STUDENT MEAT INTEREST GROUPS*

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At Iowa State University, a student organization devoted exclusively to the Meat Science area, came into existence about four years ago. It began as part of an attempt by the Block and Bridle Club to involve more of its several hundred members in active participation in the varied programs of this organization. I would view it as a logical development just as Meat Science has begun to emerge as a separate discipline within the more general area of Animal Science.

The initiative for the development of what has become to be known as the ISU Meat Interest Group, came from several of the more active undergraduates in Animal Science. They asked me to serve as faculty advisor to the group, a request that I gladly accepted since it afforded me one of my few opportunities for contact with the undergraduate students.

The active membership for this group has numbered from 20 to 30 with the real core of its leadership being centered in 10 to 15 key members. This same group also provides some of the key leadership of the Block and Bridle Club or at least the group that does much of the work in connection with Block and Bridle activities. By the same token some of the general membership in Block and Bridle assists in at least one of the Meat Interest Groups projects.

The group generally meets once per month and, when the press of other activities permits, tries to schedule outside speakers from various segments of the meat industry. Although every attempt is made to publicize these meetings, attendance is usually limited to the group members plus occasional staff members from Animal Science and Food Technology. While the general Block and Bridle membership has not participated to any great extent, the Meat Interest Group has had some success in influencing the selection of some speakers at general Block and Bridle meetings whose topics have related to the Meat Science area.

One of the major projects of the group has been an annual trip to study various phases of the meat industry (and some related industries) that were not readily available for their study in Iowa or not covered in their course work. This trip is usually 3 days in duration and we have tried to keep the numbers down to 10-15 persons. This is taken during quarter break and visits have included specialized sausage plants, a casing manufacturer, H.R.I. suppliers, an airline commissary, a large retail food chain warehouse and manufacturing complex, retail markets and a good locker operation.

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In addition to projects related to on campus activities, the group took on a rather unique effort this spring. Each year the Living History Farm near Des Moines sponsors a craft festival where many of the old time skills are demonstrated to the public. The Meat Interest Group undertook a demonstration on farm butchering (we bypassed the actual slaughtering) complete with a wood barrel smokehouse, the old iron kettle for lard rendering, etc. The fact that a couple of the fellows grew beards didn't detract from the realism of this event.

To help finance this trip and to contribute to the general welfare of the Block and Bridle Club, the group has sponsored an annual Christmas summer sausage sale. The product consists of 2 sticks of sausage (approximately 3 lbs.) in a gift box. This project is in itself a learning experience since it involves planning raw material procurement, sales, all the manufacturing steps plus all of the attendant problems. They are faced with all the real problems of the meat industry on a miniature scale. Although some help in the sales and manufacturing effort comes from the club in general, 80 percent of the time inputs and 90 percent of the sales are the result of the Meat Industry Group members. This past year the net return was over $2000.

This has been a real bone of contention in that the receipts go to the Block and Bridle Club and the Meat Interest Group has relatively little to say about disposition nor have the benefits to the group members been proportional to their efforts. This has led to a strong desire for greater autonomy or, in fact, complete separation from the parent organization. If one of the two doesn't occur soon, either the group will disband or their activities will be greatly curtailed.

This separatist movement fostered by a strong desire on the part of the membership of the group to achieve some degree of separate professional identity. Here, affiliation with a professional organization would be a great help. I feel it would also serve to strengthen the area of Meat Science as a separate professional discipline if indeed you concur with me that such would be beneficial. It is to this end that the motion was made last year to have the AMSA executive committee develop a program for AMSA student affiliate groups. It would be my hope that such could be implemented this coming fall.

I think the real test of these student groups is the interest they foster in steering the student into a career area. So far I'd rate our success as good to excellent. We have had a number of the more active members of the group end up on the meat industry in areas ranging from quality control in turkey processing to middle management in the packing industry to meat retailing to the HRI business and even one in his own locker operation. In a number of cases, the final decision on employment was influenced by contacts and experiences gained through the Meat Interest Group programs. I might add that two of the members decided on graduate work in the Meat Science and Muscle Biochemistry area. Because of the rather high grade point average for many of the more active members, it's not unusual that we would have "lost" several to the Veterinary College.

