35 TH ANNUAL NATIONAL AGRICULTURAL OUTLOOK CONFERENCE

November 18-21, 1957
Washington 25, D.C.

Program

UNITED STATES DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service • Agricultural Research Service
Commodity Stabilization Service • Foreign Agricultural Service
Forest Service • Federal Extension Service Cooperating

235690

MONDAY (November 18) MORNING

(Thomas Jefferson Auditorium - South Building)

C. M. Ferguson, Administrator
Federal Extension Service, Chairman

9:00 Registration

prepared remarks

9:45 ° Opening of Conference — C. M. Ferguson

10:00 √ World Situation as it Affects the Outlook for Agriculture — John W. Evans, Deputy Director, Office of Intelligence Research, Department of State

11:00 Intermission

11:15 ° Panel Discussion - Raymond A. Ioanes, Deputy Administrator, Foreign Agricultural Service, Moderator

no prepared statements

John W. Evans, Deputy Director
Office of Intelligence Research
Department of State

Lamar Fleming, Jr.
Chairman of Board
Anderson, Clayton, and Company

Leslie Crawford
Foreign Agricultural Attache
Great Britain

Loring Macy, Director
Bureau of Foreign Commerce
Department of Commerce

Gwynn Garnett, Administrator
Foreign Agricultural Service

12:30 - 2:00 Lunch time

AEP - 214 (11-57)

MONDAY (November 18) AFTERNOON

(Thomas Jefferson Auditorium - South Building)

James P. Cavin, Chief
Statistical and Historical Research Branch
Agricultural Marketing Service, Chairman

2:00 National Economic Situation and Outlook for 1958 — Nathan M. Koffsky, Chief, Farm Income Branch, Agricultural Marketing Service

2:30 Panel Discussion - James P. Cavin, Moderator

Nathan M. Koffsky
Agricultural Marketing Service

James W. Knowles
Joint Economic Committee

V. Lewis Bassie, Director
Bureau of Economics and Business Research
University of Illinois

Louis J. Paradiso, Assistant Director-Chief Statistician
Office of Business Economics
Department of Commerce

Gerhard Colm, Chief Economist
National Planning Association

4:00 Adjournment

TUESDAY (November 19) MORNING

(Thomas Jefferson Auditorium - South Building)

Bushrod W. Allin, Chairman of Outlook and Situation Board
Agricultural Marketing Service, Chairman

9:15	Agricultural Outlook for 1958	Fred V. Waugh, Director Agricultural Economics Division Agricultural Marketing Service
10:00	Intermission	
10:15	Panel Discussion - Bushrod W. Allin, Moderator	
	Fred V. Waugh	Faith Clark, Chief, Household Economics Research Division Agricultural Research Service
	Kenneth L. Bachman, Head Production Income and Costs Section Agricultural Research Service	Raymond A. Ioanes Deputy Administrator Foreign Agricultural Service
		William H. Scofield, In Charge Land Values Unit Agricultural Research Service
	Norman J. Wall, Head Agricultural Finance Section Agricultural Research Service	

12:00 - 1:30 Lunch time

TUESDAY (November 19) AFTERNOON

(Thomas Jefferson Auditorium - South Building)

"Effects of Marketing Changes on the Outlook"

Harry C. Trelogan, Director of Marketing Research Division, Agricultural Marketing Service, Chairman

1:30	Developments in Human Nutrition	Ruth M. Leverton, Asst. Director Human Nutrition Research Division Agricultural Research Service
2:00	Marketing Costs	D. Barton De Loach, Chief Market Organization and Costs Branch Agricultural Marketing Service
2:30	Domestic Market Development	Robert M. Walsh, Chief Market Development Branch Agricultural Marketing Service
3:00	Foreign Market Development	Raymond A. Ioanes Deputy Administrator Foreign Agricultural Service
3:30	Intermission	
3:45	Panel Discussion - Harry C. Trelogan, Moderator	

prepared statements to accept Knapp's.

