

Attachment I

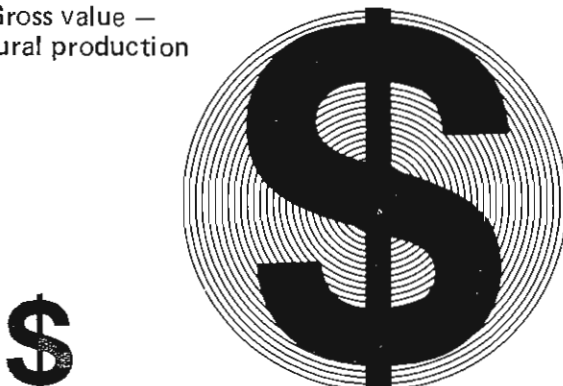
Rural Industries — Their Progress, Change and Importance

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

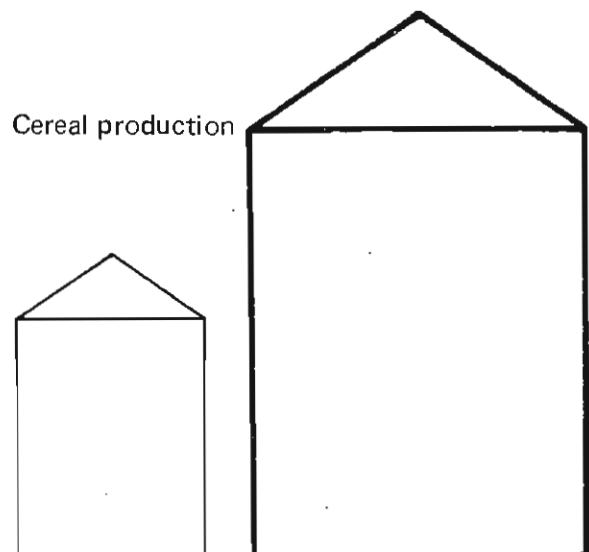


(b) The output per agricultural worker rose from \$700 to \$12,000, which represents a four-fold increase in real terms from \$3,000 to \$12,000.



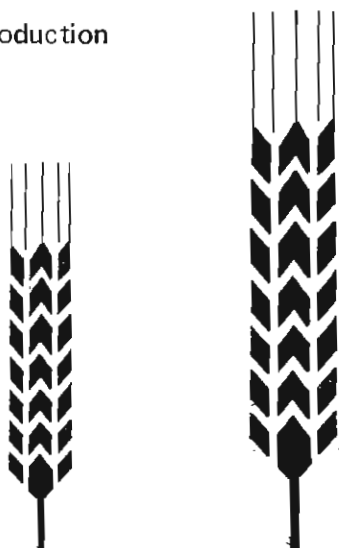
(c) New agronomic practices including the rotational use of leguminous pastures, the breeding of better cultivars, increased use of fertilizers, plus mechanical and chemical aids to production, have given a new dimension to soil fertility and production efficiency.

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



- Although wheat plantings have remained steady at around 1.2 million hectares, production has increased by 40% from an average of 1.02 million tonnes in the period 1930/35 to an average of 1.43 million tonnes in the five years 1965/70. Yield has doubled from an average of 0.573 tonnes per hectares to 1.148 tonnes per hectare.

Wheat production



- Barley production increased four-fold, oats three-fold.

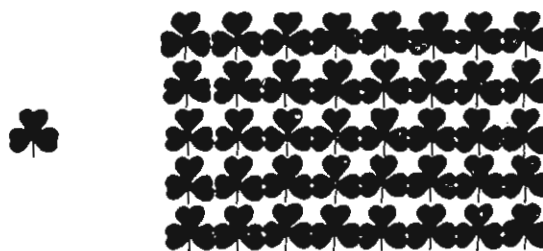
- (d) The poor soils of the better rainfall regions have been brought into production by the elimination of minor element deficiencies (copper, zinc, molybdenum and manganese) which for years proved the limiting factors to their development. Mechanical aids in clearing and cultivating have made it economically possible by saving time and labour, and contributing timeliness to operations and reducing the risks of failure in pasture establishment.

Pastures elsewhere have also been widely established with the introduction, breeding and testing of new varieties and strains.

Nearly all pastures have reached a stage requiring new techniques for permanent management.

- 40 years ago, only 70,000 hectares were sown to pasture. In 1970/71, the Register records 2 911 000 hectares — an over forty-fold increase.

Sown pasture

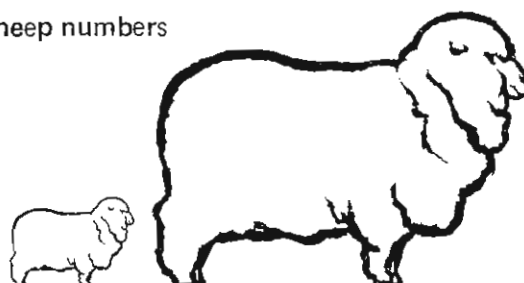


- 87 000 hectares of pastures were top-dressed in 1930/31 compared with 1 823 000 hectares in 1970/71, a twenty-fold increase.