Again, I feel these types of student interest groups can be a significant force in the development of a greater interest and professional identity for the Meat Science area. I would encourage the AMSA to take an active roll in encouraging them.

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DON KROPF: Thank you, Rusty, for your report on that. I think this is something our organization needs to look into.

I do want to recognize members of the Intercollegiate and Youth Activities Committee and have been asked to name them. They are: Dick Epley from the University of Minnesota, Jacque Fileatreau from the Meat Board, John Jacobs from University of Idaho, Leon Orme from Brigham Young University, John Romans from University of Illinois, and Gary Smith from Texas A & M University. This was a real fine committee in terms of the help and the comments they gave me. I especially want to thank the speakers for saying, "Yes, they would," the first time I asked them. That's unique. Our committee had a batting average of 1,000.

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JOHN SINK: Gene Allen has asked me to announce that all the members of NC-91 will meet at 4:15 in this building in Room 312, at the top of the lobby.

This afternoon's Committee to report is the Flavor Committee and it is chaired by Dr. Aaron E. Wasserman. Dr. Wasserman received his Ph.D. degree from the Philadelphia College of Pharmacy and Science. He is currently Research Leader of the Meat Composition and Quality Investigation at the USDA Eastern Marketing and Nutrition Research Division in Philadelphia. At this time I'll introduce to you, Dr. Aaron E. Wasserman.

AARON WASSERMAN: Thank you, John. There is one thing I forgot to bring you up-to-date on. We are now the Eastern Regional Research Center. People have been interested in the flavor of meat for thousands of years, either from the aspect of developing meat flavor or from the aspect of hiding any off flavors that might develop in the meat. But up until about 1960, nothing could be done on a scientific basis insofar as flavor was concerned. About that time, however, we developed sophisticated technology which has allowed us to look at the components of flavor and aroma. Starting off with the gas chromatograph, which was one of the major breakthroughs in the instruments, we had first of all, in order of sensitivity, the thermionic detector, then flame ionization and finally the electron capture detector which allowed us to measure smaller and smaller quantities of these materials. To keep pace with these detectors, we also had improvements in the matter of identification and confirmation: infra-red

spectrophotometers, NMR, mass spectrometers and finally the ultimate, at least at this time, the gC-mass spec-computer set-up. This has allowed us to realize that meat flavors are made up of many components. Some 10 or 20 compounds had been identified earlier, we now know there are some hundreds of compounds. The study of these has occupied approximately the last 10 years and as you will hear we have gone into these identifications and we know now many compounds that are present in meat flavor. However, putting them together is another story. Within the last several years we have slowed down on the identification problem, because we have skimmed the cream off the top, and now there is a period of sitting back and digesting all the information that is available. Today we are going to hear about some of the developments that occurred during the past 10 years and perhaps a little information on what has occurred in putting these together to come up with some answers. But before we go into the program I'd like to acknowledge with thanks the assistance of the other members of the Committee. Without them we certainly would not have had this program. They cooperated very well with me in suggesting topics and speakers. These gentlemen are as follows, and I think they are listed alphabetically--Milt Bailey, University of Missouri; Ken Berry, Western Regional Research Center; Ned Draudt, Peter Echrich Co.; Bob Dudley from Hormel; Harold Herring from Armour and Co.; and D. A. Lillard from the University of Georgia.

There is a topic going around which some of you may have heard about--the problem of the use of nitrites in the curing of meat. I am not going to get into that myself, there are many aspects of this. But one of the things that has not been considered too extensively in the past is the effect of nitrite on flavor of cured meat products. It seems as though everybody knows all about the effect of nitrite but nobody has done anything about it. There has actually been very little written about the effect of nitrite on cured meat flavor. I think we have heard several references this morning as to what happens to emulsion type products when nitrite is omitted. So perhaps it is time we learned something of what does happen when nitrite is omitted from cured meat flavor and we are very fortunate to have Duane Westerberg to talk to us on "Cured Meat Flavor and the Role of Nitrite in its Development." Dr. Westerberg is in the Food Science Institute of Union Carbide Corporation.