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AGRICULTURAL OUTLOOK CONFERENCE 1986

AGROCON LANVOKON '86

LANDBOUVOORUITSKOUINGSKONFERENSIE 1986

PRESENTED BY —

- Agricultural Economics Association of South Africa
- Co-ordinating Committee of Agricultural Marketing Boards
- Department of Agricultural Economics and Marketing
- Department of Agriculture and Water Supply
- National Marketing Council
- SA Agricultural Union

CSIR CONFERENCE CENTRE
Pretoria

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AGRECON 1986

1 INTRODUCTION

At the time of Agrecon 1985 it was forecast that potato plantings for the season October 1984 to September 1985 in irrigation areas would increase and that those in dryland areas would decrease. In irrigation areas there was, in fact, a small increase and in dryland areas a decrease of 3% which resulted in an overall decrease in plantings of 1,5%.

With regard to the extent of the crops, it was expected last year that the most important markets would again be well supplied and even over-supplied at times. This expectation was realised and, though the Eastern Transvaal crop was considerably smaller than last year, the Eastern and Western Free State together produced larger crops which led to full markets. The total R S A crop for 1984/85 came to 77,4 million x 15 kg pockets compared with 80,7 million x 15 kg pockets last year, which means a decrease of 4,1%.

2 PRODUCTION AND GROSS VALUE OF POTATOES IN THE R S A

The average yield per hectare of the past year (Annexure 1) of 17,7 tons is slightly lower than the 18,2 tons of 1983/84, but it is considerably better than the 15,7 tons average of the past 10 years. This figure is substantially lower than the 36 tons per hectare average obtained in some European countries. However, it is higher than the estimated world average of 14,3 tons per hectare.

The gross values of the total annual crops showed an increasing tendency until 1982/83 (Annexure 1), but for the past 2 years the tendency has changed and the gross value of R270 million in 1982/83 dropped to R250 million in 1983/84 and to R235 million in 1984/85. The decrease in value over the past year resulted from large supplies to the markets and the generally lower price levels.

As illustrated in Annexure 1 the total production also shows a decreasing tendency because of continuously low prices over the past 2 years and in the present unfavourable economic climate an increase in total production is not expected.

Annexure 1: Extent of table and seed potato crops in the Republic and their estimated gross values over the past 10 years.

Annexure 2: Total yield and the 5-year rolling average yield for the past 10 years graphically illustrated.

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Annexure 3: Yield per hectare for the past 10 years under dryland and under irrigation respectively, graphically illustrated.

Annexure 4: The increasing tendency in both the area planted and the average yield per hectare over the past 15 years, graphically illustrated.

2.1 Production during the past season (1 October 1984 to 30 September 1985)
The extent of total potato production during 1984/85 compared with 1983/84 is shown in Annexure 1. As it was forecast at the time of Agrecon '85, the total plantings in irrigation areas were slightly larger than in the previous year while those in the dryland areas decreased. The total plantings decreased by 1,5% from 66 508 ha the previous year to 65 537 hectares this year. Dryland plantings made up 51% of the total area and produced 33% of the total crop. Last year the comparative figures were 52% and 40% respectively. The total average yield per hectare this year decreased by 2,7% and the total crop by 4,1% compared with the previous year. This decrease is mainly due to a much poorer year in the Eastern Transvaal Highveld which is largely a dryland production area. The North Western Free State (mainly dryland) experienced more favourable conditions than last year and considerably better yields were obtained. The steadily increasing average yield per hectare in irrigation areas over the past 3 years was once again maintained this year and increased from 23,1 tons per hectare last year to 24,5 tons this year (Annexure 3). This increasing tendency is the result of improved irrigation techniques which, amongst other factors, may be attributed to the increasing use of centre pivot systems. According to the table in Annexure 1, the gross value of potatoes (based on market prices) during 1984/85 was R202 per ton compared to R206 per ton during 1983/84. A decrease of 4,1% in total production therefore resulted in a 2% decrease in gross value per ton.

2.2 Coming season (1 October 1985 to 30 September 1986)
Irrigation areas:
Crop surveys for the 1985/86 season which have already been done in the Northern Transvaal, indicate a 26% decrease in plantings and an 8% increase in average yield per hectare which will expectedly result in a 20% decrease in total production compared with last season. Plantings in the Western Cape Ceres area also indicate a decrease

compared with last season and, according to the Phase 2 survey, a decrease of approximately 20% in the area planted for the Sandveld winter crop can be expected. The decreasing tendency in the areas planted may be directly attributed to poor market prices during the past two years. The prices have however firmed over the last three months and, with the decrease in plantings, better prices can be expected than over the past two years. It can result in plantings again beginning to increase.

