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REVIEWS IN BRIEF

Costs and Returns from Grape Production, V. Seetharama Sharma and M. B. Badenhop, University of Tennessee—India Agricultural Program, Report No. 10, Bangalore, 1964. Pp. 66.

Reliable data on input-output, efficiency factors and net returns from grape production are not readily available. This study attempts to provide such information. The basic objectives of this study are to determine (*i*) the production costs, (*ii*) the physical units and (*iii*) the man-hours of labour required to establish an acre of grapes and to maintain and operate an acre of a producing vineyard respectively ; (*iv*) to study the relationship between management practices and the yield and net returns per acre of grapes and (*v*) to help research workers identify problems of grape production. Data used in this study were collected by the survey method from individual growers in five taluks of Bangalore district of the Mysore State during May-June 1960. The taluks selected were Hosekote. Bangalore North, and South, Devanahalli and Anekal. In all 250 grape producers were selected for interview on the basis of random sample method. Out of this number, only 150 growers were operating a producing garden. For the purpose of this study, costs were classified into two main heads : (1) those required to establish a vineyard, and (2) those required to maintain and operate a producing vineyard. The items of cost covered under the first category include expenditure on digging of a well, irrigation equipment, vine support, fencing, hand tools, land preparation and other cultural operations, manures, irrigation and other costs such as land rent, interest on investment and depreciation of equipment. Under the second category include all the costs incurred annually in the actual operation of the producing vineyard. The marketing charges are included as a part of the annual operating costs.

Some of the important findings of the study are as follows : The average total expenditure incurred by a grower to establish a vineyard was Rs. 7,936 per acre. Of this expenditure, 87 per cent was incurred on heavy capital outlays during the first year and 13 per cent during the second year. There are economies of scale in establishing a vineyard. As the size of the vineyard increased from less than 0.75 acre to more than 2.25 acres, the average costs to establish an acre during the first year decreased from Rs. 7,633 to Rs. 6,115 or by 20 per cent and from Rs. 1,488 to Rs. 670 or by 55 per cent during the second year. Annual average costs to maintain and operate a producing vineyard amounted to Rs. 3,136 per acre. Manures and fertilizers accounted for 24 per cent of the total operating costs, closely followed by marketing costs (21 per cent). The maintenance and operating costs per acre decreased from Rs. 3,812 to Rs. 2,904 or by 24 per cent with the increase in the size of the vineyard from 0.75 acre to 2.25 acres or more. It was found that the cost of maintenance increased slightly as the vineyard grew older. During the two years required to establish a vineyard, three-fifths of the labour or 285 man-days work per acre are required during the first year and 178 man-days or two-fifths of the labour during the second year. Irrigation and watching accounted for 24 per cent and 21 per cent of the total labour requirements. Labour was used more efficiently on the larger size of vineyards. As the labour requirements to produce an acre of grapes increased from less than 4,000 man-hours per acre to more than this figure, average costs of production increased by 19 per cent.

The major factors affecting the yield of grapes are the season in which they are produced, size of enterprise, number of vines per acre, age of the vines, use of manures and fertilizers, number of irrigations given and the man-hours of labour used. About 37 per cent of the total number of growers produced more than 20 thousand pounds of grapes per acre, 40 per cent produced between 10 to 20 thousand pounds and the remaining 23 per cent produced less than 10 thousand pounds. The average cost of production per acre for these three groups of producers was Rs. 3,370, Rs. 3,296 and Rs. 2,780 respectively. The average cost of production per 100 lbs. of grapes was Rs. 11.47 for the high yield group, Rs. 17.79 for the medium yield group and Rs. 30.79 for the low yield group. Average net returns per acre for the three groups of growers were respectively Rs. 4,124, Rs. 2,129 and Rs. 695. Analysing the factors associated with larger net returns, it was reported that the yield per acre for the group of growers with high net returns was about 2⅓ times greater than those in the low net returns group. Use of more labour and fertilizers, larger size of vineyard, adoption of cultural practices and plant protection measures at the appropriate time by the high yield group of growers contributed to high net returns. It is pointed out that provision of quick means of transportation will greatly enhance the net income of the vine growers.

This report provides useful information about the actual mechanics of establishing and maintaining a commercial vineyard and as such will prove useful to practical farmers and extension advisers.

Eadpur—A West Bengal Village. S. P. Bose, S. Dasgupta, B. Rudra and T. K. Biswas, Socio-Agro-Economic Organisation, Department of Agriculture, Government of West Bengal, Calcutta, 1963. Pp. iv + 68.

