REPORT OF THE LAMB CARCASS EVALUATION CONFERENCE

by Warren F. Brannon[1]

Forty-two persons representing many segments of the sheep industry and New Zealand as well as most geographical areas of the United States participated in a Lamb Carcass Evaluation Conference held September 28, 1964 at Iowa State University.

This was the first national conference where most segments of the industry--producers, producer organizations, packers, USDA, research workers and educators of all categories--were invited to review and discuss lamb carcass merits and evaluation procedures. The event was sponsored by ISU's Animal Science Department, the Sheep Improvement Committee of the American Society of Animal Science, and the American Meat Science Association.

A review by Zerle Carpenter, Texas A & M, of scientific research on lamb carcass evaluation revealed that most quality characteristics as subjectively appraised are poorly correlated with carcass value, but that cutability tests are of more significance. He pointed out that objective measurements such as fat thickness, and percent of leg and loin can be made which are indicative of carcasses having a high yield of red meat.

C. E. Murphy, Livestock Division, AMS, USDA, reported on studies related to the cutability of lamb carcasses. These differences in cutability amounted to more than $8.00 per hundredweight in retail sales value within the Choice grade. It is from these studies that the formula (described later) was developed to express cutability in positive terms. Murphy further described the types of information that could be made available within the present grading program and reported that another research study on lamb carcass evaluation is now being conducted.

A number of carcass evaluation procedures were presented and scrutinized at the conference, and attention was given to the "Consumer Preferred Lamb Carcass" standards.

L. N. Hazel of Iowa State University presented evidence indicating that 10 progeny per ram would provide reliable information on the genetic merit for carcass quality. He further suggested that as few as 20 key seedstock producers per breed in the United States is all that are needed to effect improvement in the economically important traits. As long as the industry is moving in the direction of meatier, more acceptable carcass quality that most systems of evaluation may be useful. Eventually out of the many systems will evolve the best or most acceptable procedure.

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[1]Conference chairman and associate professor of animal husbandry, Cornell University.

Lou Thompson, Rath Packing Co., Waterloo, Iowa, "spot lighted" the considerations of time involved in securing carcass information in routine plant operation and the need to keep lamb carcass evaluation relatively simple and easily understandable. Gene Leman, Wilson and Co., emphasized the problem his plant encounters in cutting light lambs for carcass evaluation.

Representatives of breed associations gave recognition to the fact that their organizations must establish better breeding stock through application of carcass evaluation procedures. Cutability and quality of carcasses have been given some scientific study and found to be important. Also production factors involved in the growth of the lamb appear to be of no less significance.

The efficient and economical production of trimmed cuts or edible meat is the ultimate goal of the sheep industry. Maximum yields of boneless, closely trimmed primal cuts must be realized. Simple, yet accurate methods of selecting carcasses which attain this goal has been one of our greatest problems. A shift from the "eye-ball" procedure of judging lamb to more objective methods has been taking place. The conference gave particular attention to the Reciprocal Meat Conference recommended system of classifying or grouping live lambs according to conformation and degree of finish. The various classes are 1A, 2A, 3A; 1B, 2B. This system appears to have merit in the grading of lambs as well as in carcass shows.

However, in addition to this classification system an objective carcass evaluation procedure needs to be applied. G. M. Spurlock presented convincing evidence that the evaluation methods established by Purdue, Kentucky and USDA are reasonably accurate in predicting the most lean meat or primal cuts in the carcasses. Carcass information needed for applying each of these systems is as follows:

Purdue

1. Fat thickness (inches) over loin
2. Kidney fat (pounds)
3. Weight of chilled carcass (pounds)

Kentucky

1. Area of loin eye (square inches)
2. Fat thickness (mm) over loin
3. Kidney and kidney fat (percent)
4. Leg (percent)

USDA

1. Conformation guide
2. Fat thickness (mm) over loin
3. Kidney fat (percent)

These were the simplest procedures available with a degree of accuracy.

Progeny testing of sheep is long overdue. Here the goals are slightly different than those of a carcass contest since production factors must be considered; however, the same carcass information can be applied. It was suggested that pounds of edible meat per day of age, as expressed by one of the foregoing formulas, may be a valuable criterion for selecting breeding stock.

The conference noted with considerable interest the "Consumer Preferred Lamb" and may accept it as a reasonable goal. That goal is not yet expected.

