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THE FUTURE OF AGRICULTURE

*Technology, Policies
and Adjustment*

PAPERS AND REPORTS

FIFTEENTH
INTERNATIONAL CONFERENCE
OF AGRICULTURAL ECONOMISTS

*Held at Parque Anhembi
São Paulo, Brazil*

19–30 AUGUST 1973

OXFORD
AGRICULTURAL ECONOMICS INSTITUTE
FOR
INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS
1974

INTERNATIONAL ASSOCIATION OF AGRICULTURAL
ECONOMISTS

Constitution

ARTICLE I. NAME

The name of the organization shall be International Association of Agricultural Economists, hereinafter referred to as IAAE.

ARTICLE II. OBJECTIVES

The objectives of the IAAE are: To foster the application of the science of agricultural economics in the improvement of the economic and social conditions of rural people and their associated communities; to advance knowledge of agricultural processes and the economic organization of agriculture; and to facilitate communication and exchange of information among those concerned with rural welfare throughout the world.

ARTICLE III. DISPOSITION OF FUNDS

Section 1. No part of the income of the IAAE may inure to the benefit of individual members thereof, and the association shall be operated as a non-profit organization

Section 2. In the event of dissolution of the IAAE, whether voluntary or involuntary, its assets shall be disposed of in a manner deemed by the Executive Committee to be consistent with the scientific and educational purposes for which the IAAE was formed.

ARTICLE IV. ACTIVITIES

Section 1. The IAAE may engage in any activity which falls within the sphere of its objectives and which may be authorized by the IAAE Council, hereinafter referred to as the Council, such as international and regional meetings and seminars, and the publication of reports dealing with the activities of the association or with other matters of interest to its members.

Section 2. A major conference of the IAAE shall in general be held every three years. The Council may indicate its preference for the country where the conference is to be held, but the final decision shall be made by the Executive Committee.

Section 3. The IAAE may retain, employ, and remunerate skilled professional or technical personnel in furtherance of its objectives.

ARTICLE V. MEMBERSHIP

Section 1. Any person who is interested in agricultural economics shall be eligible for membership in the IAAE and may become a member thereof by paying the prescribed dues to the country (area) representative or to the Secretary-Treasurer of the IAAE.

Section 2. The membership fee shall be determined by the Council and shall cover a three-year period, beginning on the first day of January 1975, and the first day of every third year thereafter. Any member who fails to pay his dues within the first year of the three-year period shall be considered to be delinquent.

Section 3. Corporations, libraries, and similar institutions may become members by designating one of their staff as the member for the firm or institution.

Section 4. The IAAE, on the recommendation of the Council, may elect honorary life members.

ARTICLE VI. EXECUTIVE OFFICERS

The executive officers shall be a President, a President Elect, a Vice-President for Administrative Affairs, a Vice-President for Programme Development, and a Secretary-Treasurer, all of whom shall be elected by the Council at a formally constituted meeting held during the conference, and shall hold office for a period beginning with the close of the conference and ending with the close of the next succeeding conference.

ARTICLE VII. DUTIES OF OFFICERS

Section 1. The President shall be the chief executive officer of the IAAE and shall be subject to the authority of the Executive Committee. He shall be responsible for managing the administrative and business affairs of the association and for conducting international and regional conferences. He shall preside at all meetings of the IAAE, the Council, and the Executive Committee. He shall preside at plenary and other sessions of conferences or designate an alternate. He shall make appointments to special committees created by action of the Executive Committee or the Council.

Section 2. The President Elect shall, in the absence of the President, perform the duties of the President, and when so acting shall have all the powers of the President and be subject to all the restrictions upon the President. In the event of the incapacity of the President to complete his term, the President Elect shall assume the office of President. He shall at all times be kept informed of the affairs of the association and shall be involved in them. He shall perform such other duties and have such other authority as from time to time may be assigned to him by the President or

by the Executive Committee. .

Section 3. The Vice-President for Administrative Affairs shall assume various administrative duties such as facilitating local arrangements and developing financial support for the association. He shall perform such other duties and have such other authority as from time to time may be assigned to him by the President or by the Executive Committee.

Section 4. The Vice-President for Program Development shall be responsible for preparing the program for the major conferences of the IAAE and shall perform such other duties and have such other authority as from time to time may be assigned to him by the President or by the Executive Committee.

Section 5. The Secretary-Treasurer shall:

- A. Keep minutes of the meetings of the Council and the Executive Committee.
- B. Keep country representatives informed of the principal actions.
- C. Have custody of IAAE records.
- D. Maintain, with the help of the country (area) representatives, the full address of each member.
- E. Certify resolutions.
- F. Receive all funds and securities of the IAAE and deposit all such assets in the name of the IAAE in such banks, trust companies, or other depositories as may be designated by the Executive Committee.
- G. Disburse funds in accordance with regulations established by the Executive Committee
- H. Keep an account of all receipts and expenditures and other financial transactions of the IAAE by fiscal periods beginning the first day of January and ending the thirty-first day of December of each year.
- I. Perform such other duties and have such other authority as from time to time may be assigned to him by the President or by the Executive Committee.

ARTICLE VIII. EXECUTIVE COMMITTEE

Section 1. The Executive Committee shall consist of the Founder President, the immediate Past President, and the executive officers. Upon the inability of the Founder President to serve, the Executive Committee shall consist of the immediate Past President and the executive officers.

Section 2. The Executive Committee shall act for the Council between meetings of the Council.

Section 3. The President of the IAAE shall serve as Chairman of the Executive Committee, and the Secretary-Treasurer of the IAAE shall serve as its Secretary.

