THE YEARBOOK OF AGRICULTURE • 1954
THE UNITED STATES GOVERNMENT PRINTING OFFICE
The Yearbook Committee

Agricultural Marketing Service: ARTHUR E. BROWNE, WILLIAM C. CROW, ROY W. LENNARTSON, STERLING R. NEWELL, HERMAN M. SOUTHWORTH, HARRY C. TRELOGAN, chairman, FREDERICK V. WAUGH, O. V. WELLS

Agricultural Research Service: E. C. ELTING, W. T. PENTZER, GERTRUDE S. WEISS

Farmer Cooperative Service: JOSEPH G. KNAPP

Office of Information: ALFRED STEFFERUD, editor
Foreword by the Secretary of Agriculture

I write these words in a time of uncertainty. No one can foresee the results of recent economic and international developments. We can see, though, the need to understand the underlying trends and to use them to advantage. After the war our export markets expanded greatly and then shrunk. Marketing became much more costly. The need grew for bigger and more stable markets at home and abroad and for more efficient methods of storing, transporting, and distributing the products of our farms. Those problems concern every farmer, every processor, every distributor, every family in the United States.

Our marketing system is intricate. It is sensitive to many economic and international developments. It includes millions of processors and dealers, each making his own plans. When one first looks at such a complex system, he may easily get an impression of disorder in it.

Yet there is a guiding principle. Adam Smith, a Scottish political economist of the eighteenth century, pointed out that the individual producers and businessmen, acting in their own self-interest as they make their countless separate decisions to buy or sell or hold or ship, are led as if by an invisible hand to benefit the general public. The principle is one of beneficial competition. When all buyers and sellers have accurate information, the process of competition can help the farmer and the consumer.

In practice, however, competition often is imperfect and our factual information is far from complete. Adjustments therefore often are slow, and Government—local, State, and Federal—is asked to help, to speed things up, to supplement individual efforts with broader measures. All need to work together to improve the marketing process.

The challenge to our American system is to maintain both freedom and order—to assure the flexibility that stimulates progress and the stability that promotes steady employment and purchasing power.

To that challenge we in the Department of Agriculture have increasingly turned our thoughts and efforts. Greater emphasis than ever before has been placed on marketing as a mainspring of our national and individual lives. I am confident that we shall meet that challenge—that all of us, fully informed as to the scope and demands of marketing, will reach our goal of stable well-being.

So, I bespeak a continuing search for the facts needed for understanding fully our economic problems, especially the problems of marketing. To that search this Yearbook is a contribution.

Ezra Taft Benson.
Preface by the Editor

The purpose of this book is to give information about the dynamic business that brings American farm products to their users. The information should help many persons: The farmer, to make more money; the housewife, to buy better; the wholesaler, retailer, and all the others who handle farm products, to give better service; the administrator and student of agriculture, to get a broader view of the structure of this large sector of our economy, within which so many agricultural problems come to focus.

Our purpose is not to outline an official program, for that has never been a function of the Yearbooks of Agriculture. Analysis is to be found herein, yes, and some discussion of controversial issues, because marketing involves competitions, tensions, and differences of opinion. The contributors were free to develop their assignments as they thought best.

They explain, discuss, and describe, but they were not asked to support a prescribed case or cause. The reader is left free to draw his own conclusions from the facts, estimates, and arguments we set forth.

Many questions are not answered, at least not fully: In a fast-changing field like marketing it is impossible to do so, and it would not be right to pretend that we could.

A related volume is Crops in Peace and War, the 1950–1951 Yearbook of Agriculture, which describes the many uses to which farm products are put and alternative uses in times of over-production or scarcity. The two books are intended as guides to the thinking of citizens about agricultural stability.

The chapters of this book are organized to give first a general view of the components of the marketing system and its importance, then a description of its major parts, and finally discussions of its many problems. An Atlas of Marketing pictures the handling of some of our main products.

The whole book, we think, is worth reading by everyone who is interested in learning more about this vital, everyday subject, but to those who want only a basic introduction we recommend especially the chapters that begin on pages 3, 11, 52, 72, 164, 195, 211, and 395.

The book was planned and outlined in the spring of 1952. Most of the writing was done in 1952 and early 1953. Congress appropriated funds for publishing it in May 1953. The proofs were approved in May 1954.

Special acknowledgment is made of the work of Catherine F. George, the editor's assistant.

Grateful acknowledgment also is made of the interest of persons in the Congress and elsewhere which insured the continued publication of the Yearbooks.

Alfred Stefferud.
Contents: The Yearbook Committee, page v; The Contributors, page 491; Foreword by the Secretary of Agriculture, Ezra Taft Benson, page vii; Preface by the Editor, Alfred Stefferud; page ix.


Trade Abroad, page 76. Selling in Foreign Markets, by Omer W. Herrmann, page 77.


The Contributors

Martin A. Abrahamsen, Chief, Farm Supplies Branch, Purchasing Division, Farmer Cooperative Service.

Don S. Anderson, Acting Director, Livestock and Dairy Division, Commodity Stabilization Service.

Merritt W. Baker, formerly Deputy Director, Fruit and Vegetable Branch, Production and Marketing Administration.

W. Edwards Beach, Director, Trading and Reports Division, Commodity Exchange Authority.

L. A. Bevan, Director of Extension Service, University of New Hampshire.

M. C. Bond, Professor of Marketing, Cornell University.

Neil H. Borden, Professor of Advertising, Harvard University Graduate School of Business Administration.

