

## Section V

# The Research-Extension Process in Modern Terms

### The Process

1. Fundamental research contributes to knowledge. A first step is to determine its applicability to particular environments. This is adaptive, applied or service research. Research is not an end in itself. The next step is to apply the tested new and acceptable knowledge to production. It has to be conveyed to dispersed units called farms, orchards, stations or feed-lots.
2. To adopt modern concepts and meet the changed conditions, it is necessary to expand the biological research-extension process to cover economic and sociological influences. Aims and objectives have to be modified. It requires a multi-discipline approach.
3. Essentially, the Department is expected to increase the production efficiency and managerial expertise of the rural industries. To do this, it carries out research in order that satisfactory advice may be offered; but before the advice is satisfactory, it has to be economically and socially acceptable so that its application will serve the best interests of the people engaged in the industry and the community as a whole.
4. Accordingly, the Department of Agriculture should not only aim to extend to primary producers the knowledge or "know-how" of production, but also determine the extent to which the "know-how" applies to specific environments, and to existing circumstances of markets and the financial and managerial status of the producers.
5. The extent or degree to which any innovation or advice is applied will depend on the assessment of its economic significance: the economic consequences of its adoption under varying systems of production and management, and under particular marketing and price situations. Economic competence is an essential ingredient of the process.
6. The social problems associated with having the new knowledge accepted and the social consequences of its acceptance are important considerations. The social capabilities and understandings of officers involved can make or mar effective results.
7. The success of the process will accordingly depend on a close relationship between the researcher, the adviser, the economic assessor, and the producer — all working together with a common objective.
8. In this concept, agricultural service is a cyclic chain linking research, advice, economic assessment, and people with application. The nature of this chain is determined by the environment (soil and climate), the nature of the production best suited economically to the environment, by the market demand for the produce, and by the receptivity of the producer. Its effectiveness will depend on co-operative human relationships.

### Status of Extension Officers \*

9. It is desirable to put the relationship between research and extension in better professional perspective. A difference in status has persisted too long: it is now out-moded. The research worker must still be highly qualified, but he works for the most part with an uncomplaining biological problem. Today, the extension worker must also be highly qualified. The difference and difficulties are that he works continuously with people — some agreeable and easy, others contrary and difficult, and all with whims, fancies and personal idiosyncrasies. It takes qualification, skill and personal qualities to make a good extension worker.
10. In recent years, social research into requirements, methods and means of achieving optimum motivation and acceptance, have given agricultural extension

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\*In the strictest sense of the word, "extension" implies the extension of knowledge. "Agricultural extension" has very specific meaning, but unfortunately is frequently misinterpreted by the laymen and regarded in too restricted a sense by the profession. Professionally, it has an American connotation. It emanated as an extension service from the Land Grant Colleges which were the forerunners of most American Universities.

a much higher professional status. Today the qualified agricultural extension worker is trained and skilled to work with people, combining technical, practical, economic and social attributes that are involved in making his efforts acceptable and having his advice adopted. His skills must include the ability to recognize and use the inherent strengths of rural communities because of the impossibility of effectively reaching every farmer as an individual. Furthermore, an important aspect of present day extension work is to provide assistance to groups of people in the identification of their problems and in the problem solving process. Self help of this kind, even on complex technical matters, can reach a high level under the guidance of a skilled extension officer.

11. The profession has become a victim of its own jargon, believing that all who listen understand what agricultural extension is all about. Moreover, professionally, research and extension have been too widely separated, and have come to be regarded too much as separate entities. An effective agricultural service to the community can only be provided by close to-and-fro relationships between research and extension. They have common objectives and should be working in harmonious relationship.
12. Departmental research should be conducted more closely with farm advisers and producers to assure a favourable two-way flow of information. Apart from conveying information to the producers, a "feed back" should be continuous, and help to elucidate further needs, as well as express satisfaction and encouragement to all engaged in the process.
13. If the essential link is to be forged between research and extension, then the respective workers sharing common aims and comparable skills should have common status. One of the most demanding aspects of professional extension work is the very important interpretative role required to integrate research findings with farming practices under varying environments and farmer circumstances. It frequently involves changes in attitudes and behaviour of the rural community. Moreover, the extension worker is involved in identifying and

defining the problems requiring research. The question arises as to which is more valuable: the research itself, or the extension of its results. Unquestionably, the benefit of agricultural research depends on the rapid and wide adoption of its findings.

14. To unify the process of research and extension, the extension officer must be given new status, and should accordingly be up-graded in the eyes and minds of both the profession and those controlling his remuneration.
15. Supporting staff for research and other officers should be given special consideration. Technical and Field Assistants are essential elements in the team; they should be given every opportunity to develop by in-service training and promotional opportunities to accord with their particular interests and capabilities. Evidence presented indicates serious lack of adequately trained supporting staff and career opportunities.

### Regionalized Service

16. The Department's Research Laboratories and the Dairy Research Centre at Northfield, and small but inadequately staffed country research centres, provide a foundation on which to build sound Departmental research programmes. In order to establish and maintain regional research centres on a satisfactory and permanent basis, they should be staffed by a reasonably sized group of research workers, so as to assure interchange of views and collaboration, as well as to justify adequate laboratory and library facilities.
17. Greater regionalization of research will be an essential prerequisite to the proper functioning of regional centres of the Department. On the other hand, central research such as that at the Northfield Research Laboratories will continue to be necessary for greater in-depth studies and on many problems common to all regions.
18. A certain amount of applied research work will invariably impinge on the fundamental. There is no fundamental research being pursued by the Department for its own sake. On the other hand, problems have arisen which are

of vital concern to South Australian agriculture, and cannot be solved without some basic in-depth studies. Three good examples are the *Sitona* weevil, leaf scald of barley, and the serious *Kabatiella* disease of clovers (clover scorch). A certain amount of fundamental research on all three could undoubtedly be performed by the Waite Research Institute or the Commonwealth Scientific Industrial Research Organization. Delegation, however, is not as practicable as may at first appear, especially in the light of the urgency of finding satisfactory solutions. Difficulties lie in persuading another organization to undertake the work which cuts across normal and long-term programmes, requires extra finance and has little appeal to the prestige and inclinations of fundamental research workers.