The conference adjourned after directing a subcommittee composed of Warren Brannon, Zerle Carpenter, C. E. Murphy, Clair Terrill, and R. E. Rust to define a recommended procedure or procedures for lamb carcass evaluation. This suggested procedure is to be submitted for the approval of those who attended the lamb carcass evaluation conference. This procedure then would be submitted to the lamb industry as the final report of the conference.

ATTENDANCE

The following persons attended the conference on "The Future for Sheep" and/or the Lamb Carcass Evaluation Conference:

Herman Aaberg, American Farm Bureau, Chicago
Jim Ahrens, Animal Science Dept., ISU
Frank H. Baker, Federal Extension Service, Washington, D.C.
Richard Bean, Animal Science Dept., ISU
Mrs. Don Blair, Women's Auxiliary, Iowa State Sheep Assn., Mason City, Iowa
Bob Bledsoe, Wyoming Wool Growers Assn., Casper, Wyoming
Alan E. Bogue, Lamb feeder, Beresford, S. Dak.
Warren F. Brannon, Cornell University, Ithaca, N.Y.
R. W. Bray, Dept. of Meat and Animal Science, University of Wisconsin
Bob Bristol, Stuart, Iowa
R. F. Bristol, College of Veterinary Medicine, ISU
Mrs. Otis Budlong, RFD 4, Cedar Falls, Iowa
Richard Burger, RFD 1, Moraria, Iowa
Leon F. Bush, South Dakota State University, Brookings, S. Dak.
Dan Cain, Doane Agricultural Service, 8900 Manchester Rd., St. Louis, Mo.
G. Alvin Carpenter, University of California, Berkeley, Calif.
Zerle L. Carpenter, Dept. of Animal Husbandry, Texas A & M University
Raymond P. Carroll, RFD 3, Osage, Iowa
Mrs. Phyllis Cherryholmes, North Central Wool Marketing Corp., 3114 School St., Des Moines
Larry Clayton, Marketing Economics Division, Economic Research Service, Washington, D.C.
Kenneth J. Drewry, Animal Sciences Dept., Purdue University, Lafayette, Ind.
Leo Eliason, John Morrell & Co., 2413 So. Van Eps, Sioux Falls, S. Dak.
Esam Eltawil, Animal Science Dept., ISU
Robert E. Fritz, South Dakota State University, Brookings, S. Dak.
Gene Futrell, Dept. of Economics & Rural Sociology, ISU
Salah Galal, Animal Science Dept., ISU
LeRoy Getting, Lamb and cattle feeder, Sanborn, Iowa
Roy A. Gilman, Am. Hamp. Sheep Assn., Stuart, Iowa
Hudson Glimp, Dept. of Animal Science, University of Kentucky, Lexington, Ky.
Ralph H. Grimshaw, Animal Science Dept., Ohio State University, Columbus
Nathan S. Hale, Animal Industries Dept., University of Connecticut, Storrs
Richard Hall, Marketing Economics Division, Economic Research Service, Washington, D.C.
Edwin O. Haroldsen, Center for Agricultural & Economic Development, ISU
L. N. Hazel, Animal Science Dept., ISU
John Hickman, American Sheep Producers Council, 520 Railway Exch. Bldg., Denver