Harold F. Breimyer, Head, Livestock Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

R. G. Bressler, Jr., Director, Giannini Foundation of Agricultural Economics, University of California.

Neil Brooks, Associate Solicitor in Charge of Appellate Litigation, Office of Solicitor.

Arthur E. Browne, Assistant to the Director, Fruit and Vegetable Division, Agricultural Marketing Service.

James W. Browning, Assistant to the Administrator, Commodity Stabilization Service.

Max E. Brunk, Professor of Marketing, Cornell University.

Charles W. Bucy, Associate Solicitor in Charge of Marketing and Regulatory Laws, Office of the Solicitor.

Marguerite C. Burk, Head, Food Consumption Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Charles A. Burmeister, formerly Livestock Analyst, Livestock Branch, Production and Marketing Administration.

C. J. Carey, Deputy Director, California State Department of Agriculture.

L. C. Carey, Head, Standard Container Section, Regulatory Branch, Fruit and Vegetable Division, Agricultural Marketing Service.

Russell L. Childress, Fruit and Vegetable Marketing Economist, Division of Agricultural Economics, Federal Extension Service.

Donald E. Church, Chief, Transportation Division, Bureau of the Census.


Forrest Clements, Stewart, Dougall and Associates; formerly Head, Market Surveys Section, Market Development Branch, Marketing Research Division, Agricultural Marketing Service.

Malcolm Clough, Agricultural Economic Statistician, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Robert H. Cole, Assistant Professor of Marketing, University of Illinois.

Jessie V. Coles, Professor of Home Economics, University of California.

A. G. Conover, Head, Tobacco Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Paul D. Converse, Professor of Marketing, University of Illinois.

M. J. Cook, Chief, Packers and Stockyards Branch, Livestock Division, Agricultural Marketing Service.

Maurice R. Cooper, Head, Fibers Section, Organization and Costs Branch, Marketing Research Division, Agricultural Marketing Service.

Charles W. Crawford, Commissioner of Food and Drugs, United States Department of Health, Education, and Welfare.

E. G. Crittenden, Consultant, National Bureau of Standards, United States Department of Commerce.

William C. Crow, Chief, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.

Ted C. Curry, Chief, Regulatory Branch, Fruit and Vegetable Division, Agricultural Marketing Service.


Ralph L. Dewey, Assistant Dean, Graduate School, and Professor of Economics, The Ohio State University.

George A. Dice, Assistant to Deputy Administrator for Marketing Services, Agricultural Marketing Service.
Edward A. Duddy, Professor of Marketing (Emeritus), University of Chicago.

William H. Elliott, Head, Handling and Facilities Research Section, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.

Gertrude G. Foelsch, Agricultural Economist, Organization and Costs Branch, Marketing Research Division.

Richard J. Foote, Assistant Chief for Commodity Research, Statistical and Historical Research Branch, Agricultural Economics Division.

Karl A. Fox, Chief, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Edward E. Gallahue, Marketing Specialist, Vegetable Branch, Fruit and Vegetable Division, Agricultural Marketing Service.

Kelsey B. Gardner, Chief, Business Administration Branch, Management Services Division, Farmer Cooperative Service.

C. B. Gilliland, Head, Special Crops Section, Organization and Costs Branch, Marketing Research Division.

E. T. Grether, Dean and Flood Professor of Economics, School of Business Administration, University of California.

Sidney N. Gubin, Staff Assistant to the Director, Price Division, Commodity Stabilization Service.

Floyd F. Hedlund, Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.

Joseph F. Herrick, Jr., Agricultural Economist, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.

Louis F. Herrmann, Head, Dairy Section, Organization and Costs Branch, Marketing Research Division, Agricultural Marketing Service.

Omer W. Herrmann, Agricultural Attaché, American Embassy, Paris, France.

G. E. Hilbert, Director, Utilization Research, Agricultural Research Administration.

Max K. Hinds, Dairy Marketing Economist, Division of Agricultural Economics, Federal Extension Service.

Donald E. Hirsch, Chief, Dairy Branch, Marketing Division, Farmer Cooperative Service.

R. W. Hoecker, Head, Wholesaling and Retailing Section, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.

A. C. Hoffman, Vice President for Purchasing, Kraft Foods Company.

Budd A. Holt, Assistant Chief, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.

Sidney S. Hoos, Professor of Agricultural Economics, University of California, and Economist, California Agricultural Experiment Station.


William J. Hudson, Chief, Economics and Statistics Branch, Traffic Management Division, General Services Administration.

H. H. Hulbert, Agricultural Economist, Livestock and Wool Branch, Marketing Division, Farmer Cooperative Service.


H. S. Irwin, formerly Agricultural Economist, Food Distribution Branch, Production and Marketing Administration.

O. B. Jesness, Head, Department of Agricultural Economics, University of Minnesota.

Harold D. Johnson, Transportation Economist, Transportation and Facilities Branch, Marketing Research Division.

Thew D. Johnson, Agricultural Economist, Transportation and Facilities Branch, Marketing Research Division.

Edward Karpoff, Head, Poultry and Egg Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Joseph G. Knapp, Administrator, Farmer Cooperative Service.

Theodore J. Kreps, Professor of Business Economics, Graduate School of Business, Stanford University.

Herbert C. Kriesel, Head, Dairy Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Don C. Leavens, Office of the Undersecretary for Transportation, United States Department of Commerce.

Paul P. Logan, Director of Research on Food and Equipment, National Restaurant Association.

W. F. Lomasney, Food Merchandising Specialist, Division of Agricultural Economics, Federal Extension Service.

Frank Lowenstein, Head, Cotton and Other Fibers Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.
Lorenzo B. Mann, Chief, Frozen Food Locker Branch, Purchasing Division, Farmer Cooperative Service.

