

OBJECTIVES OF THE DEPARTMENT OF AGRICULTURE

The aims and objectives of the Department of Agriculture have never been formally defined. Since its inception the Department has been supported financially by the Government and expanded from time to time to meet the contemporary needs of development as determined by the financial and social policies of the Government of the day. As such, the Department of Agriculture has proved an important instrument in the past in the economic development of this State.

In recent years of rapidly changing character and more sophisticated technology of agricultural production, the Department has adopted broad objectives in line with those of other advanced agricultural countries. These are defined in the following terms:-

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.

To achieve these objectives, the Department has endeavoured in recent years to adjust its activities to the rapidly changing trends in agriculture, and has played a major role in assisting South Australian agriculture to adapt itself to these new conditions.

There are three main avenues along which the Department operates to secure its objectives:-

- *To reduce wastage - by the prevention and control of pests and diseases, by the correction of faulty techniques, and by improving the methods of handling and processing agricultural products.
- *To promote greater efficiency by encouraging the use of improved methods, techniques, strains of crops and livestock and the attainment of higher standards of quality.
- *To advise the government and industry on trends in production and problems of marketing.

In discharging its responsibilities the Department adopts one or a combination of several methods according to the circumstances:-

Regulatory activities;
Applied and regional research;
Advisory (Extension) services; and
Provision of certain services.

These activities are set out in greater detail later in this report.

THE PROBLEMS OF AGRICULTURAL INDUSTRIES

Before the last war the role of the Department was largely related to the expansion of agricultural production based on the development of land and the adoption of new techniques. In this regard South Australia achieved an enviable record for inventiveness and resourcefulness in the face of an inimical environment. Generally there were satisfactory markets for the resultant production.

After the war there was a world wide shortage of food and fibres. This stimulated a rapid expansion in production, especially in the advanced countries, and volume of production took precedence over considerations of quality. International trade expanded rapidly under the aegis of the G.A.T.T. until the major markets became oversupplied. Tariff barriers imposed by the industrial countries created surpluses in primary producing countries like Australia.

These problems were exaggerated by the "technological revolution" in many agricultural practices during the 1960s. Markets became more discriminating and quality of produce became the hallmark of most export trade.

The fortunes of Australian agriculture during this period were guided by the Australian Agricultural Council which set the pattern for national policies. This Department played its role in all stages - through the expansion phase to the more difficult processes of increasing efficiency (productivity) and improving quality.

Advisory programmes aimed at improving the efficiency of individual farmers must have, as a by-product, a tendency to increase production. The displacement of less efficient units and their re-establishment in other industries is an inescapable part of the process of adapting agriculture to the new economic, social and marketing structure.

Notwithstanding marketing problems the production of surpluses of agricultural products in manageable proportions is desirable from the points of view of stability of the home market and a potential contribution to our balance of payments position. Unlike manufacturing industries, the production from primary industries cannot be tailored exactly to local or export market needs because of the great uncertainties and vagaries of seasonal conditions. The problem of disposal of some surplus production over local requirements is therefore an accepted feature of most agricultural industries.

It is sometimes suggested that because of the decline in rural industries relative to manufacturing industries they are no longer important to the economy of the State. Nothing could be less realistic. It might more validly be argued that the development of manufacturing industries owes much of its success in recent years to the vast contribution which has been, and still is being, made to the national economy by agricultural industries especially in relation to the balance of payments.

Despite a serious decline in the gross value of production of wool the overall value of rural production in South Australia continues to increase at a significant rate. This is a measure of the resilience and resourcefulness of South Australian farmers and is in some measure due to the activities of the Department of Agriculture. Diversification of production is a major feature of advisory programmes and this is clearly having some impact on production.

The increase in production has also been achieved in the face of a decline in the number of rural holdings and in the number of persons engaged in rural production. This is a desirable trend and is evidence of the increased productivity per unit of area and per man which are major objectives of this Department.