Dryland areas:
An early planting estimate in the Eastern Free State indicates that the plantings will be approximately the same as the previous year. It is expected that the total plantings in the North Western Free State will be about 15% less. In the Eastern Transvaal plantings are about 10% less than last year. Notwithstanding the decreases in plantings, favourable climatic conditions could result in a total crop being realised which is comparable to (or even larger than) that of last year.

2.3 Production potential
Although big fluctuations in total production (particularly because of the influence of climatic conditions in dryland areas) are experienced from year to year, the 5-year rolling average yield over the past 8 years (Annexure 2) nevertheless shows an increasing tendency. It is attributed to improved cultivation techniques, effective application of irrigation water and an improvement in the quality of the planting material. In the graph (Annexure 4) the increasing tendency in both the plantings (A) and the average yield per hectare (B) over the past 15 years, is illustrated.

2.3.1 Vertical expansion
The influence of climatic conditions on the crop come to the fore clearly in the average yield (Annexure 3) for dryland areas, namely only about 11,3 tons per hectare. Opposed to this, the average yield under irrigation is 24,5 tons per hectare while the total average yield per hectare is only about 17,7 tons. This yield is considerably lower than in certain countries in Europe where the yield varies from 35 tons to as high as 60 tons per hectare. It is therefore the objective of local researchers

to raise the unit production to at least 20 tons per hectare by the year 1990.

Improved breeding techniques place it within the reach of the experts to develop cultivars which are better adapted to South Africa's relatively high average temperature and are more tolerant of moisture stress. Cultivars which meet these requirements will probably bring about a considerable increase in yield per hectare.

2.3.2 Horizontal expansion

The possibility of horizontal expansion is situated mainly in the dryland areas and, according to expert opinion, plantings in the Eastern Transvaal and the Eastern and North Western Free State can be increased by at least 42%. In the irrigation areas the potential for expansion is limited by the availability of sufficient water for irrigation.

Some of the factors which influence the expansion of plantings are tendencies in the market prices of potatoes, the cost and availability of seed potatoes, suitable cultivars for specific circumstances and other branches of farming or other crops which provide a better profit than potatoes.

Because of the high inputs of potato production it is essential that producers make certain that marginal soils are not used for this purpose. Furthermore it is important that, in addition to higher production, the demands of a more sophisticated society are borne in mind and that these will involve a better quality product.

3 MARKETING

3.1 Local marketing

3.1.1 Past season (1984/85)

As was forecast during Agrecon '85, the markets were very well supplied with potatoes for the first nine months of the year.

Monthly sales on all the markets were, with the exception May (when only 50 000 pockets less were sold than in May of the previous year), consistently higher than in 1983/84 when a record crop was produced. During the past year 47 million x 15 kg pockets were sold compared with 43 million the previous year while the average price was only 3c per pocket less. The percentage of the total crop sold on the markets rose from 64,8% in 1983/84 to 71,7% this year (1984/85).

Although the total potato crop was 4% less this year than the previous year, 9,4% more was sold on the markets (47 million/ 43 million). As a result of the low prices which producers realised for their potatoes over the past two seasons, the Board announced a price-support scheme which meant an extra income to the producer equal to 1,75% of the gross value of potatoes sold, upon which levy was paid to the Board during the 1984/85 financial year.

3.1.2 Coming season (1985/86)

From available information it is apparent that overall plantings will be smaller than last year. The new financial year accordingly began with smaller supplies on the markets - and accordingly higher prices.

As a result of smaller plantings in the dryland areas of the Eastern Transvaal and roughly similar plantings to the previous year in the Eastern Free State and also the scarcity of rain in these areas at the start of the season, it is expected that prices on the northern markets will move on a considerably higher level for the first four months of 1986 than was the case in 1985. This tendency will apparently also be evident on the southern markets because of smaller plantings in the most important production areas of the Western Cape. The supply to markets during the second half of the year will largely depend on climatic conditions which will prevail in the autumn months - particularly in the Free State area where potato production takes place predominantly under dryland conditions.

3.2 Export

The Board is by law the sole exporter of potatoes. The ordinary trade is, however, also able to exploit the potential export market as agents of the Board. An export permit may also be issued to any person to export potatoes on his own account.

Opportunities for export arise sporadically but the Board and the trade continually endeavour to open up new export markets and to promote export to existing markets. However, the present political situation and high freight tariffs have a depressing effect on exports.

3.2.1 Previous season (1983/84)

On account of the record crop which had to be marketed, it was attempted to export larger quantities and in so doing relieve the pressure on the local markets. Although many problems were encountered, 9 979 tons of table potatoes to the value of R1 560 000 and 679 tons of seed potatoes to the value of R277 200 were exported (Annexure 7).

