it was started, because at that time he was Chairman of the National Live Stock and Meat Board. I should like to have you know Will J. Miller of Topeka, Kansas. Mr. Miller.

This discussion on this very interesting paper is going to be led by Professor G. W. Vander Noot, of Rutgers University, who will now take over.

MR. VANDER NOOT: Chairman Tomhave, I think you will all agree thqt Mr. Cole's paper is appropriate at this time, because after the discussion this morning it sort of helps to lead on toward what we hope will happen this afternoon. There were two things in Mr. Cole's paper that impressed me greatly. First was the reaction of the consumer and secondly, the question of grass fed cattle. He brought out that the consumer does have a great deal of confidence in his local retail butcher as to the grade and quality of meat that he is offering for sale.

The question comes up, if the grading standards are changed what will the retail butcher be able to say to his consumer as to the quality of the beef?

I should like to mention the fact that Mr. Brady's paper follows after this and it is along the same general trend, except I believe it is to try to explain how a research program can be set up. Also Mr. Brady has no discussion leader after him. So this is your opportunity to bring out any opinions or questions on Mr. Cole's paper.

Are there any questions or discussion? I am sure some of you must have had time to think over what happened this morning and maybe you have some good ideas. Right now is a good opportunity for you to get them off your chests.

MR. HALE: Did you say that you are heading toward larger animals? Is that the way you put it? Grass fed animals. I thought that the kosher trade in Boston were the only ones that were using the really large animals today and the rest of the country were going toward the smaller packages for the housewives.

MR. COLE: I said if we were to increase the tonnage of beef 10 per cent above what is now being produced on grass and roughages, it would of necessity almost have to be in larger animals, longer fed steers on pastures, if you please, or cheap roughages. That is the way we will get that 10 per cent. I am not saying that 10 per cent is the desirable thing. There are some people who are taking the stand that we should increase the present tonnage of beef in the United States by 10 per cent on grass and cheap roughage.

MR. VANDER NOOT: Are there any other questions? I am sure some of you have some opinions as to the need for research along this line.

MR. WELLINGTON: I should like to ask Mr. Cole just what he feels are the best methods of measuring consumer acceptance. It is difficult to measure. I am quite interested in that subject.

MR. COLE: Well, I had hoped that Mr. Brady would bring that one out in his paper. Are you going to, Dan?

MR. BRADY: You read the paper.

MR. COLE: I said it is a knotty problem, a good old, hard knotty problem, and I have a few ideas. One of them is that the meat that is used in a consumer acceptance study should be of known origin, and if possible we should know something about the chemical and physical background of that meat. I do not know how to answer it. Maybe after Dan gets through we can thrash it out.

MR. WARNER: Mr. Chairman, maybe I am out of order. Somebody said something about big steers versus little steers. Is that a matter of discussion? The reason I ask is I have always wondered why, if the western stockman can give us a 100-pound lamb or, say, a 65-pound feeder lamb, with the same routine that he uses to give us a 50-pound one, we should holler about the 100-pound finished lamb. Is it not an obligation of the meat processing industry to take this better, bigger lamb and make little ones out of big ones when it comes to breaking it up? Should we penalize the efficient feeder and rangeman by discounting his heavy lamb, and the same thing applies to beef?

MR. VANDER NOOT: Does anybody wish to answer Mr. Warner?

MR. PALMER: I have a thought. This matter of prepackaged meats in our large chain stores, and especially back East, is going to make necessary a study on consumer acceptance as it affects quality and finish. I think that is something that we should bear in mind.

MR. PIERCE: Along the lines of what Mr. Warner says, I think that the size and variation of these cattle and lambs that they are

slaughtering and sending to market depend quite a little on the consumer acceptance, and that consumer acceptance is going to differ largely with the area in which the cattle are sold. For example, I do not know how many of you have had the opportunity or the good fortune to go on one of those Swift marketing trips which they have every year. They take about twenty individuals on each trip. They start here in Chicago and go east to New York and Boston and they study the process of marketing all the way along the line. They determine that the consumer at the table today determines the price of carcass beef tomorrow. For example, Boston desires one type of beef and Manhattan desires another; and when you get into Greater New York they desire still another. The three sizes of beef, heavy steers with a lot of finish, light steers with a lot of finish, and yet you get into other places that want heavy steers with hardly any finish.

I think with that thought in mind the production of cattle of various sizes and weights should not offer us any problem of great magnitude in our production policies.

MR. VANDER NOOT: Thank you.

MR. ROUBICEK: I know that many of you have worked in retail shops and sold meat to housewives, and it seems to me that a meat cutter or butcher, whichever you prefer, is more than that. He is also a kind of chaplain and counselor and the housewife brings him a lot of troubles. I think he can sell meat. That is, instead of being a hamburger eating nation why can not we swing over just a little and use some of these so-called more economical cuts and therefore the quality becomes secondary if he tells her how to prepare that piece of meat properly? In other words, we need butcher education just as much as we need to find out what the housewives need. The particular size of the animal does not matter. It has been pointed out by Mr. Warner that he can cut a piece of meat so she can handle it, no matter what size carcass. It does not have to be a matter of the small beef giving a small steak. You can take that round and cut it National style or whatever you want and give her a small piece of meat. It is not the size so much as it is a fact that the housewife has to know how to use it properly and the butcher must tell her how to use it properly.