So far as exports are concerned the rural industries still account for over 50% of the State's exports. This is more than 2½ times that yet achieved by the combined manufacturing industries. As such the rural industries represent the major source of overseas earnings and will continue to do so for years to come. The future salvation of our export markets for rural products will depend on our capacity to continue to produce more economically than primary producing exporters in most other countries and this is of especial significance in the future development and supply of vast untapped markets in Asian countries which are likely to become available in the years ahead. The role of the Department of Agriculture in assisting South Australian agriculture to gear itself to these potential developments is paramount.

The methods adopted by the Department in discharging its responsibilities to the Government and to the industries it serves fall into four main categories.

1. Regulatory

The Department administers a wide variety of State and Commonwealth legislation aimed at protecting industries from the introduction and spread of exotic pests and diseases and at the control or eradication of diseases existing in this country.

One of the most desirable attributes of Australian agricultural products quoted by importing countries is relative freedom from disease risks. For this service alone the role of the Department is amply justified.

State legislation provides for the control of pests and diseases occurring within Australia and the list of achievements in this area in recent years is outstanding. To mention just a few of the more notable:-

Pleuropneumonia eradication - resulting in the unrestricted movement of cattle throughout Australia - a major boost to the cattle industry.

Fruit Fly control - maintaining the South Australian fruit industry free from this disastrous pest.

Tuberculosis and Brucellosis control - to qualify meat from South Australia for export to some of the main importing countries.

Footrot control - which virtually eliminated one of the worst scourges of the sheep industry from the State's sheep flock.

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, fertilisers 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 cooperation it receives from industry.

2. Research

The achievements of South Australia in agricultural research are legendary. In these the Department has been associated with the Waite Agricultural Research Institute and C.S.I.R.O. in many areas of basic and field research. In recent years the Department has been involved more in regional and applied research in an effort to get research findings adapted to local conditions and applied in practical agriculture.

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 over-all programme of departmental research is acknowledged by industry by way of significant financial contributions to their conduct in recent years.

The Department is now progressively establishing Regional Research Liaison Committees of industry and Departmental representatives to ensure that the programmes conducted on the centres are in line with immediate industry needs.

In addition the Department has well equipped and well staffed laboratories at Northfield and on some of the Research Centres engaged on research programmes of direct and practical value.

3. Extension (Advisory services)

Highest priority is now given to the development of extension services manned by well-informed and well-trained officers in close touch with industry problems. The extension process involves the changing of attitudes and performance of individual producers and of whole rural communities, and the extension techniques now used by the Department are geared to the complex sociological factors involved in this process.

The Commonwealth has made considerable funds available over the last few years to ensure that the extension services are adequately trained and serviced to meet the urgent and changing needs of industry. Emphasis has been placed on the regional aspects of research, and on farm management and economics. Recently encouragement has been given to an involvement in marketing.

This Department has not previously been directly associated with marketing as most industries are provided on a Commonwealth basis with Statutory Marketing Boards. These have been set up under Commonwealth legislation to regulate export activities. Examples are:-

- Australian Apple and Pear Board
- Australian Canned Fruits Board
- Australian Dairy Produce Board
- Australian Dried Fruits Control Board
- Australian Egg Board
- Australian Honey Board
- Australian Meat Board
- Australian Wheat Board
- Australian Wine Board
- Australian Wool Commission.

All of these Boards have a large measure of producer representation and are mostly concerned with export marketing.

In some cases complementary State legislation has been enacted to enable the federal boards to operate on an interstate basis, but in other cases special State boards have been formed.

- E.g.
- Australian Barley Board (South Australia and Victoria)
 - South Australian Dairy Produce Board
 - South Australian Potato Board
 - South Australian Dried Fruits Board
 - Citrus Organisation Committee of South Australia
 - South Australian Egg Board
 - Metropolitan and Export Abattoirs Board
 - Metropolitan Milk Board.

Some of these State Boards have individual officers of the Department on the membership and thus provide a link between the Department and marketing operations.