ARTICLE IX. SPECIAL COMMITTEES

Section 1. Special committees may be created in accordance with the needs of the IAAE upon action by the Executive Committee or the Council.

Section 2. Members of special committees shall be appointed by the President of the IAAE.

ARTICLE X. NATIONAL OR AREA BRANCHES

Section 1. The members of the IAAE in each country (or group of countries) shall form a National (Area) Branch to promote the objectives of the IAAE within the country or area. In addition, National (Area) Branches may join together to pursue IAAE objectives.

Section 2. Each National (Area) Branch shall designate a member as country (area) representative to provide liaison between the officers of the IAAE and the membership within the country or area.

Section 3. Each National (Area) Branch shall elect members to the IAAE Council in accordance with the number of members in the country or area: 0 and not exceeding 4 members, 0 Council member; 5 and not exceeding 10 members, 1 Council member; 11 and not exceeding 25 members, 2 Council members; 26 and not exceeding 60 members, 3 Council members; 61 or more members, 4 Council members.

Section 4. Each National (Area) Branch shall elect or appoint members to the Council within one year after the election of the officers of the IAAE. The method of selecting members of the Council shall be left to the discretion of each National (Area) Branch, but the procedure shall be reported to the Executive Committee for approval.

ARTICLE XI. IAAE COUNCIL

Section 1. The IAAE Council shall consist of the Executive Committee together with the members elected by the National (Area) Branches as provided for in Article X.

Section 2. The Council shall be the major policy formulating body of the IAAE and shall meet during the conferences of the IAAE and at such other times and places as may be designated by the Executive Committee.

Section 3. In the event a Council member from a National (Area) Branch is not present at a conference, Branch members in attendance may designate one of their group as an alternate Council member.

Section 4. The President of the IAAE shall serve as Chairman of the Council, and the Secretary-Treasurer of the IAAE shall serve as its Secretary.

ARTICLE XII. TEMPORARY NATIONAL OR AREA BRANCHES

Where no National (Area) Branch has been constituted, the President may appoint a temporary representative to canvass for members and to establish a branch under the Constitution.

ARTICLE XIII. AMENDMENT OF CONSTITUTION

The Constitution may be amended at any formally constituted meeting of the Council either by a three-fifths (3/5) vote of the Council members present, provided that at least six months prior to the voting the amendment has been submitted in writing to the country (area) representatives for consideration by the National (Area) Branch members; or by a three-fourths (3/4) vote of the Council members present without advance submittal in writing.

As adopted August 1973



INDEX

THIS index is intended mainly to complement the contents list which is likely to be the more effective means of locating the most significant treatment of the main subjects of the conference. It is likely to be most useful in locating references to items which appeared in a number of papers or discussion sessions; to items of specific interest to a participant in the conference which arose more or less incidentally to the particular line of discussion being followed, and to speakers from the floor in the main sessions. Names of chairmen, consultants and rapporteurs in Special Groups and Discussion Groups are not included in the index. Names of countries are included only if they appear in connection with some major activity; entries in statistical tables are generally not indexed.

- Activation theory, 350
Adaptive control theory, 154
Administration apparatus, 131, 136, 282, 466
Advisers, agricultural, 390
Aggregate supply response, 219
Agrarian reform, 129, 131, 225, 461
Agri-business complex, 91, 101
Agricultural development, 500
Agricultural economics training, 411
Agricultural economist, 99
Agricultural policy, 76, 297, 355
Agricultural production economics, 150
Agricultural research, 43, 247, 251, 465
Agricultural statistics, 280, 281, 449
Agro-industry, 387
Alcaide, José R., 195
Allen, G. R., 65, 220, 247
Allocative efficiency, 216
Andean Integration, 340, 490
Anderson, Åke, 106
Animal husbandry, 138, 148
A.R.E., 498
Assumptions, 196

Bachman, K. L., 71
Balance of payments, 67
Bangladesh, 123

Barberis, Corrado, 389, 141
Barbero, G., 105
Barriers to entry, 134, 265
Barros, Henrique de, 245
Bayes, Thomas, 153
Beef supply, 67
Behavioural research, 430
Benedictis, M. De, 183
Benelux, 338
Bergman, Denis, 76
Bernoulli, Daniel, 152
Bhattacharjee, J. P., 31, 132
Bibliographies, 161, 181, 188, 261
Biological revolution, 65
Biology, 370
Birowo, Achmad T., 142, 290
Birth rates, 273
Blanckenburg, Peter von, 63
Bonte-Friedheim, Christian, 318
Book-keeping results, 289
Bose, S. R., 32
Boserup, Ester, 141
Boyev, V., 202, 221
Brazil, 230, 296, 498, 509
Breimyer, Harold F., 59, 219
Britton, D. K., 103, 326
Brooks, Emerson M., 444
Budgeting, 189

