



Photograph by Joao Silva/PictureNET Africa

Chapter 4

Agriculture

In recent years, the agricultural sector has undergone drastic changes. It was formerly a highly regulated sector with subsidies and financial concessions available to farmers. Since 1980, there has been a gradual reduction in agricultural support measures. In the last five years this process has gained momentum. Export subsidies have been phased out, and agricultural control boards that guaranteed secure markets for farmers disbanded. Marketing is now deregulated, and the sector has to respond to price signals in a free market.

Farmers seek the most competitive suppliers and purchasers, and are increasingly making use of the South African Futures Exchange to buy futures contracts and for price-hedging their products.

In terms of the Constitution, 1996 (Act 108 of 1996), agricultural support to farmers is vested in the provincial governments, which provide farmers with a range of services. The national Government retains the overall regulatory and policy functions and agricultural trade and marketing.

◀ Deciduous fruit is grown mainly in the Western Cape, as well as in the Langkloof Valley in the Eastern Cape. Smaller production areas are found along the Orange River and in the Free State, Mpumalanga and Gauteng. This industry's export earnings represent 15% of the country's total earnings from agricultural exports. In 2000, apples made up the largest percentage of the crop (43%), while grapes totalled 25% and pears 17,6%.

The national Department of Agriculture aims to ensure equitable access to agriculture and to promote the contribution of agriculture to the development of all communities, society at large and the national economy, in order to enhance income, food security, employment and quality of life in a sustainable manner.

Agricultural policy

The Department of Agriculture is committed to achieving sustainable, equitable and efficient agricultural development. The objective is a reduced role for government, by facilitating rather than controlling the agricultural sector, encouraging the development of the small-farming sector and also a more diverse support system for farmers.

Agricultural policy for South Africa is informed mainly by policy directions contained in the 1995 *White Paper on Agriculture* and in the 1998 *Discussion Paper on Agricultural Policy*. Major objectives are to build an efficient and internationally competitive agricultural sector; support the emergence of a more diverse structure of production with a large increase in the number of successful smallholder farming enterprises; conserve the natural agricultural resources; and put in place policies and institutions for sustainable resource use.

Agricultural economy

About 13% of South Africa's surface area can be used for crop production. High-potential

Exports						
	1996	1997	1998	1999	2000	Average: Five years
Total South African products ('000 000)	126,045	143,814	156,184	165, 143	208,474	159,932
Total agricultural products ('000 000)	11,637	12,254	13,394	14,373	14,573	13,247
Agriculture as % of total exports	9,23	8,52	8,58	8,70	6,99	8,40

Source: Department of Agriculture

arable land comprises only 22% of the total arable land. Some 1,3 million hectare (ha) are under irrigation.

Primary agriculture contributes about 3,2% to gross domestic product (GDP) of South Africa and almost 9% of formal employment. However, there are strong backward and forward linkages into the economy, so that the 'agro-industrial sector' is estimated to comprise 15% of GDP.

South Africa has a dual agricultural economy, comprising a well-developed commercial sector and a predominantly subsistence-orientated sector in the rural areas. Applied research results and improved farm management have almost doubled agricultural production during the past 30 years in the established, predominantly white, farming sector.

The most important factor limiting agricultural production is the availability of water. Rainfall is distributed unevenly across the country. Almost 50% of South Africa's water is used for agricultural purposes. The country can be subdivided into a number of farming regions according to climate, natural vegetation, types of soil and the type of farming practised. Agricultural activities in these regions range from intensive crop production and mixed farming in winter-rainfall and high summer-rainfall areas, to cattle-ranching in the bushveld and sheep-farming in the more arid regions.

Today, South Africa is not only self-sufficient in virtually all major agricultural products, but in a normal year is also a net food exporter. However, with very low average rainfall and

high variability within and between seasons, agriculture is vulnerable to the effects of drought. When there is a major drought, there is strong downward pressure on GDP. In good years, however, the contribution of agriculture can be vital to lifting the economy.

During 2000, the seasonally adjusted real value added by the agriculture, forestry and fishing industry increased by 3,8% compared with 1999, mainly ascribed to the good performance of the maize and winter cereal crops.

Despite the farming industry's declining share of GDP, it remains vitally important to the economy, development and stability of the southern African region. The various sectors of the industry employ almost one million people. For the past five years, agricultural exports have contributed on average approximately 8% (7% in 2000) of the total South African exports.

Normally, South Africa is a net exporter of agricultural products in Rand value. The largest export groups are raw sugar, fresh grapes, citrus, apples, wine and deciduous fruit such as apples, pears, quinces, apricots and peaches. Other important exports include avocados, plums, maize, black tea, ground-nuts, meat, pineapples, tobacco, wool and cotton. South Africa is one of the largest exporters in the world of avocados, grapes, citrus and deciduous fruit.

Sustainable resource use and management

South Africa, at most times, is able to meet its own food requirements, with some food



exportation. However, the inherent limitations of the natural resource base and variable climate require land users to be very circumspect in how they use and manage these resources so as to retain their productive capacity. Ninety percent of South Africa can be regarded as arid, semi-arid and dry sub-humid, and it is these areas where desertification can occur.

Improved information about the potential and limitations of the natural resource base is essential for good management decisions. An inventory of soils, terrain forms and climate (land types) was initiated by the Agricultural Research Council's (ARC) Institute for Soil, Climate and Water. Data from this and more detailed soil and climate surveys are integrated into a comprehensive Geographic Information System (GIS), which allows for assessment of agricultural potential and land suitability.

Although it is generally recognised that soil degradation is a problem, there has been little reliable data collected systematically over time. Soil degradation is largely related to the decline in soil organic matter. Mono-culture cereal production, intensive tillage, short to no fallow and limited crop rotation have contributed to this in the commercial sector. Excessive fuelwood collection, inappropriate land use, population density and overgrazing are the main causes of soil degradation in the communal areas. In addition, it is estimated that about 60% of the cropland area is moderately to severely acid, and probably at least 15% is affected by subsoil acidity.

Physical degradation of South Africa's agricultural land results in soil erosion, by both water and wind. It has been estimated that water erosion affects about 6,1 million ha of cultivated soil in South Africa, and wind erosion about 10,9 million ha. Another degradation problem is compaction within the soil profile, especially on fine sandy soils, where, for example, maize yields can be adversely affected by some 30–40%. Soil crusting causes seedling emergence problems for many crops, and where it has been alleviated resulted in a 60% increase in wheat yield.

In 1990, it was estimated that about 54 000 ha of irrigated land in South Africa had serious salinity and waterlogging problems, and a further 128 000 ha were moderately affected.

Urban spread, industrialisation and mining are further pressures that are impacting on the sustainable use of agricultural land. Opencast coal mining in Mpumalanga is an example of this pressure.

The Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983), allows the national Department of Agriculture to exercise control over the utilisation of South Africa's natural agricultural resources. This legislation provides for the conservation of natural agricultural resources through maintaining the land's production potential; combating and preventing erosion, weakening or destruction of the water sources; and protecting vegetation and combating weeds and invader plants. The Act generally applies to all 'agricultural' land in South Africa, except for the sections dealing with weeds that also apply to urban areas.

Specific requirements and prohibitions applicable to land-users are detailed in control measures published as Regulations of the Conservation of Agricultural Resource Act, 1983. Certain activities, such as the cultivation of virgin land and burning of veld, are subject to prior approval, while others are prescribed as 'best practice' in the interest of sustainable land use. The Act further provides for the implementation of schemes, of which two are still functioning. These are the Weed Control Scheme that is administered nationally and the Soil Conservation Scheme that is administered by the provinces.

In order to promote natural agricultural resource conservation, policies, norms, standards and guidelines have been developed, as has a national agricultural resource audit division and a conservation GIS. At farmer level, conservation committees can be appointed to promote the conservation of the natural agricultural resources in the area concerned in order to achieve the objectives of the Act. The national Department of Agriculture has an

Inspection Service that does compliance monitoring on farm level. It is presented in each of the provinces with a total field staff component of 55.

South Africa is a signatory to a number of international agreements and conventions that require the matter of sustainable

resource use and management to be addressed in a responsible way. Agenda 21 is an action plan and blueprint for sustainable development that was one of five documents adopted by more than 178 governments at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. Specific to sustainable resource use is Chapter 14 on 'Promoting sustainable agriculture and rural development'. The international conventions that apply to aspects of sustainable resource use are the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the Convention to Combat Desertification (CCD). The CCD requires South Africa to draw up a National Action Programme, which will be integrated into a regional programme for the Southern African Development Community (SADC) region. All these activities are presently receiving attention under the leadership of the Department of Environmental Affairs and Tourism, involving all stakeholders including the national Department of Agriculture and the provinces.

One of the key programmes of the national Department of Agriculture that addresses sustainable use and management of the natural resources is the National Landcare Programme (NLP). (See p74)

Research institutes of the ARC and some universities are contracted to undertake various research projects on matters relating to sustainable use of agricultural resources. The practices of minimum tillage and no-till crop production are again being actively promoted in KwaZulu-Natal, aiming at not only commercial farmers but also the smaller and subsistence farmers.

The National Water Act, 1998 (Act 36 of 1998), places a strong emphasis on equity in access to water, including water for agriculture. A feature of the development of water sources for agriculture has been the lack of co-ordination of initiatives and support interventions.

The Interdepartmental Committee, established in 1999, has been active in promoting and developing co-operation. Following a

Information

South Africa doesn't have ideal conditions for crop production. Less than 15% of its land is arable, and serious climatic constraints such as periodic droughts hinder agricultural production. Despite these circumstances, productivity must increase to meet the food needs of the growing population. Recent developments in biotechnology have brought hope in tackling the challenges of increasing food production. Genetic modification provides a way of meeting the growing demand for food without placing even greater pressure on scarce resources.

The Genetically Modified Organism (GMO) Act, 1997 (Act 15 of 1997), was implemented on 1 December 1999, making provision for the regulation of GMOs in South Africa, particularly new biosafety assessments. In terms of the Act, permits are issued for trials and the commercial release of any GMO crops in the country to ensure contained cultivation and reduced environmental impact. The objectives of the Act are to increase crop yield while protecting biodiversity. By mid-2001, the Department of Agriculture had approved the planting of three commercial Genetically Modified (GM) crops, i.e. insect-resistant cotton, herbicide-resistant cotton and insect-resistant maize. The insect-resistant maize is planted for animal feed.