This report presents the results of a field enquiry into the factors contributing to higher rice yields in village Eadpur in the Arambag sub-division of Hooghly district in West Bengal. The survey covered all the farm households in the village in 1961-62 and data were collected regarding methods of rice cultivation followed by each cultivator, socio-economic characteristics of the farmers, land tenure, education, occupation, caste, outside contact and social participation. For the purpose of comparison of yields and their causes, two contiguous villages of Maigram and Tirol were also selected. Both the survey method and the crop-cutting method were adopted to obtain precise estimates of paddy yield. In addition to Eadpur, four villages were selected for crop-cutting experiment. These villages include besides those mentioned above, Golta and Puin in the Tirol Anchal. In each village, 30 circular cuts with a radius of 6′ 7″ were taken. The plots were selected by the random sample method with the help of cadastral survey maps. The average yield rate was worked out on the basis of figures obtained from the crop-cutting experiments. The results were compared with a view to finding out whether the yield in Eadpur was higher than in the adjacent villages. Soil tests of paddy fields of farmers were also undertaken to ascertain whether the fertility of the soil was responsible for high yields reported in Eadpur village. The study examined the role played by the village leaders in agricultural improvement.

The investigation revealed that the average per acre yield of paddy for 65 cultivators in Eadpur on the basis of survey method was 34.7 maunds in 1961-62 as against 23.7 maunds in Maigram and 20.9 maunds in Tirol. On the basis of

crop-cutting experiments conducted on cultivators' fields during 1962-63, the average per acre yield for these three villages was estimated at 29.72, 26.72 and 23.99 maunds respectively. When compared to the average yield rate for West Bengal, which varied between 16.04 and 20.25 maunds during 1957-63, the yield rate in Eadpur is definitely high. An analysis of soil samples in Eadpur and other adjacent villages showed that the soils in Eadpur and Golta were more fertile than the soils of the other three villages. It is thus obvious that higher fertility contributed to higher yields in these two villages.

A study of the methods of cultivation showed that the cultivators of Eadpur are skilled at farming. Among the various cultural practices followed by the farmers, use of improved varieties of seeds and fertilizers and manures was responsible for the high yields in Eadpur. The relationship between caste and high yields in this village could not be firmly established. A study of the pattern of leadership and the social and cultural factors that might be responsible for high yields in Eadpur revealed the important role played by village leadership in effecting significant agricultural improvements in this village and Golta. While it is true that a number of factors are jointly responsible for the high paddy yields, the increase in yields could not have been achieved without the co-operation and active help of the extension service. The contribution of the Department of Agriculture to increase yields in the region is very significant.

It is noteworthy that this study has been made possible by the joint efforts of the agricultural economists, social anthropologist, agricultural chemist and agronomist.

Hasteda (Jaipur District, Rajasthan)—Economic Life in a Rajasthan Village, M. D. Desai, Agro-Economic Research Centre for Gujarat and Rajasthan, Sardar Vallabhbhai Vidyapeeth, Vallabh Vidyanagar, 1964. Pp. 216 (Mimeographed).

This report contains the results of a comprehensive socio-economic benchmark survey of the village Hasteda in the Amber tehsil of Jaipur district in Rajasthan. This survey was conducted by the Centre during October 1961 and March 1962. The census method was adopted in the survey and every household of the village was interviewed. This study seeks to assess the change in the village economy and society in the wake of emergence of a new leadership with the spread of ideas of *gram swarajya*. Caste Hindus dominated the society with nearly 70 per cent of households and population. While the bulk of the society was poor, the relatively affluent section of the society was composed predominantly of higher caste Hindus, The caste system was losing ground in the sphere of social relationships. Nearly 65 per cent of households in the village were nucleated while the rest were joint. Leadership was generally unenlightened. Social values of the community were undergoing change. The village society suffered from a high dependency load. A number of occupations were found in the village with the secondary and tertiary sectors predominating. More than half of the 356 households had changed their primary occupation (cultivation) over the period of last 20 years; 89 per cent of total shifts were due to operation of 'push' factors. The land ownership pattern in the village was skewed : 3 per cent of total households owned 37 per cent of the land while 63 per cent did not own any land. Share cropping prevailed on a large scale. In addition to the aspects mentioned above,

the study throws light on other aspects of the village economy such as cropping pattern, livestock, production and disposal of output, inputs used, consumption pattern and levels of living, financial transactions, etc. The share of the agricultural sector in the net income of the village was 39 per cent; that of the non-agricultural sector was 43 per cent. Remittances from outside accounted for 15 per cent of the total net income. The study stresses the need for developing agriculture and organising non-agricultural avocations on sound lines with a view to providing maximum employment to local population.