Andrew W. McKay, formerly Assistant to the Chief, Cooperative Research and Service Division, Farm Credit Administration.

J. M. Mehl, Administrator, Commodity Exchange Authority.

George L. Mehren, Professor of Agricultural Economics, University of California, and Economist, California Agricultural Experiment Station.

Trienah Meyers, Assistant Head, Market Surveys Section, Market Development Branch, Marketing Research Division.

Henry Miller, Assistant General Counsel, Federal Trade Commission.

Marshall E. Miller, Agricultural Economist, Organization and Costs Branch, Marketing Research Division.


Edward J. Murphy, Director, Grain Division, Agricultural Marketing Service.

Sterling R. Newell, Director, Agricultural Estimates Division, Agricultural Marketing Service.

L. J. Norton, Professor of Agricultural Economics, University of Illinois.

Kenneth E. Ogren, Head, Marketing Information and Statistics Section, Organization and Costs Branch, Marketing Research Division, Agricultural Marketing Service.

Warren W. Oley, Director, Division of Markets, New Jersey Department of Agriculture.


W. T. Pentzer, Head, Section of Quality Maintenance and Improvement, Biological Sciences Branch, Marketing Research Division, Agricultural Marketing Service.

Robert E. Post, Head, Grain and Feed Section, Statistical and Historical Research Branch, Agricultural Economics Division, Agricultural Marketing Service.

Margaret R. Purcell, Transportation Economist, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.

David A. Revzan, Professor of Business Administration, School of Business Administration, University of California.

Shelby A. Robert, Jr., Head, Product Development Section, Market Development Branch, Marketing Research Division, Agricultural Marketing Service.

Harold B. Rowe, The Brookings Institution.

Reginald Royston, Chief, Fruit and Vegetable Statistics Branch, Agricultural Estimates Division.

Donald M. Rubel, Director, Fruit and Vegetable Division, Foreign Agricultural Service.

J. K. Samuels, Director, Marketing Division, Farmer Cooperative Service.

John J. Scanlan, Chief, Poultry Branch, Marketing Division, Farmer Cooperative Service.

Frances Scudder, Federal Extension Service; formerly State Leader of Home Demonstration Agents, New York.

Geoffrey Shepherd, Professor of Agricultural Economics, Iowa State College.

P. L. Slagsvold, Agricultural Economist, Food and Materials Requirements Division, Commodity Stabilization Service.

Herman M. Southworth, Research Assistant, Office of the Administrator, Agricultural Marketing Service.

Hazel K. Stiebeling, Director, Human Nutrition and Home Economics Research.

Donald R. Stokes, Agricultural Economist, Transportation and Facilities Branch, Marketing Research Division.

Jesse W. Tapp, Executive Vice President, Bank of America.

J. E. Thispfen, Director, Tobacco Division, Commodity Stabilization Service.

J. Murray Thompson, Director, Price Division, Commodity Stabilization Service.

Robert M. Walsh, Chief, Market Development Branch, Marketing Research Division, Agricultural Marketing Service.

William B. Ward, Head, Department of Extension Teaching and Information, Cornell University.

Chester R. Wasson, Leo Burnett, Inc.

Frederick V. Waugh, Director, Agricultural Economics Division, Agricultural Marketing Service.


O. V. Wells, Administrator, Agricultural Marketing Service.

Bennett S. White, Associate Chief, Organization and Costs Branch, Marketing Research Division.

John A. Winfield, Director, Division of Markets, North Carolina Department of Agriculture.

Frederick C. Winter, Associate Professor of Industrial Engineering, Columbia University, and Consultant, Transportation and Facilities Branch.

John C. Winter, Head, Transportation Section, Transportation and Facilities Branch, Marketing Research Division, Agricultural Marketing Service.
Index

