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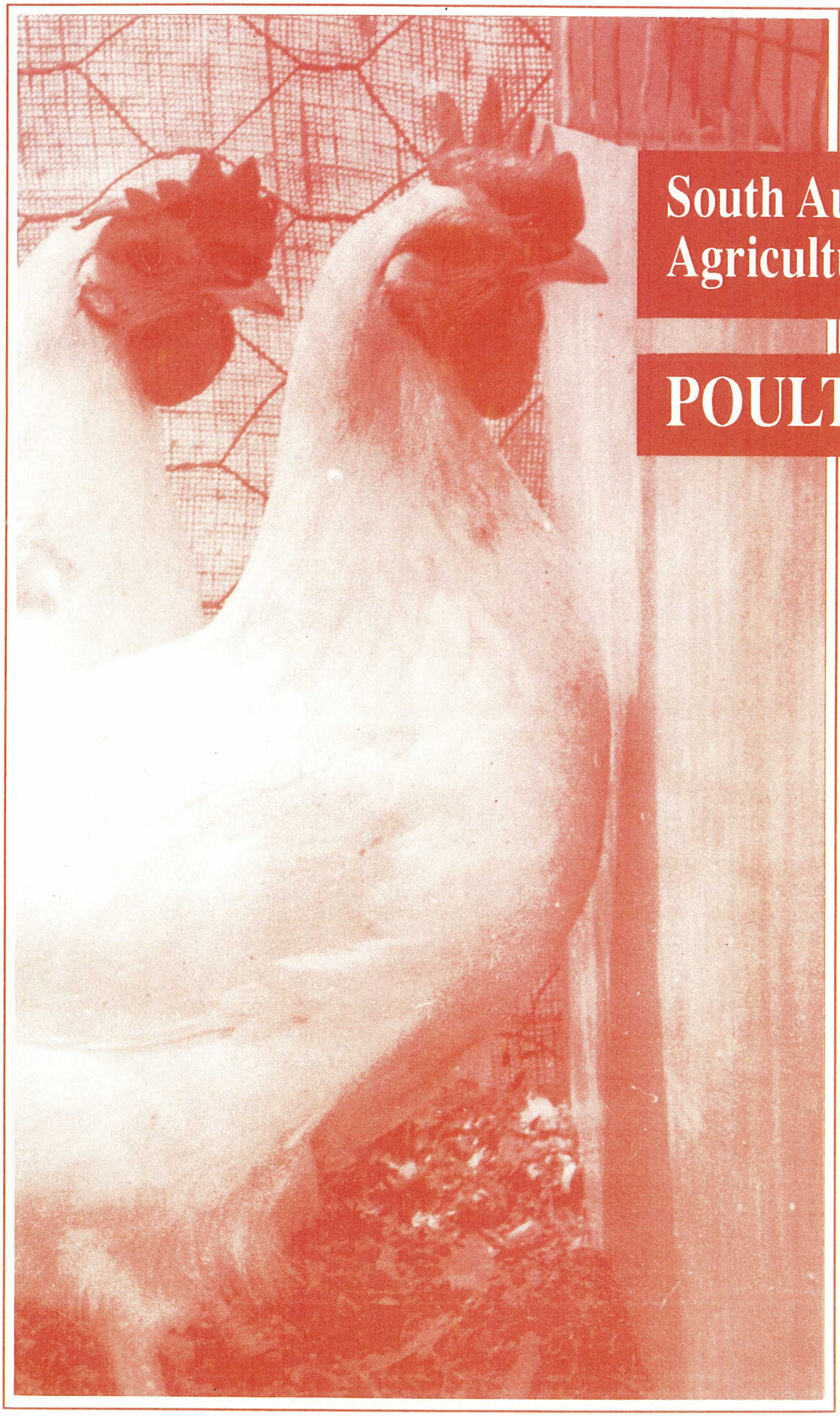

South Australian Agriculture

POULTRY

DEPARTMENT OF AGRICULTURE
SOUTH AUSTRALIA

January, 1992

SOUTH AUSTRALIAN
DEPARTMENT OF AGRICULTURE

COMMODITY PROGRAMME PLANNING

POULTRY COMMODITY PLAN

FOREWORD

This strategic plan is one of a series which has been developed for the principal South Australian agricultural industries and the services provided by the Department of Agriculture.

Agriculture contributes a greater proportion of returns to the State's economy than that of virtually any other state in Australia. It is therefore important to review the potential for the further development of agriculture in South Australia. These plans have been prepared by the staff of the Department of Agriculture in association with representatives of the respective agricultural industries and farmer organisations. The aim has been to identify the production potential and the market potential for the respective commodities and to thereby evaluate the opportunity which the state has to further develop its agricultural industries. At the same time, consideration has been given to identifying the most important issues to be addressed in the coming years to enable the state to achieve its maximum economic potential from agriculture. These plans will be valuable for determining the future provision of services to the rural community.