19. The research officers at Northfield have regular contact with research personnel in other organizations, contacts which have particular importance to the work in which they are engaged. On the other hand, co-operation on projects with outside organizations has not developed. If the Department's research work is fully co-ordinated and under one direction, closer co-ordination between the organizations is more likely to develop. (See para. 45, Section VI — "Proposed New Structure".)
20. When research discloses a worthwhile innovation or a worthwhile modification of production techniques — in other words, sound progressive production and managerial advice — it should be conveyed as rapidly and as effectively as possible to the people in the industry for whom the service is provided. The industry and people so served should in turn recognize the service by genuine response accompanied by appreciation, and a continuing desire to seek further advice to meet new developments, or to overcome new problems or shortcomings in the efficiency of their production. For this to be a truly symbiotic relationship, there must exist an harmonious association between the providers of services and those served — a community accord that is mutually respected. This will become nearer full achievement when services are less remote and provided on a regional basis.
21. Services so provided will be easier to accomplish, more effective, more satisfying to all involved, and have a greater educational impact where everyone knows everyone, and with the services applying to particular environmental zones or regions.
22. Highly trained personnel working within a region will offer other distinct advantages. They will be able to:
  - identify the agricultural problems of the region with greater accuracy and understanding;
  - sponsor discussion groups to meet urgent problems and plan future programmes;
  - inject new ideas and influence community decisions;
  - influence and co-operate with the agents of ancillary industries (machinery, fertilizer and chemical companies) who provide so large a proportion of a farmer's inputs, as well as marketing and finance agents;
  - forge closer links with industry and other organizations such as the United Farmers and Graziers of South Australia Incorporated, The Stockowners' Association of South Australia, Agricultural Bureau, Women's Agricultural Bureau and Rural Youth Movement.
23. In this way they will contribute to rural community welfare and achieve another important service towards making life in the country more widely appreciated and satisfying to larger numbers, thus fulfilling the purpose of the research-extension process.

## Section VI

### Proposed New Structure

1. The Department has a professional staff of highly competent and dedicated people. Unfortunately, morale is low and many have confessed to frustration and job dissatisfaction. Much of this stems from defects in the administrative structure. Unless these are overcome and there is a lift in Departmental prestige and work recognition, the most highly trained and personable officers may well be lost to the State.
2. In the course of the review, organizational and presentational weaknesses have been disclosed. The evidence implies that lack of constructive response to rapidly changing circumstances and attitudes has prevented the Department from maintaining a fully prestigious role. Consequently, its rightful claim for continuing public encouragement and support has weakened. Changing circumstances have directed producer needs and public attention away from efforts to increase production alone, to new requirements and interests, including economic and sociological appraisal of all new developments, market trends and market procedures. Other changed and changing attitudes already referred to call for recognition and responding organizational change. (See Section IV – “The Department of Agriculture in a Modern Setting”.)
3. To meet the objectives set out in Section IV, new approaches, re-organization and better public presentation are necessary.

### Present Organization

4. The present administrative structure of the Department is depicted in an organizational chart in Figure 1. This is a modification of an out-dated organization. It depends precariously upon close personal understandings and informal relationships.
5. Devised bridging arrangements have been instituted to bring about a closer co-ordination and integration between the elements contributing to policy. Essentially, they aim to overcome defects in the basic administrative structure.

They include the Executive itself, consisting of the Director and three Assistant Directors responsible for directing and reviewing policy and the functions of nine Branches. Two other co-ordinating committees have been set up, namely the Research Liaison Committee and the Extension Liaison Committee, both aiming independently to implement policy in research and extension, the responsibilities for which are vested in the various Branches.

6. Research officers at country research centres were unanimous in their views that research and extension were being conducted in isolation. Evidence from other sources strongly supported this view. This was primarily because, within Industry Branches, research and extension are treated separately. The situation is further complicated by centralized research being isolated from extension at Northfield and the existence of the Research Centres and Extension Branches. The so-called “functional links” between Research Officers at country research centres with Principal Research Officers in the various Branches were not operating satisfactorily.
7. Constructive suggestions for re-organization to overcome the wide disparity between research and extension and to strengthen research supervision were advanced, but none was sufficiently comprehensive to cover other desirable reforms. On the other hand, re-structuring of the Department and establishing regional centres as the main operational elements of the Department to cover both research and extension will bring about the advocated results more satisfactorily than attempting to modify the present administrative structure of the Department merely to provide greater co-ordination between research and extension and other limited objectives. In any case, equally important changes are warranted to meet the changed and changing needs. (See Section IV – “The Department of Agriculture in a Modern Setting”.) It is also desirable to profit from experience in other States. (See paras. 7, 8 and 9, Section I – “Introduction”.)
8. Senior officers, including the Director, are at present too closely involved in the day-to-day working of the Department,