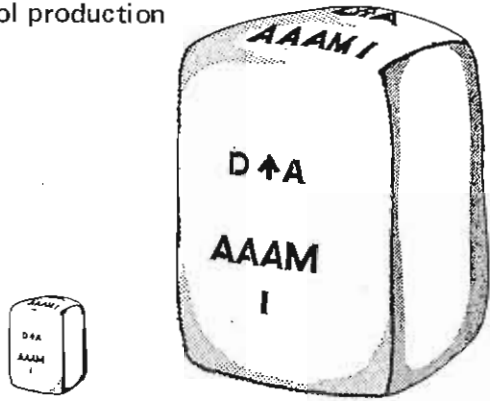
- (e) Livestock production has increased and risks diminished as a result of new techniques in pasture development and management, disease elimination and control, overcoming limiting factors of minor element deficiencies, the conservation of fodder and growth of knowledge in supplementary feeding, and increased production per head through improved nutrition and management.

- Sheep numbers have more than trebled from 6 million in 1930/31 to near 20 million in 1970/71, and wool production nearly quadrupled from 33 million kilograms to 117 million kilograms.

Sheep numbers

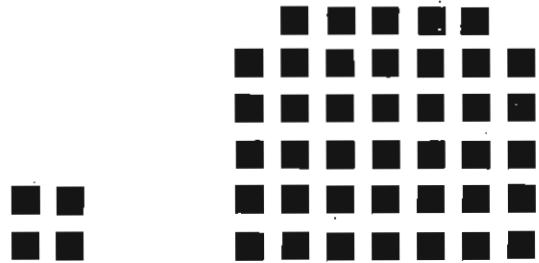


Wool production



- Cheese production increased from 1 769 tonnes to 18 915 tonnes – a more than ten-fold increase.

Cheese production



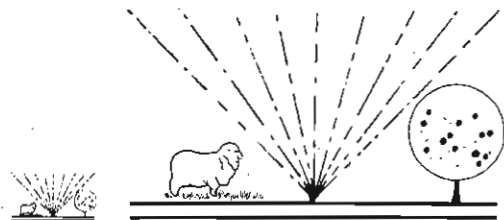
- Cattle numbers quadrupled from 300 thousand to nearly 1.2 million.

Cattle numbers



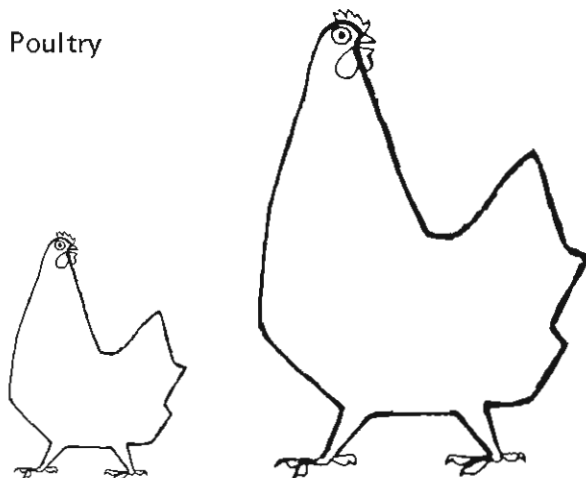
- (f) The State's water resources have been used to much greater advantage with over a 300% increase in irrigation from 17 600 hectares to 77 250 hectares.

Irrigation



- Important progress has been made in the gross value contributed by poultry, from \$1.7 million to \$13.6 million, or in real terms, an increase of 86% from \$7.3 million to \$13.6 million.

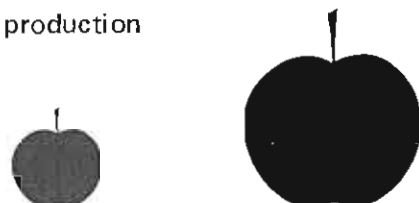
Poultry



- (g) Fruit and wine production have increased as follows:

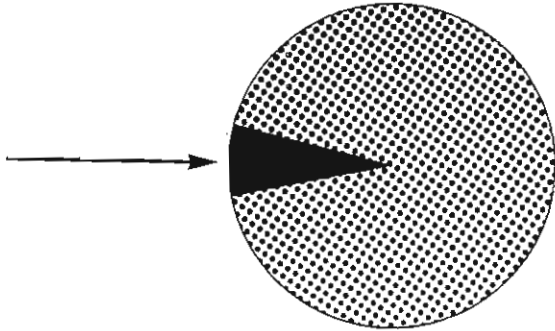
- Apply production from 487,000 bushels to 1,588,000 bushels, or over 200%.