In addition the Department has established the Poultry Consultative Committee which provides close liaison between the Department and industry in matters of marketing eggs and chicken meat. Other similar committees are under consideration.

The Department has recently commenced the publication of "Rural Market Outlook" and it is planned to develop this embryo activity into a more important facet of Departmental advisory services. If it is the government's intention that this Department engage more deeply in market research in regard to agricultural products, this will require some adjustments of staffing.

The Department provides a number of routine services for industry, usually on a partly or wholly self-supporting basis, such as the following:-

Herd Recording
 Seed Testing and Certification
 Pure Seed Production
 Cheese Starter cultures
 Water Analysis
 Poultry laying test
 Identification of weeds, weed seeds, insect pests, and plant and animal diseases.

Preliminary plans have been formulated for a soil testing service and a fodder analysis service.

Integration of Activities

All the above functional activities of the Department (Regulatory, research, extension and other services) are inter-related and often used in conjunction. Research officers and Research Centres figure in extension programmes. Extension officers engage in research and demonstration activities on private properties. Where regulatory objectives can be achieved by extension methods (e.g. in Footrot eradication) these techniques are preferred.

A close liaison with industry has been established and this ensures that Departmental programmes (both research and extension) are closely tailored to industry needs and extension programmes find more ready acceptance by industry.

It is proposed in future to expand this industry-Department liaison wherever opportunity occurs.

In so doing the Department will be better able to advise the Government on industry matters.

STAFFING

At 30th June, 1971, the total number of persons employed in the Department was 726, of whom 581 were employed under State funds and 145 under the various trust funds.

Salaried Officers

Graduate - Adelaide	62	
Northfield	40	
Country	43	
		145
Diplomate - Adelaide	40	
Northfield	12	
Country	72	
		124
Technical - Adelaide	65	
Northfield	38	
Country	37	
		140
Clerical - Adelaide	111	
Northfield	4	
Country	20	
		135
		544

Salaried Officers

544

<u>Weekly Paid</u> - Research Centres	48
Horticulture	92
Others	42

182

Total (a reduction of 19 from 1970): 726

No. of vacancies at 30/6/71: 48 (not included above).

FINANCE

The Department of Agriculture derives its finance from several sources and these have varied considerably in recent years.

1. State Revenue

<u>Year ended</u> 30th June	<u>Total State</u> <u>Expenditure</u>	<u>Agriculture Dept.</u> <u>Expenditure</u>	<u>Percentage</u> <u>to Agriculture</u>
1955	\$108,236,242	\$1,061,324	0.98
1956	121,664,758	1,104,242	0.91
1957	131,619,492	1,387,154	1.05
1958	142,083,414	1,517,240	1.07
1959	147,413,560	1,512,308	1.03
1960	161,177,032	1,416,120	0.88

1965	224,802,834	1,901,302	0.85

1970	335,577,586	2,910,001	0.87
1971	386,837,586	3,478,402	0.90
*1972	449,218,000	3,661,597	0.81

(*Budget provision for 1971-72).

These figures are partly offset by a reimbursement from the Commonwealth for services rendered mainly in connection with animal and plant quarantine. In 1970-71 this amounted to \$193,143.

It will be seen from the above table that the relative allocation of State funds for Agriculture took a steep tumble in the year 1959-60. Since then the allocation has not recovered and suffered a further sharp fall during the current financial year.

Although direct comparisons cannot be made between States it is interesting to compare the trend in South Australia with those in other States as shown in the following table:-

Allocations to Departments of Agriculture (with percentage of State budget in brackets)