Ruth M. Leverton	Faith Clark
D. Barton De Loach	Walter W. Wilcox Legislative Reference Service Library of Congress
Robert M. Walsh	
Raymond A. Ioanes	Joseph G. Knapp, Administrator Farmer Cooperative Service

5:00 Adjournment

Wednesday, November 20, 1957

Commodity Outlook Sessions for Producers, Handlers and Consumers

9:15 - 10:45 Grass and Legume Seeds - Room 1345 South Building
Paul O. Mohn, FES, Chairman
Outlook Statement: Thomas J. Kuzelka, AMS
W. H. Youngman, FAS

Fruits and Tree Nuts - Room 218 Adm. Bldg.
Lloyd H. Davis, FES, Chairman
Ben H. Pubols, AMS, Outlook Statement

Cotton - Jefferson Auditorium
E. P. Callahan, FES, Chairman
Frank Lowenstein, AMS, Outlook Statement

11:00 - 12:30 Fats and Oils - Jefferson Auditorium
Karl G. Shoemaker, FES, Chairman
George W. Kromer, AMS, Outlook Statement

Vegetables and Potatoes - Room 218 Adm. Bldg.
R. L. Childress, FES, Chairman
Will M. Simmons, AMS, Outlook Statement

Rec'd Demand + price situation for forest products (Outlook included)

Forest Products - Room 3106, South Building
M. M. Bryan, FS, Chairman
David B. King, FS, Outlook Statement

12:30 - 2:00 Lunch time

2:00 - 3:30 Wheat - Room 218 Adm. Bldg.
T. E. Hall, FES, Chairman
Robert E. Post, AMS, Outlook Statement

Tobacco - Room 1345 South Building
S. E. Wrather, AMS, Chairman
Arthur G. Conover, AMS, Outlook Statement

No statement

Sugar - Room 4966 South Building
Lawrence Myers, CSS, Chairman

3:45 - 5:00 Peanuts - Room 218 Adm. Bldg.
Karl G. Shoemaker, FES, Chairman
George W. Kromer, AMS, Outlook Statement

Rice - Room 1345 South Building
T. E. Hall, FES, Chairman
Robert E. Post, AMS, Outlook Statement

5:00 Adjournment

5:45 State Specialists' Dinner - 4th Wing Cafeteria
South Building

Thursday, November 21, 1957

Commodity Outlook Sessions for Producers, Handlers and Consumers

9:15 - 12:00 Feed, Livestock and Meat - Jefferson Auditorium
Richard G. Ford, FES, Chairman
Outlook Statement: Harold F. Breimyer, AMS
Malcolm Clough, AMS

12:00 - 1:30 Lunch time

1:30 - 3:00 Poultry - Jefferson Auditorium
Homer S. Porteus, FES, Chairman
Edward Karpoff, AMS, Outlook Statement

3:15 - 5:00 Dairy - Jefferson Auditorium
Max K. Hinds, FES, Chairman
Herbert C. Kriesel, AMS, Outlook Statement

5:00 Adjournment

Wednesday, November 20, 1957

Family Living Sessions

9:15	Outlook for Consumer Goods Starley M. Hunter, FES, Chairman	Freer Art Gallery Auditorium
	✓ Food	Harry Sherr Agricultural Economics Div., AMS
	✓ Clothing Harry Kahan	Arnold Chase Bureau of Labor Statistics Department of Labor
	✓ Housing and Durable Goods Arnold E. Chase	~~Harry Kahan~~ Bureau of Labor Statistics Department of Labor
	✓ Home Furnishing	Starley M. Hunter Div. of Home Economics Programs, FES
12:30 - 2:00	Lunch time	
	"Family Living Trends - Changes in Family Characteristics" Faith Clark, ARS, Chairman	
2:00	✓ Changes in Population and Family Characteristics	Gladys K. Bowles Farm Population & Rural Life Branch, AMS
2:25	✓ Overall Situation	Margaret L. Brew Household Management Section, ARS
2:50	✓ Dwelling Upkeep, Household Operations, Furnishings & Equipment	Jean L. Pennock Household Economics Div., ARS
3:15	Intermission	
3:30	✓ Transportation, Recreation and Education	Emma G. Holmes Household Economics Div., ARS
3:55	✓ Clothing, Personal Care	Roxanne R. O'Leary Household Economics Research Div., ARS
4:15	Adjournment	

Thursday, November 21, 1957

Family Living Sessions Room 218 Adm. Bldg.