Apple production



- Citrus fruits from 442,000 to 5,285,000 bushels, an increase almost twelve-fold.

Citrus fruits



- Wine from 45.5 megalitres to 172.8 megalitres, or 280%.

Wine



4. These increases in productivity represent the outcome of investment in agricultural research, advice, and protection from pests and disease. They are increases that overwhelmingly justify the costs of these services. More importantly still are the long term implications of preserving and improving the productive resources at our disposal and so laying sound foundations for future increases and greater efficiency in production.

A Gauge of Economic Change

5. In the last 25 years:

- Permanent rural workers declined from 41,500 to 28,700, that is, from 6.6% to 2.4% of the total work force.
- Value of production per annum per farm worker increased from \$4,800 to \$7,800 in real terms — a 62% increase.
- One farm worker now provides for 65 people compared with 45 in 1948.

Present Importance

6. The following figures of present production highlight the importance of the Rural Industries to the State:

Rural Production:

- Exceeds \$400 million per annum in value;
- Makes up one-third of the total State production;
- Contributes 50% to the value of South Australian exports;
- Has a rural work force, including seasonal workers, of 42,000; and
- Supports ancillary industries employing another 30,000.

Note: Conversion of monetary figures to real terms throughout this Attachment is based on a 4.3 times increase in the consumer price index.

Attachment 2

Communication

1. The modern means of communication should be carefully examined, and the various media neither over-rated nor under-rated. If the Department is developed regionally, it should be easier to distinguish between purely policy matters, the province of Head Office, and the purely technical, the province of the regional offices. This should allow greater freedom of expression and readiness to use the media to greater advantage.
2. In general, there appears to be a need for more frequent public appearances and greater efforts to advertise and promote the image of the Department so that the community recognizes its aims and objects, the services it provides, and the achievements it attains. This calls for both regional and State programming. It requires professionally trained operators. Amateurish efforts are counter-productive.
3. Conferences, seminars, field days, demonstrations and the like all have their place in agricultural extension, and their impact will vary according to industry and location. These, however, should be less stereotyped. They will become the responsibility of regional officers who will be able to ensure that they command attention, cease to be repetitive or follow the same pattern, and deal with subject matter of direct economic or managerial interest. They will then qualify for greater coverage by the news media.
4. District group discussions have their specific place, but again these should be well organized and deal with subject matter of real significance commanding attention and making a direct contribution to the business affairs of those attending. When a discussion group has fulfilled its purpose, it should not be perpetuated unless it can be used to meet new issues.
5. Television has its use chiefly for day-to-day snippet news and should be used for this purpose, as well as for appearance, promotional and advertising reasons. It has, under certain circumstances, tremendous impact, but items covering agricultural services must qualify in either news or entertainment value. To meet extension requirements, follow-up contributions either in the press or in pamphlet form are necessary. As a means of agricultural education, it has definite limitations. Only costly and well presented programmes at the best viewing times would achieve worthwhile results.
6. **Radio** serves to convey news of day-to-day events, including marketing reports. It has an essential place for news items covering new developments or innovations, marketing and other information of day-to-day interest. In this respect, it serves the rural community with one of its most valuable services. Full advantage should be taken of the Australian Broadcasting Commission Country Hour and other rural radio services designed especially to meet rural listeners. As a medium for initial contact with country people, radio is probably unsurpassed.
7. **The Written Word.** In spite of television and radio, the written word is having renewed impact. It has a more effective and lasting effect. It is the logical follow-up to television and radio items. There are three main categories:
 - (a) General community and agricultural press releases of the day-to-day type similar to that used in radio and television. They can serve to promote Departmental services and especially performances, and to advertise field days, other meetings, experiments, innovations and any newsworthy information from the Department and its services.
 - (b) Publication of research and experimental findings, fresh developments and innovations of either a scientific or technical nature for extension purposes. These should, as far as possible, be presented in such a form as to be —
 - (i) readily attractive to and interpretable by all who are likely to benefit;
 - (ii) sufficiently sophisticated in their approach and in their detail to command the atten-

tion of all farmers, consultants or financiers interested in agricultural progress and farm management;

(iii) of direct economic relationship to the business of farming;

(iv) written and presented in such a way as to separate the main message from the detail, and, at all times, relating the information they convey to managerial decision-making and economic returns;

(v) where possible, be of such a nature that they will be kept and retained as references.

(c) The professional article for scientific journals. These play a very important part for professionally trained personnel as a means of communicating with colleagues in the profession and furthering the professional status of the writer.

8. "Recipe" type written information should be available to the agricultural press. By agreement, reprints could be purchased and made available at district regional offices.

