



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Agrekon

VOL. 12 No. 2

APRIL 1973

EDITORIAL COMMITTEE

Mr S. A. D. van Schalkwyk (Chairman),
Mr H.J. van Rensburg, Dr J.J. Gregory and Prof. J.A. Groenewald,
Mr G.J. Wissing (Editor), Mr Q. Momberg (Technical editing)

REQUIREMENTS FOR CONTRIBUTIONS

Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.) typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

The Journal is obtainable from the distributors: "AGREKON", Private Bag X144, Pretoria.

The price is 25 cents per copy or R1 per annum, post free.

The dates of publication are January, April, July and October.

"AGREKON" is also published in Afrikaans.

Contents

	<u>Page</u>
THE S. J. J. DE SWARDT AGREKON PRIZE	iv
I. TRENDS IN THE AGRICULTURAL SECTOR*	1
INTRODUCTION	1
ECONOMIC REVIEW	1
Gross value of agricultural production	1
Agriculture's contribution to the gross domestic product	1
Income of farmers	2
Expenditure on intermediate goods and services	2
Investment	2
Producer prices	3
Prices of farming requisites	3
Consumer prices	3
Consumer spending on food	3
SUBSIDIES	4
BRANCHES OF THE INDUSTRY	4
<u>Field Husbandry</u>	4
Maize	5
Grain sorghum	6
Buckwheat	7
Wheat	8
Groundnuts	9
Sunflower seed	9
Cotton	10
Tobacco	11
Chicory	12
Dry beans	12
Lucerne hay	13
Sugar cane	14
<u>Horticulture</u>	14
Deciduous fruit	15
Canning	16
Dried fruit	18
Viticulture	19
Citrus	20
Bananas	21
Vegetables	22
Potatoes	23
Rooibos tea	23
<u>Livestock</u>	23
Grazing conditions	24
Livestock numbers	24
Meat	26
Wool	28
Mohair	29
Karakul pelts	30
Industrial milk	31
Fresh milk	32
Eggs	33
Ostrich products	33
II. ARTICLES	
1. An application of economic theory in the long-term planning of the scale of operation in the primary production of wine grapes - H. J. Geyer and J. van Niekerk, K. W. V., Paarl	34
2. A review of the quality of management in South African agriculture - J. A. Groenewald, University of Pretoria	38
III. STATISTICS	47

* Compiled at the beginning of February 1973. Latest figures included herein are provisional

Trends in the agricultural sector

INTRODUCTION

The exceptionally favourable weather conditions experienced in the Republic and South-West Africa in 1971 persisted during the first half of 1972. Good crops of summer cereals were harvested for the second year in succession. Grazing was abundant and stock feed supplies were adequate. Part of the Vanrhynsdorp District was the only area remaining on the pasturage distress list at the end of October 1972.

During the second half of 1972, however, summer rains failed to materialise over large expanses, and in other areas the rain was poorly distributed. This had a severely adverse effect on the planting of summer cereals, and grazing conditions deteriorated rapidly. The unfavourable weather conditions continued at the beginning of 1973, prospects of late planting virtually disappeared, and the growth of summer cereal crops was retarded. Small stock farmers, in particular had to commence supplementary feeding. By the beginning of March 1973 there were 30 Karoo districts, 18 in the Free State, 8 in the Eastern Cape, 3 in the Northern Cape, 2 in the Western Transvaal and 1 in Namaqualand scheduled as pasturage distress areas.

The total supply of red meat in the controlled areas was at a slightly lower level in 1972 than in the previous year. Although the supply of beef rose by about 9% and that of veal by about 4%, the offerings of mutton dropped by 30%. The supply of pork was more or less the same as in 1971. The production of wool showed a declining trend for the third season in succession, mainly on account of the decrease in the numbers of woolled sheep over the past few years. The drought conditions will probably result in wool production declining even further during the present season. The rising trend in wool prices since January 1972 has been maintained during the present season. The average grease wool price for the period from September 1972 to January this year is about 160% higher than the corresponding price for the 1971/72 season.

Although the world price of maize is still very attractive at present, the Maize Board has decided, in view of the poor crop expected, to sell no further stocks of white maize for export from February onwards. The present wheat crop is slightly larger than last year's record crop, and production at present exceeds local consumption by about half a million tons. More extensive plantings in the Winter Rainfall Region, where favourable weather conditions were also experienced, were mainly responsible for the increase in production. Butter production declined further during 1972, and despite the appreciable reduction in the consumer prices of butter, local consumption is expected to increase very little. The present sugar cane crop seems promising, and selling prospects on the overseas market appear to be good.