Figure 1: Department of Agriculture — 1.9.1973

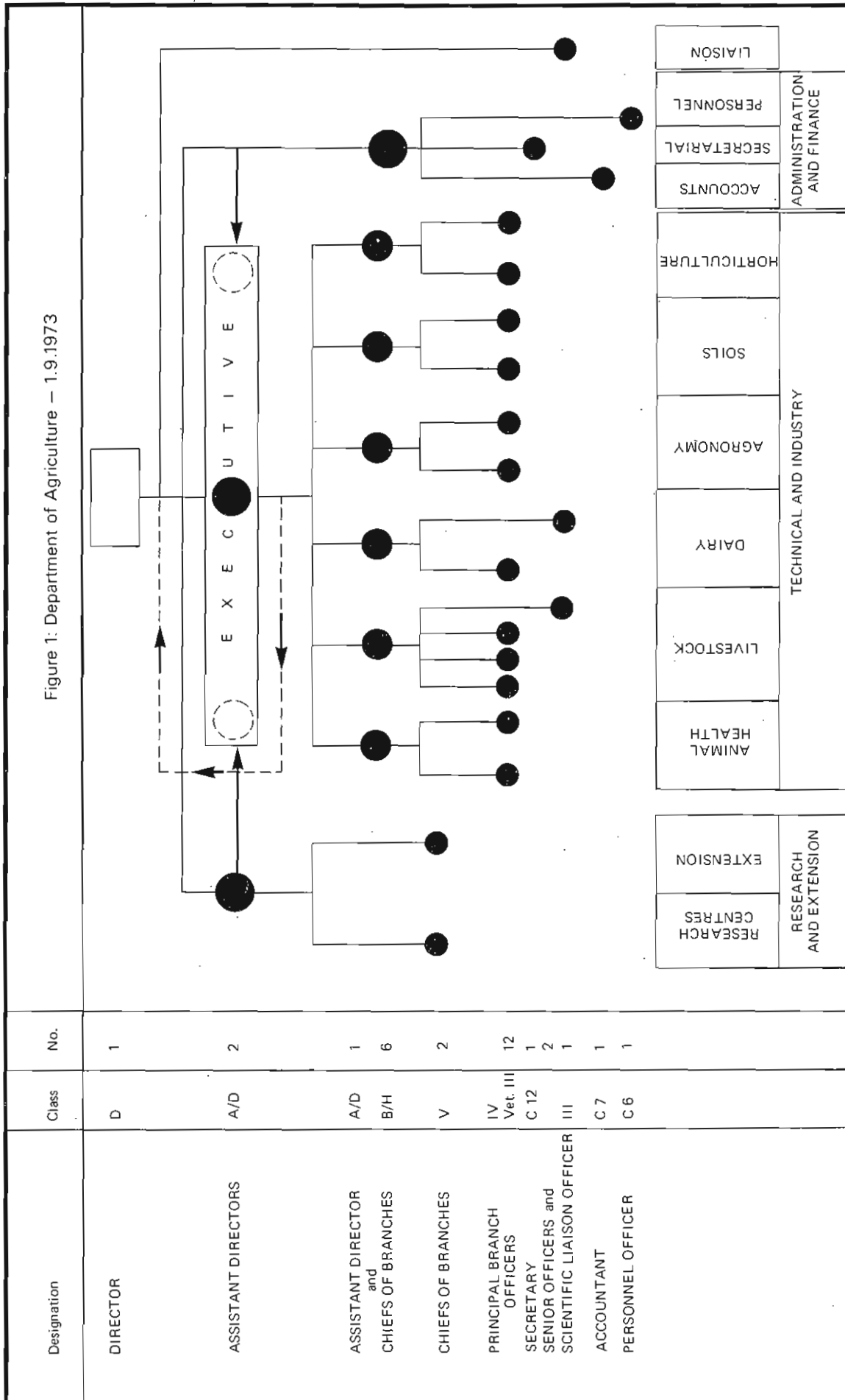


Figure 2: Department of Agriculture — Proposed New Structure based on Seven Divisions and Regionalization