ABRAHAMSEN, MARTIN A.: Selling Through Local Middlemen, 28-31

Accumulations
C.C., effect on financing, 335
effect on risks, 310-312
Act of July 1, 1941, 352
Act of July 28, 1866, 147-148
Act to Regulate Commerce, 104, 105
Administrative Procedure Act of 1946, 360
Adulteration of foods, 211 ff.
Adulteration to Food and Drink law, model, 269
Administrative Procedure Act of 1946, 295
Marketing Agreement, marketing
Agreements, marketing
Agricultural Act of 1949
Agricultural Act of 1948, provisions, 352, 406
Agricultural Act of 1949
Agricultural Adjustment Act of 1933
import quotas, 357
marketing agreement, 358
parity price formula, 399
price supports, 400
production controls, 351-352
warehouse receipt provision, 118
Agricultural Adjustment Act of 1935, 352, 358
marketing quotas, 262-263
transportation provisions, 105
Agricultural Marketing Act of 1929, Federal Farm Board authorization, 248, 253, 351
Agricultural Marketing Act of 1946
authorization for standards, 153
provisions, 392
See also Research and Marketing Act
Agricultural Marketing Agreement
Act of 1935, 47
marketing agreements and orders, 357 ff.
marketing orders, 261-262
Agricultural Marketing Service, 12
Air carriers, 93
regulation, 105
transport, 102
Alabama
Birmingham, family food dollar, 197, 198
feed grain production, 404
Mobile, bakery regulation, 256
tobacco production, 443
Alaska, truck-water service to, 102
American Dairymen’s Association, 245
American Farm Bureau Federation, 128
organization, 248
American Fair Trade Council, 288
American Institute of Cooperation, 448
American National Foods, Inc., 249
American Society for Testing Materials, 153
American Standards Association, 153
Anderson, Don S.: Pricing by Formula, 347-350
Animal Industry, Bureau of, 220
Apparel firms, number and sales, 226
Apple(s)
and pear packinghouses, grading operations, 368
consumption, 425
crop, value, 426
damage, 380
defective packaging, 275
export route, 82-83
exports as percentage of production
foreign trade, 433
handling operations, 365-366, 367, 368
internal breakdown, 380
juice concentrate, market research, 388-389
packaged, 190-191
processed, 429
production, 426
scald, control, 379-380
soft scald, control, 380
storage, 113, 115
water core, 380
Applicator, defined, 393
Aricots, foreign trade, 433
Argentina, wheat crop, 424
Arizona, 93, 96
cooperatives, 247
seed grain production, 405
vegetable production, 428
Arkansas, 94
cooperatives, 247
feed grain production, 404
Arrivals of fruits and vegetables at Chicago by rail and truck, 46
Artery-and-stitch pumping, 122
Asia
 fats and oils consumption, 459
United States tobacco imports, 442
United States wheat imports, 423
Asparagus, deceptive packaging, 274
Assembly, 6, 36-59
Assize of bread, 152, 212
Assize of Weights and Measures, 151
Associated Business Publications, 182
Association of American Railroads, 97, 139
Atlanta, 47, 51, 188
Atlantic and Pacific Tea Co., 64, 67, 69, 229
Auction(s)
described, 305-306
factors affecting use, 308
fruit and vegetable, 45
live poultry, 191
livestock, 54, 489
markets, 31
tobacco, 440
Auctioneers, duties and liabilities, 299
Australia, wheat crop, 424
Automatic pricing, butter, 347-348
Bacon, 122
Bailments, described, 299-301
Baker, Merritt W.: Grades and Grading, 157-164
Bakeries, municipal regulations, 256
Baking machinery and equipment, 59, 131
Baltimore, 37, 98, 113
‘hogs-head’ market for tobacco, 442
Banks for cooperatives establishment, 249, 253
financing by, 334
Barley
exports
as percentage of production, 78
value, 82
foreign trade, 413
futures trading, 328
marketing, 403 ff.
prices, seasonal variation, 408
production, 404-405
receipts
at primary markets as percentage of sales, 40
at terminal market, 39
standards, 159
uses, 412
Basing-point price systems, 340-350
Beach, W. Edwards: Selling: The Transfer of Ownership, 302-309
Beans
dry edible, price support, 353
snap, 432
Beef, 485 ff.
canned, slack fill, 276-277
cattle marketing, role of communications, 172-175
See also Cattle consumption, 485, 486
standards, 160-161
supply, fluctuations, 488
Beets, sugar, 433 ff.
diffusion process, 129
processing, 434
Belgium, 453
Bevan, L. A.: Farmers As Their Own Salesmen, 27-28
Black heart of potatoes, 380
California, 21, 67, 93, 94, 96, 98, 100, 104, 122, 414, 484
castor bean production, 455
corporate wigwags, 127
coop, 247
dried fruit
industry, 428
production, 431
early pure food law, 213
feed grain production, 405
fruit processed, 429
production, 426
Granger’s Bank, 244
jobs in half-size boxes, 134
lettuce harvest, harvesting improvements, 378-379
Los Angeles, 68, 123, 245
1936 peach crop, 69
San Francisco, 47
family food dollar, 197, 198
sugar price, 350
terminal market for poultry, 94
wheat, 406
University of, 368
vegetable production, 428
wheat production, 460
California Agriculture Code, 272-273
California Citrus Exchange, 230
California Fruit Growers Association, 45
California Fruit Union, 245
Calves
and cattle, regional production, 487
purchased at sources other than
public stockyards, 223
sold through central markets, 56
Can, common tin, for packaging, 187
Canola, 487
feed grain exports, 415
vegetable exports, 453
Cane crop, 423
sugar refining, 434
Canned
dried beef, slack fill, 276-277
foods
improvements in, 204-205
production, 121
fruits and vegetables
cost, 136
financing, 331, 332-333
grade labeling, 165 ff.
price-quality relationships, 222
meat, 164, 486
Canning crops, method of sale, 304
Cantaloupe, upright loading, 98
Capital needed by cooperatives, 240
Capper-Volstead Act, 250-251
Carboaid shipping containers, 139
CAREY, C. J.: Fraud by any Other Name, 272-278
CAREY, L. C.: From Farm to Stockyard, 190-193
Carriers
air, 49
rail, 49
ocean, 49
regulation, 105
common
defined, 92-93
duties and liabilities, 300-301
regulation, 107
contract, 93
regulation, 105
kinds and uses, William J. Hudson, Don C. Leavens, 92-99
motor, comparison on Federal control, 109
physical, 93
duties and liabilities, 300, 301
regulated, 92-93
unregulated for-hire, 93
war, 93
regulation, 107
Carrots, consumption, 425
Cars, refrigerator
described, 103-104
modern, 384
Cash transactions, exchange rules, 306-307
Cashews, 435
Castor beans, 455
Castor oil, 459, 460
Cattle, 486 fl.
and calves, regional production, 487
beef, marketing, role of communications, 172-175
method of sale, 305
sought at sources other than public stockyards, 223
sold through central markets, 56
valuing quality, 49
Caveat emptor, 265-272
Celery harvesting, portable equipment, 93
Cellophane, use in packaging, 134
Central markets, 36-39
cattle, calves, hogs, sheep and lambs sold through, 56
See also Terminal markets
Cereals, enrichment, 204
Chainsstores, 64-66, 70-71
as a lesson in marketing, Paul D. Converse, Robert H. Cole, 67-70
cooperative, 63, 70, 71
effect on retailing, 64-66
history, 67-70
integration, 331-332
opposition to, 69
taxes, 69
Challenge, 242
Charities
at stockyards, regulation, 283
demurrage, 97
for marketing food, 14
Cheddar cheese, 484
Cheese, 475 fl.
Cheddar, 475
factories, 124, 478
factory, cooperative, first, 243
imports, 485
making, improvements in, 189-190
plants, changes in, 234
unloads at terminal markets, 59
Chemicals in foods, 216-218
Cherries, sour, processed, 431
Chicago, 47, 48, 94, 98, 100
apples and pears, on fruits and vegetables by rail and truck, 46
butter market, 94
butter price, 55
carlot diversions at, 42, 44, 45
corn market, 93
corn price, 98
egg market, 51
grain market, 50, 95, 117
hog price, 57
livestock market, 101
meatpacking, shift from, 127
poultry market, 94
sugar price, 350
terminal market, 37
Union Stockyards, 41
University of, 124
wool market, 464
Chicago Board of Trade, 320, 323
Chicago Mercantile Exchange, 45, 54, 55
Chickens, 476 ff., marketing channels, 468
See also Broilers; Poultry
CHILDRESS, RUSSELL J.: Ways and Means of Storage, 111-115
CHURCH, DONALD E.: From Farm to First Market, 87-92
Chlorination, in-plant, 131
Cigar(s), 446
good, factors in producing, 187
manufacture, 444-445
manufacturers, decline in, 234
Cigarettes, 446
factory number, 234
manufacture, 444
Financing—Continued