I should like to acknowledge the hard work and creative thought which both departmental staff and participants from industry and the farming community have put into the preparation of these plans.

John C. Radcliffe

(John C Radcliffe)
DIRECTOR-GENERAL OF AGRICULTURE

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A. POULTRY INDUSTRY SUMMARY

INTRODUCTION

The poultry industry in South Australia comprises four fairly distinct sectors, these being chicken meat, chicken eggs, species other than chickens and domestic poultry.

Meat

The national and South Australian industry is dominated by Ingham Enterprises Pty. Ltd. and Australian Poultry Ltd., both large vertically integrated groups.

South Australia produced 26 million chickens in 1989 representing approximately 33 kilotons of meat with a gross value of $56 million. The major processing companies account for 93% of this production.

There are 70 contract growers within a 100 kilometre radius of Adelaide and the industry directly employs about 1600 people.

Australian consumption of chicken meat in 1988/89 was 25.0 kg/person and consumption is forecast to reach 28.6 kg/person in 1992.

Eggs

Commercial egg production in South Australia is 13-14 million dozen a year with a gross value of approximately $23 million.

The majority of egg producers are concentrated within a 100 kilometre radius of Adelaide, other producers being located in the mid-North, Mallee and South East.

The egg industry was deregulated in 1992 with about 70% of the producers joining a producer cooperative set up to market eggs. Some of the State's largest producers did not join the cooperative and of those who did, some will also continue to sell eggs in competition with the cooperative. Deregulation also removes barriers to the entry of eggs from other states.

Other Avian Species

The annual production of other avian species is limited to about 120 000 turkeys, 85 000 quail and lesser numbers of squabs, pheasants, ducks, and geese. The gross value of the industry is probably less than $2.5 million.

Domestic Poultry

It is estimated about one quarter of the State's egg production is from domestic flocks and many domestic poultry keepers seek information. Poultry officers deal with over 1 000 enquires each year.

BARRIERS

Disease constitutes a continuing threat to the industries. Current disease control measures are effective but constant vigilance is necessary to ensure effective disease control.

Uncertainty associated with the deregulation of the egg industry has reduced the incentive for producers to invest in the industry. The industry will undergo considerable restructuring and some producers will experience hardship. In order to survive, South Australian producers will have to adopt a rigorous approach to husbandry, housing, economic planning and marketing.

Animal welfare is an issue and particularly so for the egg industry as the debate about the future of laying cages is adding to producers' uncertainty.

DEPARTMENTAL PROGRAMMES

Poultry officers provide advice and information on a range of poultry matters to existing and prospective poultry producers, financial and educational institutions, other government departments and the general public. Major areas of activity are:

Disease control - provision of disease investigation, diagnosis and advisory services, administer disease regulations, monitor outbreaks and maintain Department and industry awareness of exotic poultry diseases.

Shell quality - research to reduce the incidence of shell quality damage on farms and in the marketplace. Projects are supported by industry trust funds and are carried out in collaboration with scientists at the Institute of Medical and Veterinary Science (IMVS).

Welfare - research to improve the welfare of laying hens involving the investigation of beak trimming and modifications to laying cages. Current projects supported by industry trust funds are carried out in collaboration with scientists in the Queensland Department of Primary Industry (DPI). Proposed projects to investigate laying cage design are being developed in collaboration with Queensland DPI and Victorian Department of Agriculture. Advice and information is provided to Animal Welfare Advisory Committee (AWAC), Animal Health Committee (AHC) and Animal Production Committee (APC).

Policy - monitor and report on industry matters, prepare Green Papers on chicken meat and egg legislation.

Egg industry restructuring - preparation of software to analyse egg farm economic and physical performance and to assist egg producers with decision making. Provide advice and information to the SA Egg Cooperative and United Farmers & Stockowners (UF&S).

Poultry nutrition - research and extension to improve food utilisation, assess the nutritional value of new ingredients, reduce wastage and improve performance.

Poultry meat hygiene - inspection of processing plants to ensure that structure and operations meet prescribed standards (these functions are performed by the Animal Health Branch - Meat Hygiene Section).

B. POULTRY INDUSTRY STATEMENT

INTRODUCTION

The poultry industry in South Australia comprises four fairly distinct sectors, these being chicken meat, chicken eggs, species other than chickens and domestic poultry.

The meat and egg sectors are the most important commercially. Production of other avian species is limited although some like turkeys, ducks and quail may offer commercial opportunities while domestic poultry keepers can be influential through the egg production of their 'backyard' flocks.

The majority of chickens and turkeys used commercially in South Australia are derived from genetic flocks in neighbouring states. Imloson Pty. Ltd. produce both meat and layer strain chickens and is the only commercial company with genetic breeding stock situated in South Australia.

1. MEAT

1.1. Status Report

1.1.1. Industry Characteristics

The national and South Australian industry is dominated by Ingham Enterprises Pty. Ltd. and Australian Poultry Ltd., both large vertically integrated groups with headquarters in NSW.