Report on Intensive Agricultural District Programme (1961-63), Expert Committee on Assessment and Evaluation, Department of Agriculture, Ministry of Food and Agriculture, Government of India, New Delhi, 1963. Pp. vii + 216.

This report presents the genesis and rationale of the Intensive Agricultural District Programme and the experience gained in the course of the first two years of its operation. Divided into three parts, the first part of the report describes the main features and objectives of the programme, the approach adopted in the selection of areas of operation, administrative and institutional arrangements and the advance made in the different aspects of the programme. The second part gives a detailed account of progress in each of the seven selected districts, together with the results of the crop-cutting experiments conducted under the bench-mark survey. A brief analysis of the experience gained and some of the problems revealed in the course of the implementation of the programme is attempted in the third part. Despite initial handicaps, the programme has made considerable headway in most of the seven districts where it was first introduced. Within each district, the extent of coverage of the programme was determined largely by such factors as the ability of village institutions, especially co-operatives, to shoulder their increased responsibility and the general awareness and response of the cultivators. During 1961-62, the coverage was limited to about 5.7 lakh hectares in 112 blocks in the seven districts comprising about 15 per cent of the cropped area of the blocks. This increased to 10.6 lakh hectares in 117 blocks in 1962-63, constituting about 30 per cent of the cropped area of these blocks. The number of farm plans actually prepared has increased from 55 thousand in 1960-61 to 3.8 lakhs during 1962-63. A special programme for production and distribution of quality seeds has been introduced in these districts with a view to supplementing the normal seed programme in operation in these areas. The most encouraging development has been the increased use of fertilizers and adoption of plant protection measures by cultivators in the selected districts. The increases ranged from 45 per cent in Raipur (Madhya Pradesh) to 200 per cent in Ludhiana (Punjab) during 1962-63 as compared with the levels of consumption prior to the introduction of the programme. One of the basic items of the Package Programme is provision to farmers through co-operatives, of adequate and timely supplies of credit based on production plans. The State Governments have accordingly drawn up phased programmes for the strengthening and development of co-operatives in these areas. There has also been some improvement in the structure and working of co-operative marketing institutions operating in the area as also in the provision of storage facilities. Regarding the impact of the programme on yield rates or total production in the selected districts, it is reported that although the crop-cutting experiments did not show startling increases in production, the trends,

on the whole, appeared to be developing favourably. On the operational side, the most important achievement has been in the development of procedures and practices, and the standards of approach and working which are likely to set patterns for extension to the rest of the country.

Evolution of Agrarian Relations in India, Bhowani Sen, People's Publishing House, New Delhi, 1962. Pp. xiv + 295. Rs. 8.50.

In this book, the author attempts to provide a general idea of India's agrarian relations in the post-Independence period. To the extent it has a bearing on the present, a broad survey of past trends precedes the key chapters of the book. Two broad themes of this study are the changes in the rural structure and institutions as a result of legislative measures and the grossly ambivalent economic-political motivations that characterise them. In the first chapter, the author sets out the nature of the agrarian problem in India in the pre-reform and post-reform periods. This is followed by a brief account of the ancient and medieval land systems and land relations under British Rule. The impact of British Rule on rural economy is dealt with in the third chapter. The fourth chapter discusses the process of transition in India's agrarian relations. Chapter V deals with the growth of capitalist relations in Indian agriculture, the disintegration of the peasantry, backward agricultural techniques, the motive forces behind the transition and the forces that obstruct their growth. The legislative measures enacted in the various States and their economic results in the pre-Independence period are reviewed in Chapter VI. The results of agrarian legislations in India since Independence are presented in the next chapter. The last chapter examines the main trends of agrarian policies and deals with the historical genesis of the two different capitalist paths, *viz.*, large versus small landed property, for the solution of the agrarian problem. The author points out that while the rural economy, in its essentials, continues to be characterised by semi-feudal relations of production and ownership, the increasing resort to employment of wage-labour in agriculture, the changes in the pattern of cultivation, the rapid commercialisation of agriculture and some rise in the technical level of production point to the growing impact of the development of capitalist relations in agriculture. The vast resources pumped into the rural economy, unaccompanied by a radical reversal of the agrarian reform policy of the government in favour of the peasantry, cannot, it is claimed, materially alter the condition of the peasantry nor ensure a rapid increase in agricultural production. It is stated that the government policy of rapid industrialisation through planning is itself in danger of being defeated by vested interests unless effective steps are taken to rouse the peasantry for democratic planning.