3.2.2 Past season (1984/85)

The markets were once again very well supplied with potatoes and every attempt was made to export as much as possible. The few opportunities which did present themselves, were utilised to the full - sometimes at very short notice and at a loss. In spite of the economic and political pressure, 3 722 tons of table potatoes to the value of R882 701 and 3 019 tons of seed potatoes to the value of R1 250 013 were exported (Annexure 7).

3.2.3 Coming season (1985/86)

It appears as if the internal markets will not be under as much pressure as the previous two years and that the prices will be generally higher. For the sake of continuity and sound business relations the existing export markets will be satisfied as far as possible:

3.3 Substitutes

Rice, maize products and pasta are the most important substitutes for potatoes. Because the price of potatoes was relatively lower than that of the substitutes during the past two seasons, more potatoes were consumed by the lower income groups in particular.

4 PRICES IN THE POTATO INDUSTRY

Potato prices are fixed by supply and demand mainly on the fresh produce markets where almost 72% of the potato crop is sold. The market price also serves as a basis for price fixing in transactions taking place outside the

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market.

The demand for potatoes is very inelastic and a small over-supply often results in a big drop in the price. Similarly, a slight shortage causes prices to rise sharply. Annexure 6 shows the annual average price on some of the most important markets over the past number of years and also the total sales, the total return and the average monthly price on all markets within the controlled areas for the past two years.

4.1 Producer prices - past year (1984/85)

The average price of potatoes for the first 3 months of the year was slightly lower on nearly all the markets than the previous year, which may be attributed to the carry-over of the record crop of the previous season. From the beginning of 1985 prices tended to be slightly higher than those of the previous year.

On the markets which are supplied mainly by the northern production areas (i e Johannesburg, Pretoria, Klerksdorp, Vereeniging) prices since January 1985 were virtually continually higher than the previous year, but prices on those markets which are supplied mainly by the southern production areas (particularly Cape Town) were predominantly lower than the previous year, especially from May to September when larger summer crops were marketed.

The northern production areas contributed 59% of the total crop the previous year (1983/84) and during the past year (1984/85) 54% of the crop, while the southern production areas increased their contribution from 27% the previous year to 30% the past year. The southern markets also received a relatively larger supply and particularly Cape Town market was under severe marketing pressure for a long period.

4.2 Producer prices - coming year (1985/86)

According to expectations, prices from October 1985 until the end of the first half of 1986 will be higher than those of the previous year as a result of smaller plantings and crops in most areas. Smaller offerings (than last year) are therefore expected on the markets.

4.3 Consumer prices

Seeing that there is no price control on potatoes, prices in both the wholesale and retail trades are determined by supply and demand. In actual practice, however, it is found that retail prices follow virtually the same pattern as market prices. It can therefore be expected that consumers will pay higher prices for potatoes this year than last year.

4.4 Export prices

The ruling market price is used as a basis for the price-fixing of export potatoes. Although it is always attempted to maintain export prices to specific markets as stable as possible, the internal supply situation is continually taken into account.

5 PROJECTION

Because of the potato's exceptional adaptability and therefore the possibility of obtaining reasonable yields under various climatic and soil conditions, the crop is cultivated the whole year round and in virtually every part of the country.

If the growth in production over the past 10 years is used as a criterion and it is accepted that eating habits and consumer patterns will maintain the same trends, it can be foreseen that the industry will continue to grow steadily in the short term. Factors which will contribute to this growth are, amongst others, a growing population, a change in the traditional eating habits of Blacks and the increasing urbanisation of the population.

In addition to this it can be expected that there will be a rise in the consumption of processed potato products and therefore the extent of processing will increase. The utilisation of potatoes as animal feed (particularly in times of surplus) is receiving more and more attention and the possibility exists that this marketing outlet will be increasingly used as a result of further research and development.

POTATOES

Summary

Continuously low market prices from December 1983 (until the middle of 1985) contributed to plantings being decreased by 1,5% compared with 1983/84. Furthermore, the generally poor economic situation had a negative effect on the industry and the gross value of the R S A's potato production decreased from R270 million in 1982/83 to R250 million in 1983/84 and R235 million in the past year. A slightly lower average yield per hectare compared with last year (17,7 tons as against 18,2 tons) also contributed to the decrease in the total crop but this

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is still considerably better than the average of 15,7 tons for the past 10 years. The gross value per ton, based on market prices, also decreased from R206 per ton in 1983/84 to R202 per ton this year. The picture which emerges from these figures is not encouraging, but market prices have firmed considerably over the past three months and with smaller plantings in the most important production areas, better prices than those of the past two years can be expected. Plantings can, however, possibly increase as a result of the present good prices.

Plantings in IRRIGATION AREAS have decreased but the increasing tendency in the average yield per hectare since 1980/81 is still being maintained and it can be attributed to steadily improving irrigation methods in which centre pivot systems play a large part.