<u>Year</u>	<u>New South</u> <u>Wales</u>	<u>Victoria</u>	<u>Western</u> <u>Australia</u>	<u>Queensland</u>	<u>Tasmania</u>
1949-50	\$2.8m. (3.3%)	\$1.5m. (1.7%)	\$0.6m. (1.3%)	\$1.8m. (2.5%)	\$0.5m. (3.5%)
1954-55	6.0m. (3.4%)	3.0m. (1.7%)	1.4m. (1.5%)	3.7m. (2.5%)	1.1m. (3.7%)
1959-60	7.2m. (2.9%)	4.4m. (1.8%)	2.0m. (1.6%)	4.4m. (2.1%)	1.8m. (3.7%)
1964-65	10.5m. (2.7%)	6.3m. (1.8%)	3.6m. (2.0%)	5.2m. (1.9%)	2.4m. (3.2%)
1969-70	17.6m. (2.8%)	9.5m. (1.8%)	5.6m. (1.8%)	7.9m. (1.8%)	3.6m. (3.0%)

Aug. 1.9%

2. Commonwealth Extension Services Grant

Recognising the urgent need to improve the quality and extent of advisory services in order to assist agricultural industries to meet the rapidly changing economic circumstances, the Commonwealth Government in 1966-67 embarked on an expanded programme of financial support to the States for this purpose.

It proposed a progressively expanding financial support under the Commonwealth Extension Services Grant for the specific purpose of developing regional research facilities and expanding and improving extension services in State Departments.

A condition of this support was that States would continue to expand their services to agriculture at an equivalent rate and that the Commonwealth finance would not be used as a substitute for State funds.

Allocations to South Australia under this expanded programme have been:-

<u>Year</u>	<u>Allocation</u>
1966-67	\$205,000
1967-68	330,260
1968-69	401,370
1969-70	470,968
1970-71	558,766
1971-72	608,000

3. Industry Funds

In recent years most of the major primary industries have established research funds on a 50-50 basis with the Commonwealth Government for the purposes of promoting research in their respective fields by Departments of Agriculture and other research organisations.

This Department has benefited from these grants in 1970-71 to the following extent:-

Dairy Produce Research Fund	\$18,504
Wheat Industry Research Fund (State)	74,582
Wheat Industry Research Fund (Federal)	23,901
Wool Research Trust Fund	192,473
Australian Meat Research Fund	95,636
Barley Improvement Trust Fund	23,872
Pig Research Fund	14,033
Miscellaneous Horticulture Research Funds	30,600
Other miscellaneous Research Funds	4,334
Total	\$477,935

The total grants received by the Department from these combined sources over the last five years was:-

1966-67:	\$283,416
1967-68:	348,845
1968-69:	387,770
1969-70:	454,532
1970-71:	477,935

4. Other Commonwealth Funds

During the last three years the Commonwealth and States have embarked on a joint programme of Tuberculosis and Brucellosis eradication aimed at qualifying Australian meat for entry into certain advanced countries in future years.

The Commonwealth's contribution to South Australia under this heading has been:-

1969-70:	\$36,000
1970-71:	132,000
1971-72:	132,000

5. Reserve Bank of Australia

	<u>River Murray Aerial Surveys</u>	<u>Biological Control of red scale</u>
1969-70	\$33,700	--
1970-71	nil	14,400
1971-72	21,500	--

6. Cattle and Swine Compensation Funds

Cattle Fund: \$25,000 per annum (Tuberculosis testing)

Swine Fund for research: 1969-70: \$3,822.
1970-71: \$10,000.

In addition the Fund provided \$50,000 for the establishment of a Pig Research Unit at Northfield.

7. Distribution of Expenditure (1970-71)

Source	Extension	Research	Regulatory	Administration	Total
State Revenue	1,433,000	879,000	267,000	900,000	3,479,000
Trust Funds	425,400	696,970	335,590	-	1,457,960
Totals	1,858,400	1,575,970	602,590	900,000	4,936,960

CONCLUSION

The Department of Agriculture is primarily responsible for -

- (a) Advising the Government on all matters relating to developments and trends in the agricultural industries of South Australia as a basis for the determination of the Government's agricultural policies;
- (b) Administration of legislation pertaining to agriculture and the implementation of policies in relation to the provision of advisory, research and other services, as determined from time to time by the Government.