Programme Planning—A Simple Method of Determining High Profit Production Plans on Individual Farms, OECD Documentation in Food and Agriculture 45, Organisation for Economic Co-operation and Development, Paris, France, 1962. Pp. 68. $0.75.

This study is the outcome of a recommendation made by the participants to the Seminar on farm business planning methods held in September 1960 in Oslo under the sponsorship of the European Productivity Agency of the Organisa-

tion for European Economic Co-operation. It sets out to describe the basic elements of the programme planning technique as an aid to solving farm management problems. It illustrates the scope and flexibility of this technique, considers its limitations and explores the possible ways of refining the technique to secure improvement. Lastly, it considers what contribution this technique can make to help solve farm management problems, which is not already available or which could not be better obtained in some other way. Programme planning is a simple arithmetic procedure for reaching a static profit maximising solution for the use of a defined set of farm resources. It begins from an appraisal of limited resources available and proceeds to select enterprises, their size and method of operation to secure maximum income. The main principle involved is that when fixed amounts of resources are available for production then the return to that combination of resources will be greatest when the return to the most limiting factor is greatest. Programme planning is a flexible, easily understood farm management technique wholly appropriate for use by practical farmers, farm advisers and in educational extension work.

The Co-operative Movement in Hungary, Rezso Nyers, Pannonia, Budapest, Hungary, 1963. Pp. 260.

This book is a product of Marxist-Leninist co-operative theory. In the introductory chapter of this book, the author examines in detail the problems of co-operative theory, the concept of genuine co-operative, the validity of the well-known Rochdale principles, the problems of political neutrality, the question of the international relations of the co-operatives, etc. This is followed by a brief survey of the process of development of co-operative movement in the socialist countries of Bulgaria, Czechoslovakia, Poland, Hungary and Soviet Union consequent on the social transformation of their economies. The third chapter briefly reviews the growth of the co-operative movement in Hungary since 1867 in the context of the social, economic and political conditions prevailing in the country. The next three chapters respectively deal in detail with the functioning of the three branches of co-operation, namely, farmers' co-operatives, collective farming and craftsmen's co-operatives, and their numerical results, their role in Hungarian agriculture as well as their prospects of future development. It reveals the mistakes committed in the course of socialist transformation, the difficulties that occurred and the problems still awaiting solution. Only about 30 per cent of the adult population of the country is covered by the co-operative movement. Nowhere in Hungary do the co-operatives embrace the entire socio-economic life of the population. In 1960, co-operative investments constituted 12.4 per cent of all the investments of the national economy. The population purchased annually about 30 per cent of its requirements of consumption goods and services through consumers' co-operative trade. Two principal dangers appear in the working of the movement. One of them is the exaggerated growth of co-operative group interests and the other is the excessive central interference in life of the co-operatives resulting in the violation of true co-operative principle. The book also discusses the role of co-operatives in the building of socialism. The trend of development points towards a growing material independence of the co-operatives, with the gradual expansion of co-operative funds. Simultaneously, they will become more and more organically integrated in the system of socialist planned economy.

Agricultural Co-operation in Sweden, Dafydd Jenkins, Occasional Paper No. 23, Plunkett Foundation for Co-operative Studies, London, England, 1964. Pp. 54 + Appendices.

This brochure gives an account of the development of agricultural co-operation in Sweden which is based on a study of published material, supplemented by several short visits and personal communication by the author with many Swedish co-operators. It deals with the growth of co-operation in Sweden, the legislative basis, constitution and finance of societies, the structure and working of general purpose societies, marketing societies, woodland societies, financial (mortgage and rural credit) societies and the Central Organisation of the agricultural co-operative movement and its relation with the Farmers' Union and the Co-operative Union. Important differences as well as similarity between the co-operative movements in Sweden, Britain and Denmark are brought out in the course of the study.

Problems and Policies of Indian Agriculture, S. C. Jain, Kitab Mahal, Allahabad, 1963. Pp. 192. Rs. 7.50.