The decreasing tendency in plantings was also apparent in DRYLAND AREAS and fluctuations in production, which are characteristic of dryland areas, again occurred but markets were nevertheless still over-supplied at times. It is expected that less (about 10%) will be planted during the coming season in the most important dryland areas but, because of the fluctuations in production, should good rains fall this summer, a steady and sufficient supply could still come from these regions. During the past year dryland areas provided 51% of the total plantings and supplied 33% of the total crop. The comparative figures for previous year were 52% and 40% respectively.

The potential for horizontal expansion in potato production is still considerable in all production areas except those which irrigate intensively. Expansion, however, depends largely on supply and demand and on the producer's profit per hectare. If this profit margin does not compare favourably with that of other crops, potential soils will naturally not be used for the production of potatoes. The limited water supplies for irrigation throughout the country will also be applied much more discriminately with regard to the profitability of the crops.

The most important limiting factor in <u>vertical expansion</u> is still the characteristics of available potato varieties with regard to optimal production under hot, dry conditions. Research and breeding aimed at solving this problem is carried on continuously. Research into other factors such as fertilisation, pest control, irrigation techniques and soil science is showing steady progress.

The most important factors in the general expansion of the industry may be summarised as follows:

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- The availability of irrigation water;
- The optimal utilisation of resources such as water, suitable soils, research findings, labour, etc; and
- The degree to which production costs can be kept in check so that potatoes can remain competitive with other crops.

Supply and demand determines the price of the product and the system of free marketing which is employed in the R S A, exposes the industry to price fluctuations which react very quickly to a shortage or an over-supply.

The following table shows table potato production over the past three years, sales on the municipal markets and the average price per 15 kg:

	1982/83	1983/84	1985/86
Total table potato production (15 kg)	44 292 300	66 672 600	65 860 670
Total sales on municipal markets (15 kg)	33 800 176	43 157 344	47 427 166
Average price per 15 kg	503c	281c	278c

The Board once again had to take action to prevent a price collapse as a result of the over-supply to the markets for the major portion of the year.

Large scale exports were once again out of the question because of high freight tariffs and good crops in overseas countries, but the limited opportunities were well utilised. The following tonnage of table and seed potatoes were exported over the past 3 years:

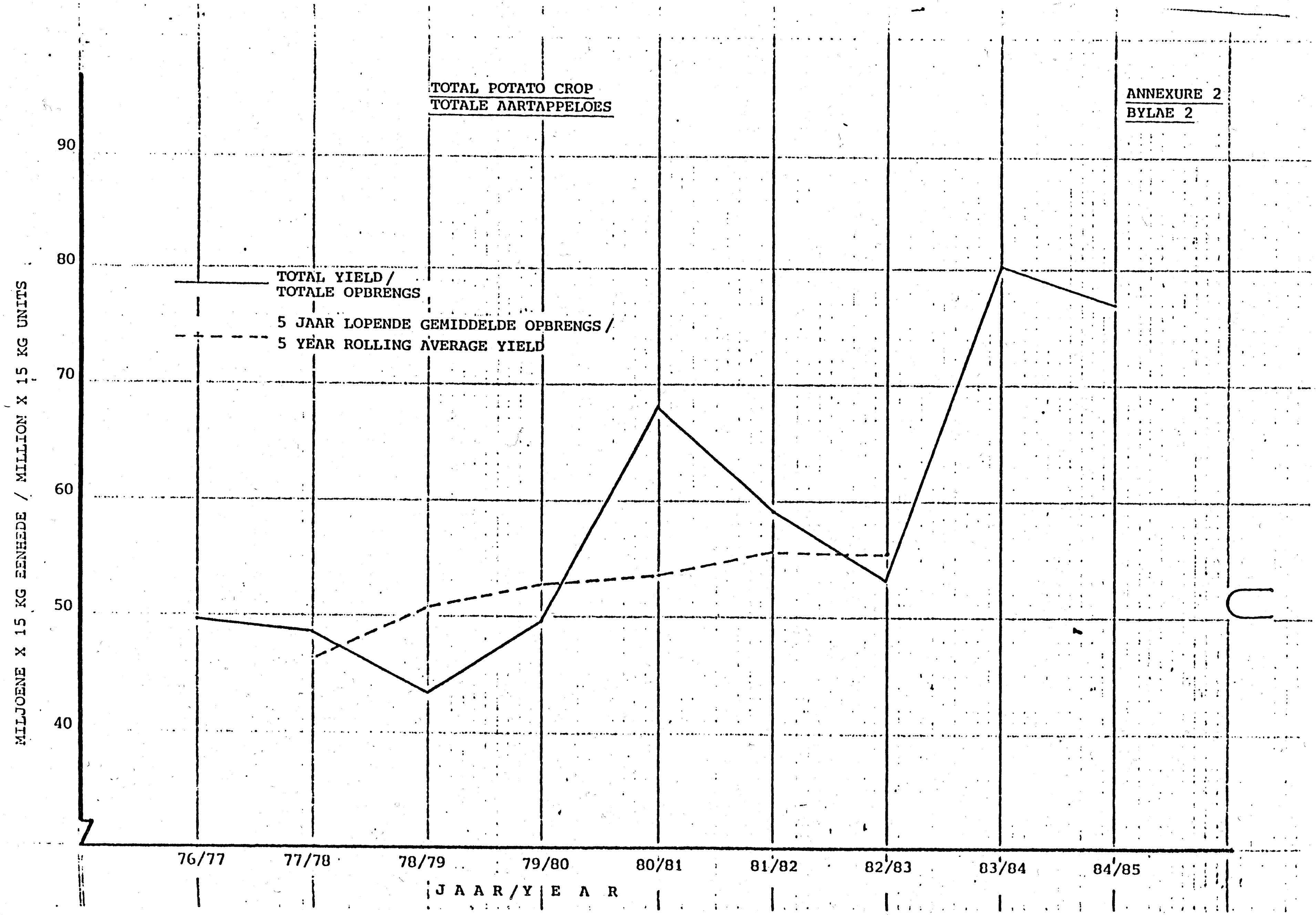
	1982/83 Tons	1983/84 Tons	1984/85 Tons
Table potatoes	2 344	9 979	3 722
Seed potatoes	537	679	3 019

