

# HOW MUCH LAND COULD PAY A CIVIL SERVANT?

BY

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Given the large amount of land generally needed to farm profitably, there's a perception that farmers earn a correspondingly large amount of money, and have large tracts of surplus land that they could hand over for land reform. But how much land does it take to earn an adequate income, one equivalent to, say, that of a civil servant?

South Africa has a lot of agricultural land. About 86,1 million hectares are farmed, and according to the 2002 agricultural census there are 45,818 farming units. This means there's an average 1881 ha per farmer in South Africa. According to the 1993 census there were 57,980 units. That's a decrease of 21 %, which means the average unit has increased by 395 ha in nine years.

For any movement, organisation or political party promoting land reform these are naturally sensational statistics, suggesting that farms are too big and farmers could easily give up a part of them in support of land reform. Unfortunately, a hectare in one's possession doesn't mean a lot, as it only generates an income if it's used productively. Other than the land, other assets such as tractors and implements must be available before seed and fertiliser or livestock can be used to make an income.

## **Profitability**

The average results for crops in the eastern Free State are shown in Table 1. It shows that wheat made an average profit of R601 per hectare over the past five years, compared to the R808 per hectare for maize. Potatoes made a profit of R6,981 per hectare, beans a profit of R1,477 a hectare, sunflower a profit of R574 a hectare and soya a profit of R114 a hectare. In 2005 profits are likely to be lower, showing a loss in some cases, because grain prices are at their lowest in 10 years.

With regards to livestock, Table 2 shows that dairy animals have provided an average profit of R1,873 per large stock unit (LSU) for the past five years. With a carrying capacity of 5 ha per LSU, the profit is R375 per hectare. In the case of beef cattle, the average profit over five years is R569 per LSU, or R114 per hectare. And for sheep over the past five years the profit per hectare has been an average R218 on the Highveld, R209 in the Karoo and R30 in the Kalahari.

It's clear that the total 86,186,026 hectares farmed in South Africa is not homogenous, and so doesn't generate the same profit. Because of this some viable farms are only 100 ha while others can be as large as 30,000 ha. The ultimate function of a farm's size is to ensure a sustainable livelihood for its owner, using its entire hectareage.

## **State salaries versus farming income**

Statistics on civil servant salaries, from job level one to 12, are freely available to the public; average salaries for each level are shown in Table 3. According to this, a clerk or secretary on level one earns about R34,456 a year, while middle management officials on level 12 earn an average of R251,754 per year. Table 3 also shows how many hectares of every agricultural crop at the average profit per hectare shown in Table 1 is necessary to earn the same income as a civil servant. So a secretary on level one

needs, at an average R601 per hectare profit, 57 ha of wheat to earn his or her annual salary. A person in middle management would have to plant 419 ha of wheat to generate a salary of R251,754. Potatoes and beans require the fewest hectares to generate the same income as a state official, while soya beans require the most.

For dairy enterprises, level one officials would require 92 ha and those on level 12 some 672 ha to earn their salaries. For beef cattle the land required would be 303 ha and 2,211 ha respectively. To earn their annual salary of R251,754 by farming with sheep, level 12 state officials would need 1155 ha on the Highveld, 1,202 ha in the Karoo and 8,317 ha in the Kalahari.

### **Farm size**

In practice, farm size is determined by economic factors. The number of hectares a farmer owns is therefore in most cases not a status symbol. A farmer can't simply hand over supposedly surplus land for land reform. A clear indication of this is that the 2002 census shows 23,389 of the 45,818 farming units had a VAT turnover of less than R300,000 per year. This means that 51% of South African farmers' gross income, not even the net profit per hectare, was barely more than the salary of a level 12 state official. If farming costs are subtracted from this, it can be safely said that more than half of South Africa's farmers earn less than middle management civil servants; they are more likely to be on the support personnel level.

In Table 5 the number of hectares for every sector that represents the same income as level 12 in the civil service is divided by the total hectares available for agriculture. If all hectares could be used for potatoes, there would be two million farming units with a yearly income of R257,754, while only 38,968 units could exist for meat farming. It is not practically possible to divide farms like this because the climate and area plays an important role in the type of enterprise, or ultimately the combination of enterprises, in production on a farm.

The current farm sizes are mostly the result of economic factors. The decreasing farming sectors, with the resulting increase in farm sizes, can be attributed to the economy of scale which means that farming units gradually have to increase in order to overcome the cost-price squeeze. It is thus a myth to think that the farms of *bona fide* commercial farmers are too big and that they have extra hectares that they could make available for land reform.