- Bueno, M., 101
- Capital, 195, 363
 Capital budgeting, 155
 Capital intensive techniques, 109
 Capital/land ratio, 294
 Caribbean Free Trade Association, 340
 Cash-flow analysis, 470
 Catering, 26
 Census, 477
 Central American Common Market, 340
 Chang, Yien-Tien, 231
 Change, induced technical and institutional, 35
 China, 277
 CIAT, 43
 CIMMYT, 43
 Clark, Colin, 66
 Club of Rome, 11
 Cobb-Douglas function, 472
 Cochrane, Willard, 326
 Coffee, 439
 Collective farms, 380
 COMECON, 339
 Common markets, 17
 Communication, 60, 306
 Conflicts, 145, 148
 Conservation, 94
 Constraints, 487
 Consumer expenditure, 79
 Consumer society, 88
 Co-operation, 130, 227, 229, 266
 Costs, relative, 350
 Credit, institutional, 139, 193, 310, 321, 363, 398, 445, 470
 Crop production, 235
 Crop yields, 259, 292
 Czechoslovakia, 277
- Data, 292, 429, 468
 Decision-making, 151, 185, 195, 290, 318, 429
 Deficiency payments, 356
 Delphi method, 435
 Demand, 8, 31, 78, 473
 Demography, 510
 Desai, D. K., 307
 Development, 109, 312
 Dias, Rubens de Araujo, 2
 Diffusion, 185, 391, 399, 453
 Dillon, John, 195
 Direct compensation payments, 333
 Discussion Group, 442
 Distribution, 312
 Dorner, Peter, 362
 Drought, 292
 Dualism in agriculture, 456
- Dynamic programming, 195
- Economists, role of, 141, 145, 149, 185
 Education, 13, 41, 72, 144, 258, 311, 403, 412, 447, 487, 505
 Efficiency, tests of, 197
 Elmhirst, Leonard, 5, 16
 Employment, 109, 431
 Enclosure Movement, 48
 Energy, 10, 113, 246, 250
 Ensminger, Douglas, 142
 Entrepreneurs, private, 440
 Environment, 69, 95, 454, 486
 Ethics, 147
 European Economic Community, 69, 213, 338, 478
 European Free Trade Association, 339
 Experimental data, 186
 Extension, 14, 131, 149, 331, 447
 Externalities, 455
- Factors of production, 59, 109
 Factory farming, 247
 Family farm, 83
 Farcy, Henri de, 59, 101, 244
 Farm Corporations, 130
 Farm gate, 104
 Farm income, 459, 500
 Farmer, 89, 198
 Farmers' associations, 244
 Farmers, 'who', 141
 Farm management, 468, 471
 Farm structure, 68, 144
 Feedback, 172
 Feedingstuffs supply, 24
 FEOGA, 213
 Fernández, Ramón y Fernández, 127
 Fertilizers, 58, 68, 113, 235, 310, 410, 498
 Firm, growth, 154, 155
 Firm-household interdependence, 177
 Food industry, 144, 467
 Food policy, 102, 291
 Food processing, 26
 Food reserves, U.S., 71
 Food supply, 24, 57, 102, 104
 Forecasting, 262, 284, 435, 477
 Forestry, 10
 Fragmentation, 140
 Freedom, 103
 Friedman, Milton, 96
 Friedman, Santiago I., 105
- Gaetanni, G., 70
 Game theory, 153
 Germany, 175
 Giles, Antonio, 226
 Goals, 160

- Gonçalves, A. Sebastien, 188, 196
 Government intervention, 209
 Granada, 494
 'Green Revolution', 31, 68, 120, 416
 Groenewald, J. A., 196
 Growth, 9, 87, 133, 175
 'Growth economies', 59
 Growth, limits to, 35, 245
 Growth rates, 25, 62
 Gulbrandsen, Odd, 17, 33, 73, 128, 221

 Hanson, David, 246
 Hardaker, Brian, 243
 Hawkins, M., 280
 Hayami, Yujiro, 51
 Health, 75
 Heat, removal, 248
 Heidhues, Theodor, 170, 198
 Herer, V., 104, 129, 242
 High yielding varieties, 291, 372, 397
 Household assets, 196
 Human factor, 95, 101, 140, 412
 Hydro-electric project, 112

 Ideas, 61
 Ideology, 417
 Iglesia, Santa, 225
 IITA, 43
 Improved crop varieties, 235
 Incentives, price, 440
 Incomes, disparity, 81, 122, 139, 147
 Income distribution, 135, 173, 463
 Income parity, 211
 Income support, 86, 96
 Income taxes, 220
 Income, transfer of, 137, 143
 Indebtedness, 264
 India, 43, 278, 500
 Indonesia, 43, 143, 278, 290
 industrialization, 76, 158
 Inflation, 26, 66, 103, 175, 471
 Infrastructure, 264, 474
 Innovation, 10, 185
 Input-output coefficients, 180
 Input-output flow, 307
 Input-output tables, 243
 Inputs, 254, 323, 437
 Instability, 78, 188, 346
 Institutions, 45, 55, 70, 72, 142, 299, 446
 Insurance, 325
 Integrated community, 337
 Integration, 17, 470
 Intensive systems, 369, 373
 International agreement, 327
 International technology transfer, 49
 International trade, 19, 28, 32, 478
 Interregional Analysis, 494

 Invention, 185
 Investment, strategy of, 119, 155, 179, 505
 Iran, 131, 144
 IRRI, 43
 Irrigation, 154, 155, 254, 256, 372, 398
 Islam, Nurul, 109, 134, 148

 Japan, 45, 276
 Jobs, 133, 394
 Jodha, N. S., 71
 Johnson, Gale, 235, 249
 Josling, Tim, 208, 222

 Kadar, Gershon, 131, 233
 Kakli, Sulaiman, 233
 Kamali-Nafar, Ahmad, 70, 144
 Kaneda, Hiromitsu, 45
 Kennedy Round, 479
 Kenya, 135
 Klatzmann, Joseph, 85
 Korea, 116, 253
 Krašovec, Stane, 140, 270
 Krishnaswamy, L., 230
 Kulthongham, S., 146, 248, 270