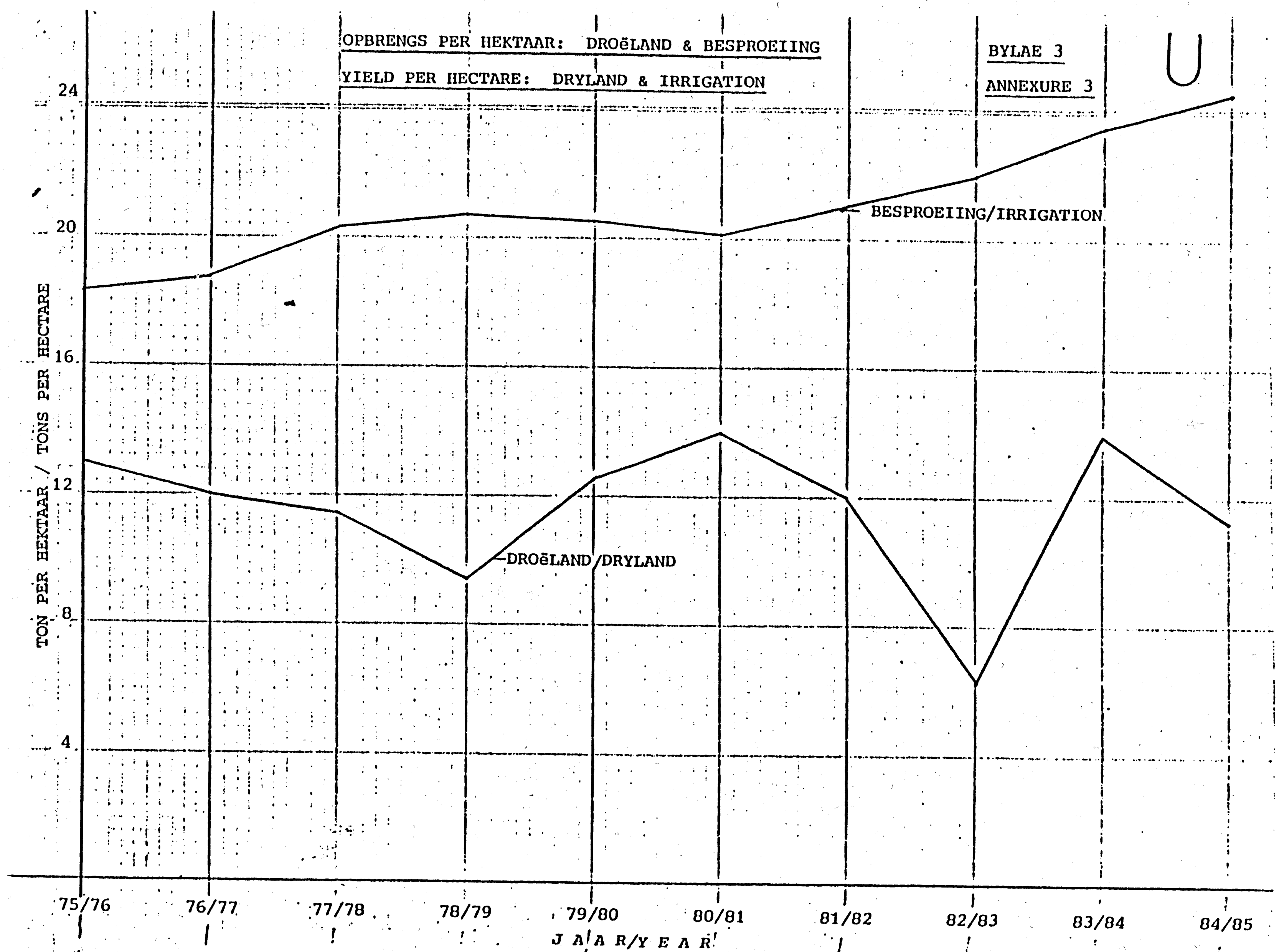
Over the medium and long term it is expected that potato production will show a slow but steady growth. The tempo of this growth will to a certain extent be influenced by urbanisation, prosperity, eating habits, etc. Furthermore it is expected that the processing of potatoes will play an increasingly important role.