9. Opinions from many sources regard the Journal of Agriculture as ineffective in its present form and, under a regionalized structure of the Department, serious consideration should be given to its discontinuance or replacement with more suitable publications on both State and regional matters. A regional digest, covering producer experience as well as Departmental items of interest might well prove effective.

10. The publicity of the Department has failed to have an effective influence on the non-rural sector. Opinions from authoritative sources constantly reiterated that the Department, and agriculture in general, cannot hope to receive the encouragement and support they deserve unless their urban image is improved. The present tendency on the part of city dwellers is to associate the Department with fruit fly control and regimentation, and as another facet of the cosseted rural industries. The impression most

urban dwellers have is that rural industries are pampered and over-subsidized, and this unenlightened impression rubs off on the Department of Agriculture.

11. Little recognition appears to flow from the backyard gardeners and hobby farmers so demanding in their requests for Departmental advice. Such services that are provided should be properly identified and wisely publicized.

Appendix I

Notes on the Commonwealth Public Service Board's Policy Approach to the Second Division of the Commonwealth Public Service Departments

(Statement by Commonwealth Public Service Board to Public Service Arbitrator in connection with Claim AB52)

Part I

1. A comprehensive review of the Second Division was undertaken by the Board in the first half of the 1960's and since then the Board has given continuing attention to the development of the Second Division.
2. Key elements in the Board's continuing policy approach to the Second Division are:
 - (1) The development of the Second Division more fully and more positively as an integral part of top administration and/or management and the development of its corporate importance and identity.
 - (2) The maintenance of the view that policy advising and top management is a distinctive and integrated function and that even when a top management job has professional or technical content the choice of appointees should in high degree be on the basis of administrative and managerial abilities.
 - (3) The rationalization and broadbanding of classification relativities between departments and within each department.
 - (4) The work to be done in the Central Office of each department at levels below the Permanent Head is organized into Divisions by the logical grouping of related activities so as to give the Division Heads areas of responsibilities and volumes of work which are broadly equal within the Department and within the variations permitted by the Board's policy of broadbanding.
 - (5) Similarly, within each Division the work to be done is organized into Branches, so as to give the Branch Heads areas of responsibilities and volumes of work which also are broadly equal within the Department and within the variations permitted by the Board's policy of broadbanding.
 - (6) The Division Heads in the Central Office of a department are of pivotal importance in its operation. Increases in the complexity and responsibility of functions carried out by departments are borne to a major extent in the first instance by Division Heads.
 - (7) Under the Permanent Head, the Division Head is fully responsible for managing the affairs of his Division and he is expected, e.g., to ensure that the establishment provided is appropriate and that suitable staff are being recruited and developed. He frames guidelines for the officers working in his Division. He ensures that methods and procedures are efficient and economical. He is responsible for advising the Permanent Head on matters affecting his Division and he is expected to deal with the Minister on policy issues within the scope of his Division's activities — his role in policy advising implies participation also in policy development.
 - (8) The Division Head, as well as having these responsibilities within the scope of his Division, is expected to contribute to the solution of problems which fall between his Division and one or more other Divisions, and to participate under the direction of the Permanent Head in the general management of the Department.
 - (9) In many cases, Division Heads will bring to their responsibilities for policy advising and policy development, and their role in directing

the activities of their Divisions, professional or other forms of specialist expertise. The proportion of specialist expertise varies from position to position and from department to department.

agencies to execute Government programmes, to meet increased work load or to cater for expanded functions in existing departments.

Office of the Public Service Board,
CANBERRA. A.C.T.
14 October 1970.

(10) In order that there should be no organizational barrier to the close relationship necessary between a Permanent Head and his Division Heads, the Board has adopted a general policy that no other officer should (by organizational line control) intervene between a Permanent Head and his Division Head. In circumstances where the workload involved in general management policy advice to the Minister at the Permanent Head level is too great for one man to carry, one or more positions of Deputy Secretary may be introduced. The occupants of these positions are intended, under delegation, to share in the exercise of Permanent Head responsibilities. The Deputy Secretaries will keep the Permanent Head appropriately in touch and consult with him from time to time as to the areas of work on which the Deputy Secretary will concentrate.

(11) Second Division positions may also be provided in central offices to meet special functional or organizational requirements which do not fit into a pattern of Deputy Secretary, Division Head or Branch Head positions. They are also provided for the management of departmental state (regional) operations and of associated bureaux outside the main stream of departmental functions. It should also be mentioned that although relatively little demand has arisen in the Commonwealth Service, Second Division positions may be provided to meet the need for top level specialists without administrative or managerial responsibilities.