There are no GM crops planted in South Africa for human consumption. There are no fresh GM fruit and vegetables on sale in the country, but a small quantity of yellow maize and soya bean have been approved for animal feed. All foods are carefully assessed by independent laboratories to ensure that they are equal to or better in all ways than the conventional product, and will not increase allergenicity or toxicity. This will equally apply to GM foods wherever they are marketed. In terms of the GMO Act, 1997, the Advisory Committee composed of scientific experts conducts risks assessments to determine if a particular GMO is safe for humans, animals and the environment. The Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972), oversees the safety of food in South Africa. There is no evidence, to date, that shows GM foods have an adverse effect on human health.

Consumers should be empowered to make informed choices about the purchase of GM products. However, labelling a product as 'GM-free' may be construed to mean that it is superior or preferred, and may incorrectly imply that all other products contain GMOs. Regulators, consumers and the industry are currently discussing procedures to inform consumers accurately about foods containing GM products.

All imported processed foods from the United States of America and Argentina that may contain GM ingredients will soon be regulated through labelling regulations to be promulgated by the Department of Health.



workshop in June 2000, five multidisciplinary task teams were established and it was expected that a policy on co-ordinated implementation strategies in support of small-scale farmers would be tabled in 2001.

This is in pursuance of the strategy to provide a national agricultural water legislative framework, a national agricultural water regulating system, and a management framework; and to promote agricultural water management.

Production

In general, the prices of agricultural products increased by 5% from 1999 to 2000. Prices of field crops decreased by 8%, horticultural products increased by 9%, and prices of livestock products increased by 11%. The net income of the farm sector decreased from R6 170 million in 1999 to R5 190 million in 2000. The volume of field crop production has been erratic in the last decade, primarily because of the severe droughts experienced. The country is, however, still self-sufficient where primary foods are concerned, with the exception of wheat, oilseeds, rice, tea and coffee.

Field crops and horticulture

The largest area of farmland is planted for maize, followed by wheat and, on a lesser scale, sugar cane and sunflowers.

The maize industry plays a very important role in the economy. It is the largest locally produced field crop and most important source of carbohydrates in the South African Customs Union (SACU) for animal and

human consumption. South Africa is the main maize producer in SACU with an average production of approximately 9,0 mt per annum over the past 10 years.

It is estimated that more than 9 000 producers of maize are responsible for a major part of the South African crop, while the rest is produced by many thousands of small-scale producers.

Maize is produced mainly in the North-West, the north-western, northern and eastern Free State, the Mpumalanga Highveld and the KwaZulu-Natal Midlands. In March 2001, the Crop Estimates Committee forecast a much reduced maize harvest of 6,6 mt compared with 1999's crop of 10,4 mt.

Accounting for the drastic drop in prospects are a mid-season dry spell and high temperatures in January in the major cereal growing areas, as well as stagnant producer prices resulting in a shift to more lucrative crops.

Local consumption of maize (commercial) amounts to approximately 7,5 mt and surplus maize is usually exported.

The Maize Scheme (see Marketing: p71) was extended until 31 July 2001 to finalise financial and legal obligations with regard to outstanding levies. The Maize Trust was formed and is fully operational. The information function for this sector is performed by the South African Grains Information Services (SAGIS) and is funded by, among others, the Maize Trust. Research is also funded by the Trust.

The only control in the maize industry is a variable import tariff applied by the Department of Trade and Industry, which is being investigated. With regard to exports, phytosanitary requirements and quality standards should be adhered to, and Perishable Products Export Control Board (PPECB) certificates are still needed for exports.

Grain SA aims to create and maintain an economic niche for commercial grain producers in South Africa. It represents the oil-seeds, maize, sorghum and winter cereals producers. Deteriorating input/output price relationships in grain production in general, and more

Information

The second annual Female Farmer of the Year competition was held in 2000, with the winners being announced in November. Gauteng fruit and vegetable exporter, Rindre Scheepers, Western Cape potato producer, Catherina Theron, and Northern Province chicken farmer, Cecilia Mamobola, were announced winners in the three different categories. The categories were for the top exporter, the top food producer for national markets, and the top group of food producers for the informal market, respectively. The competition was presented by the Department of Agriculture.

specifically in maize production, cause increasing pressure on farm profits. To counter this problem, Grain SA embarked on a programme to establish well-adapted crop production systems for each agro-ecological region.

The crop production systems refer to crop rotation *per se* or in combination with a fallow system.

Wheat is produced in the winter-rainfall areas of the Western Cape and the eastern

parts of the Free State. At present, the production in the Free State is the highest, but there are considerable annual fluctuations.

The area planted to wheat for the 2000/01 production season was estimated at 860 000 ha. A survey undertaken by the Department of Agriculture indicated that farmers intended to plant 1,02% more wheat in the 2001/02 season than in the 2000/01 season.

SAGIS reported at the end of February 2001 that the deliveries of wheat for the 2000/01 season amounted to 2,32 mt, which was 34% higher than the previous season.

The Wheat Board ended its marketing functions in October 1997, and during the first half of 1999 the Executive Committee of the board managed the liquidation process. The Wheat Scheme was extended until 31 July 2001. The Wheat Forum, representing the directly affected groups in the winter cereal industry, already existed at the time the deregulation process started. The Winter Cereal Research and Development Trust and the Winter Cereal General Trust were formed and merged into a single Winter Cereal Trust. (See Marketing: p71)

The information function was taken over by SAGIS, with the wheat industry's contribution being funded by the General Trust and statutory levies. Research is funded by the Research Trust and statutory levies.

The Oilseeds Board closed its doors in September 1997. The Oilseeds Scheme was repealed on 31 March 1998, after all outstanding levies were collected. The Oilseeds Forums for sunflower seed, ground-nuts and soya beans, and the Oil and Protein Seeds Development Trust were established. The Ground-nut Advisory Committee, consisting of 10 representatives of the main role-players in the industry, was established on 1 December 1997. The Oilseeds Advisory Committee represents the commercial and emergent producers, processors of oilseeds, persons who trade in oilseeds as a business, processors of animal feeds, consumers, labour, and the sunflower, soya bean and ground-nut fora. The Advisory Committee is

Gross value of agricultural production, 2000* ('000 t)

Field crops	
Maize	5 654
Wheat	2 100
Hay	1 700
Grain sorghum	245
Sugar cane	2 530
Ground-nuts	335
Tobacco	438
Sunflower seed	519
Cotton	146
Other	720
Total	14 387
Horticulture	
Viticulture	1 307
Citrus	1 335
Subtropical fruit	711
Deciduous and other fruit	2 975
Vegetables	2 516
Potatoes	1 599
Other	1 037
Total	11 480
Animal products	
Wool	486
Poultry and poultry products	8 270
Cattle and cattle slaughtered	3 904
Sheep and sheep slaughtered	1 322
Pigs slaughtered	811
Fresh milk	2 229
Dairy products	1 104
Other	1 115
Total	19 241
Grand total	45 108

*Preliminary
Source: Statistical Information, Department of Agriculture



responsible for recommendations to the Oilseeds Development Trust for the funding of projects in the interest of the industry.

On 3 November 2000, the Board on Tariffs and Trade announced a new tariff structure of 10% for the import of oilseeds and vegetable oils. Marketing of oilseeds is free of intervention.

With regard to exports, phytosanitary requirements and quality standards should be adhered to, and PPECB certificates are needed.

Barley is produced mainly on the southern coastal plains of the Western Cape. The area where barley is planted was estimated at 77 690 ha for the 2000/01 production season, and production was estimated at 142 390 t.

For many years, Oudtshoorn and De Rust have been the only areas in South Africa where lucerne seed of reasonable production was produced. Today, the Oudtshoorn district is responsible for about 90% of the lucerne seed produced in South Africa. A lucerne plant can produce 100 to 120 lucerne bales per ha every three weeks, provided that enough water is available.

The Lucerne Seed Board was disbanded in August 1997. The Lucerne Seed Industry Forum, representing the directly affected groups, was established instead.

With regard to international trade, phyto-

sanitary requirements and quality standards have to be adhered to and PPECB certificates are needed for exports.

Sorghum is cultivated mostly in the drier parts of the summer-rainfall areas such as Mpumalanga, Free State and the North-West.

Ground-nuts are mainly grown in the Free State, North-West and Northern Cape. Ground-nut plantings increased by 96%, from 82 600 ha in 1999/00 to 162 250 ha in 2000/01.

Many maize farmers are switching to growing peanuts as a result of good prospects for high-quality peanut exports and low maize prices. In September 2000, the Crop Estimates Committee found that peanut plantings would expand by 70% in the new planting season.

South Africa is the world's 11th-largest producer of sunflower seed, with an annual harvest (commercial) of between 184 000 mt and 1,7 mt. Sunflower seed is produced on the Mpumalanga Highveld, in the North-West and in the Free State.

South Africa ranks as the world's 10th-largest sugar producer. Sugar cane is grown in 15 cane-producing areas extending from Northern Pondoland in the Eastern Cape through the coastal belt and Midlands of KwaZulu-Natal to the Mpumalanga Lowveld. An estimated 2,5 mt of sugar is produced per season. About 50% of this is marketed in southern Africa. The remainder is exported to numerous markets in Africa, the Middle East, North America and Asia. Based on actual sales and selling prices in 2000/01, it is estimated that the South African sugar industry contributed R1,9 billion to South Africa's foreign exchange earnings.

The Deciduous Fruit Scheme was extended to 31 July 2001. Deciduous fruit is grown mainly in the Western Cape, as well as in the Langkloof Valley in the Eastern Cape. Smaller production areas are found along the Orange River and in the Free State, Mpumalanga and Gauteng. This industry's export earnings represent 15% of the country's total earnings from agricultural exports. In 2000, apples made up the largest percentage of the crop

Production of important field crops and horticultural products, 2000* ('000 t)

Maize	10 943
Wheat	2 132
Sugar cane	23 896
Grain sorghum	472
Ground-nuts	136
Sunflower seed	567
Deciduous and other soft fruit	1 484
Citrus fruit	1 529
Subtropical fruit	588
Vegetables	1 886
Potatoes	1 555

* Preliminary

Source: Directorate: Statistical information, Department of Agriculture

(43%), while grapes totalled 25% and pears 17,6%. According to the 1999 agricultural census, approximately 79% of the total crop was produced in the Western Cape, 8% in the Eastern Cape and 11% in the Northern Cape.

On 1 December 2000, the Minister of Agriculture approved the implementation of the following statutory measures on deciduous fruit.