long-term, 332
marketing. Jesse W. Tapp, 331
Flash pasteurization, 129
Flaxseed, 453, 459
standards, 159
Florida, 93, 96, 122, 191
citrus fruits, 426
direct selling, 23
increase in demand, 186
processed, 439
cooperatives, 246
feed grain production, 404
potatoes, 458
white sugar, 453
tobacco production, 443
Florida Citrus Commission, 186
Florida Citrus Exchange, 245
Flour
and meal mills, number, 233
enrichment, 205
mills, 418
semibulk handling, 128

Food
adulteration, 211 ff.
during wartime, 219
brokers, defined, 71-72
bulk handling, 128
canned
improvements in, 204-205
production, 121
chemicals in, 216-218
consumption
effect of eating places on, 73
effect of incomes on, 203-206

332
dollar, family, division of, 198
dried, 121
factories, 123-126
sanitation, 131-132
firms, retail and number, 226
flow, in United States, 141
for families. Gertrude S. Weiss, 199-202
freezing, effect on marketing, 20-21
frozen. See Frozen foods
industries, future trends, 233
industry, trend toward large-scale enterprise, 228-230
manufacturing, 121-127
and distribution technologies, 136
capital expenditures, 331-332
firms, pattern of, 229
increases in, 121-123
manufacturers
and wholesalers, 71
number, 127
market and retail value by channel of distribution, 74-75
marketing, charges, 14
plants, 129-136
sanitation, 131-132
processing, 121-127
and distributing firms, trend toward large scale, 228-233
technological developments, 128-129
waste disposal, 132
irreparable, 490
pure, long fight for. Charles W. Crawford, 211-220
quality in, factors, 221
retailers, 60-75
nonfood lines, 66
See also Retailers, retailing. See Retailing
supplies, increase, 9
Wholesaling. See Wholesaling
Food and Drugs Act, 153, 166, 169, 219
enforcement, 214
provisions, 153
provisions concerning canned meat, 164
Food and Drug Administration, 213, 217, 220
factory inspections, 218

Food, Drug, and Cosmetic Act, 166, 168, 216
provisions, 213, 220, 264, 267
Food pasteurization Act, 153
provisions, 158, 162
Foodstores
independent, sales, 63
retail, 61-64
refrigeration facilities, 384-385
sales, 61
self-service, 63
See also Chainstores; Retailers; Supermarkets
Foodstuffs
by banks for cooperatives, 334
commercial broiler industry, 34
inventory, 332-333

Fairs, sales at, 305
Fair-trade legislation, 283-288
Financial
food dollar, division of, 198
food for. Gertrude S. Weiss, 285-292
income, effect on marketing, 196-197
size, effect on marketing, 195-196
Farm(s)
exports, United States, value, 158
mechanization, 19-20
population, 9
products, advertising, responsibilities, 185
refrigeration on, 382-383
sales off, 22-35
to first market. Donald E. Church, Margaret R. Purcell, 87-92
trucks, 87-92
Farm Bureau Federation, New York State, 181
Farm Credit Act of 1933, 253
Farm Credit Administration, 249, 334
Farmer Cooperative Service, 247, 255
Farmers
as their own salesmen, W. F. Lomasney, L. A. Bevan, 23-28
cooperatives, local, 30-31
retail markets, 28
returns in relation to costs, 17
share of retail price, 15-17
Fats and oils.
C. B. Gilliland, Richard J. Foote, 453-460
foreign trade, 455
usually specified products, 456
vegetable, substitution for milk fats, 484-485
Federal regulation of marketing, 259-265
Federal Coordinator of Transportation, 157
Federal Farm Board, 248, 253, 334, 351
Federal Food and Drugs Act, 153, 165, 168, 169, 219
enforcement, 214
provisions, 153
provisions concerning canned meat, 164
Federal Food, Drug, and Cosmetic Act, 166, 168, 216
provisions, 153, 220, 264, 267
Federal Seed Act, 268
Federal Specifications Board, 153
Federal Trade Commission, 264, 270, 350
chainstore inquiry, 68-69
Federal Trade Commission Act, 267, 278, 350
provisions concerning deceptive advertising, 270-271
Feed grains, 403-413
commercial supply, 412-413
exports, 413
grapes, 408-409
imports, 412, 413
Malcolm Clough, James W. Browning, 405-413
marketing, 405-408
production, 405-408, 406
storage, 409-412
utilization, 412-416
See also specific kinds
Feeds, movement, 407
Feedstuffs, competition among, 342
Fertilizer, fraudulent, 277
Fiberboard containers, 139
Figs, 433
Financing
by banks for cooperatives, 334
commercial broiler industry, 34
inventory, 332-333