However, the economic adversity and problems of adjustment which at present beset the agricultural industries in this State have placed increased demands on the Department for the type of services it provides as outlined in this report. The importance of agricultural industries to the State's economy, especially in regard to export income and the potential for expanding markets in Asia, emphasises the need to maintain and extend these services in the future. This will entail major adjustments in the department's priorities to meet the changing agricultural requirements.

Areas in which expanded services will be needed include -

1. Quarantine control

The increase in the volume and speed of movement of people and goods from interstate and overseas has increased the threat of introduction of a wide variety of diseases and pests. Apart from the direct economic losses to industry which would arise from any introduction, there is a greater risk in the form of loss of potential for export. More adequate departmental services are needed to safeguard the States' resources in this respect.

2. Quality control

More effective inspection and advisory services are needed to ensure that primary products measure up to the more critical market standards, at home and overseas. This is especially so in relation to horticultural cereal, dairy and meat products where freedom from blemish, pests and

chemical and bacteriological defects have become critical.

Furthermore, cereal production must be geared to the various market opportunities in respect of protein content and other special qualities. Meat and dairy produce must conform to high standards of composition and quality.

3. Alternative Crops

Technical advice on production of coarse grains, oil seeds and pasture species is needed in areas previously committed to "conventional" cropping. Advantage must be taken of the local potential to produce crops and meat at low cost to compete on world markets.

4. Marketing and Handling

Outmoded methods of handling, marketing and processing produce and livestock need to be revised and reorganised with a view to reducing the considerable economic wastage now being incurred. Market research and the provision of marketing information are an essential feature of future departmental services.

5. Group services

Syndicate purchase and operation of machinery and other services need to be explored and organised on an industry basis. This will provide for pooled resources and greater economy of operation.

To undertake such services, in addition to maintaining a necessary activity in applied research and technical advice the department needs to reorganise its present structure and provide specialised training facilities.

Some relocation of present resources will be possible; but additional provision will be necessary to maintain the agricultural industries in a state of healthy development and ensure a satisfactory level of export income.

Closer liaison with industry will be necessary - and this is now being successfully promoted - and a greater degree of regionalisation of services must be achieved.

Internal restructuring of the department will be necessary to provide for a Technical Services (Agricultural Standards) Branch to control routine inspection services and standards.

For agriculture to play its full role in supporting an adequate level of industrial development it will be necessary in the future for Governments to define policies and for the Department to provide leadership in agriculture.

The present resources of the Department of Agriculture are inadequate to meet these increasing commitments. The level of financial support given to agriculture in this State compares unfavourably with that in other States.

The future well-being and economic stability of Agricultural industries depend on the adoption of methods and techniques of production, management and marketing which will ensure maximum efficiency and the preservation of our natural resources. The wide range of environmental conditions and types of production covered by some 29,000 individual farmers present special social and complex technical problems for the State Government.

To achieve the most effective utilisation of these resources and preserve the environment, it is necessary to provide scientific and administration services on a broad front. These services are at present provided by the Department of Agriculture and it is anticipated that the future needs will be more complex and demanding of Government support along the lines projected in this report.

DIRECTOR OF AGRICULTURE

ASSISTANT DIRECTOR OF AGRICULTURE
(Research and Extension)

Research Centres Branch | Extension Services Branch | Northfield Lab. Equipment, etc.

(Research Advisory Committee)

(Extension Advisory Committee)

Res. Programmes | Extension Programmes

Research Extension Liaison (Intra Department) (Inter-Organisation)

ASSISTANT DIRECTOR OF AGRICULTURE
(Technical and Industry)

Animal Health | Livestock | Dairy | Agronomy | Soils | Horticulture

Coordination of Branch activities
Regulatory services
Review of Legislation
Technical services
Industry programmes
Industry surveys
Industry committees
Regional Extension organisation
Implementation of Policies
Staffing

ASSISTANT DIRECTOR OF
(Administration and

Secretary | Clerical | Accounts
Correspondence
Accommodation
Transport
Stores
Housing
Leave

Industry Research Funds - C.E.S.G.
Computer services (technical)