- statutory levies in terms of Section 15 of the Marketing Act, 1986 (Act 47 of 1996), on table grapes, plums, peaches/nectarines, cling peaches and apricots
- records and returns in terms of Section 18 of the Act
- registration in terms of Section 19 of the Act. These measures will be valid until 30 November 2004.

The wine and spirits industry in South Africa is a very important part of the agricultural sector. South Africa is ranked as the seventh-largest wine producer in the world. It is also pioneering an integrated production system, including an environmentally friendly approach to wine-making. In 2000, South African wine-growers produced a harvest of 8,4 hectolitres of which 65% was used in wine-making. About 105 566 ha of land are under cultivation with about 314 million vines. About 85% of wines are still produced by co-operatives. Some 4 500 primary wine producers employ about 55 000 people. According to the South African Wine and Spirit Export Association, the export of white wine increased from 20 million litres in 1992 to 140 million litres in 2000.

The Wine Industry Trust and its subsidiaries,

the SA Wine Industry Company (BUSCO) and the SA Wine Industry Development Company (DEVCO), were launched in March 1999. BUSCO promotes South African wines abroad and develops research and technology to advance the industry, while DEVCO promotes the settlement of new farmers and supports the upliftment of farm workers.

Early in 2001, the Trust earmarked R7 million for the development of South Africa's export markets in an initiative that saw a variety of importers and media visiting the Western Cape. The winelands gained exposure through Disney, Top of the World TV and journalists from Canada and Scandinavia.

Citrus production is largely limited to the irrigation areas of the Northern Province, Mpumalanga, the Eastern and Western Cape and KwaZulu-Natal.

In June 1998, the Citrus Board Liquidation Committee replaced the Citrus Board. A close relationship existed between the then South African Citrus Exchange Limited and the Citrus Board, and therefore a Citrus Board Liquidation Committee working group was established to ensure that all the assets of the Citrus Board were accounted for before the Scheme was finally repealed. The Citrus Scheme was extended until 31 July 2001 in order for the committee to finalise its investigation. In March 2001, the Citrus Board Liquidation Committee submitted its report on the Citrus Board/Outspan International Ltd asset ownership to the Minister.

The Citrus Industry Trust consists of six persons who represent exporters (one), commercial producers (one), emerging producers (one) and the Minister of Agriculture (three). The main objectives of the Trust are to promote and finance training programmes and the development of skills in the citrus industry (with particular emphasis on making the industry representative of South African society), to grant bursaries or financial aid to persons in the furtherance of their studies relating to the citrus industry, and to finance the promotion of the citrus industry, nationally and abroad.

Certain statutory measures are applicable to all fresh citrus fruit intended for export, includ-

Information

The 17th International Seaweed Symposium was held in Africa for the first time in its 49-year-old history, when South Africa hosted it in February 2001. Among the main areas of interest at the week-long meeting was mariculture. A workshop on genetic engineering, a new field, and sessions on new products, such as a seaweed-based ecologically friendly alternative to polyurethane foam was held. The world seaweed sector is a major industry, which is conservatively estimated to be worth more than \$6 billion annually.



ing a statutory levy of 1,4c per kg to be used for the funding and the provision of production research and development, plant improvement, information and statistics, and maintaining international relations, which will ensure market access to all growers of citrus fruit. The availability of continuous, timeous and accurate information, relating to citrus fruit as indicated, to all role-players in the industry is essential to ensure informed decision-making and a stable and profitable industry.

With regard to international trade, phytosanitary requirements and quality standards should be adhered to. PPECB certificates are needed for exports.

Pineapples are grown in the Eastern Cape and northern KwaZulu-Natal. Other subtropical crops such as avocados, mangoes, bananas, litchis, guavas, pawpaws, granadillas, and macadamia and pecan nuts are produced mainly in Mpumalanga and the Northern Province at, among other places, Levubu and Tzaneen, and in the subtropical coastal areas of KwaZulu-Natal and the Eastern Cape.

The functions of the Canning Fruit Board, which was disbanded late in 1997, are carried out by three new institutions, namely the Canning Fruit Forum, the Canning Fruit Producers' Association (CFPA) and the South African Fruit and Vegetable Canning Association. Prices are determined by market forces, and there is no statutory intervention.

The information function is performed by the CFPA and financed by voluntary contributions. With regard to international trade, phytosanitary requirements and quality standards should be adhered to. PPECB certificates are still needed for exports.

The Dried Fruit Board was dissolved on 30 September 1997 under Section 26 of the Marketing of Agricultural Products Act, 1996. The Dried Fruit Technical Services (DFTS), a Section 21 company, was established in 1997 to maintain information, determine research requirements and do inspection for exports, especially regarding raisins packed in the Northern Cape.

On 6 April 2001, the Minister of Agriculture approved the implementation of statu-

tory measures on dried fruit. The DFTS is responsible for the collection and administration of the statutory measures, which will be valid until May 2005.

About 40% of the country's potato crop is grown in the higher-lying areas of the Free State and Mpumalanga. The Northern Province, the Eastern, Western and Northern Cape and the higher-lying areas of KwaZulu-Natal are also important areas of production. About two thirds of the country's total potato crop is produced under irrigation.

Potatoes South Africa is an organisation supporting the potato industry. It has succeeded in incorporating all the role-players into the decision-making process via fora and advisory committees. Potatoes SA is actively supporting research and development in the potato industry by facilitating and managing a consumer-driven research programme.

The eastern Free State is one of the biggest potato-producing areas in South Africa. The yield varies drastically, however, due to the large areas planted under dry-land conditions. The Sandveld is the largest area for the production of potatoes in the Western Cape. It is also the biggest producer of seed potatoes in South Africa (38% of the total seed crop). The white sandy soil produces a naturally clean and attractive product. In the past five years, the Sandveld region grew to become one of the macro production areas in South Africa. The KwaZulu-Natal region, while fairly small in comparison with the other potato-producing regions, produces a high quality table and seed potato. This region has produced two Potato Farmers of the Year in the last few years.

Of the total crop, 46,5% is delivered to fresh produce markets and a further 16% is processed. The South African potato-processing industry grew by more than 100% over the past five years. This growth took place primarily in the three main disciplines of the processing industry, namely crisps, frozen fries and french fries. Production of frozen french fries (40,92% of total processed potato products in South Africa) has increased over the last couple of years due to an in-

crease in fast food consumption. The growth in production is also due to the expansion of existing facilities.

In terms of gross income to the grower (apart from potatoes, which contribute 39%), tomatoes, onions, green mealies and sweet-corn are probably the most important vegetable crops.

These crops contribute 38%, combined, to the income derived from vegetables. Tomatoes are produced country-wide, but mainly in the Northern Province, the Mpumalanga Lowveld and middleveld, the Pongola area of KwaZulu-Natal, the southern parts of the Eastern Cape, and the Western Cape.

Onions are grown in Mpumalanga, in the districts of Caledon, Ceres and Worcester in the Western Cape, and at Venterstad and the adjoining areas of the southern Free State.

Cabbages are also grown country-wide, but are more concentrated in Mpumalanga and the Camperdown and Greytown districts of KwaZulu-Natal.

Cotton is cultivated in five areas, namely Mpumalanga, Northern Province, Northern Cape, KwaZulu-Natal and the North-West. It constitutes 74% of the natural fibre and 42% of all fibre processed in South Africa. Cotton is grown under irrigation as well as dry land conditions. Cotton under irrigation usually contributes almost as much to the national crop as dry-land conditions, although the number of hectares under dry-land conditions are much more than hectares under irrigation. Seventy-five per cent of local production is harvested by hand.

In January 1998, the Cotton Board was disbanded and replaced by the Section 21 company, Cotton SA. All the assets of the Board were transferred to the approved Cotton Trust. The Cotton Scheme also lapsed in January 1998. On 1 May 1998, a statutory levy of 12 c/kg cotton lint (VAT excluded) was implemented in terms of the Marketing of Agricultural Products Act, 1996. On 31 March 2000, the cotton levy was amended to 14 c/kg cotton lint produced (excluding VAT), which will lapse on 31 March 2004. This levy is used to finance research, information, pro-

motion and the grading of cotton.

With regard to international trade, an import tariff of R1,20/kg to SADC members and an import tariff of R1,60/kg to non-SADC members is applicable, which may be rebated. An import quota is allocated to spinners.

Virginia tobacco is produced mainly in Mpumalanga and the Northern Province, with smaller quantities of Oriental tobacco being produced in the Western and Eastern Cape. There are more than 1 000 growers in the country, who produce an annual average of 33 million kg on about 24 000 ha of land. The crop represents 173 different grades of Virginia and five different grades of Oriental tobacco.

The first commercial farming in South Africa of honeybush tea started in 1999. The plant mostly grows wild in the mountains of Clanwilliam in the Western Cape. The South African Honeybush Tea Producers' Association was formed to enable the Western Cape producers of this new beverage to formalise their industry in response to the growing demand for their product.

Rooibos tea is an indigenous herbal beverage produced mainly in the Cedarberg area of the Western Cape. There are some 280 producers, exporting about 580 t of tea annually.

Ornamental plants are produced throughout the country, but production aimed particularly at the export market is concentrated mostly in the central part of the Northern Province, Mpumalanga and Gauteng. Ornamental plant production includes nursery plants, cut flowers and pot plants. The country's most important plant export products are gladioli, proteas, bulbs, chrysanthemum cuttings and roses.

South Africa is the world's leading exporter of proteas, accounting for more than half of all proteas sold on the world market. Most proteas grown in South Africa are sold on the European market, with Germany being the biggest consumer. Australia, New Zealand and Hawaii are, however, challenging South Africa as the dominant producer of proteas.

Cut flowers, foliage and dried flowers from



the Cape floral kingdom (*fynbos*) are supplied to world markets. Cape *fynbos* serves as a gene pool for flowers such as freesias, Guernsey lilies and gladioli. Cultivation of *fynbos* earns the Western Cape valuable foreign currency.

In South Africa, almost 200 000 ha of *fynbos* is harvested from the wild, with another 4 200 ha under intensive and extensive cultivation. The industry accounts for 20 000 direct and indirect jobs.

Dried flowers are an important section of the *fynbos* industry. A large variety of dry flower species, used for this purpose, such as the everlasting conebrush (*Leucadendron*) and other suitable types, are produced.

Other flowers indigenous to South Africa are also gaining recognition on the international market. In 1999, two of the top flowers sold in the Netherlands were of South African extraction, namely the gerbera (Barberton daisy) and freesia.