195. 219
and distributing firms, trend toward large scale, 228-233
and distribution technologies, 136
capital expenditures, 331-332
firms, pattern of, 229
increases in, 121-123
manufacturers
and wholesalers, 71
number, 127
market and retail value by channel of distribution, 74-75
marketing, charges, 14
plants, 129-136
sanitation, 131-132
processing, 121-127
and distributing firms, trend toward large scale, 228-233
technological developments, 128-129
waste disposal, 132
irreparable, 490
pure, long fight for. Charles W. Crawford, 211-220
quality in, factors, 221
retailers, 60-75
nonfood lines, 66
See also Retailers, retailing. See Retailing
supplies, increase, 9
Wholesaling. See Wholesaling
Food and Drugs Act, 153, 166, 169, 219
enforcement, 214
provisions, 153
provisions concerning canned meat, 164
Food and Drug Administration, 213, 217, 220
factory inspections, 218

Food, Drug, and Cosmetic Act, 166, 168, 216
provisions, 213, 220, 264, 267
Food pasteurization Act, 153
provisions, 158, 162
Foodstores
independent, sales, 63
retail, 61-64
refrigeration facilities, 384-385
sales, 61
self-service, 63
See also Chainstores; Retailers; Supermarkets
Footie, Richard J.: Fats and Oils, 453-460
Foreign exchange control, 80-81
markets, selling in. Omer W. Herrmann, 77-85
trade, 76-85
fats, oils, and oil-bearing materials, 455
policies, 79-81
Forward contracting, 304
contracting to reduce risks, 314
selling. Harold B. Rowe, 316-323
Forwarders, freight, regulation, 107
Fox, Karl A.: Place of Competition, 337-342
Fruits, 342
foreign exchange control, 80-81
metric system, 144
Franklin, Benjamin, C:
Fraud by and any other name. C. J. Carey, 272-278
Freezers
home, 386-387
ice cream, continuous, 130
Freezing food, effect on marketing, 20-21
Freight
forwarders, regulation, 107
services, protective, 93, 96-97
French, B. C., 368
Frozen
eggs, unloads at terminal markets, 59
food industry, expansion, 387-388
processing plants, location, inc.
production, 121
transportation, 104
oranges, 275
orange juice concentrate, 389-390
strawberries, 122
Fruit(s)
and vegetables, 424-433
arrivals and unloads at Chicago by rail and truck, 46
auktion market, 45
brokers, 43
bulge packing, 138
cash and carry, 139
canned, financing, 331, 332
canned, grade labeling, 165
canned, price-quality relationship, 222
customer's dollar, 430
diseases, control, 379
distributors, 45-46
grading, 162-163
handling, pack-out method, 277
losses, 378
market news, 177
marketing, 427
marketing agreements, 360
marketing channels, 429
marketing, decentralization, 45-47
marketing problems, 359-360