For example, when I was having my last fling behind a counter this problem of monosodium glutamate was coming out a lot, and they asked, "Should we use that?" It was sitting on the counter. "Should we use that with meat or should we not?" Frankly, I cannot cook a piece of meat. I cannot fry an egg. I could not tell them. Maybe we should check with the butchers and see what they are doing in trying to merchandise some of these problems that we have instead of surveying the consumer.

MR. VANDER NOOT: Is there other discussion?

MR. PIERCE: I think along the same line that Mr. Roubicek was talking that we are dealing a lot with meat research and consumer acceptance, but true it is supposedly left to the Home Economics Department to teach the girls how to cook the meat, but I have found through experience

that these Home Economics girls do not know much about meat and maybe it should resolve itself as one of our duties to put out information on the cooking and also on how to serve and prepare the different types of meat along with our other research work.

MR. VANDER NOOT: There is one point that I should like to bring out and to ask Mr. Warner. I am not thinking in terms of the large retail butcher, but in terms of the small local butcher who has a corner store. With regard to lamb, generally speaking he is not interested in those 100-pound lambs. He wants the smaller, lighter lambs, because he has a hard time disposing of the so-called poorer cuts. He has to be taken into consideration not only on lambs but other types of meats also as to what he can handle and how he can economically dispose of it. After all, he is in business to try to make a dollar, so we have to take him into consideration along with the consumer as to what he can accept and what he can handle for his patrons.

Are there any other questions?

MR. KUNKLE: I wonder if the fault is not the fact that we have piled excess pounds of fat on a framework that probably was only worthy of going to market at 80 and not at 100 pounds. Yesterday I cut some lamb for the Ohio Shropshire Association and those lambs ought to have been stopped at 80 pounds instead of getting to be 100 pound lambs. I should like to raise the question, and I think this place probably ought to have the answer.

We are told in Ohio that this obscene word that was brought up this morning is a part of the national soil conservation program and if we are going to keep our land together we must have more grass, and that means that we are going to salvage this grass in terms of human food and we will have to let these ruminants be the scavengers because we people do not have time to spend on pasture. If that is true and we think about the possibilities of good grade beef to eat, I wonder then if we are going to have to go to a larger animal. We are told that it is possible to make good grade grass beef on the sand hills of Nebraska and in the mineral section of Wisconsin and the Shenandoah Valley. I have seen one of these three places. I have not seen any of their so-called "good" and "choice" grades carcass grass beef. Do we have some information that might help at least to enlighten me? Perhaps some of the rest of you would like to share in it.

MR. BULL: I wish to ask a question; in fact, two questions. The first question is "Did any of you ever try to teach a butcher anything? I refer to the man behind the block, not to the manager of the market. I presume that the answer to that question is "Yes, some of you have." Then the second question is "Did you ever succeed?" I have not.

MR. VANDER NOOT: It reminds me, Professor Bull, that last winter I had the privilege of seeing one of the demonstrations put on by the National Live Stock and Meat Board over at Trenton, New Jersey. Of course, I was inspired by how you can take some of these so-called poor cuts of meat and make them quite palatable. So I went to my local butcher and asked, "Could you make me up such and such a cut?" Of course, he was

quite ignorant of it. So I tried to show him to the best of my ability, but the point that I should like to bring out is that most butchers only know conventional cuts and are not able to take these so-called poorer cuts which have quality and make them presentable to the people of their markets. He did not try to make any more, I can assure you. There was too much work and labor involved for him and it was time-consuming.

Are there any other questions?

MR. TYLER: I should like to answer Professor Kunkle's question. In the fall of '47 we sold cattle that were graded and some were sold in October. They were graded by a government grader. Half of them graded "good" and half graded "commercial." Whether he graded them right or not I do not know. They were a year and one-half old and weighed 850 pounds.

MR. COLE: Maybe you would say this is an unusual case. This happened, Mr. Kerr tells me, in Greeneville Station. In upper east Tennessee a load of twenty-two heifers, three-fourths of which had grass and there were three commercial, one average choice and the rest good. The average choice was a heifer that had never had a bit of grain and her mother had never had a bit of grain. It was graded by a federal grader who later got a reprimand for grading too close.

MR. VANDER NOOT: Are there any other questions? I believe our time has come to a close.

CHAIRMAN TOMHAVE: Thank you, Mr. Vander Noot.

We now come to the all-important subject which you have been waiting for, and that is to find out just how to do it and when to do it. The topic is "A Detailed Analysis of Factors to Consider in Organizing and Executing a Meat Research Project to Determine the Effect of Quality and Finish on the Acceptability of Beef." This topic is presented by Dr. Brady of the University of Missouri.

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