Livestock

Livestock is farmed in most parts of South Africa. Numbers vary according to climatic conditions. Stock-breeders concentrate mainly on the development of breeds that are well adapted to diverse climatic and environmental conditions. The latest estimates for cattle and sheep are 13,5 million and 28,6 million respectively. South Africa normally produces 85% of its meat requirements, while 15% is imported from Namibia, Botswana and Swaziland.

Information

The Meat Safety Act, 2000 (Act 40 of 2000), emphasises the safety of meat from abattoirs as opposed to the existing Abattoir Hygiene Act, 1992 (Act 121 of 1992), which focuses on the erection of costly structures. By broadening the ambit of the legislation, all slaughtering practices of meat that is generally sold to consumers are covered. The Act seeks to register slaughter facilities and conduct impromptu inspections of such facilities by veterinarians and meat inspectors. The Act does, however, provide for the appointment of duty-qualified persons to conduct inspections.

The Act prohibits the slaughter of animals at any place other than an abattoir. The slaughter of animals for cultural or religious purposes is permitted but such meat may not be sold.

Dairy farming is practised throughout South Africa, with the highest concentration of dairy farms in the eastern and northern Free State, the KwaZulu-Natal Midlands, the Eastern and Western Cape, the Gauteng metropolitan area, and the southern parts of Mpumalanga. Holstein Friesians (76%) and Jerseys (16%) are the predominant dairy breeds, followed by Ayrshires and Guernseys. The annual average production of fat-corrected milk from officially recorded, registered Holstein Friesian and Jersey cows is 5 369 kg and 4 533 kg respectively.

The South African Milk Federation coordinates industry matters, including the information and research functions, financed by means of voluntary levies. Market forces determine prices.

Cattle ranches are found mainly in the Northern and Eastern Cape, parts of the Free State and KwaZulu-Natal, and the Northern Province. The indigenous Afrikaner and Nguni and the locally-developed Bonsmara and Drakensberger are popular beef breeds, but British, European and American breeds, such as Brahman, Charolais, Hereford, Angus, Santa Gertrudis, Simmentaler and Sussex, are maintained as pure breeds and used in cross-breeding.

The Taurus Livestock Improvement Co-op (Irene, Gauteng) provides the country's beef farmers with an annual average of some 110 000 units of semen and the dairy industry with 580 000 units of semen for use in artificial insemination.

In November 1997, the Meat Board was replaced by the Meat Board Liquidation Committee to finalise the Board's financial and legal obligations with regard to outstanding levies. The Meat Scheme was extended until 31 July 2001.

The Meat Forum, the Meat Trust and the South African Meat Industry Company (SAMIC), a Section 21 company, were established. SAMIC performs the information function, funded by, among others, the Meat Trust. Research is financed by income from the Trust.

Sheep-farming is concentrated mainly in the Northern and Eastern Cape, Western

Livestock numbers 1999 – 2000 (million)		
	1999	2000
Cattle	13,6	13,5
Sheep	28,7	28,6
Pigs	1,5	1,6
Goats	6,5	6,7

Source: Statistical Information

Cape, Free State and Mpumalanga, with Ermelo in Mpumalanga being one of the largest wool-producing districts. Most sheep are fine-woolled Merinos (50%). Other breeds include the locally-developed Afrino (a woolled mutton breed adapted to arid conditions), the Merino, the South African Mutton Merino, the Dohne and the Merino Land Sheep. The minor wool breeds, namely the Dorper – a highly productive, locally-developed mutton breed for arid regions – and the Merino, account for most of South Africa's mutton production.

The Wool Board was replaced by a Liquidation Committee in 1997. The Wool Scheme was extended until 31 July 2001, as the International Wool Secretariat's intellectual property (including the Wool Mark) was being evaluated. The Wool Forum, the Wool Trust and Cape Wool SA (a Section 21 company) were established. Marketing of wool is free of any intervention.

The information function is performed by Cape Wool SA and funded by the Wool Trust. Research is also financed with income from the Trust.

The indigenous meat-producing Boer goat accounts for about 40% of all goats, and the

Information

At the end of December 2000, it was announced that an export trade council would be created for the thoroughbred breeding industry. The council's task is to create marketing initiatives abroad and to tap into the Asian export market, which accounts for importations of more than R500 million a year. The council brought together representatives of the Thoroughbred Breeders' Association, the National Federation of Owners and Trainers Association, the South African Horse Import-Export Council, the South African National Equestrian Foundation and the Department of Trade and Industry.

Angora goat, used for mohair production, for the remaining 60%. South Africa has about 3 500 Angora farmers.

The Mohair Board was disbanded and the Scheme repealed at the end of December 1997. The Mohair Trust and a Section 21 company called Mohair SA were established. The Trust makes provision for a voluntary pool system, if approved by the Minister. Marketing of mohair is free of any intervention.

Compared with the mainly extensive cattle and sheep industries, the poultry and pig industries are more intensive and are located on farms near metropolitan areas such as Gauteng, Durban, Pietermaritzburg, Cape Town and Port Elizabeth. The predominant pig breeds are the South African Landrace and the Large White.

South Africa's poultry meat production exceeded the one mt mark for the first time in 1998 and seems to keep growing. According to the Department of Agriculture, total poultry meat production amounted to about 1,121 mt in 1999, a small increase on the initial estimate of 1,118 mt. Broiler production contributes about 82% to total poultry meat production with the rest made up of mature chicken slaughter (culls), small-scale and backyard poultry production, ducks, geese and turkeys, and other specialised white meat products.

The South African Poultry Association estimates 1999 broiler slaughter at about 533 million, producing between 719 000 and 778 000 t of meat, depending on the definition. In the formal sector there are also about 5,26 million broiler breeding stock at any one time, 17,4 million layers and 63 000 layer breeders.

The culls also reach the market while there are many smaller-scale producers in the informal sector. Actual total poultry meat production could thus be somewhere between 810 000 t in the formal sector and the Department of Agriculture's estimate of 1,12 mt.

South Africa accounts for 80% of world sales of ostrich products – leather, meat and feathers. The Klein Karoo Co-operative is the world's largest producer and exporter of



ostrich products. According to the Co-operative, there is a big increase in demand for ostrich meat abroad. South Africa does not have clearance to export ostrich meat to the United Kingdom, and is awaiting clearance to

export to several other European Union (EU) member states.

Game-farming, aquaculture and bee-keeping

South Africa has more game and a wider variety of game species than most countries. Game-farming has grown over the years, and today it is a viable industry with great economic potential. The main game areas are regions in the Northern Province, the North-West, Mpumalanga, the Free State, the Eastern Cape, the Karoo, the Kalahari in the Northern Cape, and the thorn scrub of KwaZulu-Natal.

Despite prolonged droughts in the past, game numbers have consistently increased. The South African Game Organisation, as well as local organisations in each province, service the industry.

The aquaculture industry in South Africa continues to make meaningful progress in cultivation technology, marketing strategy, marketing practice and scientific innovation. Mussels, trout, oysters and *waterblommetjies* (Cape pondweed) are the major aquaculture species. Mussel-farming occurs mainly in Saldanha Bay. The Abalone Farmers' Association of South Africa has been instrumental in formulating product standards.

The South African honey industry is still small, worth some R20 million annually. The ARC presents bee-keeping courses.

Production input

Agriculture qualifies, from 4 July 2001, for the new diesel refund amounting to 42,1 c/litre. It is expected that farmers will save more than R364 million per annum through this concession. Crop farmers will benefit most from the concession, but secondary savings are also expected from the livestock and food processing industries, which use grain and fodder as input.

Fertilisers, farm feeds and agricultural and stock remedies are known as agricultural production input. A draft Bill makes provision for the registration of products such as animal

Information

Foot and Mouth Disease (FMD) is a State-controlled disease in South Africa. The Disease is restricted to the Kruger National Park and the surrounding lowveld areas. The rest of South Africa is an internationally recognised FMD-free zone.

On 15 September 2000, an outbreak of FMD was confirmed on a pig farm in the Camperdown district of KwaZulu-Natal (a free zone area). The virus was serotyped as FMD type O, which is an exotic strain to South Africa. It was introduced into South Africa via pig swill from a passing ship, obtained from Durban Harbour. A few days later, the disease was also confirmed on a neighbouring pig farm.

A 10-km radius quarantine zone around the outbreaks was instituted with a further 20-km surveillance zone around the quarantine zone. Strict movement control was applied within this 30-km radius zone. All cloven-hoofed animals in a 3-km radius around the outbreak were culled in order to create an animal-free zone buffer.

On 10 October 2000, another outbreak 3-4 km north of the original epicentre was confirmed, and all cloven-hoofed animals on the property were destroyed within 24 hours. A third extension of the outbreak was discovered on 23 October 2000, approximately 8 km to the south-east of the original epicentre. Total eradication of the infected herd was instituted. As the neighbouring communal area was also threatened, it was decided at this point to institute a vaccination programme within the controlled area.

The last clinical cases of the disease were reported on 5 November 2000. The quarantine measures were lifted at the end of January 2001. Strict control measures will apply within the vaccinated area for the next two years to prevent vaccinated animals moving into the FMD-free zone of South Africa.

On 30 November 2000, FMD was confirmed in cattle in a feedlot south of Middelburg in Mpumalanga province. This outbreak was serotyped as type SAT1, originating from the southern part of the Kruger National Park. Trace-back investigations from the feedlot revealed that the Disease had originated in the Nkomazi area to the south of the Kruger Park.

All animals in the feedlot were vaccinated twice with a two-week interval. The last clinical case was reported on 14 December 2000. All cattle and sheep in the feedlot were slaughtered under veterinary control at selected abattoirs. This process was completed by 19 March 2001. By May 2001, the commercial cattle herd and pigs on the property were still under veterinary control to prevent vaccinated animals entering the free zone.

On 15 December 2000, FMD was confirmed in the Nkomazi area south of the Kruger Park and on 1 February 2001, in the Bushbuckridge area to the west of the Park. Both these areas are situated within the FMD-controlled areas of South Africa. All cattle, sheep and goats within these two infected areas were vaccinated against FMD. The last clinical cases in the Nkomazi area were seen at the end of December 2000, and in the Bushbuckridge area at the end of March 2001. The normal strict control measures for controlled areas are applied in both these areas.

The floods during 2000 were responsible for these outbreaks as sections of the disease-control fence around the Kruger National Park were washed away and infected buffalo from the Park made contact with livestock in the adjacent farming areas.

feeds, fertilisers and pesticides to enhance agricultural production and for the registration of persons involved with the application of such products. The draft Bill will repeal the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947), and was expected to be drafted during 2001.