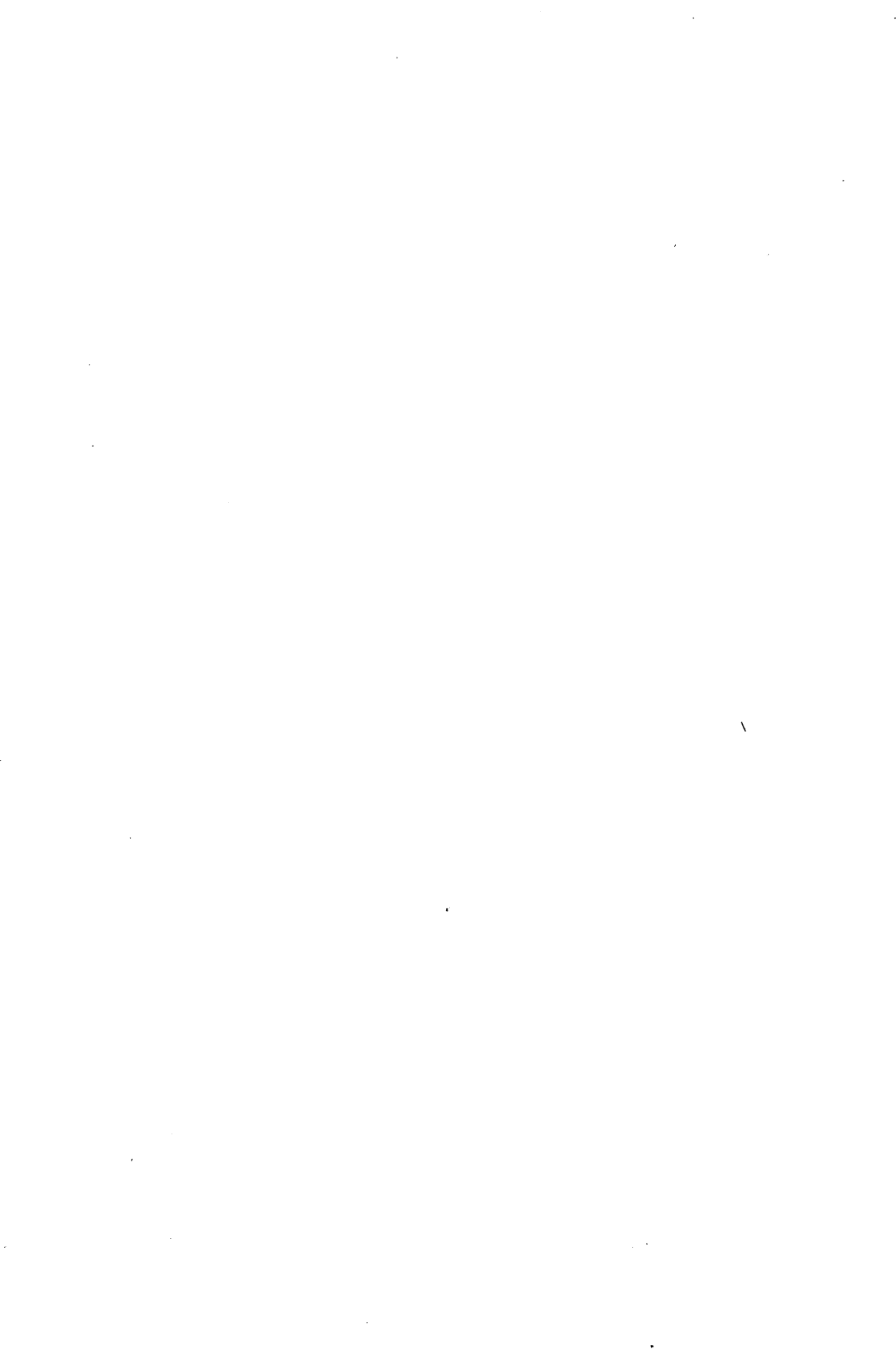
 Labour intensity, 63, 109, 134, 142
 Labour, investment, 254
 Labour/Land, 294
 Labour requirement, 416
 Lacombe, Philippe, 140
 Land, competition for, 247, 251
 Landless labourers, 124, 136, 138
 Land, price, 79, 147
 Land reform, 74, 124, 135
 Land tenure, 364, 461
 Land-to-the-Tiller Programme, 231
 Latin American Free Trade Association, 340
 Lewis, A. B., 61, 248
 Libroero, Aida R., 397
 Linear programming, 154, 187, 220, 469, 472
 Linkage, backward and forward, 14, 112
 Livestock, 31, 148, 154, 155
 'Long run', 142
 Long-run adjustment, 223

 Madagascar 'rice operation', 389
 Malassis, L., 335
 Malthus, Thomas, 5
 Management, 371, 374
 Mandal, G. C., 63
 Manley, W. T., 263
 Marginal farmers, 138
 Market Economies, 208
 Marketing, 205, 263, 379, 475, 494
 Marketing clearing, 214