"Family Living Trends - Changes in Family Characteristics" (Cont'd)
Margaret L. Brew, ARS, Chairman

9:15	✓	Food	Mollie Orshanksy Household Economics Research Div., ARS
9:45	✓	Medical Care	Jean L. Pennock Household Economics Div., ARS
10:05	O	Outlook for Family Living	Margaret L. Brew Household Management Section, ARS
10:15		Intermission	
10:30	O	Panel - Implications of Changes in Family Living for the Extension Program	

Paul J. Jehlik SESD, ARS
Helen Johnston, HEW
Constance Burgess, Ext. Serv., Cal.
Lucille Ketchum, Ext. Serv., Mich.
Eloise Cofer IHE, ARS
Starley Hunter, FES
John Ellickson FERD, ARS

12:30 - 2:00 Lunch time

2:00 Commodity Outlook
Frances Scudder, FES, Chairman

✓	Dairy	Herbert C. Kreisel, AMS
O	Meat Animals	Harold Breimyer, AMS
O	Methods of Presenting Outlook	Starley M. Hunter, FES

minimizing risk in the use of family resources

4:30 Adjournment

STATE DELEGATES REGISTERED FOR 35th OUTLOOK CONFERENCE
November 18-21, 1957

ALABAMA
Foy Helms, Elizabeth Bryan

ALASKA
None

ARIZONA
George W. Campbell

ARKANSAS
T. E. Atkinson, Crystol Tenborg

CALIFORNIA
Constance Burgess, G. A. Carpenter

COLORADO
Avery Bice

CONNECTICUT
G. A. Ecker, Florence S. Walker

DELAWARE
Patricia Middleton, W. T. McAllister, William E. McDaniel

FLORIDA
C. C. Moxley, Susan Christian

GEORGIA
J. J. Lancaster, Doris Oglesby

HAWAII
Stephen Doue

IDAHO
R. Wayne Robinson

ILLINOIS
Catherine M. Sullivan, L. H. Simerl

INDIANA
Carroll Bottum, Ronald Bauman, Elkin Mintner

IOWA
Francis Kutish, Helen Tucker

KANSAS
M. E. Jackson, Roger Wilkowske

KENTUCKY
Frances M. Stallard, Buel Lanpher, Stephen Allen

LOUISIANA
W. D. Curtis, Rupert Perry

MAINE
Lewis Clark, Pauline Lush

MARYLAND
G. M. Beal, A. B. Hamilton, H. H. Hoecker, J. W. Magruder, A. R. Meyer, Joanne Reitz, G. A. Stevens

MASSACHUSETTS
Barbara Higgins, E. W. Hanczaryk, G. W. Westcott, A. H. Lindsey

MICHIGAN
Lucille Ketchum, J. N. Ferris

MINNESOTA
L. J. Pickrel

MISSISSIPPI
None

MISSOURI
C. E. Klingner, Elmer Kiehl, Tom Brou

MONTANA
John Bower, Mae True

NEBRASKA
Everett Peterson, Clara Leopold

NEVADA
Margaret Dial, G. A. Myles

NEW HAMPSHIRE
Ann Beggs, Lawrence Dougherty

NEW JERSEY
Doris Anderson, F. V. Beck, Hildreth Flitcraft

NEW MEXICO
J. O. Kling or Clyde R. Keaton

STATE DELEGATES REGISTERED FOR 35th OUTLOOK CONFERENCE (continued)
November 18-21, 1957

NEW YORK
Ruth Deacon, Elizabeth Wiegant, George Conneman, L. C. Cunningham, B. A. Dominick, Robert Smith, Mary Wood, Betty Woods

NORTH CAROLINA
Glenn Tussey, Charles Pugh, Mamie Whisnant

NORTH DAKOTA
H. G. Anderson, Irene Crouch

OHIO
Riley Dougan, Robert Schwart, Mabel Spray, D. M. Long, Anita McCormick

OKLAHOMA
H. E. Ward, Evelyn P. Nantz

OREGON
Oscar Hagg

PENNSYLVANIA
Sanna Black, W. M. Carroll, W. F. Johnstone B. W. Kelly, Fred Hughes, M. J. Armes, A. K. Birth, A. O. Voigt, C. W. Porter