The Registrar has accepted the internationally proposed classification and labelling systems for agricultural and stock remedies. These systems, locally referred to as the RSA Classification and Labelling System, have been in use since 1993. The System also makes provision for the use of Global Crop Protection Federation's pictograms on product labels.

Complaints about a specific agricultural production resource are investigated immediately, and administrative or legal action is taken against offenders when necessary.

Samples of all raw materials and animal feeds are taken regularly and tested for pathogenic contamination. This action, and the steps that follow when contamination is detected, assures the public of food safety.

Veterinary services

State Veterinary Services constantly guard against the introduction of animal diseases from outside the country, while existing animal diseases, which may be detrimental to the economy of the country and to human and animal health, are controlled and combated. Stock in the high-risk areas is inspected at short intervals.

The Directorate: Veterinary Services of the national Department of Agriculture sets norms and standards for the delivery of veterinary services in South Africa.

The Animal Diseases Act, 1984 (Act 35 of 1984), provides the necessary powers to control diseases such as FMD, swine fever, rabies and anthrax. FMD is at present endemic only to the Kruger National Park, where FMD carrier buffalo occur. The outbreak of FMD in KwaZulu-Natal again stressed the important role government plays in disease control. It was stressed that FMD was a controlled disease and as such the Government's policy aspects should be ironed out, e.g. harbour and border controls, compensations for producers if livestock has to be destroyed, and the erection and maintenance of border and veterinary fences.

A national FMD working group, representative of the Department of Agriculture and industry, was established by the Minister in order to have a coordinated approach to combat FMD. It was recommended that a permanent working committee on animal health and livestock matters be established to obtain an effective method of liaison between the Department and the industry to address animal health and other issues on a sustained basis.

National livestock disease schemes have reduced the incidence of both tuberculosis and brucellosis since the sixties and early seventies. Comprehensive attempts are made to control the increasing incidence of rabies, especially in KwaZulu-Natal.

The Meat Safety Act, 2000, stipulates that meat inspections and hygiene control must be carried out by qualified meat inspection personnel at abattoirs to prevent the transmission of diseases through meat to humans and animals.

The Directorate: Veterinary Services prescribes and audits essential standards at national level. Imported and exported meat is monitored, and a national residue-monitoring programme was implemented.

The Directorate: Onderstepoort Biological Products (OBP) of the national Department of Agriculture became a State-owned public company in September 2000. It has the capacity and the technology to produce veterinary vaccines for the whole of Africa.

Information

In February 2001, the Institute for Dairy Technology was opened in Pretoria – the first of its kind in Africa. The dairy industry is an important employer: about 4 300 milk producers employ about 60 000 farm workers and indirectly provide jobs to some 40 000 people.

Milk consumption for 2000/01 is estimated at 2,06 million litres.



The OBP is the sole or main producer of at least 15 vaccines for African animal diseases.

It provides large quantities of vaccines to fight major outbreaks of diseases such as CBPP (lung-sickness in cattle), lumpy skin disease, rift valley fever, horse sickness and anthrax. The OBP has joined the Pan African Vaccine Network to supply rinderpest and lung-sickness vaccine for Africa. The OBP is also involved in projects of the *Office International des Epizooties* (OIE), the World Health Organisation and the EU to supply vaccine to African countries.

Pest control

The Department of Agriculture is involved in the chemical and biological control of invader plants. In total, 48 000 ha of Queen of the Night infestation has been controlled, partly in co-operation with the Working for Water Programme of the Department of Water Affairs and Forestry. During 1999, a total of 4 067 inspections were carried out on the protection of natural veld, cultivated lands, vleis, sponges and water run-offs and on declared invader plants and weeds.

The Department is active in a campaign to control the weed *Cereus jamacura*, which has invaded an area of approximately 255 000 ha. It involves four provinces stretching from Loskop Dam in the east to Zeerust in the west, and from Nylstroom in the north to Hartbeespoort Dam in the south. The cactus seriously reduces groundwater supply and the agricultural potential of the land. In some parts, the weed is also being controlled in collaboration with the Working for Water Programme. (See Chapter: *Water Affairs and Forestry*)

The Department is actively spreading biological control agents on other weed species such as *Harissia martinii*, *Sesbania punicea* and some aggressive *Opuntia* spp.

Migratory pest control

In terms of the Agricultural Pest Act, 1983 (Act 36 of 1983), the Department is continuously involved in the control of migratory pests, such as the quelea, locust and blackfly.

The South African Pest Control Association (SAPCA) is the official representative of the pest, termite and woodborer control industries. All SAPCA-qualified inspectors have to apply for registration with the Department of Agriculture.

South Africa liaises with other countries and international organisations to ensure technology transfer on the control of pests.

Marketing

In order to achieve the Government's stated aim with regard to the upliftment of small, medium and micro enterprises (SMMEs) and the commercialisation of the emerging farming sector, the Subdirectorate: Domestic Marketing was created. One of the first tasks of this Subdirectorate was to plan and organise a marketing course for extension officers. This was done in close collaboration with the Food and Agricultural Organisation (FAO) of the United Nations (UN). The course was offered during the first quarter of 2001 and was aimed at training a select group of extension officers in the field of agricultural marketing in such a way that they themselves can become trainers of this subject to other extension officers, as well as farmers.

In terms of the Marketing of Agricultural Products Act, 1996, which replaced the 1968 Marketing Act, all the schemes in terms of the 1968 Act had to be abolished by 5 January 1998.

By the end of 2000, the liquidation process of the old control boards (schemes) had not been completed, as a number of issues pertaining to levy collection and asset ownership still had to be resolved. There is, however, no longer any statutory intervention in terms of the 1968 Act.

By early 2001, six schemes had been extended to the middle of the year. By February 2001, Liquidation Committees had been established for the Meat Board, Wool Board, Maize Board, Deciduous Fruit Board, Wheat Board and Citrus Board.

Some partial deregulation had taken place prior to the implementation of the 1996 Act,

and some schemes, such as those for bananas, dried beans, eggs, chicory, *rooibos* tea and tobacco, had already been revoked before 1997.

In terms of the Act, certain limited statutory measures may be introduced if the objectives of the Act are advanced and directly affected groups are consulted.

Since deregulation, statutory measures in respect of records, returns and registration had been introduced in the maize, cotton, winter cereal, oilseeds, sorghum, wine and wool industries.

Statutory levies were implemented in the cotton, sorghum, wine and winter cereal industries to finance the information and research functions (also the function of generic promotion in the case of wine and cotton).

Requests for the introduction of levies in the wool and citrus industries have not been approved. Several industries that previously made use of statutory intervention no longer do so, and now operate free of control. The Act provides for control over the sale of certain agricultural products, of certain imported agricultural products, and of other agriculture-related products.

With the task of closing down the boards almost complete, the National Agricultural Marketing Council (NAMC) is now considering the integration of disadvantaged and small-scale participants into agriculture's main stream. It monitors how the market is operating in order to advise on correctional measures.

Since 1997, the NAMC has been investigating a number of issues. Reports on the investigation of the impact of deregulation in the following issues have been completed, and recommendations are in the process of implementation:

- market access
- fresh produce marketing
- wheat to bread value chain.

During 2000/01, investigations of the impact of deregulation in the following industries were conducted:

- red meat
- dairy
- deciduous fruit
- maize.

Attendance at agricultural shows, farmers' days, conferences and workshops offers NAMC the opportunity to disseminate information to all farmers. Operation Outreach continues as a valuable initiative. In 2000, 10 provincial marketing workshops were held under the NAMC slogan of *Market-driven Production Pays*.

The Directorate: Plant Health and Quality of the Department of Agriculture is responsible for setting the standards for certain agricultural and agriculture-related products. This includes aspects such as composition, quality, packaging, marking and labelling, as well as physical, physiological, chemical and microbiological analyses.

These standards are published in terms of the Agricultural Product Standards Act, 1990 (Act 119 of 1990), and the Liquor Products Act, 1989 (Act 60 of 1990), in the form of regulations for products sold on local markets and as standards and requirements for products that are intended for export. The Liquor Products Amendment Bill was expected to be published during 2001.

The Directorate was actively involved in negotiations between South Africa and the EU regarding the conclusion of a Wine and Spirit Agreement.

The Directorate was also actively involved in discussions in the New World Wine Producers Forum, held in the United States (US) and Australia, where issues such as geographical indications, traditional expressions and an agreement on mutual acceptance (MAA) of oenological practices were discussed. An MAA on oenological practices was initiated in Australia by the US, Canada, New Zealand and Australia. Discussions regarding a labelling agreement between the new-world countries has started, and will receive high priority. The Directorate was involved in discussions regarding the review of missions and means of the International Wine Office in Paris. A diplomatic conference was held in Paris and a final draft agreement was reached. A unanimous decision during the *Office International de la Vique et du Vin* General Assembly in October 2001 in



Australia will decide if the new draft treaty will be implemented.

In 1999, the Directorate prohibited the export of Class 2 deciduous fruit to key markets such as the EU and the US. Class 2 grapes were allowed to be exported until 31 December 1999 under certain conditions, but were banned from exports to the said markets for the rest of the season. Class 2 grapes can currently only be exported to Africa and surrounding islands and to Sri Lanka. For other deciduous fruit, certain selective prohibitions were put in place. These measures were requested by the deciduous fruit industry after a disastrous season in 1999.

Low-quality produce was exported, which resulted in lower prices overall, including Class 1 produce. According to the Deciduous Fruit Producers' Trust, the table grape industry alone suffered a loss of R200 million.

The Directorate developed the Production Unit Code Registration of production units of deciduous as well as subtropical fruits. This is aimed at ensuring the traceability of the origin of the products. The production unit codes were issued from 1 May 2000.

In October 1999, the Directorate launched education and awareness programmes on quality control, which were implemented during 2000.

The aim of the programmes is to encourage and facilitate the adoption of quality regulation standards and requirements by all farmers. This action will enable farmers to participate successfully in both local and export markets.

It is also aimed at educating consumers about quality control of agricultural products to enable them to make informed choices when purchasing food.

Another international development to ensure safe food of good quality through good agricultural and manufacturing practices is the control of management systems. Such systems ensure a more structured approach to the control of identified hazards than what can be achieved through traditional inspection and quality procedures.

The Directorate is drafting legislation to assure not only food safety but also the quality of agricultural products, including fresh fruit and vegetables, exported within the current control system. By implementing the prevention-is-better-than-cure rule, control is transferred from end-product testing to the design and manufacture of such products.