- Market instability, 78, 85
 Market news, 476
 Market structure, 265, 475
 Markov chain methods, 262
 Martinez, Fernando, 411
 Maruyama, Y., 196
 Mathematical programming, 151
 Mayers, J. M., 263
 McFarquhar, A. A., 196
 Mechanization, 122, 133, 241, 261, 310, 321, 456, 500
 Methodologies, 150, 422
 Mexico, 43, 265
 Migration, 278, 509
 Miller, Geoff, 216
 Mobility, 80
 Mohtashem-Nouri, Hossein, 130, 227
 Money supply, 73
 'Monte Carlo', 157
 Morgenstern, 152
 Motivation, 60, 188, 448, 458, 460
 Mubyarto, D., 134
 Mudahar, Mohinder, S., 192
 Multinational corporations, 17, 66, 480
 Multiple cropping, 121, 133
 Multiplier, 195
 Muthiah, C., 72
 Myers, Maxwell, 141
- Natel, Governor, 1
 Natural resources, 454
 Nazarenko, Victor, 247
 Negative income tax, 96
 Negro-Vode, A., 380
 Netto, Professor Antonio Delfim, 436
 Neumann, von, 152
 New varieties of crops, 240
 Nigeria, 494
 Non-price competition, 265
 Normative (*ex ante*) analysis, 452
- Organized labour, 481
 Oscillatory output pattern, 217
 Output, 109
- Paarlberg, Don, 102
 Paiva, Ruy Miller, 27
 Pakistan, 43
 Parity, 82
 Parity price, 210
 Part-time farmer, 5, 140
 Pasture and range improvements, 154
 Peasant, 509
 Pereira, Mário, 52
 Peru, 226
 Petit, Michel, 145
 Philippines, 43, 397
- Philosophies, 62
 Planning, 12, 483
 Planning, socialist, 203
 Plant protection, 235, 261, 310
 Plantations, 445
 Plunkett, Horace, 4
 Policies, flexible, 107
 Political economy, 145, 436
 Politics, 50, 62, 76, 125, 136, 368, 431, 488
 Pollution, 235, 248
 Population, 8, 23, 270, 486
 Poverty, 422
 Power to the Tiller, 125
 Preference function, 187
 Price elasticity of supply, 73
 Price guarantees, 323
 Price policy, 85, 143, 267, 433, 490
 Price reporting, 476
 Price spreads, 264
 Price system, 436
 Price trends, 346
 Prices, 27, 70
 Pricing, 202, 208
 Problems, 430, 486
 Processing, 312
 Production economics, 505
 Production function, 151, 186, 472
 Production potential, 105, 107
 Production technologies, 193
 Productivity, 110, 370
 Profit, 221
 Programming models, 185
 Projections, 328
 Protection, 29, 33, 83, 90
 Protein, 103, 104, 268
 Public works, 140, 143
 Public policies affecting agriculture, 141
 Public policy goals, 171
 Purchased inputs, 78
 Pyrethrum, 269
- Quality control, 94, 269
 Quality differentiation, 17
 Quality of information, 285
- Rates of change, 170
 Rates of income growth, 189
 Raw materials, prices, 346
 Recreation, 247
 Recursive programming, 262
 Regional Balanced Growth, 361
 Regional distribution, 202
 Regional integration, 360
 Reimsdijk, F. J. van, 221
 Remote sensing, 477
 Research, 144, 296, 311, 498, 505

- Research and development, 6, 144
 Resources, 53, 93, 94, 217, 440, 483
 Resources, human, 35
 Risk, 128, 152, 199, 246, 316, 374, 379, 498, 509
 Roads, 148, 264
 Romania, 276
 Rural Development, 509
 Rural employment, 463
 Ruttan, Vernon W., 35, 64, 74, 200
- Sabado, R. A., 229
 Sampling methods, 284
 Sanders, John, 45
 Saran, Ram, 263
 Sarma, J. S., 137
 Saving, rate of, 114
 Sawada, S., 253
 Schattan, Salomão, 280
 Schmitt, Gunther, 143, 218
 Schnittker, John, 84
 Schuh, G. E., 280
 Schultz, Theodore W., 235
 Second Best, theory of the, 212
 Second Development Decade, 117
 Sector, agricultural, 172
 Seed-fertilizer technology, 127
 Self-sufficiency ratios, 71
 Severino, Joaquim, 198
 Severo, Alberto, 101
 Share tenancy, 407
 Silva, José Gomes da, 232
 Simantov, A., 76, 106, 133, 146
 Simulation, 155, 262
 Simulation models, 151
 Singh, S. K., 116
 Skill, 293
 Slama, Abelmajid, 232
 Small farms, 121, 138, 143, 190, 260, 457
 Small-scale industries, 134, 143
 Social, 487
 Social costs, 203
 Soil-less agriculture, 246
 Specialization, 17
 Sri Lanka, 135
 Stability, 384
 State farms, 380
 Stefano, 263
 Stocks, grain, 31, 267
 Storage facilities, 264
 Structural reform, 83, 86, 458
 Subsidies, 74, 127, 321
 Sugar, 490
 Supply and demand for food, 304
 Support systems, 102, 176
 Synthetics, 263, 265
 System, agricultural, 309
- Systems analysis, 262
 Systems models, 158, 262
- Taiwan, 116, 253
 Taxation, 67, 464
 Technical aid, 392
 Technological change, 29, 68, 70, 79, 237, 253, 326, 397, 451
 Technologies, alternative, 246
 Technology, 128, 133, 136, 363, 422, 452, 505
 Technology, transfer of, 33, 297, 379
 Tenure, 405
 Tewari, R. N., 62
 Theil, 194
 Theories, 201
 Thomsen, Carl, 270
 Throsby, C. D., 150, 200
 Tollini, Helio, 296
 Tomic, Dusan, 57, 220
 Trade barriers, 111, 134
 Trade, international, 98, 329, 422, 490
 Training, 389, 447
 Transport, 58, 199, 220
 Trant, G. I., 369
 Trelogan, Harry C., 31, 220
 Tubewells, 120
 Tunis, 232
- Uncertainty, 193
 UNCTAD, 33
 Unemployment, 77
 United Nations Second Development Decade, 4
 U.S.S.R., 276
- Valdés, I. Alberto, 422
 Validation of a model, 193
 Value judgements, 425
 Vertical integration, 55
 Vertical specialization, 17, 18, 26
- Wade, Bill, 45
 Wages, 500
 Wald, 156
 Water, 238
 Water, irrigation, 152
 Water supply, 142
 Weather, 68, 148
 Weber, Adolf, 45, 144, 219, 247
 Weinschenck, Gunther, 220, 427
 Westermarck, N., 102, 221
 Women, 140, 277, 494
 World food production, 451
- Yates, Lamartine, 140
 Year 2000, 56
 Yugoslavia, 476