PUERTO RICO
Roberto Lefebre-Munoz, Carmen T. Pesquero-Busquets

RHODE ISLAND
W. H. Wallace, Evelyn Lyman

SOUTH CAROLINA
P. S. Williamon, Ruby M. Craven, M. C. Rochester

SOUTH DAKOTA
L. M. Bender, Isabel McGibney

TENNESSEE
Eugene Gambill, Virginia Boswell, Irving Dubov, Myra Bishop or Phyllis Ilett

TEXAS
J. H. McHaney, Eula J. Newman

UTAH
Leon Michaelsen

VERMONT
Verle Houghaboom

VIRGINIA
Helen D. Alverson, Amelia Fuller, J. B. Bell, Shirley Carter, D. U. Livermore, K. E. Loope, W. J. Nuckolls, Jr., J. H. Simpson, H. W. Waker

WASHINGTON
Karl Hobson

WEST VIRGINIA
Gladys W. Knapp, K. P. Brundage

WISCONSIN
Louise Young, Leon Garoian

WYOMING
A. W. Willis, Mary McAuley

UNITED STATES DEPARTMENT OF AGRICULTURE 11/19/57
Federal Extension Service
Washington 25, D. C.

STATE DELEGATES REGISTERED FOR
THE 35th ANNUAL AGRICULTURAL OUTLOOK CONFERENCE

	Hotel
ALABAMA	
Foy Helms	Harrington
Elizabeth Bryan	Harrington
ARIZONA	
George W. Campbell	Harrington
ALASKA	
Allan Mick	Willard
ARKANSAS	
T. E. Atkinson	Harrington
Crystol C. Tenborg	Raleigh
CALIFORNIA	
Constance Burgess	Willard
COLORADO	
Avery Bice	Raleigh
CONNECTICUT	
George A. Ecker	Harrington
Florence S. Walker	Burlington
DELAWARE	
Patricia Middleton	Washington
Willard T. McAllister	Harrington
William E. McDaniel	Harrington
FLORIDA	
C. C. Moxley	Willard
Bonnie Carter	Harrington
GEORGIA	
J. J. Lancaster	Harrington
Doris Oglesby	Willard
HAWAII	
Stephen Doue	Harrington
IDAHO	
R. Wayne Robinson	Harrington
ILLINOIS	
Catherine M. Sullivan	Willard
L. H. Simerl	
INDIANA	
Carroll Bottum	Harrington
Ronald Bauman	Harrington
Elkin Mintner	Harrington
IOWA	
Francis Kutish	Harrington
Helen Tucker	Harrington
KANSAS	
M. E. Jackson	Harrington
Roger Wilkowske	Harrington
Ethel Self	Harrington
Milton J. Manuel	
KENTUCKY	
Frances M. Stallard	Harrington
Buel F. Lanpher	Harrington
Stephen Allen	Harrington
LOUISIANA	
W. D. Curtis	Raleigh
Rupert Perry	Harrington
MAINE	
Lewis E. Clark	Harrington
Pauline E. Lush	Washington

MARYLAND	Hotel
John W. Magruder	
Joanne W. Reitz, 1915 Fox St., Hyattsville, Md.	
A. B. Hamilton, University of Maryland	
G. A. Stevens	
Vivian L. Curmutt	
George Beal	
Harold Hoecker	
Paul Nystrom	

MASSACHUSETTS	
E. W. Hanczaryk	Washington
Barbara Higgins	Washington
G. W. Westcott	Burlington
R. Bieber	Burlington

MICHIGAN	
Marie Ferree	Washington
Lucille Ketchum	Willard
John N. Ferris	Willard
Arthur Mauch	Harrington

MINNESOTA	
Luther Pickrel	Cosmos Club
Elizabeth Roniger	Raleigh

MISSOURI	
C. E. Klingner	Harrington
Elmer Kiehl	Harrington
Tom Brown	Harrington

MONTANA	
John Bower	Harrington
Maurice C. Taylor	Harrington

NEBRASKA	
Everett Peterson	Raleigh
Clara N. Leopold	Raleigh

NEVADA	
Margaret Dial	Raleigh
George A. Myles	Raleigh

NEW HAMPSHIRE	
Ann Beggs	
Lawrence Dougherty	

NEW JERSEY	Hotel
Doris Anderson	Willard
John Carncross	Willard
Frank Beck	Harrington
Hildreth Flitcraft	Willard