BYLAE 1
ANNEXTURE 1

PRODUCTION AND GROSS VALUE OF TABLE AND SEED POTATOES FOR THE PAST 10 YEARS (OCTOBER - SEPTEMBER)
PRODUKSIE EN BRUTOWAARDE VAN TAFELAARTAPPELS EN MOERE AFGELOPE 10 JAAR (OKTOBER - SEPTEMBER)

J A A R	HECTARES PLANTED HEKTAAR GEPLANT	YIELD OPBRENGS TON/HA	TOTALE OES/TOTAL CROP		GROSS VALUE BRUTO WAARDE R MILJOEN	R/TON
			15 kg	Ton		
1974/75	44 155	13,4	39 692 500	595 387	65	109
1975/76	45 727	15,0	45 788 600	686 679	71	103
1976/77	51 236	14,8	50 495 900	757 438	62	82
1977/78	49 501	14,9	49 638 200	744 573	82	110
1978/79	48 706	13,6	44 433 900	666 508	97	145
1979/80	49 000	15,2	50 284 700	748 275	142	190
1980/81	61 409	17,0	68 253 700	1 023 805	159	155
1981/82	55 693	16,0	59 789 800	896 847	175	195
1982/83	60 015	13,5	53 997 900	809 969	270	333
1983/84	66 508	18,2	80 725 200	1 810 879	250	206
1984/85	66 537	17,7	77 377 600	1 160 676	235	202
%	-1,5%	-3%	-4,1%		-6%	-2%


TOTAL POTATO CROP
TOTALE AARTAPPELOES
ANNEXURE 2
BYLAE 2
TOTAL YIELD/
TOTALE OPBRENGS
5 JAAR LOPENDE GEMIDDELDE OPBRENGS/
5 YEAR ROLLING AVERAGE YIELD
MILJOENE X 15 KG EENHEDE / MILLION X 15 KG UNITS
90
80
70
60
50
40
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
84/85
JAAR/YEAR


OPBRENGS PER HEKTAAR: DROëLAND & BESPROEIING
YIELD PER HECTARE: DRYLAND & IRRIGATION
BYLAE 3
ANNEXURE 3
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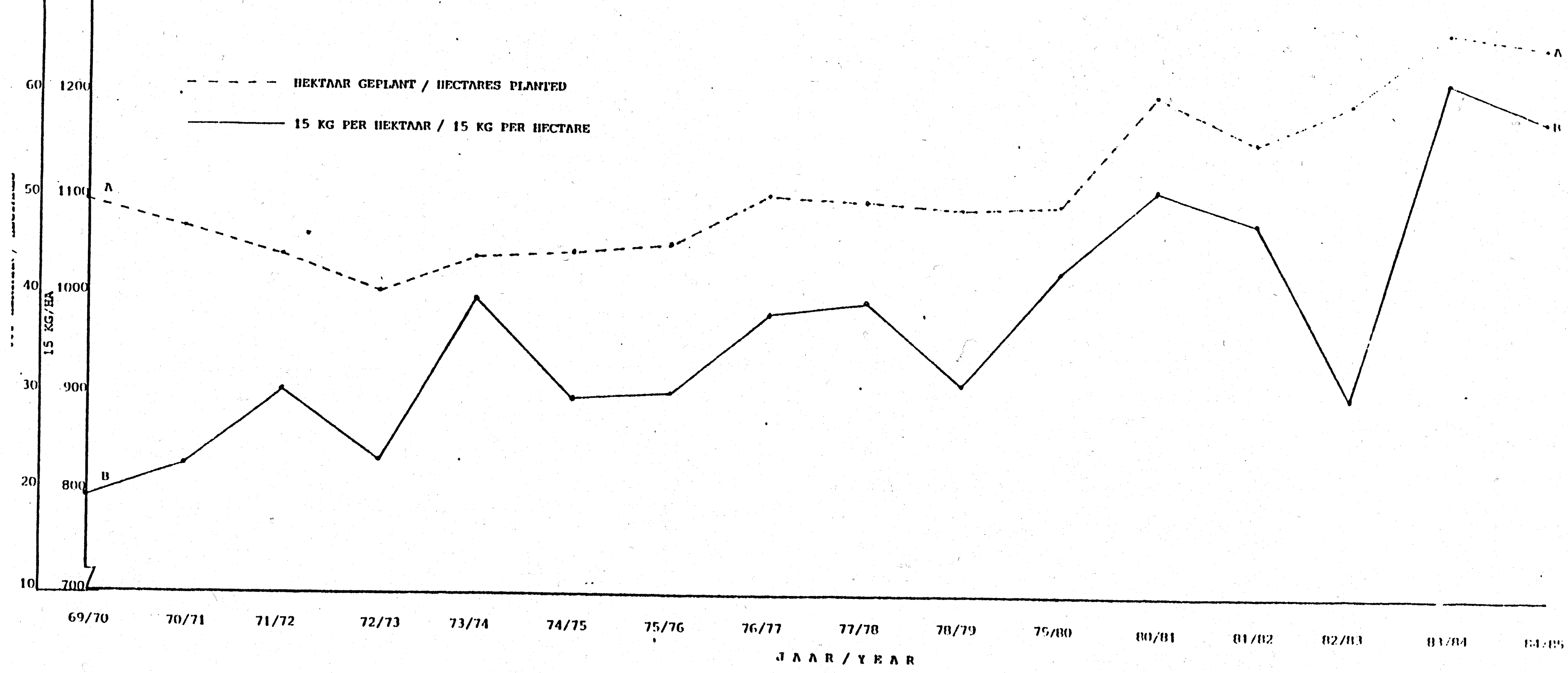
BESPROEIING/IRRIGATION
DROëLAND/DRYLAND
TON PER HEKTAAR / TONS PER HECTARE
24
20
16
12
8
4
75/76
76/77
77/78
78/79
79/80
80/81
81/82
82/83
83/84
84/85
J A A R/Y E A R