Max Hinds, Office of the Administrator, Agricultural Research Service, Washington, D.C.
Ken Hofmeyer, Wallaces Farmer, Des Moines
Dwight Holaway, 101 27th Ave., S.E., Minneapolis
Mrs. Carl W. Hoover, Women's Auxiliary, Iowa State Sheep Assn., New Sharon, Iowa
Marlin Hubmer, St. Peter, Minn.
Keith Inskeep, West Virginia University, Morgantown, W. Va.
Dewey M. Jontz, Iowa State Sheep Assn., State House, Des Moines
R. M. Jordan, University of Minnesota, St. Paul, Minn.
Russell R. Keetch, Extension Service, Utah State University, Logan, Utah
R. F. Kelly, Dept. of Animal Science, Virginia Polytechnic Institute, Blacksburg, Va.
Norman F. Klemm, Gromer Super Markets, 626 May St., Elgin, Ill.
Loyal Knollin, Farmer and breeder, Kentland, Ind.
Robert Kreiter, Beef & Lamb Div., John Morrell & Co., Sioux Falls, S. Dak.
F. L. Kreuzberger, Pennsylvania State University, 209 Armsby Hall, University Park, Pa.
Svend-Aage Larsen, Wool Dept., University of Wyoming, Laramie, Wyo.
Eugene D. Leman, Wilson & Co., Inc., Cedar Rapids, Iowa
Ralph W. Lindsay, South Dakota State University, Brookings, S. Dak.
Harold P. Lundgren, Wool and Mohair Laboratory, Agricultural Research Service, Albany, Calif.
Joe Malinski, New Prague, Minn.
Edwin E. Marsh, National Wool Growers Assn., 600 Crandall Bldg., Salt Lake City, Utah
Stephen McDonogh, Irish Embassy, Washington, D.C.
William McKerrow, Route 1, Pewaukee, Wis.
Kenneth B. Middleton, Producer, Abbe Ranch, Sedalia, Colorado
John Miller, Petersen Sheep Co., P.O. Box 537, Des Moines
Murle Mills, Cheviot Sheep Soc., Panora, Iowa
Don Muhm, Des Moines Register & Tribune, Des Moines
Bob Mullikin, Route 1, Janesville, Wis.
C. E. Murphy, Livestock Division, Agricultural Marketing Service, Washington, D.C.
Max Myers, South Dakota State University, Brookings, S. Dak.
Carl J. Nadasdy, North Central Wool Marketing Corp., 101-27th, Minneapolis
H. S. Nicol, Iowa Farm Bureau, Des Moines
Alex O'Shea, New Zealand Meat Producers Board, 12 E. 86th St., New York
J. B. Outhouse, Dept. of Animal Sciences, Purdue University, Lafayette, Ind.
Mrs. Howard Pearson, Women's Auxiliary, Iowa State Sheep Assn., Ellsworth, Iowa
J. C. Petersen, Petersen Sheep Co., Box 390, Spencer, Iowa
Elroy M. Pohle, Wool Laboratory, USDA, Bldg. 81, Denver Federal Center, Denver
Charles Poland, Indiana Farm Bureau, 5210 Kessler Blvd. N.D., Indianapolis

A. L. Pope, Dept. of Meat and Animal Science, University of Wisconsin, Madison
Fred C. Powell, University of Tennessee, Nashville, Tennessee
James L. Powell, Ft. McKavett, Texas
Alfred Pullin, Route 1, Waterloo, Iowa
Ronald Pullin, Breeder, Route 1, Waterloo, Iowa
Chet Randolph, Radio Station WHO, Des Moines, Iowa
Charles E. Raymond, Economic Research Service, USDA, Washington, D.C.
John A. Rohlf, Farm Journal, Washington Square, Philadelphia, Pa.
Hank Ruckert, Midwest Wool Cooperative, 911 Wyoming, Kansas City, Mo.
Dick Seim, Farm Journal, Ames, Iowa
Harris Sellers, Jr., Route 2, Chariton, Iowa
Wayne J. Simington, Spencer, Iowa
Richard H. Simms, University of Illinois, Box 189, Macomb, Illinois
George S. Spencer, Swift and Co., 115 West Jackson, Chicago, Illinois
Glenn Spurlock, Dept. of Animal Husbandry, University of California, Davis, Calif.
Marion Stackhouse, Indiana Farm Bureau, Inc., 130 E. Wash., Indianapolis
D. M. Stevens, Agricultural Economics Division, University of Wyoming, Laramie, Wyo.
John Stony, I.G.A. Food Stores, 131 S. Wabash, Chicago, Ill.
Clair E. Terrill, Sheep & Fur Animal Research Branch, Agricultural Research Service, USDA, Beltsville, Md.
Louis I. Thompson, Rath Packing Co., Waterloo, Iowa
Harold Tuma, Dept. of Animal Science, South Dakota State University, Brookings,
George W. Varcoe, Iowa Ram Test, Emmetsburg, Iowa
B. D. Van Stavern, Dept. of Animal Science, Ohio State University, Columbus
Andrew Vanvig, University of Wyoming, Laramie, Wyo.
Don R. Warner, Dept. of Animal Science, Iowa State University
E. A. Warner, Sunbeam Corp., Chicago, Ill.
Dwight L. White, Prairie City, Iowa
Tom Wickersham, Animal Science Extension, Iowa State University
Potter G. Woolfolk, Dept. of Animal Science, University of Kentucky, Lexington, Kentucky
Ken Wagner, Route 1, West Liberty, Iowa
Roy B. Warriet, Breeder, Oskaloosa, Iowa
Russell L. Whitney, Iowa Farms Associates, Inc., Route 4, Fort Dodge, Iowa
William Zmolek, Animal Science Dept., ISU