NEW MEXICO	
Clyde R. Keaton	

NEW YORK	
C. A. Bratton	Harrington
R. P. Story	Raleigh
Elizabeth Wiegand	Raleigh
Mary Wood	Raleigh
Ruth Deacon	Raleigh
B. A. Dominick	Harrington

NORTH CAROLINA	
Mamie Whisnant	Harrington
Glenn Tussey	Harrington
Charles Pugh	Harrington

NORTH DAKOTA	
H. G. Anderson	Harrington
Irene Crouch	Harrington

OHIO	
Mabel Spray	Willard
Riley Dougan	Raleigh
Robert Schwart	Raleigh
Don Long	Willard
Anita McCormick	Willard

OKLAHOMA	
H. E. Ward	Harrington
Evelyn P. Nantz	Harrington

OREGON	
Oscar Hagg	

PENNSYLVANIA	
Alida Hotchkiss	Raleigh
William Johnstone	Raleigh
Helen Bell	Washington
Wayne Kelly	Raleigh
William Carroll	Raleigh

PUERTO RICO	Hotel
R. Lefebre-Munoz	Harrington
C. T. Pesquero-Busquets	Harrington

RHODE ISLAND

Evelyn Lyman
W. H. Wallace

SOUTH CAROLINA

Ruby M. Craven	Harrington
P. S. Williamon	Harrington

SOUTH DAKOTA

Lyle Bender	Harrington
Isabel McGibney	Raleigh

TENNESSEE

Virginia Boswell	Harrington
Eugene Gambill	Washington
Phyllis Ilett	Washington

TEXAS

John McHaney	Raleigh
Eula J. Newman	

UTAH

Leon Michaelsen

VERMONT

Verle Houghaboom

VIRGINIA

Amelia Fuller	Washington
Helen Alverson	Washington
K. E. Loope	Harrington
W. J. Nuckolls, Jr.	Harrington
J. H. Simpson	Harrington
Shirley Carter	Harrington
J. B. Bell	Harrington
H. W. Walker	Harrington

WASHINGTON

Karl Hobson	Harrington
A. H. Harrington (Hoobler's)	

WEST VIRGINIA	Hotel
K. P. Brundage	Harrington
Gladys Knapp	Harrington

WISCONSIN

Louise Young	Willard
Leon Garoian	Harrington

WYOMING

A. W. Willis	
Mary McAuley	Raleigh

(* - *)
For Release
Nov. 19, 1:30 PM

DEVELOPMENTS IN HUMAN NUTRITION

by
Ruth M. Leverton, Assistant Director
Human Nutrition Research Division
and
Faith Clark, Acting Director
Household Economics Research Division
Agricultural Research Service

The nature of the changes that have occurred in food consumption in this country over the past 20 years indicates that the recommendations of nutritionists have been an influence in improving the quality of the American diet. Today we will try to sum up what research is telling us about the nutrition situation in this country, and what the emphasis will be in our nutrition education programs that have implications for food production and marketing.

Periodic surveys of the food consumption of various population groups provide us with information we need to appraise dietary levels and to give guidance for nutrition education. The most recent nationwide survey made in 1955 gives us a fairly accurate picture of dietary levels in this country today. Results of this study indicate that the food supplies of families continue to be abundant, varied, and of high quality. If they were distributed strictly according to nutritional needs, every man, woman, and child could be well fed.

Considerable improvement in family diets has taken place in this country in the past several decades. In the 1930's when a large-scale dietary survey was made, a third of the diets was classed as "poor." Today in scarcely more than one-tenth of the households can diets be called "poor" by the standards used in the earlier period. Almost all of this improvement took place between the mid-thirties and the early postwar period.

This dietary improvement has been the result of a combination of several factors. Market supplies have been ample. We have enjoyed economic conditions under which an increasing proportion of people have been able to have the kinds of foods they want. We have had continuing emphasis on research and education in nutrition. The enrichment of bread and other grain products has also had a part in dietary improvement.