3. Since the completion in 1965 of the Board's step by step review of departmental Second Division establishments the Board has dealt with the Second Division establishments of individual departments as the need has arisen to provide for the establishment of new

Appendix 2

Functional Statement of Policy Development Unit in Commonwealth Department of Primary Industry

1. Develop, review or modify policy proposals relating to the overall objectives for the rural and fisheries industries.
2. Disseminate decisions on overall objectives to the various Divisions of the Department to ensure that their operations are in harmony with each other and accord with the overall objectives.
3. Provide such co-ordination and advisory services to other Divisions as may be necessary where such Divisions seek guidance and advice on overall objectives or where courses of action proposed have implications for overall objectives.
4. Prepare, or where appropriate co-ordinate, the preparation of briefing material for the Minister and Permanent Head relating to Cabinet Submissions and Parliamentary papers etc. where the subject matter is not the sole responsibility of any other Division of the Department.

Appendix 3

Submission by the Director of Agriculture on 'The Future Role of the Department of Agriculture'

Introduction

The Department of Agriculture was originally established to administer legislation concerned with the control of pests and diseases of livestock and crops. The formation of the Agricultural Bureau in 1888 led to the development of the Department as an advisory organization providing assistance to industry through the bureau system in promoting improved techniques of husbandry and production. This service was supplemented by several strategically placed Government farms which were used to investigate and demonstrate new farming techniques and methods.

These activities were directed mainly towards the development of new country and the expansion of production to serve overseas markets and to earn overseas capital.

The second World War gave a stimulus to production and in the post-war decade more sophisticated techniques produced a vast expansion in production to meet world needs. The success of these developments was aided by the establishment of regional research centres and an expansion of extension services which were concerned mainly with the dissemination of technological information. The aim was to adapt research findings to local conditions and promote their widespread adoption.

The Department of Agriculture played a leading role in this development which improved substantially Australia's balance of payments and contributed to the State's economic and industrial development. Several of the major primary industries and the Commonwealth Government contributed substantial funds for regional research and extension and the department's personnel and facilities were greatly expanded.

In recent years, the agricultural industries engaged in substantial export trade, have faced grave difficulties in adjusting to a rapidly changing economic situation, primarily as a result of rising costs of inputs of production which have not been matched by rising prices of produce sold. Other factors include the competition from synthetic products and from agricultural exports from countries with

heavily subsidized agriculture. The resultant decline in farm incomes has created a demand for more specialized advisory services, particularly those related to farm management and economics. Industry is also now looking for guidance in the handling and marketing of produce.

This demand has strained the resources of the Department and created an urgent need for specialized training in extension techniques and in other fields not previously serviced by the Department. New skills are needed to meet this challenge and some major adjustments in the organization and functions of the Department are necessary.

Some progress has been made in adapting to these new demands, e.g. the appointment of additional economists and the training of personnel in modern extension techniques, but more rapid progress is essential in the future if the Department is to achieve its proper role in serving the State's rural industries.

Present Scope of Departmental Activities

The objectives of the Department, as at present constituted, are defined as follows:

To promote healthy, productive and efficient agricultural industries adapted to the environment, aimed at providing the food and fibre needs of the growing population, contributing through exports to the nation's balance of payments position, and supporting a stable and prosperous rural community.

Through the activities of the Australian Agricultural Council and the Standing Committee on Agriculture the Department's overall objectives are integrated with those of other States and Commonwealth in a joint effort to provide for Australia's domestic requirements for agricultural produce and to ensure a continuing and profitable export trade.

To achieve its objectives within South Australia the Department employs one or more of the following avenues:

(a) **Regulatory activities**

The department administers a wide variety of State and Commonwealth legislation aimed at protecting primary industries from the introduction and spread of exotic pests and diseases and at controlling or eradicating diseases already present.

Considerable success has been achieved in this area. Bovine pleuro pneumonia has been virtually eliminated from all States and progress is being made to free the country from bovine tuberculosis and brucellosis. Australian produce enjoys a reputation of freedom from many of the world's most devastating pests such as foot and mouth disease, bluetongue, firefly and Khapra beetle. The producer is thus saved the enormous additional costs of control which would be incurred should such pests and diseases become established in Australia.

Other legislation administered by the Department provides for the preservation of soil resources against exploitative forms of farming; the establishment of standards of efficacy and purity for chemicals, fertilizers and seeds; the maintenance of quality standards in foods supplied to both local and overseas markets especially in respect of biological purity, and freedom from pesticides and other impurities; and the control of weeds.

Altogether some 22 Acts of the State Parliament are administered by the Department, in addition to responsibilities under other State Acts. The achievements of South Australia in these respects compare more than favourably with those of other States and much credit is due to this Department and to the co-operation it receives from industry.