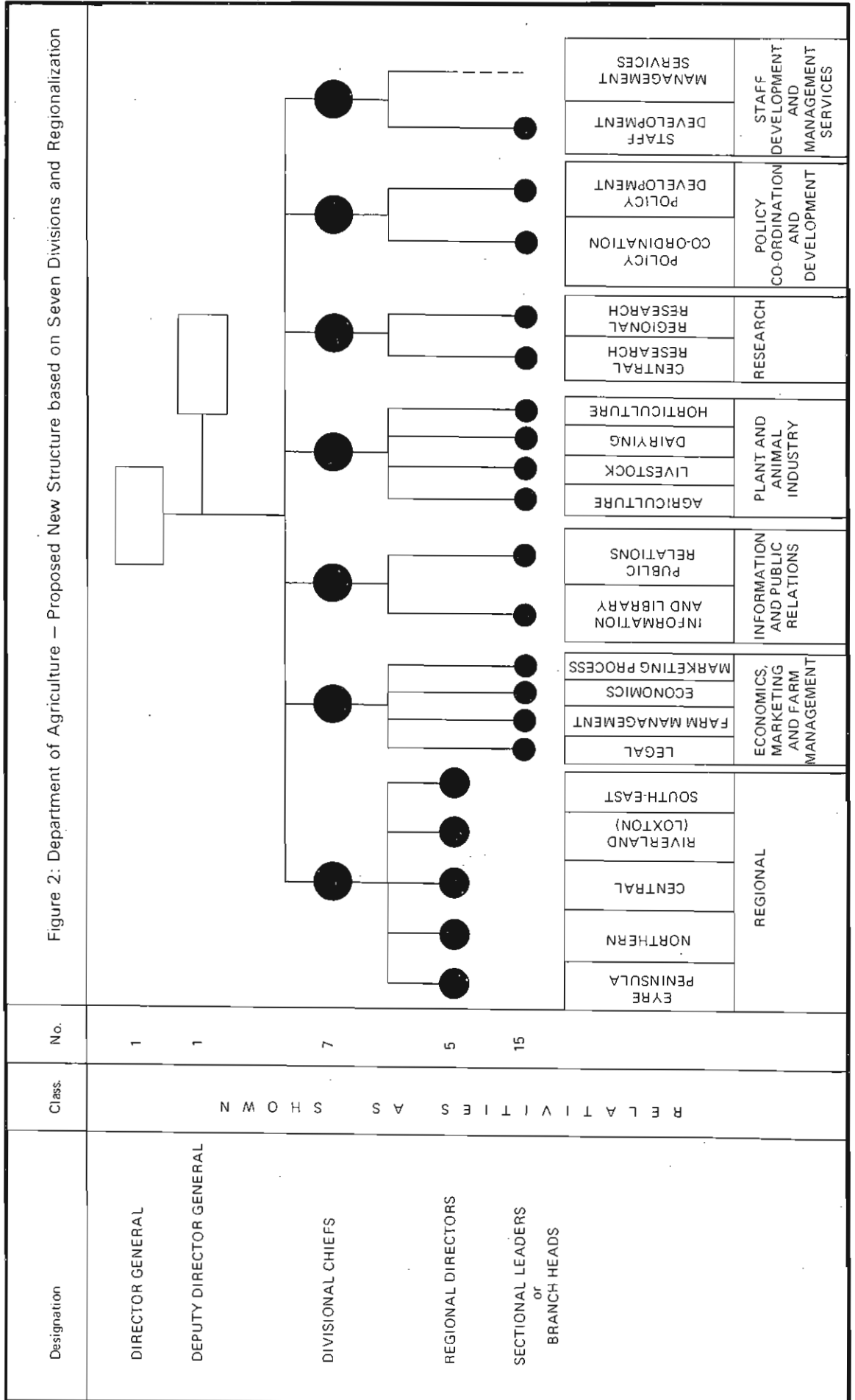
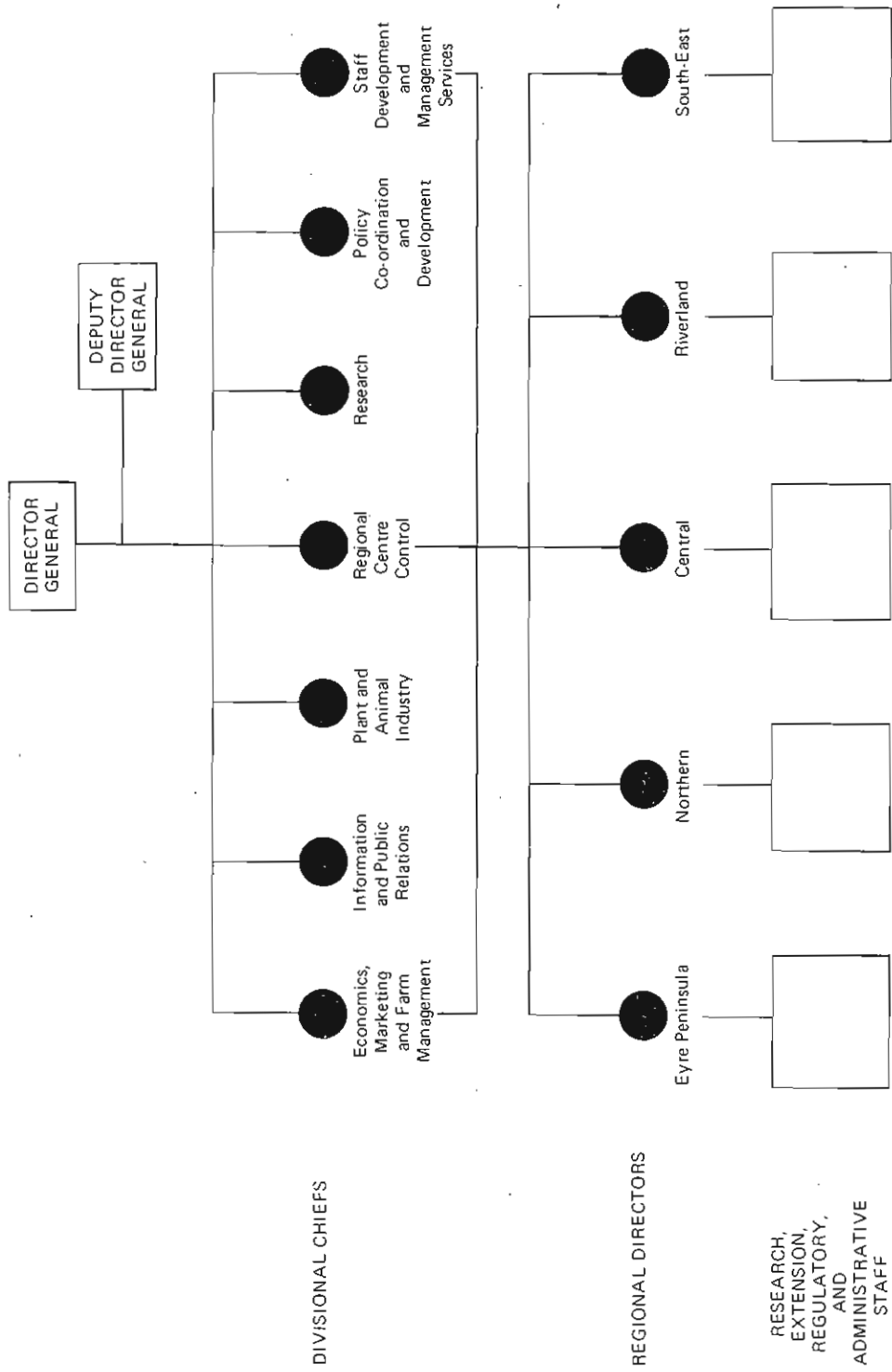


Figure 3: Department of Agriculture — Lines of Direction in Proposed New Structure



rather than in the position of executives making judgments and taking decisions relevant to management and policy.

## Re-organization on a Regional and Divisional Basis

9. A divisional structure providing for regional functioning of related activities is desirable, with each division having reasonably equal and comparable areas of responsibility and volumes of work to meet the new arrangements. This would replace the present remote system of functioning based on independent and purely industry groupings. Divisional leaders with high levels of administrative and managerial abilities capable of working harmoniously with one another in directing, formulating and reviewing policy should be regarded as the fulcrum of the Department's administration and management under the Director. (See Appendix 1 — "Notes on the Commonwealth Public Service Board's Policy Approach to the Second Division of the Commonwealth Public Service Departments" para. 2. (1) to (9).)
10. To overcome present administrative defects and to meet the modern aims and objects of the Department, a complete formal re-organization is recommended, involving the establishment of seven main Divisions, namely —
  - (i) Regional
  - (ii) Economics, Marketing and Farm Management
  - (iii) Information and Public Relations
  - (iv) Plant and Animal Industry
  - (v) Research
  - (vi) Policy Co-ordination and Development
  - (vii) Staff Development and Management Services.
11. The recommended organization with suggested classification relativities is depicted in Figure 2. No attempt has been made to suggest classification levels throughout the proposed new structure, but relativities which would be essential are shown in this chart. Furthermore, because of the critical importance of the

officers-in-charge of regions, it is suggested that these positions be classified at the level of the present Industry Branch heads. Figure 3 outlines the lines of direction from the Director to the officers-in-charge of regions.

12. While some variations in immediate classification of the various levels of office may be warranted, the following essential elements in the recommendation are presented as guidelines —
  - (a) Chiefs of Divisions should have status equal to the present range applying to Assistant Directors. They will need to be fully qualified men of experience, competence and judgment in their respective spheres.
  - (b) The officers-in-charge of regional centres, whatever their title, should have status equal to those of existing Branch Heads and above those of sectional or Branch leaders under the Divisional Chiefs at Head Office.
  - (c) The lines of department direction should flow from the Director and Divisional Chiefs through the Chief of the Regional Division to the officers-in-charge of regions.