Need for dietary improvement

Despite the generally good picture of dietary adequacy, we still have much to do to bring the quality of all family diets up to recommended nutritional goals. The nutrients in shortest supply are calcium and ascorbic acid. At the time of the 1955 survey three out of ten families had food supplies that furnished less than the amounts of calcium recommended by the National Research Council. One out of four families had ascorbic acid intakes which were below the National Research Council allowance. From 15 to 20 percent of the households had below recommended levels in vitamin A, thiamine and riboflavin. A tenth or fewer had food furnishing less than recommended amounts of protein, iron, and niacin.

Presented at the 35th Annual National Agricultural Outlook Conference, November 19, 1957, Washington 25, D. C.

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On the basis of these findings nutrition education will continue to stress that people should take more care to get enough calcium and ascorbic acid, especially, and also vitamin A, thiamine and riboflavin. In terms of foods, this will mean special emphasis on milk and cheese because they are good sources of calcium and riboflavin, on citrus fruit and tomatoes for ascorbic acid, and on the dark green and yellow vegetables for vitamin A. To increase the thiamine, there will be emphasis on meat, especially pork, whole grain and enriched cereals, dry beans and peas.

Thus the foods for which demand would be especially strengthened as a result of nutrition education are dairy products, excluding butter, and fruits and vegetables. Rough calculations from the 1955 survey indicate that if all those households with less than recommended amounts of calcium in their diets were to consume the recommended amounts, about 9 percent more milk would be needed by households than is now used. A similar calculation for ascorbic acid indicates that about 6 percent more fruits and vegetables would be consumed.

In addition to recommending the so-called "protective foods," and the value of a varied or balanced diet, nutritionists will stress the advisability of limiting the intake of total food energy to a person's need and thus avoiding excess body weight. They will also point out that nutritionally adequate diets can be obtained at different consumer cost levels and at levels requiring different amounts of agricultural resources. In general, however, protective foods are high-resource using foods.

Because few people in the United States are hungry the population in general cannot afford calorie-wise to increase its total food intake. Therefore, if people consumed more of some foods, such as dairy products and fruits and vegetables, then their consumption of some other foods would have to decline, unless they increased their physical activity. Fortunately, food sources of the nutrients now in short supply need not be high in calories.

There is a relationship between family income and the nutritional quality of the diets. This means that some families have economic limitations on the choices of foods they can make. Higher income, however, is no guarantee of nutritional adequacy. Many families with higher income have diets that fall short of recommended nutrient levels. In 1955 one out of four of the families in the highest income third of the Nation had diets in need of improvement in calcium; one out of six in ascorbic acid. This and other findings indicate the need for more effective education of individuals and of homemakers in family food management.

Convenience foods

We hear to much about the increased use of convenience foods--foods that take relatively little time to prepare at home--but the average family food budget is by no means made up entirely of such foods. We have estimated

that in 1955 about 28 percent of the total expense for food at home of city families went for a list of so-called convenience foods--foods with varying degrees of built-in maid service. Farm families as well as city families buy the common convenience foods often used for quick meals. Until more specifications are set for the composition of many of these products, there is the danger that the amount and nutritional quality of the food ingredients are being slighted and an undue portion of the money going to pay for service. With as much as 28 cents of each food dollar going for foods with built-in maid service, more attention will need to be given to standards which will insure that the food is supplying its share of the family's nutritional needs. Progress is being made in setting specification of composition for many such products.

Fat in household food supplies

The survey results offer considerable information on the amounts and kinds of fat brought into the home. Because of the widespread interest in fat these results will be discussed separately. The periodic food surveys made by the Department of Agriculture indicate that the proportion of fat in household food supplies has increased during the last 20 years. In 1936 only 38 percent of the calories in the household food supplies came from fat. In 1955, 44 percent of the calories were supplied by fat. This increase came chiefly from the greater consumption of meat, poultry, and fish and the smaller consumption of grain products and potatoes in 1955.

These figures for available fat do not include any deductions for food discarded in the kitchen or as plate waste. It is quite likely some fat is discarded. However, studies of the quantitative food intakes of many hundred adults of all ages indicate that the proportion of calories from fat in their self-chosen diets is usually as high as 40 to 42 percent.

It is important for us to realize that a large share of the fat in the United States diets enters the kitchen as part of other foods--foods which are not usually thought of primarily as sources of fat. In 1955, meats, poultry, and fish provided 27 percent of the total; milk and milk products (other than butter), eggs, baked goods, and nuts provided 33 percent; and only 40 percent of the total dietary fat was furnished by visible fats and oils, including bacon and salt pork.