In South Australia chicken rearing is generally contracted out to private growers although Ingham has three company owned facilities. There are about 80 contract growers. The contract sets the standards expected from the grower, the price to the grower and services provided by the company. Profit margins per bird are low and the return comes from large volume and efficient production. Feed is the largest input cost but energy costs for heating and ventilation are also important.

1.1.2. Production

Australia produced 293 million meat chickens in 1992 of which 26 million were produced in South Australia representing approximately 33 kilotonnes of meat with a gross value of nearly $60 million. Two major processing companies account for 93% of this.

1.1.3. Regional Location

There are 70 contract growers within a 100 kilometre radius of Adelaide and the industry directly employs about 1600 people.

1.1.4. Marketing

Chicken meat is sold fresh or frozen either as whole carcasses or portions through supermarkets, small retail and take-away outlets with sales being about equal in each sector.

The SA industry is geared for local production although there is some interstate trading in chicken meat.

1.1.5. Regulation

Acts administered by the Department of Agriculture.

The Poultry Meat Industry Act provides for the establishment of the Poultry Meat Industry Committee (PMIC) which is empowered to control the number of production units, approve growing contracts, assist with the resolution of disputes in the industry and to advise the Minister of Agriculture on matters affecting the chicken meat industry.

The Stock Act provides means to control movement of chickens in relation to Pullorum disease, tuberculosis and Infectious Laryngotracheitis. Powers are also given to nominate specific endemic and exotic diseases for control.

The Poultry Meat Hygiene Act, administered by the Department of Agriculture, regulates the hygiene and building standards under which processing must take place.

Acts administered by other Departments.

The Cruelty to Animals Act, administered from the Department of Lands, includes the Australian Model Code of Practice for the Welfare of Animals 2: The Domestic Fowl in its regulations.

The Food and Drugs Act administered by the Health Commission and Acts involving packaging and trading practices administered by Consumer Affairs.

1.2. Potential

Australian consumption of chicken meat in 1988/89 was 25.0 kg/person and consumption is forecast to reach 28.6 kg/person in 1992. Some chicken is exported from Australia to the Pacific region but most countries are attempting to develop their own industries. There is hence little likelihood of export opportunities for chicken meat, so expansion in the industry will be limited to domestic demand. Sufficient shed capacity already exists in the industry to meet this. Value added product is being produced and is finding market acceptance. This is part of the increase in consumption forecast.

1.3. Barriers to Achievement of Potential

The South Australian chicken meat industry is principally controlled from NSW by the two large national companies and any decision involving production or marketing will be made there and not in South Australia. South Australia does however have a favourable climate for poultry production and one company examined this with the intention of shipping product to the eastern states markets but transport costs outweighed the advantage.

If demand for chicken meat increases, producers' margins may not increase accordingly unless efficiency is improved. Energy (a major input) is increasing in cost and any dramatic increase may limit profitability and further investment within the industry.

Disease constantly threatens the industry's productivity. Vaccines have aided in disease control but new diseases constantly occur and continuous research is needed to keep abreast of these and changes in the old ones if the industry is to keep its efficiency.
More efficient shedding and management of these also needs continuing investigation.

Community attitudes to bird welfare have as yet not been directed toward the chicken meat industry and it is unlikely this will change in the short term. Bird slaughter and transport is now raising attention.

Processing plants use copious quantities of water, most of which is used once and discarded. Environmental awareness may mean having to install treatment plants and recycling systems, thus adding to costs in the short term. Similar problems may arise with manure and other wastes disposal.

Competition from other meats (lamb and beef), while having some effect now, may be very important if there is a restriction of their export markets leading to more being placed on the local market at a lower price.

2. EGGS

2.1. Status Report

2.1.1. Industry Characteristics

Egg production units are run by individual farmers of whom about 70% are members of the S.A. Egg Cooperative. The cooperative will set production requirements for its members.

The egg industry had been regulated for 50 years and during that time producers experienced guaranteed markets and administratively set prices. Between 1973 and 1992, the major industry investments were into hen quotas rather than replacing old, inefficient and labour intensive equipment. This resulted in many producers being poorly placed to improve productivity if required to meet the challenge of potentially cheaper eggs from deregulated local and interstate industries.

2.1.2. Production

Commercial egg production in South Australia is 13.2 million dozen a year with a gross value of approximately $23 million.

2.1.3. Regional Location

The majority of egg producers are concentrated within a 100 kilometre radius of Adelaide, other producers are located in the mid-North, Mallee and South East.

2.1.4. Marketing

The S.A. Egg Cooperative sets production quotas for its members based on its sales but member and non-member producers are free to sell to whoever they can within the market place.

2.1.5. Regulation

The Stock Diseases Act provides means to control movement of chickens in relation to Pullorum disease, tuberculosis and Infectious Laryngotracheitis. Powers are also given to nominate specific endemic and exotic diseases for control.