(b) **Research**

The achievements of South Australia in agricultural research are internationally recognized. In many of these the Department has been associated with the Waite Agricul-

tural Research Institute and the Commonwealth Scientific Industrial Research Organization. The research role of the Department has been concerned with 'applied' or 'developmental' aspects of district or regional problems in South Australia, as distinct from the basic 'fundamental' research undertaken by the Waite Agricultural Research Institute. (Basic research relates to the definition of the principles governing the behaviour of matter or of plants or animals, while applied research aims to relate those principles to problems of immediate concern to man.)

The Department's role, therefore, is to get research findings adapted to local conditions and adopted by practising farmers.

The Department has 13 research centres strategically located throughout the State and concerned with the problems of most agricultural, horticultural and livestock industries. The worth of these centres and the overall programme of departmental research is acknowledged by industry by way of significant financial contributions in recent years.

In addition the Department has a central research laboratory at Northfield which houses the headquarters of extensive research programmes in soil science, agronomy, horticulture and dairying. The work undertaken at this laboratory is essentially related to the immediate problems of industry and is complementary to trials being carried out in the field.

(c) **Extension (Advisory Services)**

The extension process involves the changing of attitudes and performance of individual producers. In line with the modern trend of extension in developed overseas countries it is recognized that individuals and communities function through specific groups, and the Department's extension techniques are now being geared to the complex sociological factors invol-

ved in influencing groups of producers.

High priority is now given to the development of extension services manned by well-informed and well-trained officers in close touch with industry problems. These officers are located in groups at all the main provincial centres and a move has been made to establish regional centres with the aim of decentralising administration and promoting a more effective liaison with industry. The first of these regional centres will be based at Struan House and serve the South-East.

The Department provides its own in-service training in basic extension principles and techniques. In addition courses at Roseworthy College and interstate institutions are now used for specialist training of selected personnel.

The Commonwealth has made considerable sums available over the last few years to assist in the training of extension services to meet the changing needs of industry. The Commonwealth has also allocated funds to enable the appointment of agricultural economists to assist extension officers in providing producers with more effective advice in the area of farm management and marketing.

(d) Other services

The Department provides a number of routine services for industry, usually on a partly or wholly self-supporting basis, such as herd recording, seed testing and certification, pure seed production, cheese starter culture, water analysis and poultry laying tests.

A free service is provided as adjuncts to the advisory services for the identification of weeds, weed seeds, insect pests, plant and animal diseases, dam siting and specifications for irrigation purposes or flood control, flood irrigation layouts, farm fence planning and surveying for contour bank construction.

Preliminary plans have been formulated for a fodder analysis service, and the feasibility of setting up a soil fertility testing service is being investigated.

Integration of activities

All of the above functional activities of the Department (regulatory, research, extension and other services) are inter-related, and are frequently brought to bear in an integrated fashion on particular problems. Where regulatory objectives can be achieved by extension methods, as with the very successful campaign for the eradication of foot rot, these techniques are preferred. Research projects provide information for extension officers, who in turn define problems requiring investigation; extension officers may also indicate needs for regulatory action or provision of departmental services.

A close liaison with industry is achieved primarily through the Agricultural Bureau of South Australia. This active organization of 8,000 members is serviced by the Department; it provides a valuable vehicle for promoting extension programmes and for co-ordinating departmental research programmes with industry needs.

The recent creation of four Regional Research Liaison Committees composed of representatives of the Department and several industry organizations is a further step in adjusting research and extension programmes to the day to day problems of agriculture.

Future Role of the Department of Agriculture

Marketing pressures, both local and export, have imposed substantial changes on South Australian (and Australian) agriculture in recent years.

These changes have been most marked in the cereal-sheep zone where both wool and wheat have been subjected to major marketing stresses. While wool production has been maintained and the state wheat quota of 50 million bushels for 1972-73 was exceeded only on four occasions during the pre-quota period, there have been major developments in the production of pigs, barley, oil seeds and particularly of beef cattle.

These developments have brought fresh problems in both production and marketing. New technical and economic advice is needed to guide producers through this period and the inevitable changes which lie ahead.

Apart from the over-riding necessity to provide the home market with an adequate, wholesome and economical food supply in keeping with its rising standards of living, the agricultural industries do and will continue to provide more than half of the State's export earnings.

Agricultural exports from Australia are mostly organized on a Commonwealth-wide basis and are subject to supervision as to quality by the Commonwealth government. The Australian Agricultural Council, of which South Australia is a member at ministerial level, determines national policies for agricultural production and research.

In this context production policies in South Australia are geared to national programmes and to available markets. This imposes certain constraints and obligations on the Department of Agriculture. In particular the maintenance of quality standards has become a critical factor in export marketing and is assuming a higher priority in departmental activities.

Considerable adjustment of production techniques will be necessary and the Department of Agriculture has an important role to play in maintaining the efficiency of agricultural industries. The same technological services which successfully achieved increased production are necessary to effect more economical production and to protect against the side-effects of technological advances. Greater economy of production is largely dependent on a progressive improvement in techniques. Restructuring of the industries will be necessary to meet the continuing decline in relative farm income and greater emphasis is needed on social, economic and marketing aspects of agriculture.