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Hyelm, L. *Sweden*
Schieck, H. E. *Germany*
Weber, A. W. *Germany*



DISCUSSION GROUP 5. INTERACTION OF NATURAL RESOURCES,
TECHNOLOGY AND ENVIRONMENT

Front row

Johansson, V. *Sweden*
 Jones, J. O. *U.K.*
 Wittenberg, J. I. *U.K.*
 Lingard, J. *U.K.*
 Mubyarto, D. *Indonesia*
 Almeida, P. I. R. *Brazil*
 Wolters, N. W. *Belgium*
 Zapata, J. A. *Argentina*

Second row

Eddleman, B. R. *U.S.A.*
 Hansen, D. E. *U.S.A.*
 Summers, S. *Peru*
 Easter, K. W. *U.S.A.*
 Wyckoff, J. B. *U.S.A.*
 Reiss, F. J. *U.S.A.*
 Berengut, G. *Brazil*
 Kolshus, H. J. *U.S.A.*
 Holmstrom, S. *Sweden*

Third row

Degand, J. H. *Belgium*
 Randall, A. *U.S.A.*
 Biere, A. *U.S.A.*
 Nelson, W. C. *U.S.A.*
 Immler, H. W. *Germany*
 Breimyer, H. F. *U.S.A.*
 Tefertiller, K. R. *U.S.A.*
 West, Q. M. *U.S.A.*
 Gubbins, K. E. *U.K.*
 Kakli, M. S. *Pakistan*
 de Farcy, H. M. *France*
 Wyckoff, C. C. *U.S.A.*
 Robertson, C. J. *U.K.*



DISCUSSION GROUP 6. DUALISM IN AGRICULTURE—LARGE-SCALE vs.
SMALL-SCALE FARMING

Front row

Molina, J. M. F. *Brazil*
 Moreira, R. J. M. *Brazil*
 Williams, T. T. *U.S.A.*
 Steinhauser, H. *Germany*
 Reeser, R. M. *Tunisia*
 Pederson, H. C. *U.S.A.*
 Matoba, T. *Japan*

Second row

Junqueira, J. R. C. M. *Brazil*
 Londhe, S. R. *India*
 Vasconcelos, M. G. C. *Brazil*
 Haq, M. *Pakistan*
 Thomsen, C. C. *Denmark*
 Elstrand, E. *Norway*
 Andreae, B. W. *Germany*
 Bueno, M. *Spain*

Third row

Britton, D. K. *U.K.*
 Van Riemsdijk, J. F. *Netherlands*
 Jarvesoo, E. *U.S.A.*
 Almeida, L. L. *Brazil*
 Menezes, J. A. S. *Brazil*
 Miotto, C. F. *Brazil*
 Boklin, A. *Brazil*
 Lister, C. A. *Iran*
 Ohtani, S. *Japan*
 Gupta, R. *India*
 Tenma, T. *Japan*
 Aziz, U. A. *Malaysia*
 Bhattacharjee, J. P. (FAO) *India*
 Senda, S. *Japan*



DISCUSSION GROUP 7. MOTIVATION OF FARMERS

Front row

Stelmaschuk, P. *Canada*
Smith, P. G. *U.K.*
Luxton, H. W. B. *U.K.*
Smith, C. N. *U.S.A.*
Bailey, C. R. *India-U.S.A.*
Lombardo, H. A. *Panama*
Franca, J. P. M. *Brazil*

Second row

Cleave, J. H. *U.K.*
Petrini, F. *Sweden*
Tiongson, F. A. *Philippines*
Apedaile, L. P. *Canada*
Soares, J. A. C. B. *Brazil*
Mandal, G. C. *India*
Maxon, R. C. *U.S.A.*
Westermarck, N. C. *Finland*
Bublöt, G. E. *Belgium*



DISCUSSION GROUP 8. AGRARIAN REFORM AND LAND TENURE

Front row

Severo, A. *Brazil*
 Giles, A. *Peru*
 Sta. Iglesia, J. *Philippines*
 Ballesteros, J. *Mexico*
 Chang, Y. T. *Taiwan*
 Souza Pinto, A. de *Brazil*
 Imat, K. M. *Japan*
 Gago, P. *Italy*

Second row

Wiseblat, A. *U.S.A.*
 Geraldo, G. A. *Brazil*

 Pinheiro, A. *Brazil*
 Tayra, K. *Brazil*
 Behrmann, H. T. S. *Africa*
 Freitas, C. *Brazil*
 Pereira, M. *Portugal*
 Lorena, C. *Brazil*
 Godero, F. P. *Brazil*

 Aguiar, H. *Brazil*
 Chuchart, C. *Thailand*

Third row

Costa, L. J. *Brazil*
 Borton, R. E. *Philippines-U.S.A.*
 Monterio, A. D. *Brazil*
 Zampaulo, J. R. *Brazil*
 Perosa, A. P. *Brazil*
 Leite, G. *Brazil*
 Whetham, E. H. *U.K.*



DISCUSSION GROUP 9. POLICY ON RURAL EMPLOYMENT AND
INCOME REDISTRIBUTION

Front row

Whetham, E. H. *U.K.*
 Paniago, E. *Brazil*
 Dias, M. L. M. *Brazil*
 Plante, J. P. *Canada*
 Saran, R. *India*
 Hildebrand, P. E. *El Salvador*
 Mudahar, M. S. *U.S.A.*
 Libroero, A. R. *Philippines*
 Cuadra, M. A. P. *Mexico*
 Kim, H. T. *Korea*
 Olatunbosun, D. *Nigeria*
 Knight, P. T. *Peru*
 Bordeaux, A. F. *U.S.A.*