Research and Marketing Act of 1946, 192, 389
research on marketing efficiency, 235
research on sugar marketing, 438
Resident buyers, described, 29
Retail restaurants, 72-75
number and sales, 226
Retailers
food firms, number and sales, 226
store records, studies to determine preferences, 208
value of food by channel of distribution, 74-75
market basket, 12-13
Retailers education help, 191-192
food, 377 food lines, 66
Retailing, 7-8, 60-75
charges, 50
compost in, 337-338
cotton goods, 448
firms, number and sales, 225-226
self-service, 69
Returns, farmers’, in relation to cost, 17-18
Revenue Act of 1951, 252
Rhode Island, 472
cooperatives, 246
feed grain production, 404
Rutabagas, 433
RUBEL, REVZAN, DAVID A.: What the
Returns, farmers’, in relation to cost, 17-18
Sales
exports, 78, 82, 85
price supports, 352
Risks
effect on marketing costs, 312
kinds, 309-310
marketing, 309-316
methods of handling, 313-316
exports, 78, 82, 85
future needs, 10
South Carolina
Charlotte, 256
Colombia, 118, 365
cooperatives, 246
court of appeals decision, 256
feed grain production, 404
trade prohibition, 445
South Dakota, 93, 285, 414, 460
cooperatives, 246
feed grain production, 404
Southern California Fruit Exchange, 245
SOUTHWORTH, HERMAN: What Can It Do for Us? 8-11
South America, 442
proper, 95
and scope, 225-228
South Carolina
San Diego, 248
risks, 311-312
standards, 159
Speculation, effect on marketing, 3-4, 12
Speculation, defined, 321
Spices, marks used by sixteenth century grocers, 150
Sparrow, S. H., 250
Saran, use in packaging, 134
Sauunders, Clarence, 69
Sauid, apple, control, 379-380
Scales, stockyard, regulation, 284
Scope and size, 225-228
SCUDER, FRANCES: Improvement through Education, 190-193
Seeds, regulations, 268
Self-harvesting at roadside markets, 28-29
Self-service
foodstores, 63
retailing, 69
seller’s market, defined, 49
Selling
agent, fruit and vegetable, 45
direct, by farmers, 23-28
direct to terminal markets, L. J. Norton, 34-35
forward, Harold B. Rowe, 316 in foreign markets. Omer W. Herrmann, 77-85
through local middlemen. Andrew W. McKay, Martin A. Abramson, 28-31
through cooperatives, 304-305 to processors. Floyd F. Hedlund, 31-34
Transfer of ownership. Bennett S. White, Edwards Beach, 302-309
Share contract, 322
Sharp trading, 272-278
Sheep, 460 ft., 486 ft.
metha of sale, 303
purchased at sources other than public stockyards, 223
sold through central markets, 56
Shenandoah Valley, broker production, progress, 473
SHEPHERD, GEOFFREY: Changes in Structure, 52-59
Sherman Act, 251, 270, 350
Shippers, competition among, 338
Shipping
containers, 134, 138-139
cardboard, 159
packing, 138-139
wood for, 138-139
holleys, 361
points, ties between, 338
Short-run price, defined, 543
Signs, highway size, 26
Size and scope, 225-228
economics of, 228-233
efficiency, and monopoly, R. G. Bressler, Jr., 233-235
SLAGSVOLD, P. L.: Wool, 460-467
Smith, Adam, quoted, 286
Smith-Doxey Act, 158
Smithsonian Institution, 445
Snuff, 446
Soybeans, 459-460
Solomon, Alan, 400
[continued on next page]
Storage—Continued

space, refrigerated, 112, 114
by States, 387

tobacco, 111, 112
vegetables, 111, 115
ways and means. Russell L.
Childress, Thew D. Johnson,
111-115
wheat, 113

Stores, department, 226-227
Strawberries, 429
defective packing, 274
frozen, 122, 431
structure of terminal markets, 38
Sugar, 435-438
beets, 433 ff.
diffusion process, 129
consumption, 433
distribution, channels, 436
entrances and marketings, 435
extracts, by various
international trade barriers, 435
marketing, regulation, 261
Marshall E. Miller, 435-438
prices, 435-437
quotas, 261
refining industry, basing-point
pricing system, 350
tariffs, 435-437
taxes, 437
uses, 434

Sugar Provisions, 189, 381
sugar, 437 ff.
Sullivan, Mark, quoted, 213-214
Sunkist, 242
Superettes, 61, 64
Supermarkets, 435-438
Sullivan, Mark, quoted, 213-214

Supreme Court decision
affection, 270-271
authority of State v. Federal
Government for inspection
and standards, 265
milk marketing, 258, 261
State regulation of grain
crator, 258
Packers and Stockyards Act,
Structural changes, 259-260, 281
production controls, 352
price agreements, 286
State market regulations, 292
Sugar Act, 261
employing doctrine of Caveat
empior, 266

Survey by mail, 210
customer preference, 207-211
Sweet corn, 432
Sweetpotatoes, 425, 426, 428
dyed, 274
storage, improvement, 380

Tallow, exports, 78, 82
Tank trucks, 88, 95
TAPP, Joseph W., Financing Mar-
ketings, 331-335
Tariff(s), 79, 81-82
sugar, 435-437
Thewdishman’s, 116

Tax(es)
excise, 14
and processing, 236
checkstores, 69
paid by cooperatives, 251-253
receipts, tobacco products, 411
State, use control trade, 291
State, tobacco products, 445-446
Taylor, Anne Dewees, 399
Taylors, Henry C., 399
Tea, adulteration, 212
Technical assistance, 187-190
Technicians, help, Warren W.
Oley, John A. Winfield, 187

Technological
developments in food processing,
128-129
progress, 12, 17
Tennessee, 67, 94, 460
cooperatives, 246
feed grain production, 404
Knoxville, 378
Memphis, 51, 69, 324
Nashville, 66
tobacco production, 443
Terminal markets, 36-59
cotton, 30-31
dates, 51-52
fruits and vegetables, 43-48, 51
grain, 39-41, 48, 50
grain receipts, 40
livestock, 35, 41-43, 49, 53
poultry, 52
pricing at, 38, 50
regulation, 38
selling directly to, L. J. Nor-
con, 34-35
structure, 38-39
ties between, 338
unloads at, 39
groceries, 43-48, 51
wheat, 416-417
wool, 52
Tes, 93, 94, 96, 191, 285, 414,
428
cooperatives, 247
Corpus Christi, wet-processing
plant, 413
Dallas, cotton market, 51, 324
feeder livestock, 404, 405, 408, 413
Fort Worth, 37
livestock market, 41, 94
Galveston, 113, 413
Houston, 66
cotton market, 51, 324
Lubbock, 51
San Antonio, 365
Tyler, fruit juice survey, 388
wool, 400