The gross value of agricultural production was about 6% greater in 1972 than in the previous year. Increases were registered in the field cropping, horticultural and livestock branches. The net income of farmers for 1972 is placed at R830 million, which is the highest to date. Although 1972 was a

fairly good year for agriculture from the financial aspect, cost rises became progressively more significant particularly towards the end of the period. In view of the smaller crops of summer cereals expected and the possibility of poor grazing conditions, agriculture will find it far more difficult in 1973 to absorb cost rises as it has done over the past few years. The indications, accordingly, are that the prices of agricultural products will tend to rise this year, with particular reference to field and dairy products.

ECONOMIC REVIEW

GROSS VALUE OF AGRICULTURAL PRODUCTION

The total gross value of agricultural production is estimated to have amounted to a record R1 654 million in 1972, as against R1 567 for the previous year. The following table shows the gross value of agricultural production over the past three seasons:

Branch	Gross value of agricultural production			1972
	1972	1971	1970	1971
	R million			%
Field crops	789	749	557	105
Horticulture	270	254	222	106
Livestock	595	564	559	105
Total	1 654	1 567	1 338	106

As appears from the table above, the increase in the gross value of agricultural production in 1972 resulted from rises in the production of field as well as horticultural and animal products. The increase in field crop production was the result mainly of the larger yields of summer cereals, wheat and sugar cane, and increased earnings from citrus and deciduous fruit were largely responsible for the higher gross value of horticultural production. As regards animal products, the farm value of livestock slaughtered increased by almost R14 million, and there were also significant rises in the values of karakul pelts and dairy products. The value of small stock slaughtered remained at more or less the same level as in 1971.

AGRICULTURE'S CONTRIBUTION TO THE GROSS DOMESTIC PRODUCT

Agriculture's contribution to the gross domestic product totalled R916, R1 084 and R1 246 million in 1970, 1971 and 1972 respectively. During the year under review this contribution increased by about 15 per cent to the highest level to date. Good grain crops were largely responsible for this achievement.

INCOME OF FARMERS

The past year was a relatively good one financially for agriculture as a whole. The total gross income of farmers for 1972 is estimated at R1 675 million, and the net income at about R830 million - both figures the highest on record. The latter figure would have been considerably

higher had there not been sharp rises - especially towards the end of the season - in the costs of intermediate goods and services. Rising costs, especially on account of larger inputs, increase the farming risks and make increasingly heavy demands on the managerial ability of the farmer. The quarterly net income over the past three years is shown below:

Quarter	Net income of farmer			1972
	1972	1971	1970	1971
	R million			%
January - March	100	83	100	120
April - June	242	258	209	94
July - September	285	219	109	130
October - December	203	148	136	137
Total	830	708	554	117

For the quarter from October to December 1972, the gross income was again at a very high level on account of the increased income from winter cereal crops and cattle slaughterings. In spite of sharp rises in expenditure on intermediate goods and services, the net farming income was R203 million, which was R56 million more than that of the corresponding quarter last year.

The increase of R122 million in the net income of farmers in 1972 resulted from increased production as well as from rises in producer prices. In the case of red meat, the supply of beef in controlled areas was about 9 per cent higher than last year, and that of veal about 4 per cent higher, whereas the offerings of mutton dropped by 30 per cent. The gross income of farmers from slaughter stock was about R8 million greater than in 1971 in the case of cattle, and about R4 million higher in the case of sheep, while the income from wool remained more or less the same on account of a decline in the quantity sold. Producers of sugar cane and deciduous fruits also realised considerably higher gross incomes in 1972.

Despite the relatively favourable position of agriculture as a whole during the past year, drought conditions developed in the western parts of the country towards the end of the period. The latest indications are that the income of farmers, especially those depending on crops of summer cereals, will be considerably lower in 1973 than in 1972.

EXPENDITURE ON INTERMEDIATE GOODS AND SERVICES

Expenditure on short-term requirements increased further during the past year to an estimated amount of R480 million, which was approximately 14 per cent higher than in 1971. The quarterly expenditure over the past three years is shown below:

Quarter	Expenditure on intermediate goods and services			1972
	1972	1971	1970	1971
	R million			%
January - March	111	91	88	122
April - June	107	91	86	118
July - September	130	118	100	110
October - December	132	122	105	108
Total	480	422	379	114

Although there were fairly general price rises, the larger summer and winter cereal crops, which entailed increased expenditure on packing material, maintenance and repairs of vehicles and machinery, fuel and farming services, were also an important factor in the increase in expenditure. In 1972 R121 million was spent on fertilizers, which was R32,0 million more than in 1971. Expenditure on repairs and maintenance of machinery and implements was R5,8 million higher, and that on fuel R4,4 million more.