Research programmes will need to be re-orientated to quality and economy of production and the preservation of the environment. Rehabilitation of non-viable areas will need to be undertaken on a scientific and economic basis.

Many of the problems implied in these proposals are within the present technical capacity of the Department of Agriculture and are

not provided for under any other government instrumentality.

Specific areas which require attention are outlined briefly in approximate order of priority within the following general categories of activity:

1. Regulatory Activities

The prime responsibility of the Department is to maintain adequate protection of both animal and plant industries against exotic diseases. Despite former success in this direction, the resources allocated to this activity need to be expanded to meet the increasing risks posed by expanded import trade and influx of personal items particularly from European and Asian countries to migrants. The establishment of new exotic diseases in this country would result in increased production costs and in some circumstances the loss of valuable markets, (e.g. an outbreak of foot and mouth disease would mean a cessation in trade of meat and animal products to the U.S.A. and the United Kingdom and probably to other markets.

Local and interstate quarantine are both of great importance. Any practicable action which can be taken to limit the spread of weeds and pests within the States, or to prevent the introduction of pests and diseases from other States, assists in keeping production costs down. Continued freedom from fruit fly infestation of commercial citrus crops is essential to maintain South Australia's favoured position in respect of the New Zealand and other markets.

Phoma disease of potatoes, Argentine Ant and Serrated Tussock are examples of pests in other States of Australia against the introduction of which continuous precautions have to be maintained. Conversely legislative requirements of other States require that much of the produce exported to those States be inspected and certified as conforming to their regulatory requirements. As interstate trade is encouraged, the demands on the Department's inspection services will increase.

Of particular growing importance are the stricter quality standards being imposed by importing countries on pro-

duce exported from this country and elsewhere. European countries and Japan are continually upgrading their standards for imported food materials with regard to bacteriological and chemical contamination; the U.S.A. has imposed higher hygiene standards for meat acceptable to them; customers of Australian grain are becoming increasingly concerned with both insect pests of stored products and chemical residues.

To meet these requirements for our export produce, increasing demands have been made not only on the Department's regulatory services but also on the advisory and research sections. The increased activity being undertaken by the mainland States and the Commonwealth to eradicate bovine brucellosis and tuberculosis from cattle is an example of action necessary to ensure the acceptability of Australian beef on the lucrative American market.

There would be an advantage in having certain technical services at present located in other departments transferred to the Department of Agriculture to provide more effective administration of these regulatory activities. The inspection services of the Government Produce Department, responsible for inspection of export cereal grain, would be more effective with close association with agronomy, plant pathology and entomological specialists within the Department of Agriculture. The Vermin Branch of the Department of Lands, whose activities are centred around methods of control of an agricultural pest, would benefit with closer and more formal association with this Department dealing with production aspects from agricultural land. The veterinary division of the Institute of Medical and Veterinary Science providing diagnostic services for animal diseases would provide a more effective service to livestock industries if it were located within and under the supervision of the Department of Agriculture.

2. Economics and Marketing

During the last decade, the rural industries in Australia have been subject to increasing economic pressures. The tremendous expansion which occurred in some industries resulted in over-supply.

Competition from other exporting countries became more intense while in some traditional markets demand fell, partly as a result of government policies which subsidized domestic agricultural production. These factors combined to reduce the price of agricultural commodities or to keep the rate of price increase well below that at which costs of production rose.

Under these circumstances the whole economic structure of the agricultural industries needs critical examination and greater emphasis placed on the business management aspects of farming. It has become vital for this Department to provide increased economic services both to government and to primary producers.

Expert economic advice is needed to assist in policy determination in regard to such matters as rural reconstruction, development of alternate enterprises, machinery syndication, land and water use and marketing policies.

At the farm level production efficiency must be lifted by improved advisory services covering cost saving, all aspects of financial management and the comparative economics of new crops or lines of production. This will involve the appointment of additional agricultural economists to conduct advisory and instruction programmes for farmers and to provide specialist advice to district advisers in the industry branches. These farm management specialists would be located on a regional basis.

Marketing is another area in which greater emphasis must be placed and the staff establishment strengthened. There is an urgent need for a market intelligence service and for market research, exploration and forecasting so that information on commodity trends and outlook may be more readily available to the government and to producers.

The Department should become more involved in the establishment of market grades and standards and in quality control of produce. Out-moded marketing methods, particularly in livestock and fruit, should be investigated and more up-to-date methods of handling and processing introduced.

Specialist officers should be seconded to explore potential overseas markets and to advise industry on the technical needs and standards of production, grading and handling.