This amendment will not do away with end-product testing.

Land administration

The Department of Agriculture, through the Directorate: Farmer Settlement and Development, controls and administers 668 557 6941 ha of State agricultural land.

State agricultural land is divided as follows:

- 581 864 2735 ha of land expropriated by the South African Development Trust
- 86 693 4206 ha of commercial land purchased from insolvent estates and properties transferred by the Department of Public Works in terms of Section 7 of the Disposal Act, 1961 (Act 48 of 1961).

The primary goal of the Subdirectorates is the internal administration of State agricultural land with the aim of farmer settlement and ownership reform.

Food security

The Department has drafted the Integrated Food Security Policy Framework, which also includes the Plan of Action on Food Security.

The Department is implementing a training manual on food security issues for extension or development workers. About 36 people from various sectors within the country will participate in the programme.

The Department participates in the Government-initiated Integrated Sustainable Rural Development Strategy (ISRDS) and in collaboration with the FAO and provincial departments of agriculture are implementing, as part of the ISRDS, a national Special Programme for Food Security (SPFS). The Programme was launched during February 2000. The SPFS is targeted at supporting

about 3 000 households with each benefiting by between R2 000 and R3 000 in the form of infrastructure and agricultural input support. The amount is determined by specific needs and requirements. In total, approximately 18 000 individuals will benefit.

In order to achieve the objectives of the Programme, the FAO is offering a combination of local and international expertise to guide the Programme. The focus will be on the use of participatory approaches, including Participatory Rural Communication Appraisals, Farmer Field Schools and the establishment of essential local institutions to drive the project.

Regional issues

South Africa participated in various training programmes of the Southern African Development Community Food Security Training Programme (SADC-FSTP). The country also participates in the Regional Advisory Committee (RAC) of the Programme.

A Regional Food Security Training Programme (RFSTP) has been developed over a five-year period as endorsed by RAC. As from January 2000, the activities of the RFSTP focus on three main areas: strengthening the supply of food security training services; strengthening the effective demand for training; and developing and sustaining regional markets for food security-related training services.

International issues

As a signatory to the Rome Declaration, South Africa has committed itself to the implementation of the World Food Summit Plan of Action. For this purpose, South Africa reports annually to the World Committee for Food Security. South Africa is also collaborating with the FAO on the implementation of the SPFS within the context of the ISRDS.

Risk management

The Department of Agriculture will implement risk management strategies for the agricultural sector in South Africa early in

2002, as the Government is no longer providing relief assistance during agriculture-related disasters.

These strategies cover reduction, avoidance, retention and transfer of risks.

Drought management

There is an overall shift in the orientation of policy to put the responsibility of coping with drought back into the normal production system. This will cause farmers to exercise greater prudence and make themselves less vulnerable to the effects of drought.

A working group to devise a drought policy has been established.

Credit and assistance

The agricultural sector has, to date, been a net borrower, in that it borrows more than it saves. In fact, the total debt of South African farmers has grown by about 10% a year since 1995 – reaching R29 826 million by the end of 2000, compared with R9 495 million at the end of 1984.

The six major sources of credit for farmers are: banks (37%), agricultural co-operatives and agri-businesses (15%), the Land Bank (32%), private creditors (7%), other creditors and financial institutions (6%), and the State (3%).

Landcare

The vision of the Department's NLP is to have communities and individuals adopt an ecologically sustainable approach to the management of South Africa's environment and natural resources, while improving their quality of life. This means people use the soil, water and vegetation resources in a responsible manner to ensure that future generations will also be able to use them to their benefit. It also implies that cultivation, livestock grazing and harvesting of natural resources should be managed in such a manner that no further degradation (such as soil erosion, nutrient loss, loss of components of the vegetation, and increased run-off of water) occurs.



- The NLP objectives are to
- promote partnerships between communities, the private sector and government in the management of natural resources
 - establish institutional arrangements to development and implement policies, programmes and practices that will encourage the sustainable use of natural resources
 - encourage opportunities for the development of business enterprises that focus on sustainable resource management
 - enhance the long-term productivity of natural resources.

Landcare themes are grouped into two areas, namely: focused investment (Watercare, Veldcare, Soilcare and Juniorcare) and small community grants.

Landcare is developing and implementing integrated approaches to natural resource management in the country, which are efficient, sustainable, equitable and consistent with the principles of ecologically sustainable development. Landcare partners have consequently designed key strategies for sustainable natural resource management.

Serious concerns about land and water degradation, which impact on sustainable resource use, are identified in each province, and specific projects address these issues.

The purpose of this strategy is to empower resource-poor communities to develop Landcare groups and activities through awareness, training and education. This includes communication strategies directed towards rural community groups and young people. The strategy formulates policy and legislation to develop incentives for natural resource management.

Research and evaluation wants to establish and implement a monitoring system to evaluate progress, assess contemporary issues, and provide a basis for planning and research.

The Department also aims to promote its National Policy on Agricultural Land and Resource Management to all spheres of government and other stakeholders.

Focused investment

The Watercare theme targets the Northern

Province in particular, because of water shortages and the importance of water for irrigation. This theme establishes a framework for managing land and preventing the silting up of dams for irrigation. Watercare works in partnership with the community to develop action plans for managing and restoring irrigation schemes. The rehabilitation of irrigation schemes increases water supply and household food security. Furthermore, Watercare promotes the development of techniques for water resource management, and encourages opportunities for training in this field.

Veldcare promotes the best grazing systems and erosion-prevention practices to improve production. It develops and maintains agricultural activities in accordance with the principle of ecologically sustainable development within the North-West province. Economic and social development opportunities are realised by improving grazing areas and maintaining viable grazing areas throughout rural communities.

Soilcare encourages rural farmers in KwaZulu-Natal, the Eastern Cape and Mpumalanga to build innovative structures to combat soil erosion. This includes reducing the depletion of soil fertility and soil acidity. Through Soilcare, sustainable agricultural production systems are introduced, such as diversification, management of input and conservation tillage.

The objectives of Juniorcare are to empower previously disadvantaged young people through training in facilitation and leadership skills.

This includes the promotion of food security at home and at schools, awareness of sustainable agriculture, stimulating the formation of youth clubs, and projects that aim to promote other components of Landcare. Juniorcare addresses the needs of young people in an integrated way and involves interdisciplinary approaches.

Land Bank

The Land Bank is a statutory body with a mandate from government to support the

development of the agricultural sector as a whole. The Bank's key strategic intent is to achieve financial sustainability focused on social and development impact.

Meeting client needs with cost-effective and competitive products and services, building an efficient, representative and committed workforce, and good relations with stakeholders are critical elements of this strategy.

The Bank provides a comprehensive range of retail and wholesale financial products and services designed to meet the needs of commercial and developing farmers and agriculture-related businesses.

As a statutory development finance institution, the Bank must fulfil a government mandate requiring it to

- support the development of all elements of the agricultural economy
- give special attention to the needs of previously disadvantaged people in the sector
- benchmark its operating efficiencies and service delivery against financial sector norms
- ensure its financial sustainability.

Performance and scope

To equip itself to deliver on its mandate, the Land Bank completed a major transformation process in mid-1999. The process involved extensive consultations with existing and potential stakeholders. The result is a leaner, flatter structure complemented by a new information technology system. This enables the Bank to handle higher volumes of business at lower unit cost. The total portfolio stood at slightly more than R12,5 billion at the end of 1998, up from just over R10 billion at the end of 1997. The net surplus for 1998 exceeds R370 million, after making all necessary provisions. The increase in the reserves impacts favourably on balance sheet ratios. The year 1999 saw this figure grow to R434 million.

The Land Bank Amendment Act, 1998 (Act 21 of 1998), made it possible for the Bank to extend loans to agribusiness and to make equity investments, opening the way to diversify and grow the portfolio. Diversification is important for long-term financial sustainabil-

ity. The Bank receives no ongoing grants or subsidies from government, raising its funds on the local and international money markets. The Bank's conservative financial approach and good results are reflected in a premium risk rating, enabling it to access funds at favourable rates. A new Land Bank Act is being drafted, bringing the Bank in line with constitutional requirements and recent legislation such as the Labour Relations Act, 1995 (Act 66 of 1995).

Products and services

The Land Bank gives low, medium and high-risk clients access to a full range of long, medium and short-term loans to meet all financial needs, including land and equipment purchases, asset improvement and production credit. During 1999, the Bank added Gold Premium and Platinum risk categories to its existing Gold low-risk category. Clients who qualify on the basis of exceptional security and high loan values pay reduced interest rates. Specific criteria for medium and high-risk clients with limited security increases access to credit while minimising the risk of default. These clients pay higher interest rates, but on-time repayment earns them a bonus that reduces their rate to that paid by Gold category low-risk clients. To manage risk effectively, funding for these loans comes from a separate Development Finance Fund.

Corporate and development finance

The Bank has set up a Corporate Finance Unit, which provides a range of wholesale products to intermediaries and finance to corporate clients involved in agriculture-related business throughout South Africa. Agribusiness is defined as up-and-downstream activities, comprising input manufacturing, and supply and output-processing activities. The Unit works closely with the newly established Development Projects Unit. Many projects do not get off the ground because they cannot afford loan repayments in the early years. The Development Projects Unit overcomes this by investing in projects and taking a share of the eventual profits, rather than charging inter-



est. The Land Bank is developing monitoring mechanisms, principles and criteria for project selection.

Social accounting, auditing and reporting

As a development finance institution, the Bank has to measure both its social and financial performance. A major innovation during 1999 was the decision to measure and assess the social impact of its activities on its stakeholders. This will help the Bank to focus on what matters and makes a difference to its stakeholders. Outputs of the social accounting programme will include input into the design of products that support rural development, monitoring the impact of loans and other products, and enhancing the equity contribution of procurement, employment and other business practices.

Black economic empowerment

The high price of farmland in South Africa makes it impossible to finance the purchase of land solely from returns on farming activities. In a bid to assist historically disadvantaged people to gain entry into farming, the Land Bank has introduced a low-interest loan for historically disadvantaged, first-time buyers of agricultural land. The interest rate is set at 10% and is reviewed after 24 months. The Bank is committed to keeping the interest rate as low as market circumstances allow.