INVESTMENT

The total value of the capital investment in the agricultural sector amounted to about R7 479 million in December 1972. The annual investment figures for the past three years are given below:

Item	Gross investment			1972
	1972	1971	1970	1971
	R million			%
Fixed improvements	80,1	75,3	70,8	106
Machinery, implements and vehicles	123,9	122,0	108,3	102
Changes in live-stock inventory	+22,6	-2,2	-21,6	-

From the data given above it is apparent that gross investment increased further during 1972. Investment in fixed improvements increased at more or less the same rate as in the previous year. In the case of machinery, implements and vehicles, a levelling off could be discerned in the increase during 1972. About 28% of the investment in machinery was in motor cars, light delivery vehicles and trucks, and the remaining 72% was invested in tractors, implements and other machinery. The livestock inventory showed a considerable increase during 1972 in comparison with the preceding two years. This increase resulted mainly from a rise in livestock numbers.

PRODUCER PRICES

The combined index for producer prices for agricultural products rose by about 10,4% in 1972. The indices for the past three years, with the years 1958/59 to 1960/61 as base, are given below:

Product	1972	1971	1970
All products	141,4	128,1	125,5
Field products	121,7	123,2	120,5
Maize	114,3	123,4	116,3
Wheat	124,9	118,8	117,4
Horticultural products	147,4	129,3	129,4
Fruit	127,8	123,3	119,6
Vegetables	161,1	121,2	139,8
Animal products	157,2	132,5	128,8
Slaughter stock	196,3	163,2	154,5
Dairy	136,4	131,4	124,9
Pastoral	120,7	80,1	93,7

Prices of field products showed a drop of 1,2% in 1972, due largely to the reduction in the price of maize. In contrast, the producer price of wheat rose by 5,1%.

Prices for horticultural products rose by 14,0% in 1972, after remaining virtually constant in 1971. Prices of vegetables were almost 33% higher in 1972, after a relatively big drop in 1971, and producer prices of fruit increased by 3,6%.

Producer prices of animal products were about 18,6% higher in 1972 than in 1971. Prices of all slaughter stock were 20,3% higher, and the increases in the producer prices of beef, mutton and pork were 13,6%, 44,9% and 5,9% respectively. There was a sharp rise of 50,7% in the producer price of pastoral products. Wool prices rose by 160%, karakul prices by 23% and those of dairy products by 3,8%.

PRICES OF FARMING REQUISITES

The price index for all farming requisites for the quarter ended December 1972 was about 9% higher than for the corresponding quarter last year. The rise resulted mainly from increases of 9,9% in the prices of machinery, equipment and implements, 10,5% in fixed improvements and 8,6% in the prices of short-term requirements.

As regards machinery, equipment and implements, the items tractors, trucks and spares became 19,2%, 12,7% and 4,4% more expensive respectively, while fuel prices rose by 6,5%.

Prices of fencing material and building material showed increases of 19,0% and 7,5% respectively, and in the case of packing materials the increase was 17,3%.

The various price indices, with 1958/59 to 1960/61 as base, were as follows for the quarter October to December in each of the past three years:

Item	1972	1971	1970
All farming requisites	135,0	123,5	116,2
Machinery and equipment	151,7	138,0	128,9
Repair rates	264,9	238,9	216,5
Fencing material	148,3	124,6	125,5
Fertiliser	109,8	103,1	100,3
Fuel	118,2	111,0	99,2
Stock feed	121,1	125,7	122,3

CONSUMER PRICES

The combined consumer price index was about 7,3% higher in December 1972 than in December 1971. Food prices rose by 8,4%. Consumers had to pay 17,3% more for meat, and vegetable prices rose by as much as 23,6%. Significant price rises also occurred in the case of fruit and fish, but

the consumer paid a little less for milk, milk products and eggs as well as for sugar and related products. The consumer price index, on the basis of April 1970 = 100, is compared in the following table for December and November 1971 and 1972:

Item	Consumer price index				
	Weight %	December		November	
		1972	1971	1972	1971
All items	100	117,4	109,4	116,6	109,0
Food	24,75	118,9	109,7	117,2	109,2
Meat	6,55	132,6	113,0	125,1	111,8
Milk, milk products and eggs	4,88	110,9	113,4	110,5	113,4
Cereal products	2,83	112,0	109,2	111,5	108,9
Vegetables	2,27	122,9	99,4	133,0	100,7
Fruit	1,74	121,8	108,8	117,4	105,8
Sugar and allied products	1,62	100,7	102,7	100,6	102,5
Fish	0,62	123,9	115,8	122,9	115,3
Fats and oils	0,47	120,2	114,6	120,1	114,4