The Department should have a representative on appropriate marketing Boards so that access is available to commodity marketing information and statistics. This would enable the Department's advisory services to be in a better position to advise the government and industry on product development and the adjustment of production to potential market outlets.

Some re-organization of the Department's structure would be required to enable the necessary development of the farm management and marketing sections. It is proposed that an Economics and Marketing Branch be established, with the Branch Head reporting direct to the executive.

The strengthening of the Department's marketing services would in all probability not be entirely a charge on State revenue funds. As South Australia is now a claimant State increased services directed to exports and the balance of payments position would attract increased Commonwealth financial support.

3. Extension (Advisory) Services

Notwithstanding the emphasis on economics and marketing, there is still need for improved technical advisory services. Rapid technological advances and the need to shift from one form of production to another (e.g. to meat and oil seed production) and the need for more intensive forms of production (e.g. pastures, livestock) all require more specialized advisory services.

More economic production requires greater biological efficiency as expressed in conversion ratio, growth rates and the quality and composition of the product.

There will be a need to re-locate some industries, such as vegetable production, and technical advice will be needed on husbandry techniques, water resources, and production methods.

These services will need to make greater use of the mass media, supported by regional specialists and group training of farmers.

4. Research

A searching review is to be made into the Department's research with the view to providing greater flexibility in programming and allocation of priorities.

A Research Policy Committee and a Research Liaison Committee have recently been formed within the Department.

The Research Policy Committee will develop new criteria for determining research priorities. These will provide the necessary flexibility to meet urgent new research needs, and to phase out existing programmes of lower priority.

The Research Liaison Committee will see that the research policies laid down by the Policy Committee are put into effect, ensuring efficient use of financial, physical and personnel resources.

Special emphasis will need to be given to biological means of control of pests and to the discovery of alternative forms of treatment to those chemicals which have residue hazards. Greater attention needs to be given to integrated forms of control and management techniques.

Mechanization, and the more economic use of fertilizers and chemicals require special attention.

The regional facilities of the Department are well adapted to provide for research into local production problems.

5. Industry Liaison

Considerable progress has been made in recent years in achieving a closer liaison between industry and the Department. This in turn has brought increasing demands for departmental services.

Industry liaison operates in two directions. Apart from providing information on the research and service needs of industry, it also provides a means by which national policies and programmes may be implemented. Production can be

adjusted to provide for specific market outlets.

It is intended that industry liaison will be raised to a higher level by departmental representation on marketing boards, by the formation of industry liaison committees and by training programmes for consultants and service personnel.

There is also an increasing demand on departmental resources for assistance to other government departments, such as Education, Lands, Environment, and Industrial Development.

6. Agriculture and the Environment

The Department of Agriculture, as at present constituted, contains the largest resources of experience and scientific knowledge within the State required to investigate and advise on the problems of range management, the reclamation and rehabilitation of marginal lands, drought mitigation, and land-use mapping and planning. The more effective use of water resources by efficient irrigation and drainage methods are within the scope of the Department's activities. Allied to this is the control of water and land pollution by agricultural practices and chemical by-products.

Agricultural training is an essential background to the development and rehabilitation of national parks and reserves and the control of the many pests of native flora which have not yet been given adequate attention, but which will have increasing significance to the quality of life in the future.

7. Administration

A start has been made in the introduction of programme budgeting as a means of more effectively identifying and controlling areas of departmental activity in relation to expenditure of funds. The experience gained in preparing the 1972-73 sub-estimates of expenditure and controlling approved funds within this framework will be built on in succeeding years with the objective of developing a full system of programme budgeting for the Department.

The proposed relocation of the Department's head office at Northfield and

grouping all activities, (other than those which are regional), at the one site will have many advantages in terms of integration of planning and activity.

8. Resources Needed

The Department of Agriculture already possesses the basic requirements to undertake most of the activities outlined in the foregoing.

Some of the existing resources have already been deployed along the lines indicated. Some present activities of the Department may be curtailed.

Generally, the programme outlined will require an increase in resources and personnel, some specialized training, and a minor re-organization of the structure of the Department.

Priorities in implementing the proposals are difficult to assess. In general terms they can be listed as follows:

- (a) Protection of industry from pests and diseases and the promotion of an adequate wholesome food supply to the home market.
- (b) Promotion of marketing, both local and export, by the maintenance of high standards of quality, market research and intelligence, and more efficient marketing techniques.
- (c) Economy of production by adapting research and extension programmes to this end.
- (d) Restructuring of industry and rehabilitation of marginal lands.

The Department's research and advisory services will need to be regionalized and full advantage should be taken of opportunities for specialized training of personnel.

Before any development programme can be designed and the costs assessed in detail it is necessary for a government decision to be made on the acceptability of the proposals outlined.

(Marshall R. Irving)
Director of Agriculture

30th June 1972