Acts administered by other Departments.

The Cruelty to Animals Act, administered from the Department of Lands, includes the Australian Model Code of Practice for the Welfare of Animals 2: The Domestic Fowl in its regulations.

The Food and Drugs Act administered by the Health Commission and Acts involving packaging and trading practices administered by Consumer Affairs

2.2. Potential

For some years per capita consumption of eggs and egg products has been in decline although it is difficult to be definite about the trend due to the unknown numbers of eggs produced by backyard flocks.

Indications are egg sales in South Australia will probably not rise during 1991/92. There is practically no export market available for shell egg and while excess production which is normally pulped may have such a market, it typically sells at less than production cost.

Greatest potential within the industry lies in consolidation of production into more efficient units using modern equipment and sound business, management and husbandry practices. Increased output may allow the possibility of direct marketing to large consumers like supermarkets i.e. shortening the market chain.

"Organic" food and the welfare debate about cages may open avenues for deep litter or free range egg sales as additional niche markets. There are few value added egg products available and while an opportunity may exist for development of such products, those presently available are not significant in overall sales of egg.

It has been assessed that at least 5-10% of all eggs produced never reach the consumer because of breakage due to poor shell quality. If this loss was reduced, productivity would be increased with resultant savings to consumer and producer.

Depending on the results of research being undertaken within the Department, it may be possible to develop pharmaceuticals derived from eggs.

2.3. Barriers to Achievement of Potential

Disease problems on larger farms will play a more significant factor in maintenance of production. Present control measures are not always adequate and difficulties often increase with size.

Deregulation of the industry will produce economic problems for many producers, in particular those who have spent money on quota or recent upgrading of their plant. Some of these will be producers who would have the size and expertise to cope with a new style industry and whose demise may restrict the potential of the industry.

The range of feed ingredients readily available to on-farm feed mixers in the South Australian industry is limited. Alternative protein sources would enable producers to reduce meat meal usage, hence overcoming the potential nutritional imbalance and occasional bacteriological contamination problems associated with it.

Manure and other waste disposal could have an impact similar to that on the chicken meat industry. A major uncertainty is the animal welfare debate on cages. There is unlikely to be any major investment in new cages while there exists any threat of bans on their use or compulsory changes in the design of the present styles of caging.

Average producer age is increasing with the few young people coming into the industry generally taking over a family farm. This has a tendency to perpetuate present management styles rather than lead to innovative approaches. The industry's present structure also inhibits development of new initiatives.

3. OTHER AVIAN SPECIES

3.1. Status Report

3.1.1. Industry Characteristics

The turkey industry is dominated by one well established producer who produces over 80% of the State's turkeys.

The production of other species is characterised by enthusiasts who start an enterprise and then leave the industry after a relatively short period. Producers of pheasant, quail or squab generally undertake their own breeding programmes.

3.1.2. Production

The annual production of other avian species is limited to about 120 000 turkeys, 85 000 quail and lesser numbers of squab, pheasant, duck and goose. The gross value of the industry is probably less than $2.5 million.

3.1.3. Regional Location

The producers of the other avian species are concentrated around Adelaide.

3.1.4. Marketing

Marketing is done by the producer either direct selling to the product user or through a wholesaler. Demand for turkey is from catering organisations with an increasing throughput to supermarkets and specialty shops while the other species tend to be specialty shop or restaurant sales.

3.1.5. Regulation

National Parks and Wildlife Act, administered by the Department of Environment and Planning, would affect any enterprise set up to exploit native species e.g. emu.

The Stock Diseases Act provides means to control movement of birds in relation to Pullorum disease, tuberculosis and Infectious Laryngotracheitis. Powers are also given to nominate specific endemic and exotic diseases for control.

The Poultry Meat Hygiene Act, administered by the Department of Agriculture, regulates the hygiene and building standards under which processing must take place.

3.2. Potential

The market potential for species other than turkeys in unknown as their has never been an established market of any size in these species. Day-old turkeys are available from NSW while most of the other species have restricted availability as rearing stock. Some of the species also have limited availability of breeding stock.

Turkey meat has low fat and also has potential for a range of value added products. The former has potential in an increasing health conscious community and the latter will assist production by levelling demand out and away from the traditional seasonal peaks seen with turkey consumption.

Emu and ostrich production are other markets at present attracting interest. Meat, skins, oil and tourist souvenirs are the main items which investigations have indicated as marketable.

3.3. Barriers to Achievement of Potential

Literature and practical experience is scarce with regard to these species. Most of those who have entered the industry learn as they go and because they are usually working with extremely limited capital, husbandry tends to be unsatisfactory in relation to disease control, breeding and housing.

Legislation relating to emus restricts commercial development in SA. Amendments to the legislation are being considered but as yet there is a paucity of information on likely markets for the products.