BYLAE 4

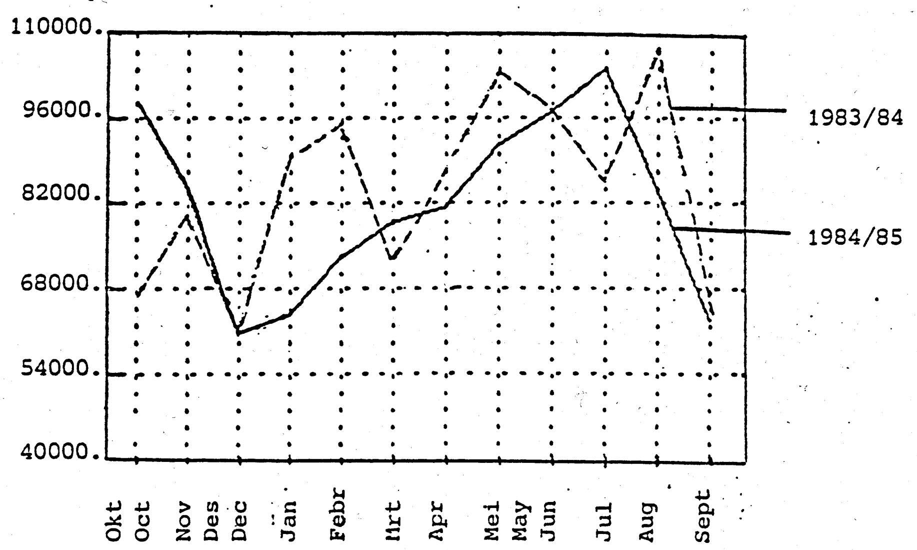
ANNEXURE 4



BYLAE 5
ANNEXURE 5

AVERAGE DAILY SUPPLY: JOHANNESBURG-MARKET
GEMIDDELDE DAAGLIKSE VOORRAAD: JOHANNESBURG-MARK

	1982/83	1983/84	1984/85
Oktober	53 858	66 150	99 453
November	66 198	79 975	84 396
Desember	65 850	61 146	60 472
Januarie	47 860	89 523	63 843
Februarie	43 773	94 952	73 025
Maart	52 726	72 117	79 119
April	49 093	86 974	81 538
Mei	53 340	103 525	91 552
Junie	51 586	97 147	97 247
Julie	71 012	85 413	104 214
Augustus	56 750	107 331	84 192
September	52 040	67 225	63 056
AVERAGE GEMIDDELD	55 340	84 290	81 842