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**TABLE 1: AVERAGE PRODUCTION COSTS  
FROM 2000 TO 2004 FOR CROPS**

	Wheat R/ha	Potatoes R/ha	Beans R/ha	Maize R/ha	Sunflower R/ha	Soya R/ha
Product sales	2166	20401	3269	2523	1879	1742
Insurance received	122	85	23	18	27	29
Other income and feed	29	789	1099	509	146	116
<b>TOTAL INCOME</b>	<b>2317</b>	<b>21275</b>	<b>4390</b>	<b>3051</b>	<b>2052</b>	<b>1887</b>
Seed	104	1738	428	199	116	149
Fertiliser	361	1562	506	478	249	188
Weed control	61	315	204	138	65	174
Pest control	58	1592	246	74	45	26
Drying, cleaning and storage	34	22	4	34	16	15
Marketing	21	2230	5	36	25	10
Crop insurance	207	87	162	103	129	218
Planting costs	57	2	90	41	51	33
Irrigation costs	32	168	54	10	5	4
Transport costs	8	1049	7	10	0	5
Casual labour	2	882	58	17	5	13
Direct petrol	7	40	3	3	7	0
Direct repairs	7	277	13	4	1	0
Packaging	0	1512	26	2	0	4
<b>DIRECT COSTS</b>	<b>959</b>	<b>11475</b>	<b>1806</b>	<b>1147</b>	<b>715</b>	<b>838</b>
Financing costs portion	95	638	151	106	81	68
Permanent labour portion	181	427	259	259	137	226
Repairs portion	406	1146	475	508	377	421
Petrol portion	76	808	223	222	168	226
<b>PROPORTIONAL COSTS</b>	<b>757</b>	<b>2819</b>	<b>1108</b>	<b>1095</b>	<b>763</b>	<b>935</b>
<b>TOTAL COSTS</b>	<b>1716</b>	<b>14294</b>	<b>2914</b>	<b>2242</b>	<b>1478</b>	<b>1773</b>
<b>CROP MARGIN</b>	<b>601</b>	<b>6981</b>	<b>1477</b>	<b>808</b>	<b>574</b>	<b>114</b>
Yield (t/ha produced)	2.8	17.8	1.2	3.4	1.3	1.1
Price per unit (rand per ton)	1135	12	3679	886	1614	1731

**TABLE 2: AVERAGE PRODUCTION COSTS  
FROM 2000 TO 2004 FOR LIVESTOCK**

	Dairy		Beef		Sheep	
	R LSU	R LSU	R LSU	R LSU	R LSU	R LSU
Product sales	5607	47	498	747	0	
Livestock sales	788	1553	2990	2740	2990	
Livestock purchases	-124	-445	-507	-507	-507	
Beginning stocks	4485	4385	4387	4387	4387	
Ending stocks	-4521	-4037	-5218	-5218	-5218	
GROSS PRODUCTION VALUE	6235	1424	2148	2148	1650	
Feed bought and produced	589	69	67	0	0	
Licks and supplements	2028	190	199	0	0	
Veterinary	137	59	99	40	20	
IO-costs	48	6	4	0	0	
Dips	64	0	3	0	0	
Product insurance	0	1	1	0	0	
Marketing costs	140	35	200	200	200	
Transport costs	62	5	4	12	24	
Labour costs	38	0	17	25	0	
Petrol	29	0	0	0	0	
Repairs	83	3	7	7	7	
Consultations	99	2	3	3	3	
Stud fees	0	4	0	0	0	
Other costs	387	3	6	0	0	
DIRECT COSTS	3704	375	651	293	260	
Cost of planted pastures	439	270	227	0	0	
Permanent labour portion	159	106	99	99	99	
Repairs portion	61	103	81	81	81	
Proportional costs	660	479	407	180	180	
Total costs	4363	854	1058	472	439	
Sector margin	1873	569	1090	1676	1211	
Carrying capacity/LSU	5	3	5	5	40	
Margin/hectare	375	174	218	299	30	
Price/unit (Rand/litre)	1.95	1553.30	581.35	581.19	498.33	

**TABLE 3: SALARIES OF STATE OFFICIALS AND  
HECTARES REQUIRED FOR CROP INCOME**

Job description	Job level	Average salary	Hectares needed to earn salary					
			Wheat	Potatoes	Beans	Soybean	Sunflower	Soya
Clerks and secretaries	1	R24,156	97	5	23	43	60	302
	2	R38,601	64	6	26	48	67	339
	3	R45,247	75	6	31	56	79	397
	4	R53,098	88	6	36	66	92	468
	5	R63,136	105	9	43	78	110	554
Support personnel	6	R77,766	129	11	53	96	135	682
	7	R97,371	162	14	68	120	170	884
	8	R120,298	200	17	81	149	210	1096
Middle management	9	R145,286	242	21	98	180	253	1275
	10	R179,289	298	26	121	222	312	1573
	11	R209,168	348	30	142	259	364	1835
	12	R251,745	419	36	170	311	438	2208

**TABLE 4: SALARIES OF STATE OFFICIALS AND  
HECTARES REQUIRED FOR LIVESTOCK INCOME**

Job description	Job level	Average salary	Hectares needed to earn salary				
			Sheep				
			Dairy	Beef	Highveld	Karoo	Kalahari
Clerks and Secretaries	1	R34,456	82	303	158	164	1138
	2	R38,601	103	339	177	184	1275
	3	R45,247	121	397	208	216	1495
	4	R53,098	142	468	244	253	1765
	5	R63,136	169	554	290	301	2100
Support personnel	6	R77,766	208	683	357	374	2589
	7	R97,371	260	855	447	466	3217
	8	R120,298	321	1056	552	574	3974
Middle Management	9	R145,286	388	1276	666	694	4800
	10	R179,289	478	1574	822	856	5923
	11	R209,168	558	1837	959	998	6910
	12	R251,745	672	2211	1155	1202	8317

**TABLE 5: NUMBER OF UNITS  
PER SECTOR**

Sector	Units
Wheat	205883
Potatoes	2390117
Beans	505547
Maize	278887
Sunflower	186563
Soya	39016
Dairy	128240
Beef animals	38986
Sheep - Highveld	74638
Sheep - Karoo	71718
Sheep - Kalahari	10363