Small capital and labour bases possessed by many of the entrants into these alternative poultry enterprises means there is usually little opportunity to run the production unit and do market research.

4. DOMESTIC POULTRY

It is estimated about one quarter of the State's egg production is from domestic flocks, a bird population of perhaps 200 000 or more, and many domestic poultry keepers seek information from the Department. Poultry officers handle 3-5 telephone queries a day from this group, comprising conversations of varying length and complexity, similarly with people who call at the office. Poultry officers also develop simple leaflets which can be used to assist such enquirers.

Service in this area is considered part of the Government's social justice programme but the general position adopted toward this group is reactive rather than proactive. It is considered important though to maintain some contact with this group and bird fanciers in general as it may provide an early warning in the event of an exotic disease.

5. RESOURCES 1991/2

All poultry extension, advisory, regulatory and research services are based at Parafield, with the exception of one research scientist (Trust funded) based at the Waite Agricultural Research Institute and the Meat Hygiene staff based in 25 Grenfell St.

		EXPENDITURE ($,000)					INCOME ($,000)	
		SALARY/WAGE		OPERATING		TOTAL		
PROGRAMME	FTE	STATE	OTHER	STATE	OTHER		STATE	OTHER
Research	14.1	275	77	73	126	551	348	233
Advisory	1.8	65		7		72	72	1
Regulatory	.2	7		1		8	8	
Administration	1	52		12		64	64	
Meat hygiene	1	44		10		54	54	5
	18.1	443	77	103	126	749	546	239

(Salary, operating and income estimates include funds requested in Trust fund applications)

The 16.1 personnel based at Parafield are 1 Principal Officer, 1 Veterinary Officer, 2 Research Officers, 1 Farm Manager, 2.8 Operational Service Officers, 1 Field Assistant, 4 General Hands, 1 CO-1 Clerk and 2.3 Casuals.

C. STRATEGIC PLAN

The South Australian Department of Agriculture's Poultry Group interacts with the Poultry Industry and associated enterprises in a number of ways. At the state level, contact occurs when individuals or companies seek support or guidance on a range of matters or as departmental officers undertake regulatory work as required by the Acts under which they operate. Research, while perhaps not as obvious in its industry contact, is still guided by industry through the research advisory bodies with projects aimed at expanding scientific knowledge and investigating industry problems which may exist on a state or national basis.

6. HEALTH.

General: Provide the Poultry Industry with an integrated poultry health advisory and extension service through:

6.1. Disease investigation

Aim. To provide a disease investigation, diagnosis and advisory service to the poultry industry on endemic and exotic diseases and a specialist advisory service to major companies as an adjunct to their own services. Maintain a complete record of all disease incidences.

Method. Be on call for commercial producers to contact and discuss disease problems. Where necessary, visit properties, examine birds, recommend treatments or management procedures and if appropriate, submit specimens to the Central Veterinary Laboratory. Advise the owner of test results. Advise the Chief Inspector of Stock on appropriate action in exotic disease outbreaks. All data will be entered into a computerised record keeping system.

Outcome. The general productivity of the SA flock will not be limited by lack of access to a disease investigation, diagnosis or treatment service and an exotic disease occurrence will be recognised early.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor

Restraint. Requests need to be responded to as they occur and given priority over other work, work not plannable.

Action. Keep stocks of diagnostic and sampling equipment ready for immediate response. Keep up to date lists of personnel who may need to be contacted in exotic disease outbreaks etc.

6.2. Disease control

Aim. To provide an advisory service on preventative medicine to all sectors of the poultry industry and maintain Departmental and industry awareness of exotic poultry diseases.

Method. Information transfer will occur via newsletters, farm visits, seminars and other methods as deemed appropriate. Expertise will be maintained by reading current literature, attendance at conferences and personal links with individuals undertaking research investigations on these topics.

Outcome. Producer knowledge will be enhanced and they will be aware of the health factors which may limit achieving the full production potential of their flocks. Information from conferences and literature will assist in preparation of newsletters, seminars and training programmes.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor

Restraint. Time available to collate data and prepare written information. Plannable within these constraints.

Action. Collate information for retrieval, produce a newsletter at least twice a year, periodically place brief information papers in with Egg Board mailouts and prepare presentations for industry and Departmental seminars and conferences.

6.3. Regulatory

Aim. To undertake the appropriate activities specified in the Acts to safeguard the health of the SA flock.

Method. Attend poultry markets, investigate reported notifiable diseases, impose quarantines, administer the Pullorum eradication programme, maintain the interstate movement records, certify Marek's disease vaccinators and other duties which may arise at various times.

Outcome. Interstate bird movements will be known, disease control will be maintained and the general health of the SA flock protected.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor

Restraint. Some functions are compulsory and must be responded to at the expense of other duties at the time, generally plannable after breaches detected.

Action. Plan attendances at markets and write advisory notes for market attendees. Within two years have checked on the continuing compliance of Certified Marek's Vaccinators. Ensure the latest interstate movement requirements are known and complied with.