The amount of fat available for consumption is higher in farm than city food supplies. Among city families it is higher in the diets of the rich than the poor. It tends to be higher in the West than in the Northeast. The sources of fat are somewhat different in the South from those in the other major regions of the United States. Less of the fat in Southern food supplies comes from dairy products and meat, poultry and fish, while the share from bacon and salt pork is much larger. Fats used for home baking, especially lard, are more important as sources of dietary fat in the South than in other regions.

Dietary fat and health

No present-day discussion of food and nutrition seems complete unless it includes a consideration of fat and its relation to health, the topic-of-the-year. Unfortunately, this topic has been subject to inaccurate, hastily-formed conclusions which have created confusion and even anxiety in the mind of the public. The presumed direct relation between the fat content of the American diet and the occurrence of certain kinds of heart disease and atherosclerosis (the deposits of fatty material along the inner lining of the walls of the arteries) is still in need of many supporting facts from scientifically conducted research.

The proven facts about fat can be discussed from the standpoint of:

1. What is known about the body's need for fat?

2. Why is there concern about the kinds and amounts of fat in our diets?

3. What sound recommendations can nutritionists make?

1) What is known about the body's need for fat?

Fats are an important kind of food for all of us. As well as adding variety and flavor to many foods, fats are carriers of vitamins A and D, concentrated sources of energy, and suppliers of substances called fatty acids which are essential for growth and health. Also, in the utilization of food-stuffs, fats spare protein so that protein is available to perform its specialized functions. Within the body, fat tissue is important for the support, protection, and insulation of vital organs and areas. The complicated role of fat in nutrition is just beginning to be recognized and much more needs to be learned about the amounts and kinds of fats required for optimum health. Perhaps it is well to remind ourselves that we do know that fat is a normal constituent of our food, and the body's use of fat for fuel is a normal process.

One substance of particular importance which occurs in some fats is linoleic acid. It is called an essential unsaturated fatty acid. (A fatty acid is part of a fat molecule.) This is needed for the performance of vital functions in the body, such as maintaining the skin in a healthy condition. There is the possibility that a deficiency of linoleic acid interferes with the body's normal use of fat and that the proportion of linoleic acid to the saturated fats in the diet is important. Because the body cannot manufacture it, linoleic acid must be supplied by the food we eat. Common foods which contain appreciable amounts of linoleic acid are the natural oils from corn, cottonseed, and soybean. Peanut oil and poultry fat have lower content, olive oil and pork fat still lower. The fats of beef, veal, lamb, milk, and cocoanut oil contain very little linoleic acid. Margarines and the usual man-made shortenings differ widely in linoleic acid content, depending on the raw materials used and the extent to which they are hydrogenated.

2) Why is there concern about the kinds and amounts of fat in our diets?

There has been some indication that fat is one of the dietary factors involved in the increase in the number of cases of atherosclerosis and some kinds of heart disease in our population. This is based on such items as the fact that atherosclerosis and heart disease occur more frequently in countries where the food supply is abundant than where the food supply is limited. An abundant food supply usually includes a generous amount of fat. As a country we have the highest death rate from heart disease, but also we have more people in the older age groups. There is the probability that arteriosclerotic heart disease is written on the death certificates of many elderly persons, not because it has been clearly diagnosed, but because there is no discernible active disease, such as tuberculosis, pneumonia, etc. For this reason reported increases in the number of deaths from heart disease could be suspect.

Recently the Nutrition Committee of the Council on Community Service and Education of the American Heart Association studied all of the available data and reported to the American Heart Association and the American Society for the Study of Arteriosclerosis. The Council on Food and Nutrition of the American Medical Association authorized this report for publication in its Journal. Certainly no report could have better origin or ancestry. After reviewing the evidence on the subject of fat as related to heart disease, the conclusion was reached that in the studies made so far, the role of fat cannot be separated from other factors, such as total caloric intake, other nutrients, relative rate of caloric expenditure, exercise, and obesity.

One of the authorities in this field, Dr. Wendell Griffith, writes also in the Journal of the American Medical Association somewhat more cautiously--"Until a clear-cut solution of the problem of the prevention of arteriosclerosis and of its sequelae is forthcoming, it seems wise to assume that a faulty diet may be one of the causative agents. Whether or not dietary fat is, in some fashion, the culprit remains to be proved."