The book contains a collection of sixteen essays published by the author in various journals and newspapers between 1959 and 1962. It analyses the problems facing Indian agriculture and suggests solutions. The topics covered in the book include surplus population in agriculture, measurement of economic growth, village industries, factors in agricultural development, agricultural production, agriculture and its terms of trade, community development programme, consolidation of holdings, co-operative farming, future of *gramdan*, mechanisation of agriculture, possibilities of and technological factors in crop shifts, factors in successful planning, etc. It indicates broadly the directions in which development should now be canalised. It also sets forth the priorities which should be observed and methods to be adopted in planning and executing programmes of agricultural expansion.

Agriculture and Livestock in Rajasthan, National Council of Applied Economic Research, New Delhi, 1964. Pp. viii + 103. Rs. 7.50.

This report makes a detailed appraisal of the various resources which have a bearing on the agriculture and livestock development in the State, examines the constraints hindering their full exploitation and offers suggestions and recommendations to harness these resources for the economic development of the State. It starts with a brief description of the economy of the State and overall objectives in economic development. The potentialities of agricultural development of Rajasthan are discussed under the following main heads : (1) utilisation of land, (2) utilisation of water, (3) management of the agricultural business and (4) transformation of rural economy. It gives tentative estimates of benefits accruing from the implementation of agricultural development programmes and estimates of outlays on them in 1970-71. The last chapter presents the conclusions of the report. Availability of land for extension of cultivation, low pressure of population on land, untapped irrigation potential and scope for improvement of existing irrigation facilities and essentially good soil conditions point to the need as well as the direction for the planned development of agriculture in the State. The

report emphasises the need for a diversified policy of land development by diametrically opposed measures which are likely to be most efficient in well rainfed and sub-arid and arid parts of the State. Measures to reduce conveyance losses and waste of water in canal irrigation are considered urgent. In fact, their implementation would be decisive for intensification of irrigated farming. A systematic underground water survey is suggested for exploring possibilities of well irrigation. The report suggests a series of measures for improving farm practices. As there is shortage of draught cattle in the State, it recommends gradual introduction of motorization in agriculture. It lays stress on the need for the transformation of the rural economy by the implementation of such measures as co-operative marketing and processing of agricultural produce, extension of co-operative credit to agriculturists for investment purposes and for financing of farm practices, improvement schemes and intensification of agricultural extension.

Building from Below—Essays on India's Cattle Economy, Sarva Seva Sangh—Krishi Goseva Samiti, New Delhi, 1964. Pp. 154 + xxxii. Rs. 5.00.

This brochure contains a collection of 23 essays on various aspects of the cattle economy of India. These essays bring out in clear perspective that the real problem of cattle development is to develop the farmer and the cattle breeder and through him the cow. Shri L. C. Sikka in his paper on "Dairying for Development of the Cow" examines the role dairying should play to develop the Indian cow. In an essay on "Development of Dairy Animals in Selected Areas," Shri D. N. Khurody discusses the basic problems of development of animal husbandry in India. He pleads for giving animal husbandry a separate status. Dr. P. Bhattacharya in an article on "Breeding Profitable Cows" reports the results of the experiments conducted in the breeding of cows in India. He concludes by stating that efforts must be made for evolving by cross-breeding a breed or breeds of cattle suitable for the Indian environment with adequately high levels of production. In another article on "Cattle in India's Farm Economy," Dr. J. P. Bhattacharjee attempts to study the nature and magnitude of the distribution of cattle and buffaloes by size of holdings in a few selected districts in Bombay, Punjab and West Bengal, by making use of data collected from the Studies in the Economics of Farm Management in respect of these three regions conducted in 1956-57. Certain policy issues relating to the problem of numbers for draught, milch and other cattle are also considered. The data presented in the article tend to show that in States like Maharashtra and West Bengal, the problem of numbers is more acute in its incidence among the medium and large farmers. The author points out that the execution of any population policy for cattle with all that it implies in the way of improvement of this enterprise, needs at this stage to be focussed on this section of the cultivators. Another point that emerges from the discussion is that the approach to cattle development in the economy has to be conceived as an integral part of our effort for agricultural and rural development. Among the other important articles included in this brochure are "Cow Development in Government Farms" by Shri G. C. Juneja, "Utilisation of Bones and Their By-Products" by Shri D. K. Ghosh, "Milk Pricing Policy" by Shri M. Trivedi, "Programme for Intensive Development of Cattle in Selected Areas during Fourth Plan." It also contains the Report of the Planning Commission Team on the "Collection of Cow Milk by the Delhi Milk Scheme" and a wealth of statistical information on animal husbandry.