7. PRODUCTION AND MANAGEMENT

General: Undertake field and research activities into various aspects of poultry production and management and integrate this knowledge through:

7.1. Advisory

Aim. To promote optimum use of feed ingredients through provision an advisory, formulation and analysis service in the area of poultry nutrition.

Method. Through the use of computerised ration formulation systems, supply advice through personal contact either on farm, via phone or mail as to feed ingredient mixing and least cost feed formulation. In conjunction with the State Chemistry Laboratory, have feed or grain analysed to assure feed mixed is based on known ingredient nutrient levels. Collaborate with private companies who offer similar services.

Outcome. On farm feed mixing will be based on economic and scientific principles and with utilisation of a greater variety of feed ingredients. The service available to producers will be comprehensive and satisfy their needs. Feed costs should be reduced and performance improved.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor
Principal Officer (Poultry)

Restraint. Service supplied on demand, hence generally unplannable. Some activities are included in training programmes. Present resources would be stretched to do the latter along with other programmes.

Action. Prepare a presentation designed for small groups of producers so they may gain an appreciation of the principles of feed formulation and give them experience in using computerised least cost feed programmes. Present this to three groups a year. Keep abreast of current knowledge, through the literature and by developing contacts with workers in this field.

7.2. Feeding efficiency and performance.

Aim. Define the physical and chemical attributes of feed stuffs and commercial rations which affect feed efficiency and performance.

Method. Conduct research at Parafield Poultry Research Centre and CSIRO, Division of Human Nutrition.

Outcome. There will be a better understanding of feed-bird interaction and how manipulation of ingredient level or type changes production parameters. Feeds can then be consistently prepared to achieve specified performance goals.

Resource. Research Officer - Parafield
Senior Research Scientist - CSIRO
Research Fellow - CSIRO
Technical Assistants
Farm Staff
Extension staff as required

Restraint. Technical support will be shared with other projects and this may limit the intensity and breadth of enquiry.

Action. Investigate food particle size, feeding ability of beak trimmed birds, the choice effect of ingredient mix in mash feeds and the relationship of dietary fibre to the metabolisable energy of feed ingredients. Broadcast these findings.

7.3. Feed ingredients.

Aim. To extend the possible range of feed ingredients usable by the poultry industry.

Method. Develop feeding trials using new grains and compare them to established feed ingredients.

Outcome. Some locally grown feed sources currently not used will have their value assessed, giving producers information on inclusion rates and the advantages and disadvantages of these ingredients.

Resource. Research Officer
Technical Assistants
Farm Staff
Extension staff as required

Restraint. Technical support will be shared with other projects and this may limit the intensity and breadth of enquiry.

Action. Investigate alternative feed ingredients and develop recommendations for their inclusion rates, energy value and feeding strategy. Broadcast the findings.

7.4. Housing

Aim. To provide advice on all aspects of housing.

Method. Maintain a knowledge of the latest local and overseas trends in housing design, management and equipment. By using data logger systems, analyse shed performance and provide advice on the information gathered. Develop training programmes, in conjunction with industry, which will be pertinent to industry and of use to new entrants into the industry. Where possible, maintain cost estimates for different materials and running costs.

Outcome. New shedding will be constructed in line with current scientific principles relating to ventilation, welfare and equipment. Old shedding will be modified or managed differently to improve bird welfare and performance. There will be reduced feed consumption and improved health and production.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor

Restraint. Present staff are not fully proficient in all aspects of this area and would require specialist assistance or further training and experience to conduct a major housing programme.

Action. Contact local and overseas suppliers of materials needed to construct and equip poultry sheds. Document costs, availability etc. Develop a presentation aimed at new entrants into the industry to raise their skills and awareness as to the requirements of birds as well as the Acts and Regulations they may have to abide by.

7.5. Economics

Aim. To provide systems which will assist poultry producers implement farm economic planning and flock record keeping.

Method. Provide producers with computerised flock recording schemes and farm economic analysis programmes and in conjunction with Economics Branch, provide information on off-farm investment opportunities.

Outcome. Producers will keep more useful records of production. Improved economic decision making will allow more effective planning of future economic activities and retirement.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor
Economics Section Staff
Commercial companies

Restraint. Plannable in relation to information exchange programmes but not individual queries. Will need co-ordination with Economics Branch as poultry staff have limited expertise in total farm economics.

Action. Seek out various flock recording and expert system computer programmes, make critical comparisons and disseminate this through arranged producer group meetings and seminars. Demonstrate the advantages pursuant to proper record keeping.

7.6. Research extension

Aim. To transfer research findings from local, national and overseas work to the local poultry industry.

Method. Liaise in the development and conduct of research at Parafield Poultry Research Centre and through reading of scientific journals, attendance at scientific conferences and industry seminars, act as a resource to local producers as well as transferring information to them via the standard communication methods.