Because cholesterol has been the substance most talked and written about in connection with fat and atherosclerosis, we need to consider a few facts about it. Cholesterol is a fatty material which is synthesized in the body and is a normal constituent of the blood. It is used in making physiological substances which are important in the functioning of the body. A high concentration of cholesterol in the blood may result from faulty metabolism and this has been blamed for causing atherosclerosis and leading to heart attacks. The scientific evidence for this, however, is far from conclusive.

The amount of cholesterol in the food we eat does not necessarily determine the amount of cholesterol in the blood. The body can make cholesterol whether or not there is cholesterol in the food. Low cholesterol diets have received considerable attention in the treatment of certain conditions but the extent of their usefulness has not yet been clearly established. A low cholesterol diet limits the selection of highly nutritious foods and could lead to an imbalance or deficiency of nutrients.

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The amount of cholesterol in the blood of normal persons varies within wide limits. Not all persons with more than average amounts of cholesterol in their blood have atherosclerosis, and not all persons with atherosclerosis have more than average amounts of cholesterol in their blood.

There is some evidence that fats with a high content of linoleic acid may help to lower blood cholesterol levels. However, we lack evidence that lowering blood cholesterol reduces the occurrence of atherosclerosis.

Cholesterol is present in varying amounts in foods of animal origin. It is relatively high in such foods as egg yolk, butter, variety meats (liver, kidney, sweetbreads), fat fish, oysters; fairly high in meat and cheese; and is lower in such foods as lean fish, egg white, skim milk. Substances closely related to cholesterol are present in foods of plant origin such as grains, fruits, and vegetables.

To most of the questions which seek specific information in the intracacies of fat requirement and metabolism, the effect of different processing procedures on the nutritive value of fats, and the relation of fat to heart disease we must say, "We do not know." We must not add to the present confusion by trying to give answers to everything, before the right answers are known. Certainly before too many more Outlook Conferences basic research will have provided facts upon which to base right answers and sound recommendations.

3) Finally, what recommendations can the nutritionist make at this time?

We have an obligation not only to keep people as well informed as the facts permit, but also to keep their confidence in our efforts to serve them even though we do not have some answers to the question. Only in this way can we help people to refrain from soliciting or embracing information from unreliable sources.

Now to answer the question "How can we use the scientifically accurate information that is available to date to maintain and improve our health?" In general, we can say that at this time the evidence does not justify a radical change in the kind or amount of fat in the American diet in the hope that by such means the incidence of coronary or cerebral artery disease will be lowered. However, persons with a family history of early deaths from cardiovascular disease may have special diets suggested by their physicians. We should remember that atherosclerosis and coronary heart disease are clinical problems. Diets prescribed for the treatment of disease should not be confused with diets a healthy person can and should eat.

More specifically, nutritionists recommend that people should eat a "balanced diet" using a variety of foods--neither omitting any one kind nor over-emphasizing any one kind. "On the basis of the survey results

discussed earlier, milk, fruit and vegetables are more in need of emphasis than other food groups. Some emphasis but less than on milk, fruit, and vegetables will be placed on meat, grain products, eggs, dry beans and peas.

We urge people to avoid overeating for their level of physical activity and thus avoid excess calories and overweight. This means choosing liberally from the foods which supply many nutrients in relation to their caloric content, and limiting the intake of foods which provide little except calories. Weight needs to be kept within desirable limits for health at every age. Fortunately, the foods which are needed to improve the nutritional quality of present-day diets are low in calories in relation to the other nutrients they supply.

Surely you will agree that our present knowledge offers plenty of challenge for action. Research is continually adding to our knowledge of nutritional needs and the nutritive values in foods. Much research is in progress on the effect of variety, culture, handling and transportation practices, methods of storage and preparation on the nutritive value, quality, and flavor of food. Special attention in research is also being given to the interrelationships of the body's requirements for different nutrients and the quantitative relationship of nutrients in different foods. The practical results of such research will gradually be applied to improve the Nation's food and the Nation's health. But as in the past, it will require the concerted efforts of research, education, and those responsible for producing our food supply and delivering it to the kitchen doorstep.

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