Many of the Bank's activities come together to support its Black Economic Empowerment Initiative. These include pricing based on risk, wider access to credit, new product lines, new risk criteria, Step Up micro-finance, equity investments, preferential access to bought-in properties, and increased use of black service-providers. The Bank is also in the process of investigating a number of other black empowerment initiatives, including:

- discount for clients who help the Bank achieve its social development goals
- subdivision of large farms to make land more accessible to aspiring black farmers
- graded entry and grace periods aimed at

reducing the burden of loan repayments in the first years of establishing or consolidating a business

- involvement in and funding of projects proposed through the Community Public Private Partnership Programme
- extending outreach and accessibility to the Land Bank's financial products by relocating branches and using agents and intermediaries
- introducing a range of insurance products to provide farm workers with funeral, disability and retirement benefits
- pre-qualification and approval for historically disadvantaged clients who want to acquire land through auctions.

Microfinance

To address the widespread need for micro-finance in rural areas, the Land Bank introduced the Step Up scheme in April 1998. This enables people with no security to borrow an initial amount of R250. If clients repay on time they can 'step up' to a R500-loan, continuing to a maximum loan of R18 000. At this stage, Step Up clients have a track record that qualifies them for Land Bank's high to medium-risk categories. By December 1999, more than 35 000 people had taken out Step Up loans with repayments running at 82%. In June 2001, that figure was 62 500, with repayments running at 83%.

Agri SA

Agri SA is an independent producer organisation consisting of provincial agricultural unions, commodity organisations and businesses owned by farmers, such as co-operatives and agricultural businesses. The main objective of Agri SA is to negotiate the best possible economic and social conditions for agricultural producers within the South African community. To attain this objective, it strives to organise the farming population and agricultural business into a united front.

National African Farmers' Union (NAFU)

NAFU strives to promote the interests of the

disadvantaged farming sector by lobbying for access to support services and empowering its members through effective communication and capacity-building programmes.

Agricultural Business Chamber

Agribusiness can be divided into two categories: non-co-operative business ventures and co-operatives or transformed co-operatives.

Non-co-operative business ventures, normally known as profit companies, are involved in the production and distribution of agricultural equipment and production requisites and the marketing of agricultural products.

Co-operatives dominate the distribution of intermediate requisites and the handling, processing and marketing of agricultural products.

Agricultural co-operatives or agribusinesses are regarded as the farmers' own independent business organisations. There are close to 1 000 primary co-operatives and agribusinesses throughout the country. They supply their farmer members with production input such as seed, fertiliser, fuel and repair services. They also provide credit and extension services, and handle a large percentage of their members' produce.

There are more than 15 central co-operatives in the country, which aim to supply the primary co-operatives with specific services, such as processing and marketing of agricultural products, insurance services for crops, short-term cover and farming requisites.

Due to world-wide changes and recent developments in South Africa, the Co-operatives Act, 1981 (Act 91 of 1981), no longer satisfies the needs of South Africans. A process to review co-operative legislation was embarked on. The objective of the new Co-operatives Bill is to provide enabling legislation that makes co-operatives accessible to all communities and that creates an environment conducive to co-operative development in all sectors of the economy. An interdepartmental workshop on the Bill was held in January 2001, after which further consultations took place. The Department held 13 hearings on the Bill between March and April 2001. As a result of the public hearings and

written comments that had been received, the Bill is being revised.

Economic empowerment

The Department of Agriculture funded NAFU's capacity-building programme. Further funding is provided by the US Department of Agriculture.

Bergville Maize Milling Co-operative was also coordinated and funded by the Department of Agriculture.

The Zijamele Farmers Co-operative's training programme was coordinated by the Department and rendered by Africare as an implementing agent.

The Department coordinates the Presidential Mechanisation Lead Projects.

Institutional capacity-building

The Department of Agriculture has developed an updatable databank for agricultural human resource capacity for South Africa.

In collaboration with the Economic Development Institute of the World Bank, the Department has designed and developed training courses for rural restructuring and development. The Youth Entrepreneurship Programme was launched in 1999.

The Department has coordinated and funded the development of the National Emerging Red Meat Producers' Organisation. This includes the formation of provincial structures and the provision of organisational leadership training.

Training and research

South African agriculture has a strong research component. Many of the people involved are world leaders in their respective fields of expertise. The ARC, an autonomous statutory body set up in terms of the Agricultural Research Act, 1990 (Act 86 of 1990), is the largest agricultural research organisation in Africa. Since its establishment, the organisation has transformed and consolidated, reducing the total number of research institutes from 16 to 13 in 1999.

The ARC provides research support for the



Department of Agriculture and the nine provincial departments of agriculture. ARC scientific expertise supports most of the Department of Agriculture's regulatory directorates such as the Directorate: Public Veterinary Health, the Directorate: Animal Health, the Directorate: Plant and Quality Control, the Directorate: Agricultural Resource Conservation and the Directorate: Agricultural Production Inputs. The ARC also supports other agricultural institutions such as the Registrar of Livestock Improvement and Identification, the Registrar of Brands as well as the South African Veterinary Council and the Perishable Products Export Control Board.

The ARC serves the whole continuum of farmers, from the small-scale subsistence sector, through the emergent commercial sector, to fully-fledged commercial farmers. Research can be scale-neutral or directed to the specific needs of small-scale or commercial farmers.

The ARC publishes various reports, field guides and other multimedia information products directed at all levels of agriculture in South Africa and the rest of Africa. Various specialised training courses and information days are regularly presented and attended by farmers and delegates from South Africa and neighbouring countries. Participatory research, specialised exhibitions, training courses and open days (with practical demonstrations) are used to reach the small-scale farmer.

South Africa has a number of specialised agricultural high schools or regular schools offering a comprehensive range of agricultural subjects. Prospective farmers are trained at 12 colleges of agriculture: Elsenburg (Western Cape), Cedara and Owen Sithole (KwaZulu-Natal), Grootfontein (Department of Agriculture), Glen (Free State), Potchefstroom (North-West), Lowveld College of Agriculture (Mpumalanga), Fort Cox and Tsolo (Eastern Cape), and Tompi Seleka and Madzivhandila (Northern Province). Diploma courses are also offered at technikons. Degree courses are offered at the faculties of agriculture of various universities.

Veterinary surgeons are trained at the University of Pretoria's Faculty of Veterinary

Sciences at Onderstepoort. The former Faculty of Veterinary Science at the Medical University of South Africa has amalgamated with the University of Pretoria. State veterinarians are assisted country-wide by animal health technicians who have a National Diploma in Animal Health from Technikon SA and various other colleges of agriculture. A National Diploma in Veterinary Technology is offered by Technikon Pretoria to enable student veterinary laboratory technicians of the Department of Agriculture and the private sector to become fully qualified. Meat inspectors in the Directorate: Veterinary Services assist the State veterinarians at abattoirs in South Africa with the meat-inspection function.

They complete a three-year diploma course at any technikon to become environmental health officers and are designated by the Directorate to become meat inspectors. Meat examiners complete a course at technical colleges to receive a national certificate in meat examining for red meat or poultry.

Over a period of about five years, a course has been developed to train poultry meat examiners for a national certificate. A similar course for the ostrich industry is being developed.

The marked lack of interest in agricultural engineering as a career choice has been widely debated. Food processing, packaging, storage and transport, computers, and sales and service opportunities, are all off-farm activities that fall within the ambit of the agricultural engineer. The technikons at Pretoria, Bloemfontein and Cape Town offer civil engineering with agricultural courses. The universities of Pretoria and Natal offer degree courses in agricultural engineering.

Trade relations

The Department of Agriculture reviewed its foreign representation. All previous foreign representatives of the Department and the ARC have been recalled. Foreign offices will be opened in countries of strategic agricul-

tural importance. The US and the People's Republic of China enjoy a high priority. The main functions of these foreign representatives will be to provide South Africa with information on agricultural developments, particularly issues that impact on policy, and to liaise with all agricultural organisations in the host and neighbouring countries on matters of mutual interest.

The Directorate: International Relations of the Department facilitates and coordinates international activities on both multilateral and bilateral bases, while the Directorate: International Trade analyses international trade and marketing policies and advises on agricultural trade policy. The Department is responsible for dealing with matters concerning agricultural relations with other countries and organisations, namely the South African Customs Union (SACU), the trade and industry sectors of the SADC, the World Trade Organisation (WTO) and the International Grains Convention. The Department maintains bilateral trade agreements with countries in Africa, including Lesotho, Malawi, Swaziland and Zimbabwe as the closest neighbours. The Department is also involved in negotiations with the EU, the Indian Ocean Rim Initiative and the Cairns Group.

Work relating to agricultural relations in the field of trade is done in co-operation with the departments of Trade and Industry and Foreign Affairs. The Department of Agriculture is a member of the FAO of the UN, the Consultative Group on International Agricultural Research, the Food, Agriculture and Natural Resources Sector of the SADC, the International Seed Testing Association, the Organisation for Economic Co-operation and Development's Seed Schemes, the Union for the Protection of New Varieties of Plants, and the Cairns Group.

The Department is responsible for the implementation of South Africa's commitments in terms of the WTO Marrakech Agreement. These commitments include the reduction of tariffs, export subsidies and domestic support given to agriculture. Almost all of these commitments were met with the

finalisation of the conversion of quantitative import restriction to tariffs, as well as the deregulation of the agricultural marketing system. In addition, the Department is creating market access opportunities by implementing minimum market access commitments agreed to in terms of the agreement.

In 2000, South Africa finalised the implementation of its Uruguay Round commitments. Mandated agricultural negotiations started in 2000. South Africa, together with the Cairns Group submitted four negotiation proposals at the mandated agricultural negotiations, which address export subsidies, domestic support, market access and export restrictions and taxes. South Africa also submitted a joint proposal with the WTO Africa Group.

South Africa's objectives in the agricultural negotiations are to achieve a substantial reduction in domestic support and export subsidies mainly by developed countries. In addition, another objective is to achieve a substantial improvement of market access for South African agricultural exports.

The Department is developing trade relations with other countries. Aspects attended to include the renegotiations of the SACU Agreement, finalising the SADC Protocol on Trade, as well as implementing the SA-EU Trade, Development and Co-operation Agreement (TDCA).

The SADC Protocol on Trade was implemented on 1 September 2000. The Department is part of the Government team dealing with the implementation of this Agreement, while it also participates in discussions aimed at resolving some outstanding issues such as the rules of origin for wheaten flour and related products.

The SA-EU TDCA was implemented on 1 January 2000. The Department has introduced a system whereby market opportunities under the Agreement can be fully utilised. This includes an information campaign, as well as the administration of export quotes granted to South Africa under the Agreement.

The South African Government is further investigating the possibility of concluding trade agreements with MERCOSUR (a treaty



establishing a common market between Argentina, Brazil, Paraguay, Uruguay, Bolivia and Chile). The Department is represented on intergovernmental task teams dealing with this issue.