Second row

Namekata, Y. N. *Brazil*
 Graziano da Silva, J. F. *Brazil*
 Furniss, I. F. *Canada*
 Tollini, H. *Brazil*
 Von Blanckenburg, P. W. *Germany*
 Rochin, R. I. *Colombia-U.S.A.*
 Matthews, T. H. *U.S.A.*
 Levi, J. F. S. *U.K.*
 Cracknell, B. E. *U.K.*
 Hokas, G. O. *Sweden*
 Hathaway, D. E. *U.S.A.*
 Desai, B. M. *India*
 Kotze, H. A. R. *South Africa*

Third row

Dorner, P. *U.S.A.*
 Strachan, L. W. *Brazil*
 Hoffmann, R. H. *Brazil*
 Manger, S. *Bolivia*
 Duncan, R. C. *Australia*
 Friedmann, S. I. *Chile*
 Myers, J. K. *U.S.A.*
 Mount, T. D. *U.S.A.*
 Johannsen, U. *Germany*
 Plath, C. V. *Paraguay-U.S.A.*



DISCUSSION GROUP 10. ADMINISTRATION, ORGANIZATION AND CONTROL OF AGRICULTURE

Front row

Kulthongkham, S. *Thailand*
Sinha, D. P. *India*
Kiene, W. *Austria*
Sen, S. R. *India*
Nazarenko, V. T. *U.S.S.R.*
Mackenzie, J. W. S. *Australia*
Tanaka, O. *Japan*
Negro-Vode, A. S. *U.S.S.R.*
Krestovski, V. G. *U.S.S.R.*

Second row

Gava, E. *Brazil*
Hildreth, R. J. *U.S.A.*
Rocha, S. *Brazil*
Santos, P. R. *Brazil*
Farrell, K. R. *U.S.A.*
Villela, F. V. *Brazil*
Coimbra, S. C. *Brazil*

Third row

Girao, J. *Portugal*
Fekete, F. *Hungary*
Anderson, A. *Sweden*



DISCUSSION GROUP II. FARM MANAGEMENT AND
PRODUCTION ECONOMICS

Front row

Thame, A. C. M. *Brazil*
Pinheiro, A. C. A. *Portugal*
Afzal, M. *Pakistan*
Baptist, A. *Belgium*
Brandes, W. W. *Germany*
Christensen, J. *Denmark*
Frean, N. S. *Africa*

Second row

Cibantos, J. S. C. *Brazil*
Nix, J. S. *U.K.*
Amerasinghe, N. *Ceylon*
De Benedictis, M. *Italy*
Torvela, M. *Finland*
Balbo, C. A. *Brazil*
Oliveira, J. G. *Brazil*
Groenewald, J. A. S. *Africa*

Third row

Howell, J. D. *Brazil-U.S.A.*



DISCUSSION GROUP 12. NEW ANALYTICAL TECHNIQUES IN FARM
MANAGEMENT AND PRODUCTION ECONOMICS

Front row

Gustafsson, B. *Sweden*
Le Angelis, L. *Italy*
Baillet, C. (*EEC*) *Belgium*
Martens, L. R. *Belgium*
Maruyama, Y. *Japan*
McNerney, J. P. *England*
Kudo, T. *Brazil*
Dantas, W. *Brazil*

Second row

Rankine, L. B. *Trinidad*
Ladosky, M. *Brazil*
Alcantara, R. B. *Brazil*
Alfons, H. *Austria*
Agrawal, R. C. W. *Germany*
Street, P. R. *U.K.*
Nicholls, N. M. *Australia*
Ali, R. *Trinidad*
Infeld, J. A. *Brazil*
Harkins, J. *U.K.*

Third row

Love, H. C. *Canada*
Rajagopalan, V. *India*
Van Der Meer, C. L. J. *Netherlands*



DISCUSSION GROUP 13. DEMAND AND MARKETING PROBLEMS

Front row

Krishnaswamy, L. *India*
Hawkins, M. H. *Canada*
Anthonin, Q. B. O. *Nigeria*
Trebeck, D. B. *Australia*
Alcaide, J. R. *Spain*
Lazzarini, M. I. *Brazil*

Second row

Cunha Filho, O. G. *Brazil*
Palma, J. C. *Brazil*
Walker, H. V. *Canada*
Rolon, V. A. R. *Paraguay*
Norby, R. R. *Canada*
Goldenberg, I. *Brazil*
Franulovic, R. *Brazil*
Arruda, M. L. *Brazil*
Junqueira, M. E. B. *Brazil*
Teixeirh, A. J. S. *Brazil*

Third row

Severino, J. S. *Brazil*
Smith, E. D. *U.S.A.*
Tamaki, T. *Brazil*
Silva, J. C. O. G. *Brazil*
Nobrega, B. S. *Brazil*