## Deputy Director

13. To relieve the workload of the Director and enable him to devote time to overall management and policy matters, appointment of a Deputy Director is proposed, to share, under delegation, the exercise of the Director's responsibilities. However, there should be no organizational barrier between the Divisional Chiefs and the Director. For this reason, the Deputy Director should be the Deputy in the fullest sense of the word, and not break the organizational line between the Director and the Divisional leaders. (See Appendix 1 — "Notes on the Commonwealth Public Service Board's Policy Approach to the Second Division of the Commonwealth Public Service Departments" para. 2. (10).)
14. The responsibilities of the Director relating to the Standing Committee of Agriculture and the Australian Agricultural Council are becoming of increasing



importance. Personal representation by the Head of the Department is necessary. Moreover, the Permanent Head should also be free to devote more personal time to public affairs and contact with influential people in pursuit of his duties and better public relations. Some financial allowance to meet such representational needs should be provided.

## Regional Division

15. Bearing in mind the shifts in goals referred to in Section IV on "The Department of Agriculture in a Modern Setting", the organization of the Department on an exclusively industry basis is no longer valid. To meet the re-organization of the Department on a regional basis, the present Branch structure would need to be modified to meet the change in emphasis. It would be necessary to maintain a small but effective group of specialist and regulatory officers in both Plant and Animal Industry to co-ordinate State policy. Most of the present technical staff would be working in the regions, and administratively answerable to the officer-in-charge of the region.

16. Organization of the Department on a regional basis would:

- Consolidate developments which have been evolving (albeit far too slowly);
- Create the much-needed formalized multi-discipline grouping of staff;
- Revitalize and up-date the extension process by integrating and identifying Departmental services with the maintenance and development of the region's agricultural potential;
- Assure a close and desirable everyday relationship between those engaged in research and extension, and both groups of officers with rural producers;
- Bring the work of the Department into closer and more intimate association with producers, formal groups such as the Agricultural Bureau, Women's Agricultural Bureau and Rural Youth Movement, industry organizations, ancillary agencies, financiers, and the rural community in general;
- Provide promotional avenues for coun-

try based officers, thereby correcting the undesirable present pull of agriculturalists to the city;

- Entail regional direction and decision making and so reduce to a minimum correspondence and reliance on written memos and instructions;

- Afford the means for much closer and desirable understandings with other Departments on regional problems, in technical matters and those bearing on conservation, ecological and pollution problems, such as the Engineering and Water Supply, the Department of Lands, and the Department of Environment, and in adult education with the Department of Further Education.

17. Evidence presented in the course of the review favoured the following regions and regional centres, in order of priority for establishment:

South-East	centered at Naracoorte (Struan)
Riverland	centered at Loxton
Eyre Peninsula	centered at Port Lincoln (or Cleve)
Northern	centered at Kadina (or Clare)
Central	centered at Monarto.

18. While the centres nominated represent a consensus, it remains a matter of Government policy where best to establish the headquarters of the regions. Opinion favoured separation of the Central Regional Centre from Head Office. On this assumption, Monarto was considered the logical centre for the Central Region if headquarters of the Department remained in Adelaide.

19. The main criteria governing the choice of a regional centre are:

- (a) A centre of population with reasonable social amenities and living standards;
- (b) One that is most frequented by farmers of the region in the course of their business and social life;

- (c) It should be as close as possible in time and ease of access to Head Office.
20. In all regions, District Offices at strategic centres will need to be continued.
  21. The present proposal to establish a Regional Extension Centre at Struan should be enlarged to cover all Departmental services — research, extension and regulatory. It would then become the Centre of the South-East Region of the Department of Agriculture.
  22. There is overwhelming support for the organization of the Department on a regional basis, and opinion strongly favoured the regions functioning as autonomous units covering all services necessary to meet the agricultural needs of the region, subject only to State policy direction from headquarters, and technical guidance from Divisional specialists, and specialists in other regions.
  23. Once the regions function to cover research and extension, expertise in different areas and different professional disciplines will assert themselves according to regional needs, but their particular scientific or technical expertise would be available to officers in any other region when appropriate. There would no longer be strict lines of communication on such matters through headquarters. Only when communications of a technical nature impinged on policy or resource use would they need to follow formal administrative channels. This would mean, in practice, a regular flow of purely technical communication without involving the Divisional Chiefs, or the officers-in-charge of the regions. Policy and resource use matters, on the other hand, would flow to and from the Divisional Chiefs through the officer-in-charge of the regional centre. (See Figure 3).
  24. The designation of the officer-in-charge of a region is of considerable importance. The most appropriate title is "Regional Director". This gives the desirable public image and would, in fact, more closely fit the functions involved. Conferring of this title would perhaps involve re-designation of the Director of the Department as Director General. This does not appear to conflict with Government

policy with respect to other Departments, and is in keeping with the designation applying to the head of the corresponding Departments in both New South Wales and Queensland. In Figures 2 and 3, which are the epitome of these recommendations, titles have been used to support this view.

## Division of Economics, Marketing and Farm Management

25. The increasing demand and desirability of providing economic guidance has so far only been given token attention. Market intelligence covering home and export markets, farm organization and management, and the marketing processes are three distinct phases of work that should be given specific attention. The rationale for specific and upgraded attention being given to all three of these economic disciplines is covered in Section IV — "The Department of Agriculture in a Modern Setting". A Division of Economics, Marketing and Farm Management is therefore recommended.
26. Advice on farm business management has been seriously neglected. Regionalization of services will enable policy to be developed around the concept of extension applying to the production unit as a whole — the whole farm approach. Staff will need to be recruited and trained so that the regional service will be competent to advise in farm business management in the same way and at the same time as advice is offered on production technology.
27. It is important that the economic services here proposed are directed as an integral segment of the research-extension process within the references stated in paragraph 13, clauses B (c) and B (d) of Section IV. Cost benefit studies on research projects have already been undertaken by the Department in some cases. These economic assessments are important pre-requisites in the research-extension process.
28. Drafting of legislation to cover Government policy, at present left in the hands of industry personnel, should be delegated to an officer experienced in agricultural legislation. Administrative

legal advisory work could be included in this division. It would provide the initial framework of legislation based on technical advice available within the Department, the contact point within the Department for the Parliamentary Counsel and the Crown Solicitor and maintain a central repository of records and files relating to Departmental legislative matters.