Outcome. Those associated with the poultry industry will be aware of the latest research findings, where industry funding is being directed and be able to provide ideas as to future directions for research. Improved industry awareness will quicken the conversion of new information into commercial practice.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor
Research Officers (Poultry)

Restraint. Dependent on time availability for liaison between research and other staff and possibility of fitting information into training programmes.

Action. Undertake regular briefing sessions with research staff, prepare their results for publication in newsletters and take part, if appropriate, in some of the work. Assist with Trust Fund submissions as to the manner in which the results will be transmitted to industry.

7.7. Egg shell quality

Aim. To examine the dietary and biochemical interactions within the bird and their relationship to egg shell formation and quality.

Method. Undertake specific research projects at Parafield and in collaboration with workers at other centres.

Outcome. An increased knowledge of the possible ameliorating effects of altered dietary electrolytes, how diet might be manipulated to meet each birds specific calcium needs and increased understanding of the enzyme and hormonal controls of uterine function.

Resources. Senior Research Officer - Parafield
Research Officer - Waite
Principal Scientist - IMVS
Technical Assistants
Farm Staff

Restraint. Technical support will be shared with other projects and this may limit the intensity and breadth of enquiry.

Action. Publish results and participate in extension programmes.

7.8. Extension workshops

Aim. To upgrade the knowledge and skills of personnel involved in all aspects of egg handling.

Method. Invite a recognised overseas expert to come and participate in a series of extension exercises in the major egg producing areas of Australia, with funding support from industry and trust funds.

Outcome. Increased industry awareness of what constitutes a high quality egg and the factors contributing to poor quality eggs.

Resources. Overseas guest
Australian participants

Restraint. Funding and availability of appropriate personnel.

Action. Contact interested groups and people, prepare an application for trust funds.

8. POULTRY WELFARE

General: Undertake research, collate this and public opinion to assist in policy and production systems through:

8.1. Research

Aim. To improve the welfare of poultry subjected to various management practices and housing.

Method. Conduct welfare research at Parafield Poultry Research Centre and work collaboratively with colleagues interstate on combined projects. Keep industry and research bodies informed of findings.

Outcome. Knowledge as to the welfare requirements of poultry will increase. Bird housing, management practices and welfare codes will have scientific data upon which to be based.

Resource. Research Officer
Technical Assistants
Farm Staff
Extension staff as required

Restraint. Technical support will be shared with other projects and this may limit the intensity and breadth of enquiry.

Action. Develop projects to investigate the best age and method of beak trimming, suitable analgesia for beak trimming and possible dietary supplements capable of reducing aggressive behaviour, cage modifications and optimum temperature of drinking water. Continually review published research work in poultry welfare.

8.2. Extension

Aim. To increase producer awareness of the state of the welfare debate and to encourage them to comply with the current Code of Practice for Poultry.

Method. Provide advice to Animal Welfare committees, take an active part in development of Codes and inform producers about the current state of the welfare debate.

Outcome. Codes will be based on sensible and practical husbandry considerations and producers will be aware of the Code's implications and sensitive to its requirements. Producers will adopt husbandry methods based on welfare considerations of their stock.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor
Research Officers
Principal Officer (Poultry)

Restraint. Priority depends on the issue at stake. Code development is a primary response but can be planned. If an enforcement policy was adopted, time restraints will be imposed on this or other activities.

Action. The group will meet regularly to update one another on welfare research, policy, Codes and activity and attitudes of welfarists.

9. ADMINISTRATION

General: Provide administrative services to government and producers and ensure the maintenance at greatest efficiency of all poultry services through:

9.1. Ministerial support and policy development

Aim. Provide advice to the Minister and senior management on the Poultry Industry. Contribute to industry, State and Federal government policy on issues affecting the Poultry Industry.

Method. Through liaison with respective components of industry, maintain an awareness of issues and thinking on pertinent matters. Keep the Minister and senior management informed of industry developments and contribute to the development of policy.

Outcome. The Minister and senior management will have the information necessary to develop policy and to deal with industry issues. Structural changes in the industry will occur smoothly and markets will be supplied with value for price products.

Resource. Principal Officer (Poultry)
Veterinary Officer (Poultry)
Poultry Health Advisor
Research Officers (Poultry)

Restraint. Many enquiries needing a quick response, arrive with no notice and cannot be planned for, whereas Green papers etc. can be planned but are inhibited or delayed by the work entailed in dealing with the enquiries.

Action. Continue industry and departmental consultative processes. Keep an awareness of current trends interstate and overseas.

9.2. Industry Support

Aim. Assist industry in its development of new initiatives, in its relationship with Government and the State Department and in its competitiveness with other industries.

Method. Be a participatory member of relevant industry committees and interdepartmental liaison groups, locally and interstate.

Outcome. The enhancement of communication between the Department and industry plus assistance to industry in the correct channels along which to proceed when it has matters to place before Government.