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URBAN MARKETS - PRICES
STEDELIKE MARKE - PRYSE

ANNEXURE 6
BYLAE 6

	Average prices per 15 kg, all classes Gemiddelde pryse per 15 kg, alle klasse					
	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85
	c	c	c	c	c	c
Cape Town Kaapstad	317	235	288	517	308	269
Port Elizabeth	308	231	310	497	313	297
East London Oos-Londen	319	227	317	508	308	294
Kimberley	282	214	292	526	291	283
Durban	268	206	285	478	268	277
Pietermaritzburg	248	178	255	446	241	253
Bloemfontein	267	197	291	501	288	278
Johannesburg	279	210	298	515	275	287
Pretoria	282	212	297	502	275	281
All markets Alle marke	285	212	264	503	281	278

TOTAL SALES ON ALL MARKETS IN CONTROLLED AREAS
TOTALE VERKOPE OP ALLE MARKE IN BEHEERDE GEBIEDE

Month Maand	QUANTITY HOEVEELHEID 15 kg		TOTAL RETURN TOTALE OPBRENGS (Rand)		AVERAGE PRICE GEMIDDELDE PRYS c/15 kg	
	1983/84	1984/85	1983/84	1984/85	1983/84	1984/85
Oktober	3 435 491	4 775 489	17 830 028	12 917 340	518	270
November	3 670 068	4 373 133	13 737 832	9 950 621	374	227
Desember	3 489 693	3 540 845	10 983 034	9 771 593	314	275
Januarie	3 456 428	3 389 569	7 172 256	11 484 951	208	339
Februarie	3 393 978	3 203 704	5 968 572	9 562 537	176	298
Maart	3 378 272	3 705 706	7 741 688	11 010 107	229	297
April	3 287 360	3 730 618	8 326 165	10 224 692	253	274
Mei	4 138 959	4 089 345	9 485 067	10 778 922	229	264
Junie	3 513 708	3 800 461	9 389 334	9 969 730	267	262
Julie	3 827 001	4 529 229	9 942 818	11 294 129	260	249
Augustus	4 233 785	4 254 921	10 150 785	11 158 411	240	262
September	3 329 838	3 822 727	10 687 216	13 368 603	320	350
	43 154 581	47 215 747	121 414	131 491 636	281	278

TABLE POTATOES
TAFELAARTAPPELS

ANNEXURE 7
BYLAE 7

VERGELYKENDE UITVOERSYFERS : 15 KG EENHEDE

	1981/82	1982/83	1983/84	1984/85
Afrika-gebiede/African States	847 290	138 596	472 274	152 889
Mauritius	-	-	19 443	-
Seychelles	29 557	6 365	24 708	23 705
Ascension	1 800	2 100	-	-
St Helena	3 178	3 638	4 692	7 037
Re-Union	3 015	-	23 874	-
Verenigde Koninkryk/Europa/ United Kingdom/ Europe	-	-	85 100	-
Saoedi-Arabië/Saudi-Arabia	8 542	-	-	-
Comores-eilande/Islands	2 526	3 376	5 380	7 419
Persiese Golf-gebied/ Persian Gulf Region	-	-	26 538	53 545
Hong Kong	5 000	-	-	900
Diverse/Miscellaneous (o a skeepsvoorrade/i a ships' stores)	7 223	2 216	3 262	2 655
TOTAAL/TOTAL	483 826 (7 257 t)	158 291 (2 344 t)	665 271 (9 979 t)	248 150 (3 722 t)

AARTAPPELMOERE / SEED POTATOES

COMPARATIVE EXPORTFIGURES : 15 KG UNITS
VERGELYKENDE UITVOERSYFERS : 15 KG EENHEDE

	1981/82	1982/83	1983/84	1984/85
Afrika-gebiede/African states	221 346	-	3 575	164 094
Mauritius	80 000	34 000	40 504	34 000
Re-Union	6 800	-	-	48
St Helena	1 184	1 627	1 188	1 124
Comores-eilande/Islands	120	200	-	2 020
TOTAAL / TOTAL	201 286 (4 642 t)	309 450 (537 t)	35 827 (679 t)	45 267 (3 019 t)

PROJECTION

VOORUITSKOUING

	1985			1990			
	Miljoen 15 kg sakkies/ Million 15 kg pockets	% van Tafeloes/ % of Table crop	% van Totale oes/ % of Total crop	Miljoen 15 kg sakkies/ Million 15 kg pockets	% van Tafeloes/ % of Table crop	% van Totale oes/ % of Total crop	1990/1985 %
Totale Produksie Tafel en Moere/ Total Production Table and Seed	77,4	117	100	100,8	126	100	130
Tafelproduksie/ Table Production	65,86	100	85	80,2	100	79,6	122
Verkope in beheerde gebiede/Sales in Controlled areas	51,98	79	61	63,1	79	62,6	121
Verkope op Marke/ Sales on Markets	47,4	72	67	56,6	71	56,1	119

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5/12/85
GdJ/AK

ANNEXURE 8
BYLAE 8