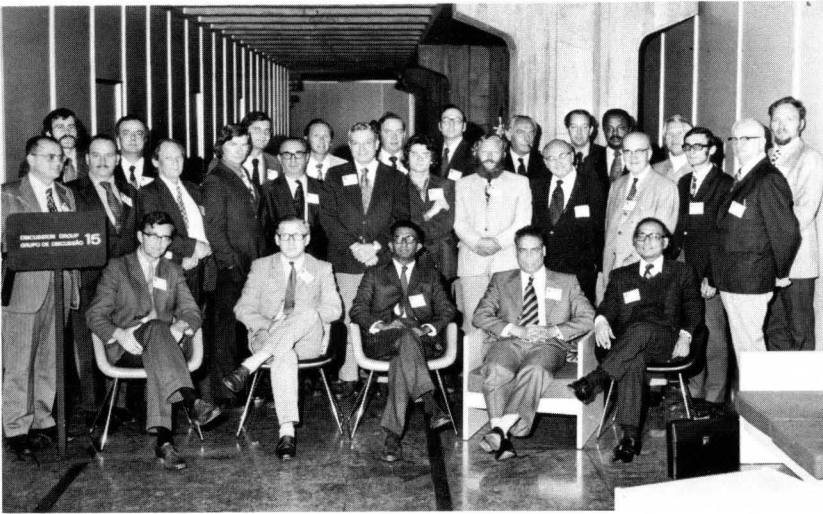
DISCUSSION GROUP 14. NEW ANALYTICAL TECHNIQUES IN
MARKETING

Front row

Hedlund, F. F. *U.S.A.*
Slama, A. *Tunisia*
Trelogan, H. C. *U.S.A.*
Tongpan, S. *Thailand*
Paul, A. B. *U.S.A.*

Second row

Camto, W. L. *Brazil*
Feaster, F. G. *U.S.A.*
Junqueira, P. C. *Brazil*
Ueno, L. H. *Brazil*
Matthews, J. L. *U.S.A.*
Manley, W. T. *U.S.A.*
Langford, G. L. *U.S.A.*
Spindler, H. G. *U.S.A.*



DISCUSSION GROUP 15. INTERNATIONAL TRADE POLICIES

Front row

Lohoar, J. S. *Canada*
 Van Den Noort, P. C. *Holland*
 Mitra, A. *India*
 Abdelsamie, H. M. *Egypt*
 Islam, N. *Bangladesh*

Second row

Gaetani, G. *Italy*
 Myers, M. *U.S.A.*
 Johnson, D. G. *U.S.A.*
 McFarquhar, A. M. M. *U.K.*
 Rozentel, M. R. *Brazil*
 Willett, J. W. *U.S.A.*
 Camargo, J. E. *Brazil*
 Josling, T. E. *U.K.*
 Mason, J. P. *U.S.A.*
 Moncure, R. *U.S.A.*
 Rieder, P. *Switzerland*
 Smith, C. W. *U.S.A.*

Third row

Jackson, G. H. *Australia*
 Chami, J. K. *Lebanon*
 Canaud, J. *Brazil*
 Duncan, B. H. G. *Rhodesia*
 Ashton, J. *U.K.*
 Mackie, P. L. *U.S.A.*
 Rabot, L. G. *(EEC) Belgium*
 Capstick, C. W. *U.K.*
 Robinson, H. F. *U.S.A.*
 Gulbrandsen, O. *(UNCTAD) Switzerland*
 Phillips, T. P. *Canada*



DISCUSSION GROUP 16. ROLE OF MULTINATIONAL FIRMS IN
AGRICULTURAL DEVELOPMENT PROGRAMS

Front row

Ogdon, M. E. *U.S.A.*
Warmemhoven, B. *Netherlands*
Paarlberg, D. *U.S.A.*
Ingersent, K. A. *U.K.*
Allen, G. R. *U.K.*

Second row

Allegrini, P. *Brazil*
Malassis, L. H. *France*
Gronbech, G. *U.S.A.*
Hoffman, A. C. *U.S.A.*
Jensen, N. *Denmark*
Jensen, E. *Denmark*
Taylor, G. *U.S.A.*
Doblado, J. M. *Spain*
Gomez, J. *Spain*
Fleming, J. A. *Brazil*



DISCUSSION GROUP 17. PLANNING AND IMPLEMENTATION OF
ECONOMIC DEVELOPMENT PROGRAMS

Front row

Kadhi, M. *Tunisia*
 Hardakar, J. B. *Australia*
 Bose, S. R. *Bangladesh*
 Echeverria, T. M. *Brazil*
 Galvao, C. A. *Brazil*
 Sebestyen, I. *Hungary*
 Von Urff, W. *Germany*

Second row

Falcao, M. I. M. *Brazil*
 Barrico, J. S. *Portugal*
 Puech, L. C. R. *Brazil*
 Castro Guerra, J. G. S. *Portugal*
 Chies, J. B. *Brazil*
 Mohtashem-Nouri, H. *Iran*
 Cursio Junior, J. *Brazil*
 Henrichsmeyer, W. *Germany*
 Birowo, A. T. *Indonesia*

Third row

Montiel, R. *Paraguay*
 Gimenes, A. C. F. *Brazil*
 Sepehri, H. *Iran*
 Nelson, M. *New Zealand*
 Hartmann, T. T. *Germany*
 Szmrecsanyi, T. *Brazil*
 Simon, S. R. *U.S.A.*
 Rackham, T. S. *Canada*
 Link, J. E. *U.S.A.*
 Scobie, G. M. *Colombia*



DISCUSSION GROUP 18. POPULATION PROBLEMS, NATIONAL AND INTERNATIONAL

Front row

Densley, D. R. J. *New Guinea*
Ensminger, D. *U.S.A.*
Kim, S. H. *Korea*
Johnson, S. *U.S.A.*
Krasovec, S. *Yugoslavia*

Second row

Oliver, G. D. *Australia*
Atsu, S. Y. *Ghana*
Popp, H. W. *Switzerland*
Molina, M. I. *Brazil*
Wiendl, M. L. *Brazil*
Ducoff, L. J. *U.S.A.*
Cowden, T. K. *U.S.A.*

Third row

Anderson, D. G. *U.S.A.*
Ackerman, J. *U.S.A.*
Ackerman, E. J. *U.S.A.*
Lorena, C. *Brazil*
Amato, M. R. *Brazil*
True, A. W. *U.S.A.*
Brooks, E. M. *U.S.A.*