In addition to these agreements, the Department represents the Government on the International Grains Convention. It is responsible for implementing and administering the agricultural components of the bilateral agreements with Zimbabwe, Malawi and Mozambique.

Finally, the Department is investigating export opportunities for agricultural products on world markets. A special subdirectorate was formed to investigate and develop an agricultural export strategy for the country.

Scientific co-operation with the US, initiated under the former SA-US Binational Commission, continues. Several joint projects on, *inter alia*, landcare, food safety and biotechnology have been completed, while others are still ongoing.

Young South Africans receive postgraduate training in the US, while an established village banking system is to be extended to South African rural areas.

Several zoosanitary and phytosanitary agreements with various countries are being negotiated and concluded to promote international trade. Visitors from African states such as Zimbabwe, Eritrea and Rwanda were hosted, while ongoing correspondence and contact with their representatives are maintained. An official delegation from South Africa, including officials from the Department of Agriculture, visited Nigeria to pave the way for future co-operation in various fields.

Discussions with Lesotho regarding the identification of livestock to prevent theft are ongoing. Various bilateral agreements regarding animal health and phytosanitary matters are under consideration or being negotiated.

The ARC participates in various co-operative research agreements, international organisations and networks. These include the Special Programme for African Agricultural Research and the FAO of the UN. South Africa was accepted as a partner in research projects that

are funded by the EU under its Fourth Framework Programme. The ARC is the national representative on the Board of the Southern African Centre for Co-operation in Agricultural and Natural Resources Research and Training, the co-ordinating committee of the SADC for agricultural research. The ARC is playing an increasingly important role in the agricultural sector in Africa.

The Biotechnology Action Committee of the United Nations Educational, Scientific and Cultural Organisation established its Biotechnology Education and Training Centre for Africa at the ARC-Roodeplaat Vegetable and Ornamental Plant Institute. The ARC-Onderstepoort Veterinary Institute is the OIE Regional Collaborating Centre and the Reference Centre for FMD.

At a national level, the ARC supports various government departments in deliberations regarding international agreements and disputes, for example the Convention on Biodiversity, the Kyoto Protocol on Global Change, the Montreal Protocol, GMOs and Indigenous Knowledge Systems.

Import and export control

South Africa is a signatory member of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (WTO-SPS). As a signatory member of the International Plant Protection Convention (IPPC), South Africa subscribes to the principles of equal market access and international co-operation in protecting human, animal and plant health. The WTO-SPS acknowledges the IPPC as the relevant organisation to draft and adopt standards for phytosanitary measures. These international organisations promote free trade in plants and plant products, and at the same time acknowledge the rights of member countries to protect plant health.

The Directorate: Plant Health and Quality of the Department of Agriculture is the designated National Plant Protection Organisation of South Africa and has the obligation to fulfil the requirements of the WTO-SPS and the IPPC.

The Department is one of the key regulatory State departments with the responsibility to enforce laws enacted by South Africa's Parliament to protect the South African consumer, the environment and other national interests. The Department's regulatory activities with regard to plants and plant products are primarily enforced by the Directorate: Plant Health and Quality and the Directorate: Genetic Resources. In addition, South Africa's Customs Service participates in this effort by detaining imported goods when requirements laid down by the directorates have not been met.

The Directorate: Plant Health and Quality promotes and regulates the availability of healthy and productive plant material and the quality of agricultural products in South Africa. It administers the Agricultural Pests Act, 1983 (Act 36 of 1983), the Liquor Products Act, 1989 (Act 60 of 1989), and the Agricultural Products Standards Amendment Act, 1998 (Act 63 of 1998).

Import control is vital to prevent the introduction of foreign live organisms into South Africa. Prospective importers of plants and plant products have to apply for an import permit for those controlled goods not published in *Government Gazette R1013* of 1989. A pest risk analysis, based on scientific data, is conducted, and specific conditions are set according to the phytosanitary risk(s) involved. These conditions are then stipulated in the permit issued to the importer. Importers are obliged to present the material for inspection to the Executive Officer of the Act or the official representative. Should the imported material comply with all set conditions, permission will be granted for release to the importer. In cases of non-compliance, the risks will be evaluated and managed by a decision on mitigation, destruction or return to the country of origin.

Should any potentially harmful pest be introduced into and established in South Africa, the Directorate: Plant Health and Quality will conduct a survey to determine the distribution of the organism, drafting an eradication programme, liaising with other

relevant parties and possibly coordinating and participating in the eradication programme.

Despite strict precautions in the past, several harmful alien organisms have become established in specific production areas in South Africa, causing substantial losses to agriculture. Control measures are published to prevent or combat the spread of these organisms to other areas in the country. This may include prohibiting transportation of plant material from infested or infected areas to areas free from the specific organism, testing samples to determine the specific pest status of the organism, and monitoring the specific pest and liaison at national level with all relevant institutes, industries and specialists.

Quarantine services ensure that high-risk imported plant material and biological control agents are appropriately handled, to guarantee that harmful alien organisms do not enter and are not established in the country.

In export control, South Africa has to comply with the import conditions of the specific country or group of countries it is exporting to, by issuing phytosanitary certificates. The Directorate furthermore maintains a database on the import conditions and procedures of various countries and the occurrence of harmful organisms within South Africa. It renders advisory and identification services, carries out field inspections, and conducts laboratory tests as requested by the importing country.

All consignments of plants and plant products intended for export are inspected, evaluated and certified by the Directorate's personnel.

This ensures a high standard of phytosanitary control, which contributes to and achieves international credibility and phytosanitary accountability and is conducive to the promotion of international trade in agricultural products. Close international liaison with regard to export programmes and their execution is very important to establish and maintain world markets for South African produce. Export control is further supported by the analysis of fresh produce for chemical residues to ensure compliance with interna-



tional standards and norms and that international trade is enhanced. These procedures include the sampling of commodities presented for export, and highly specialised and

sophisticated methods to determine the status of the products. These analytical results are used as inputs when deciding to release products for export.

Acknowledgements

AgriSA
Agricultural Research Council
Department of Agriculture
Land Bank
National Agricultural Marketing Council
South African Sugar Association

Suggested reading

- African Farm Management Conference (1998: Stellenbosch, South Africa) *Farm and farmer organisation for sustainable agriculture in Africa*, 26-30 January 1998, Stellenbosch, South Africa. Programme/Proceedings.
- Agriculture in South Africa*. 5th ed. Johannesburg: Chris van Rensburg, 1994.
- Agricultural Land Reform in South Africa: Policies, Markets and Mechanisms*. Cape Town: Oxford University Press, 1996.
- Agricultural Policy Reform in South Africa*. Editors: J. van Rooyen, J. Groenewald and J. Kirsten. Pretoria: University of Pretoria, 1998.
- Auerbach, R.M.B. *Design for participation in ecologically sound management of South Africa's Mlazi River Catchment – Wageningen*: Landbouuniversiteit, 1999.
- Bundy, C. *Rise and Fall of the South African Peasantry*. 2nd ed. Cape Town: David Philip, 1988.
- Employment trends in agriculture in South Africa / Statistics South Africa and national Department of Agriculture*. Pretoria: Stats SA, 2000.
- Indicators of competitiveness of South African smallholder farmers in selected activities*: final report of track 2 / Land and Agricultural Policy Centre (LAPC) ... [et al.] with the collaboration of the Agricultural and Rural Development Research Institute, University of Fort Hare, LIMA Rural Development Foundation, Umzumbe, KwaZulu Natal; prepared by S. Ngqangweni ... [et al.] Johannesburg: PC & S, [1999].
- Jiggins J. *Breaking new ground: options for agricultural extension and development in South Africa*/Janice Jiggins. Johannesburg, South Africa: Land and Agriculture Policy Centre, 1997.
- Johnson R.W. *Farmers and farm workers in KwaZulu-Natal: employment conditions, labour tenancy, land reform, attitudes and relationships / R.W. Johnson and L. Schlemmer*. Johannesburg: Helen Suzman Foundation, 1998.
- Keegan, T.J. *Facing the Storm: Portraits of Black Lives in Rural South Africa*. Cape Town: David Philip, 1988.
- Kok, P. and Pietersen, J. *Agriculture and Agroprocessing*. Pretoria: Human Sciences Research Council, 2000. (National Research and Technology Foresight Project).
- Kruger E. *Farmer to Farmer: A Story of Innovation and Solidarity*. Scottsville: Farmer Support Group, University of Natal, 1998.
- Land reform and agrarian change in southern Africa*: an occasional paper series. Bellville, RSA: University of the Western Cape. No. 10, 12 (1999).
- Marcus, T. *Commercial Agriculture in South Africa: Modernising Super Exploitation*. London: Zed Books, 1989.
- Pasture Management in South Africa*, edited by N. Tainton. Pietermaritzburg: University of Natal Press, 2000.
- People's Farming Workbook*. Cape Town: David Philip, 1995.
- People's Farming Workbook*. 2nd ed. Cape Town: David Philip for Environmental Development Agency Trust, 1998.
- Southey, J. *Footprints in the Karoo: A Story of Farming Life*. Johannesburg: Jonathan Ball, 1990.
- The agricultural democratisation of South Africa*. Project coordinators: J. Kirsten, J. van Zyl, N. Vink. Cape Town: Published for Africa Institute for Policy Analysis and Economic Integration by Francolin Publ., 1998.
- The Conservation Ideal: The Fourth Decade: being the SARCCUS record for the period 1981 to 1990*. Compiled by W.P. Ntseke and J. Farrell. Pretoria: SARCCUS, 1998.
- The dynamics of South African export basket*. Compiled by the Department of Economic Research and Development, Industrial Development Corporation of South Africa, Ltd. Sandton, RSA ; Industrial Development Corporation of South Africa, 1996.
- The nutritional content of South African beef*. Compiled by H.C. Schönfeldt ... [et al.] – Pretoria: South African Meat Board, 1996.
- Van Onselen, C. *The Seed is Mine: The Life of Kas Maine: A South African Sharecropper, 1894–1985*. Cape Town: David Philip, 1996.
- Wethli, E. *The South African chicken book: how to start a small business keeping chickens*. Editor: R. Berold; illustrator: L. Gilbert. Kenwyn, RSA: Juta, 1999.
- White Farms, Black Labour: The State and Agrarian Change in Southern Africa, 1910–1950*. Editors: A.H. Jeeves and J. Crush. Pietermaritzburg: University of Natal Press, 1997.