TOBACCO, J. B., Tobacco, 438-446
TOMES, J. L. MURRAY: Price
Supports and Competition,
351-357
Time and work, ways to save
William H. Elliott, 365-369
Time contracts, history, 324-326
Tin can, common, for packaging,
135-136
Tobacco, 438-446
auctions, 440
bond selling, sales, 440
classes, 159
consumption, 444
cooperatives, contracts, 251
exports, 78, 442-443
value, 82
farmers’ cash receipts, 441
financing, 334
for good cigars, 187
groups, 159
imports, 443
industry in U. S., 439
inspection, 158-159
loans, 440-441
manufacturing, 444
market news, 178
marketing
Federal regulation, 263
State regulation, 257-258
Maryland packaging require-
ments, 257-258
method of sale, 305
price support, 352, 353
production, 443
products
taxes, 445-446
tax receipts, 441
storage, 111, 112
Tobacco Inspection Act, 153, 158
Tobacco Standards Act, 178
Tobacco Stocks and Standards Act,
1929, 152
Tomatoes, 426, 432, 433
chilling injury, 380
color measurement, 154-155
stacked loads, 274-275
Too-mile, defined, 87

Trade
barriers between States, 439-440
DeLoach, 288-295
international, 79-81
international, sugar, 435
fair, legislation, 285-288
foreign, 76-85
policies, 79-81
Transferring equipment, use in
handling operations, 368
Transfer, ownership, 7, 302-309
kinds, 297-301
methods, factors influencing,
308-309
Transit
damage in, 97-98
international, 93, 96
Transport, air, 102
Transportation, 6, 86-109
bills of, 93-94
charges, 14-15
costs, 98-99, 102-103
effect on marketing, 21
effect on terminal markets, 37, 55
groceries, 94
Federal Coordinator of, 106
firms, 228
from farm to initial market, type
of equipment, 89
from foods, 104
fruits and vegetables, 93, 98
future needs, 9-10
grain, 93, 94-95, 98, 101
improvements in, 99-103
kinds and uses, 92-99
livestock, 94, 95, 101
milk, 94
policy, national, 102, 108-109
poultry, 94
refrigeration in, 103-104
regulation and policies, Ralph
L. Dewey, 104-109
vegetables, 93, 94, 98
See also Carriers; Railroads;
Trucks
Transportation Act of 1920, 105
Transportation Act of 1940, 105,
107, 108
Tree nuts, 428
imports, 433
production, 425, 426
Truck(s)
agricultural business, 228
arrivals and unloads of fruits
and vegetables at Chicago, 46
comparison of federal control,
109
farms, 87-92
increased use of, 95
kinds and use, 92-99
operators, fees, 291
refrigeration in, 104
route, 108-109
tank, 88, 95
transportation, levies on, 236
unloads of
fruit and vegetable, 47
selected products at terminal
markets, 107
use by railroads, 101-102
Trucker(s)
exempt, 93
merchant, described, 29
private, 92-93
Tung
nuts, 455
price support, 352
oil, 459
Turkey, 424, 444
Turkeys, 467 ff.
Turpentine, inspection, 158
Two-price plans, 351
Uniform
sales acts, 269
Uniform National Car Demurrage
Rules, 9
Uniform Warehouse Receipts Act,
117
Unions
labor, 369-370
Vermont, 94, 285

cooperatives, 246

feed grain production, 404

roadside stands, sales, 24

Virgin Islands, sugar quotas, 261

Virginia, 426, 428

cooperatives, 246, 250

feed grain production, 404

tobacco production, 443

Viruses—Toxin Act of 1913, 153

Vitamins in diets, increase in, 205

Volatile fruit concentrates, 151

Wages and salaries, 14

Wagons, use in transportation, 97

War and Peace Act of 1917, 569

Walter, Robert, quoted, 390-391

Walter, X. A., 243

Washington, D.C., 140

Washington Grain Growers' Association, 146

Washington State Apple Commission, 17, 20

Washington State Dairy Commission, 103

Washington State Wheat Commission, 98

Washington State Warehouse Act, 391

Weights and measures, 143-150

White wheat, 414

White wheat, 431

Wiley, Harvey W., work, 213

Willys, option, 6, 8

Wine, 179-183

Wine, J. H., and Co., Weingarten, 66

Wines, 179-183

William, landlords, 272-277

Wilson, James, quoted, 390-391

Winfield, Edward J., 413-424

Winefield, X. A., 243

Wisconsin, 93, 94, 192, 291, 428

cooperatives, 245, 246

Crawford County, 235

dairy products improvements, 189

feed grain production, 404

Madison, 243

Milwaukee, 41, 93

tax on margarine, 291

tobacco production, 443

Wisconsin Cheese Exchange, 56

Wood for shipping containers, 138

Wool, 460-467

dollar, consumer's, 461

from producer to consumer, 465

government, 467

H. H. Hulbert, P. L. Slagsvold, 460-467

manufacture, 464-465

price support, 352, 467

production, 463

sales, methods, 462

tax on margarine, 291

tobacco production, 443

Wisconsin State Apples, 56

Wisconsin State Wheat, 98

Wisconsin's Progress, 99-103

Wisconsin, 93, 94, 192, 291, 428

cooperatives, 245, 246

Crawford County, 190

dairy products improvement, 189

feed grain production, 404

Madison, 243

Milwaukee, 41, 93

tax on margarine, 291

tobacco production, 443

Wool, 460-467

dollar, consumer's, 461

from producer to consumer, 465

government, 467

H. H. Hulbert, P. L. Slagsvold, 460-467

manufacture, 464-465

price support, 352, 467

production, 463

sales, methods, 462

terminal markets, 52

tops, futures trading, 328

world production, 466

Wood Product Labeling Act, 268

Woolworth, F. W., 67

Worthington Manufacturing Co., 67

Wrigley, Jr., William, 179-180

Wyoming, 285, 293, 460

cooperatives, 247

feed grain production, 405

Yarns, cotton, manufacture, 447

Zone price system, 350