## Information and Public Relations

### Division

29. In the modern sense, the Department's present public relations are neither in keeping with the importance of its work, nor with the valuable contributions made in the interests of the community.
30. There is a tremendous store of valuable information that is being constantly added to, amended, or discounted as a result of further research and experimentation. This information should become immediately available, and not await the tedious delaying operation of report writing by the officers responsible, but gleaned and released by competent well-trained journalists or media writers working within the Department. The impact of effective and competent work is greatly reduced if it is not publicly presented as an advance or achievement, and if delays intervene before it is translated into practice. Procedure along these lines should not, however, intervene with the individual worker's right to professional recognition through normal scientific publications.
31. Apart from public presentation of the Department by communication, the essence of good public relations is to influence people so that they recognize everyone in the service, from the telephonist to the Permanent Head as essentially courteous, willing and anxious to help the interests of all who enquire. Everyone should be regarded as a public relations officer. To attain this, conscious but sensitive direction is an important element in the development of staff attitudes and good public communications.
32. It is important that the Department should improve its public image by devoting more attention and directing its public relations not only to the rural sector, but to the urban sector as well: the consumers of which benefit so greatly from Departmental work and from the prosperity of the rural sector. (See paras. 10 and 11, Attachment 2 – "Communication".)
33. The Department has been responsible for many contributions to the welfare of the community at large, and to urban consumers in particular. These have been revealed in the course of this review. Their news and public relations value have been lost, principally because their newsworthiness has gone either unrecognized or neglected. Two broad examples will suffice. One is the control of water content in frozen poultry: this has saved South Australian consumers from paying chicken meat prices for frozen water. The second, in the broad community sphere, is the soil and land survey conducted by the Department on five weeks' notice of the suitability of land for the development of Monarto. These and similar examples should be recognized and publicized by professional media specialists working from within the Department and in co-operation with the media devoted to rural and community matters.
34. In order that the Department should give better service and improve its public relations generally, it is recommended that the present Extension Services Branch be renamed and given new terms of reference and status as a Division of Information and Public Relations. Implicit in this proposal is the transfer of many of its present functions to other sectors of the Department in terms of these recommendations.

### Division of Plant and Animal Industry

35. The present contributing elements to management and policy include Industry Branches, all of which are to varying degrees involved in research, extension and regulatory work. This structural organization has four major defects:
  - services of the Department lack unity of direction and purpose, a fragmentation that is causing serious job dissatisfaction;
  - there is considerable duplication and mis-direction of resources;

- operative functions are conducted too remotely from the farming community they serve;
  - promotional opportunities are forcing people to leave their country work to take administrative or semi-administrative duties in the city.
36. The re-organization of the Department as proposed will reduce considerably the significance of the present Branch organization. On the other hand, it will still be necessary to provide overall direction on plant and animal industry matters, and specialist officers in these categories will be necessary. Regulatory and disease control functions stemming from Parliamentary Acts will be necessary to cover all parts of the State. Even so, it is envisaged that the Industry Branches will have completely changed administrative functions and will cease to operate as they do at present.
  37. There are at present six senior Industry Branches. It is recommended that these be consolidated into four — by amalgamating Animal Health and Livestock into one, and Soils and Agronomy into another. This would leave four Industry Branches, namely Agriculture, Livestock, Dairying and Horticulture. The personnel in these new Branches would be reduced to a nucleus of specialist officers to cover State programming, technical guidance and regulatory arrangements.
  38. Special facilities will be required at regional centres to cope with animal and plant regulatory or quarantine requirements. Retention of plant quarantine facilities at Northfield is desirable, but some of this screening work could be transferred to sufficiently isolated regions such as the proposed Central Region headquarters at Monarto.
  39. In order to back up the field work service on animal disease control and eradication campaigns, the need for regional veterinary laboratories for diagnostic purposes will grow rapidly, especially when the brucellosis eradication campaign is fully developed. An urgent need exists for a regional laboratory in the South-East to handle brucellosis tests at the probable rate of one million per year. This and other diagnostic laboratories, where appropriate, should not be developed in isolation from other laboratory services.
  40. Veterinary laboratory services are at present provided by the Institute of Medical and Veterinary Science. There are strong reasons for suggesting that the Department of Agriculture should provide its own veterinary disease laboratory service, as is the case in other States. If the veterinary laboratory services as a whole were transferred to the Department, consideration might be given to a central laboratory being provided in the new city of Monarto in association with the centre of the Central Region. Whatever the final decision by Government with respect to these services, the provision of regional veterinary laboratories in the main regions of livestock production should be regarded as an essential feature of Departmental regionalization.
  41. Research will have new direction, and together with extension and regulatory services will be carried out with the more specific object of serving regional needs, but at the same time meeting State-wide programmes and campaigns. In a fully regionalized system, information to help formulate programmes should flow from the region to Head Office, there to be processed with information from other regions, and developed to conform with State programming needs and the allocation of resources. Reliable grass root opinions will be obtained after being co-ordinated by the regions, and, in this way, have a profoundly beneficial effect on Department policy and programming. Each regional centre of the Department will depend on its own research, extension and regulatory staff, operating as a team, to meet efficient production and rural community needs. Under these arrangements, including consolidation of the present six Industry Branches to four, Branch function will be essentially concerned with overall State policy and programming. This will mean transfer of a large proportion of the present operational staff from present Head Office control to the new regional control.
  42. The present Extension Services Branch would be replaced by a Division of Information and Public Relations, and

the Research Centres Branch would no longer be necessary.