Resource. Principal Officer (Poultry)
Veterinary Officer (Poultry)
Poultry Health Advisor
Research staff

Restraint. Response is usually plannable to fit with other duties but severely reduces resource availability for other programmes.

Action. Respond to enquiries as they occur.

9.3. Expert systems

Aim. To develop computer based aids to some diagnostic problems.

Method. Gather information relating to the topic and by using commercially available data base programmes, arrange the information in a way which will aid poultry officers in solving specific problems.

Outcome. Information on a range of subjects will be more easily and quickly retrievable by officers, providing better diagnosis and enhancing training programme development.

Resource. Veterinary Officer (Poultry)
Poultry Health Advisor

Restraint. Plannable but limited by staff and time availability.

Action. Within 2 years have prepared database files to allow the collection and later retrieval of required data.

9.4. Income generation planning

Aim. To review income generating activities for Parafield.

Method. Examine the opportunities which might be used to generate new directions and extra income. Develop these to a stage presentable to Departmental management.

Outcome. Services provided by the poultry group will draw less on State funding and Parafield facilities will be more fully utilised.

Resource. All staff

Restraint. Limitations of Parafield facilities, scarcity of income earning possibilities.

Action. Within one year, identify and consult with potential clients regarding use of Parafield's resources.

9.5. Staff Training

Aim. To ensure staff maintain and improve their intellectual and practical skills at the levels necessary to perform their jobs effectively.

Method. Attend conferences, seminars, "in house" courses, undertake study tours and higher education courses and other activities as deemed necessary at the time.

Outcome. Staff will be able to embark upon new projects with a minimum of delay, performance will be enhanced, advisory workers will be at the forefront of knowledge and technical staff will be fully conversant with the latest equipment.

Resources. All staff.

Restraint. Funding and time availability.

Action. Training undertaken will be continuing and while at a minimum complying with the Federal Government 1% levy specification for staff training this will not inhibit exceeding these standards when required.

9.6. Education and Community Services

Aim. To provide services to educational institutions and the general community.

Method. Conduct school group tours of the Parafield facility, participate in field demonstrations, respond to poultry enquiries from the general public and requests to lecture to students at higher education institutes. Supply avian products to hospitals and schools.

Outcome. A general poultry information service will be provided to those who request such assistance.

Resources. Extension staff
Research staff

Restraint. Time constraints, need fees agreement for some of the services provided to the educational institutes.

Action. Maintain an up to date data collection system as well as an awareness of trends, research and other matters necessary to provide the service requested. Maintain a fertile egg supply.

10. POULTRY MEAT INSPECTION

Aim. To ensure poultry processed for human consumption poses a minimum disease risk to the consumer.

Method. All processing plants will be built to specific standards, plant inspection during operation will occur, breaches will be noted and acted upon and, if appropriate, prosecution of offenders will be undertaken.

Outcome. Consumers will be able to buy poultry products which will have a minimal risk of being contaminated with potential pathogens. The incidence of poultry related food poisoning will diminish.

Resources. Principal Veterinary Officer (Meat Hygiene)
Meat Works Standard Officer
3 Meat Hygiene Inspectors

Restraint. Full understanding from industry of requirements and their co-operation in implementing them.

Action. Maintain contact with industry and consumers, ensure inspectors possess pertinent knowledge to stay abreast of poultry processing technology.

Appendix A - STATUS & PRIORITIES

Programme	Status*	Priority
6. Poultry Health	C & P	*****
.1 Disease investigation	C	*****
.2 Disease control	C & P	****
.3 Regulatory	C & P	****
7. Production/Management	C & P	*****
.1 Advisory	P	****
.2 Feed efficiency	C & P	****
.3 Feed ingredients	C & P	***
.4 Housing	C & P	****
.5 Economics	C & P	****
.6 Research extension	C & P	***
.7 Egg shell quality	C & P	*****
.8 Extension workshops	C & P	****
8. Welfare	C & P	*****
.1 Research	C & P	*****
.2 Extension	C & P	***
9. Administration	C & P	*****
.1 Minister support	C & P	*****
.2 Industry support	C	*****
.3 Expert systems	P	*
.4 Income generation	P	*****
.5 Staff training	P	***
.6 Community serv.	C & P	***
10 Poultry Meat Hygiene	C	*****

* C = Current P = Proposed

Appendix B - INDUSTRY CONSULTATION

Representatives from the following organisations were consulted during the preparation of the Poultry Commodity Programme:

Advisory Board of Agriculture

Australian Poultry Ltd

Chicken Meat Research and Development Council

Egg Industry Research and Development Council

Eastern Egg Producers of S.A.

Imloson Pty Ltd

Inghams Enterprises Pty Ltd

South Australian Chicken Meat Council

South Australian Egg Board

Stockfeed Manufacturers of South Australia

UF&S Chicken Meat Section

UF&S Poultry Section