Source: Department of Statistics

CONSUMER SPENDING ON FOOD

The total consumer spending on food was R2 689 million in 1972, as against R2 347 million in 1971 - an increase of 14,6%. This increase is attributable mainly to rises in food prices as well as to an increase in the population. The quarterly expenditure over the past three years is shown below:

	Consumer spending on food			1972
	1972	1971	1970	1971
	R million			%
January - March	630	552	491	114
April - June	668	585	535	114
July - September	671	583	547	115
October - December	720	627	568	115
Total	2 689	2 347	2 141	115

SUBSIDIES

The amounts in which agriculture have been subsidised in recent years by the Department of Agricultural Economics and Marketing, compare as follows with the budgeted amount for the 1972/73 financial year:

Item	1972/73	1971/72	1970/71
	R million		
Price stabilisation			
Maize	42,150	34,881	36,799
Wheat	41,459	29,510	28,854
Dairying	12,070	5,880	5,406
Grain sorghum	0,620	0,704	0,544
Sub-total	96,299	70,975	71,603
Cost of means of production			
Fertilizers	17,200	20,473	15,653
Interest	7,283	5,101	2,066
Sub-total	24,483	25,574	17,719
Ad hoc assistance to branches of farming			
Wool	7,119	8,500	1,500
Other	0,378	0,194	0,896
Sub-total	7,497	8,694	2,396
Drought and flood assistance			
Stock feed subsidy	0,004	1,156	8,415
Other	2,195	1,445	4,052
Sub-total	2,199	2,601	12,467
Total	130,478	107,844	104,185

BRANCHES OF THE INDUSTRY

FIELD HUSBANDRY

MAIZE

PRODUCTION

The area planted to maize on the farms of White farmers increased during the past few years, and the favourable production conditions over the greater part of the summer-rainfall area were partly responsible for this. The indications are that plantings for the present crop were smaller because of the late rains and the poorly distributed precipitation, especially in the western crop areas. Particulars of the area planted during the past three production seasons are as follows:

Production season	1971/72	1970/71	1969/70	1971/72 1970/71
	1 000 hectares			%
Area planted	5 524	5 315	5 054	104

The total production of maize during the past three marketing seasons is reflected in the following table:

	1972/73	1971/72	1970/71	1972/73 1971/72
	1 000 tons			%
White	5 309	4 741	3 504	112
Yellow	4 321	3 859	2 629	112
Total	9 630	8 600	6 133	112

The 1972 crop of 5,3 million tons of white and 4,3 million tons of yellow maize was about 12% larger than that of the previous year. Crop prospects for 1973 are considerably poorer because of the smaller plantings and the less favourable production conditions in the more important production areas. The rains during the growing season were generally late and poorly distributed, and in addition the crop was badly damaged by drought and high temperatures. The already low rainfall was often accompanied by hail. At present there are indications that this year's crop will be about 50% smaller than that of the previous year.

The relative importance of the various production areas over the past three seasons appears from the following figures:

Region	1972/73	1971/72	1970/71
	%		
Western Transvaal	28,77	23,28	25,99
North-Western Free State	21,57	23,92	22,96
Northern and Eastern Transvaal	11,21	10,64	11,31
North-Eastern Free State	11,11	12,77	12,95
Eastern Transvaal			
Highveld	9,64	10,70	12,67
Other areas	13,75	14,39	11,75
Total White areas	96,05	95,70	97,63
Total Bantu areas	3,95	4,30	2,37
Total Republic	100,00	100,00	100,00

IMPORTS

No maize was imported during the 1972/73 marketing season, but limited quantities were obtained from neighbouring territories in the preceding two seasons - 72 000 tons in 1970/71 and 16 000 tons in 1971/72.

LOCAL MARKETING

The Maize Board's sales for local consumption during the past few seasons are shown below according to marketing channel:

Sales to -	1972/73	1971/72	1970/71	1972/73 1971/72
	1 000 tons			%
Millers and other processors	3 496	3 472	3 590	101
Dealers and consumers	274	261	485	105
Agents of the Board	90	116	176	78
Physical losses	23	11	9	209
Total	3 883	3 860	4 260	101

The local sales during 1972/73 are estimated at about 3,9 million tons, i.e. 2,5 million tons of white and 1,4 million tons of yellow maize. Total sales remained more or less constant during the past two years. It is expected that sales will increase in the 1973/74 marketing season on account of increased use as stock feed, crop failures in the Bantu areas and the cessation of the grain sorghum mixing scheme, under which yellow maize was replaced by grain sorghum in stockfeed mixtures.