## Research Division

43. While research and extension call for different personal attributes they both contribute to the means of enabling the Department to render the service it is designed to give. They are both part and parcel of the extension process, and in an effective service, they are dependent one on the other. Between them there should be complete harmony in objectives and co-operative effort. This harmonious accord will be more easily attained when both are closely involved with the realistic needs of the regional rural community. (See Section V – "The Research-Extension Process in Modern Terms".)
44. On the other hand, research projects are costly and have to be carefully planned. It is also important that research be carried out in sufficient depth to cover future developments as well as immediate needs, and in this way to afford the desirable flexibility to meet rapidly changing situations.
45. In order to attain these objectives without losing the dynamism of research effort and dedication, specific directional control of research is desirable. Such direction would be expected to rationalize resource use, develop programmes, determine priorities and provide biometrical and central computer service. It would also enable greater rationalization of research efforts with organizations engaged on fundamental studies, such as the Waite Research Institute, the Commonwealth Scientific Industrial Research Organization, and the University of Adelaide. (See paras. 18 and 19, Section V – "The Research-Extension Process in Modern Terms".)
46. The existing research laboratories at country research centres are inadequately equipped and staffed. They should be enlarged or consolidated to meet essential regional research needs, and where appropriate, State-wide research requirements not already covered by the Central Research Laboratories at Northfield. They should then be better equipped, staffed to meet all the technical disciplines required, and provide a fitting

research team relationship. On the other hand, they would need to have suitable administrative and technical links with Northfield and other regional research centres so that the research efforts would be properly co-ordinated and the various research teams in a position to draw on available experience and expertise. Under research leadership and direction from the Divisional level of the Department, there would be no loss of autonomy by any of the Regional Centres of the Department, and the Northfield Research Laboratories would be unified as the central autonomous research institute of the Department.

47. There is very little research being done on farm enterprises, rotational practices and farming systems. This is work that should be done within the region. In this respect, the leasing of property or working with co-operative producers to enable such work to be done might be a better approach than to have work carried out at a research farm, particularly where the research farm has been subjected to long periods of experimental work. Two other broad avenues of research that will need more specific attention are meat and wool. It would seem appropriate that meat research could be centered in the South-East Region and wool research in the Central or Northern Region.

## Division of Policy Co-ordination and Development

48. In these days, change is so rapid and extensive that special provision should be made to have policy co-ordination and review under constant surveillance. It is envisaged that a special division of the Department should be in a position at all times to inform and advise on the formulation, modification or review of agricultural policy based on knowledge of the overall objectives of the Department, on the real situation of farmers in all industries and on their reactions to policy proposals or decisions.
49. The organization of the Department on a regional basis will make continuous policy review and co-ordination an especially important function. Much more authentic information will be readily available and coming from all regions.

The Division should be so organized and staffed to make sure that this flow-back of information from the Regional Centres is properly collected and interpreted. In this way, the Department will be able to achieve a two-way advisory service on policy: to the producers, processors and consumers on the one hand, and from them on the other, and have under constant review all matters relating to present or future policy. The Division, in collaboration with other Divisions, should at all times be in a strong position to brief the Director or Minister on policy matters.

50. Such a Division should be in a position to advise and administer policy relating to rural reconstruction. The present division of function on rural reconstruction between the Department of Lands and the Department of Agriculture is administratively wrong. Assessment of the problems of rural reconstruction and the potential of applicants is performed by the Department of Agriculture, whereas the administrative and financial functions are vested in the Department of Lands, a divisiveness causing public confusion and inconvenience.
51. In the recently revised structure of the Department of Primary Industry in Canberra, a Division with similar functions was established and has proved to be effective and desirable, relieving the Permanent Head of much pressure from such duties. (See "The Functional Statement of the Policy Development Unit of the Department of Primary Industry" as given in Appendix 2.)

### Division of Staff Development and Management Services

52. While the Department has given much appropriate attention to in-service training, the approach and coverage should be revised so that staff development, especially to meet the multi-discipline needs of the new regional organization, becomes a continuing process for all members of the staff. In addition to the induction of officers on joining the service, continuous in-service personnel training is essential to cover all industry disciplines in the performance of research, extension and regulatory functions. It is a logical aspect of manage-

ment services, and is an especially important function in a Department covering such diverse elements of knowledge and function.

53. In-service training, human resource development and assessment will require skilled direction and considerable co-ordination at Head Office level, with the procedures and guidance of personnel in their respective spheres being a continuously operating function in each region.
54. Under a regionalized system where all services are fully integrated, the main operational aspects of staff development and assessment will be at the regional level. This will involve formal and informal approaches to cover not only professional requirements in research and extension, but specific in-service training to involve:
  - extension officers in industry, economic and sociological research requirements;
  - research officers in economic assessment, resource use and extension requirements;
  - technical and field assistants in an overall insight into research-extension objectives and with development of their innate capabilities in mind.
55. The recommended Division would absorb the functions of the present Administration, Accounts and Personnel Branch of the Department. It would manage the financial and accounting activities, prepare and review estimates of revenue, expenditure and works programmes and provide the personnel function and other administrative services. With the establishment of regional centres, considerable delegation and co-ordination will be necessary to enable the regions to operate as autonomously as possible within the resources allotted to them.

### Organizations affiliated with the Department

#### The Bureaux and Rural Youth Movement

56. There are three kindred organizations closely associated with the Department

of Agriculture, namely the Agricultural Bureau, the Women's Agricultural Bureau and Rural Youth Movement. They are subsidized and assisted by the Department, which provides organizing staff, clerical assistance and printing facilities. Although independent, they are inter-related groups designed to provide channels of communication on agricultural matters and to improve the welfare of rural people.

57. In this review, they have been the subject of both acclaim and criticism, the latter stemming mostly from their static postures and lack of perception of changing needs. One fairly general criticism was that all three organizations are too conservative, not as receptive to change as they should be, and unwilling to explore provocative and challenging ideas, and that the Rural Youth Movement in particular placed too much emphasis on social matters.
58. All three would benefit from the proposed regional organization of the Department. They would become more closely associated with one another and the day to day workings of the Department, and be far more useful as a medium for technical advice as well as for improving the welfare of the rural community. Each organization would need to be re-examined and oriented to the regional organization of the Department.
59. Recently, the Minister approved in principle the placing of all three under joint supervision, and directed that the Department, in future, place particular emphasis on their use as channels of communication for agricultural extension.
60. The most important link with the extension services of the Department is the Agricultural Bureau. There are 200 branches with a total membership of 8,000. It was founded in 1888 and for many years fulfilled its purpose with unqualified success. It was a tremendously well conceived and universally active organization when country people were far more isolated physically, mentally and socially than they are today. Bureau meetings and periodic district conferences were one of the best means of obtaining information on agricultural developments and production in their localities. To attend meetings by travelling several miles was a time-consuming process, but the rewards in education and social contacts were well worthwhile.
61. Modern life with greater mobility, telephone, home radio and television has lessened both the scope of and enthusiasm for the Bureau. Attendance at meetings or gatherings is now more dependent on their quality and purposefulness. Evidence from many sources indicates that:
  - The organization is serving and can continue to serve a valuable function as a medium for disseminating technical knowledge and lifting competency in farm production and management. But, in order to increase its effectiveness, it should be re-vamped to match modern needs. Less rigidity and greater perception in approach is regarded as essential.
  - Bureau support and activity vary considerably. They are in direct relationship to the standard of leadership available in the branches. Generally speaking, the Bureau has failed to keep up with sociological changes, and has lost its former dynamism.
  - Routine and regular conferences are not as effective as they were because they no longer satisfy the present day needs of the majority of members.
  - Remote control from headquarters by the Advisory Board of Agriculture is not conducive to efficient functioning of the Bureau as a vehicle for agricultural extension under modern conditions.
62. One of the most important functions of the Advisory Board of Agriculture is to direct and supervise the work of the Agricultural Bureau. Under a Department regionally oriented, the Bureau should also be re-organized on a regional basis and subject to regional guidance and support by the Department. It could then be used as one of the main media for channeling information both from and to the regional officers.
63. In this new setting, there would be little, if any, need for overall direction and supervision by the Advisory Board of Agriculture.



64. Both the Women's Agricultural Bureau and Rural Youth Movement would also need to be re-organized on a regional basis to conform with the Departmental regional areas. They would then achieve more effectively the purposes for which they were established, act as extension media, become associated with regional Departmental officers in promoting rural life and rural products, and forge stronger links between producers and consumers. In this way, they would provide an important but neglected community service. A closer relationship between both organizations with one another and with the Men's Agricultural Bureau is desirable. This will be more easily attained if all are regionally controlled and supervised.

### Regional Research Liaison Committees

65. Consideration will have to be given to the part at present being played, and the possible future role of the present Regional Research Liaison Committees. There are four such Committees, namely South-East, Eyre Peninsula, Kangaroo Island and Riverland. They were established by the Director to foster closer relationships between the Department, the Agricultural Bureau and industry, and especially in relation to the conduct of research.
66. The format of the South-East, Kangaroo Island and Eyre Peninsula Research Liaison Committees are basically the same, with the Director of Agriculture as Chairman, and other Departmental representatives being the Assistant Director of Agriculture responsible for Research and Extension, and the chiefs of the Research Centres and Extension Branches. Representatives from both the United Farmers and Graziers of South Australia Incorporated and The Stockowners' Association of South Australia provide liaison with industry. One or more members of the Advisory Board of Agriculture represent the Agricultural Bureau.
67. The Riverland Committee differs in that the horticultural research interests of the Department are represented by the inclusion of the Chief Horticulturist to the exclusion of the chief of the Research Centres Branch. There is no representative on this Committee of The Stockowners' Association of South Australia, but horticultural industry bodies with representatives are the Australian Dried Fruits Association (River Council, S.A.), Canning Fruit Growers' Association, Wine Grape Growers' Council of South Australia Incorporated, Murray Citrus Growers Co-operative Association, and the United Farmers and Graziers of South Australia Incorporated. The Agricultural Bureau is represented by the Advisory Board of Agriculture.
68. Each Committee meets twice a year. They have served to establish better relationships between the Department and the organizations represented, and to relay to industry the work performed by the Department in the regions. Although established as Research Liaison Committees, in practice they cover any matters relating to the rural production of the regions.
69. With the re-structuring of the Department regionally, it is recommended that these Committees be re-designated as Regional Liaison Committees, widened in function and representation to cover the full spectrum of rural community interests, and be split into sub-committees for regular or spontaneous contact with the officers of the region. The extent to which the Committees or sub-committees can help the Department achieve the exchange of information, effective public relations and community co-operation will depend on their coverage, the encouragement they receive from officers of the Department, and the support enlisted from all sections interested in the rural welfare of the region.



# Attachment I

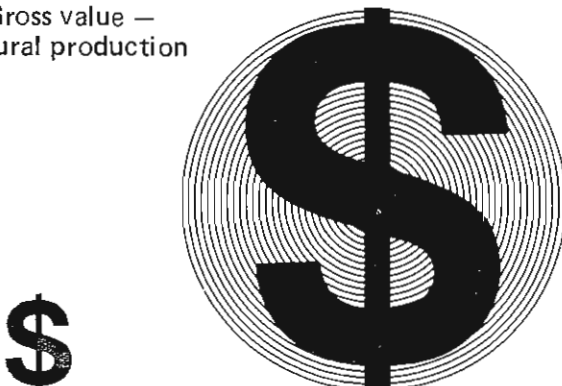
## Rural Industries — Their Progress, Change and Importance

### A Measure of Forty Years' Progress

1. The economic consequences of efficiency in agricultural production is reflected in the welfare of the whole community. To this extent, South Australia should be proud of the achievements and contributions that rural industries have made to the welfare of its people. The people should be made aware of the tremendous returns obtained from their investment in the research and agricultural services they have provided.
2. All aspects of rural production have benefited from the development of scientific and technical knowledge. The advances made have laid foundations on which our rural industries can progress to higher levels of production and efficiency.
3. The Statistical Register bears witness to the important progress made in the last 40 years. Taking the 1930/31 statistics as a base and comparing them with those of 1970/71 gives a measure to some of the very important highlights of progress:

(a) The gross value of rural production increased from \$28.6 million to \$348.5 million. This represents a three-fold increase from \$123 million to \$348.5 million in real terms.

Gross value —  
rural production



(b) The output per agricultural worker rose from \$700 to \$12,000, which represents a four-fold increase in real terms from \$3,000 to \$12,000.



(c) New agronomic practices including the rotational use of leguminous pastures, the breeding of better cultivars, increased use of fertilizers, plus mechanical and chemical aids to production, have given a new dimension to soil fertility and production efficiency.

■ Total cereal production showed an increase of 78% from 1 179 000 tonnes to 2 095 000 tonnes.

