

RECENT TRENDS
IN THE
ARGENTINIAN WOOL INDUSTRY

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P R E F A C E

The Agricultural Economics Research Unit is aware of the need to closely monitor the economic activity of major competitors with New Zealand in export markets.

The current report represents part of a programme aimed at fulfilling such a need by examining recent trends in the wool industry of Argentina, which traditionally has been considered one of New Zealand's major competitors in wool production and exporting.

J. B. Dent
Director

SUMMARY

Wool production in Argentina has declined substantially since 1966/67, with much of this decline occurring in the amount of coarse crossbred wool produced. The production of fine wool and fine crossbred wool has remained steady.

Internal consumption by the Argentinian wool industry has increased slightly since 1962/63, with the majority of wool used by the domestic textile industry being in the fine and fine crossbred range.

As a consequence of these production and consumption trends, wool exports have fallen over the last 18 years, with the composition of these exports also changing. The majority of wool is now exported in the fine and fine crossbred ranges, rather than in the fine crossbred and coarse crossbred ranges, as was the position previously.

The EEC is currently the market for a sizeable proportion of Argentina's wool exports, accounting for forty per cent of the total in 1977/78. An equal proportion of exports are destined for the USSR and other Eastern bloc countries, a situation which contrasts with other major wool exporters, who do not rely on these latter markets to such an extent.

As a result of trends in the Argentinian wool industry over recent years, Argentina and New Zealand now tend to operate in different wool markets. New Zealand exports very little wool relative to Argentina in the 18-25 micron category. The converse is true for wool exports in the 30-35 micron range. Both countries export similar volumes of wool in the 25-30 micron category; however, this range amounts to only 13 per cent of New Zealand's total wool exports.

In the category greater than 35 microns, which accounts for 57 per cent of New Zealand's wool exports, New Zealand now exports more than ten times the volume of wool that Argentina exports and, consequently, New Zealand has Argentinian markets in individual countries well covered in this micron range.

CHAPTER 1

INTRODUCTION

Argentina is one of the five major wool producing and exporting countries in the world (Tables 1 and 2). Because of the traditionally large proportion of coarser wools in the Argentinian wool clip,¹ wool exports from Argentina have historically been considered a major competitor with New Zealand exports.² It is logical, therefore, that the New Zealand wool industry should take interest in, and be watchful of, Argentinian wool production, consumption and exporting trends.

¹ For example, in 1961/62, the proportion of Argentinian wool exports which was greater than 35 microns was 40 per cent.

Source: Federacion Lanera Argentina, Informe Mensual Estadistico, No. 119.

² In 1976/77, all South African merino and crossbred wool production was less than 33 microns, while only 1 per cent of Australia's total wool exports was greater than 35 microns. New Zealand, on the other hand, had 60 per cent of its exports in this latter category.

Source: South African Wool Board, Statistical Analysis of the South African Wool Clip 1976/77 Season; Australian Wool Corporation, Quarterly Review : Australian Wool Exports July 1976-July 1977; New Zealand Wool Board, Statistical Handbook 1976/77 Season.

TABLE 1
Estimated World Wool Production

Country	1974-75	1975-76	1976-77
	('000 Tonnes Greasy)		
Australia	794	754	703
USSR	462	467	436
New Zealand	294	312	303
Argentina	184	188	176
South Africa ^a	108	108	103
Eastern Europe ^b	97	100	102
USA	65	59	53
Uruguay	62	62	63
China ^c	82	82	82
United Kingdom	50	49	48
Other producers	421	435	439
World Total	2619	2616	2508

^a Excluding Lesotho and South West Africa.

^b Albania, Bulgaria, Czechoslovakia, the Democratic Republic of Germany, Hungary, Poland and Romania.

^c Including Manchuria, Sinkiang, Tibet and Outer Mongolia.

Source: Bureau of Agricultural Economics, Wool Situation and Outlook, Canberra, Australia, 1979, p 30.

TABLE 2

Exports of Raw Wool from Major Exporting Countries^a

Country	1974-75 ('000 Tonnes	1975-76 Actual Weight)	1976-77
Australia	495.0	628.5	728.6
New Zealand	218.8	271.8	252.7
Argentina	62.7	84.1	81.2
South Africa	62.2	75.9	78.0
Uruguay	42.2	25.0	23.8

^a Excludes wool on the skin.

Source: The Commonwealth Wool Secretariat, Wool Statistics 1977-78, London, 1978, p 48.

From time to time pieces of information on South American (or separately as Argentinian or Uruguayan) wool production, exports, and prices appear in the Australian Wool Corporation's Wool Market News (Weekly Market Summary and Monthly Perspective) and in the New Zealand Wool Board's newsletter (Wool News). Apart from such pieces of readily accessible information, there is a lack of a comprehensive account of longer term trends in the wool industries of South America. The current Report is an attempt to fill part of this gap by presenting data showing **recent** trends in the Argentinian Wool industry.

4.

Aspects of the Argentinian wool industry described in this Report include production trends in terms of sheep numbers and quality composition of the wool clip; the allocation of wool production between internal consumption, stocks and exports (over time and by fineness grouping); and the changing patterns of Argentinian wool flows to importing countries.³

³ Unless otherwise indicated, data, trends and analyses presented in the text of this Report were based on primary data extracted from various issues of Informe Mensual Estadístico, published by the Federación Lanera Argentina.

CHAPTER 2

WOOL PRODUCTION IN ARGENTINA

2.1 Trends in Total Wool Production

Wool production in Argentina has declined over the last 18 years, as illustrated in Figure 1. This decline has been quite marked since 1966/67, when a peak in wool production over the whole period occurred.⁴

2.2 Wool Production by Type of Wool

Wool production in Argentina can be divided into four basic wool types: fine, fine crossbred, medium crossbred and coarse crossbred. Table 3 shows the micron range and Bradford classification which corresponds to each of these categories.

TABLE 3

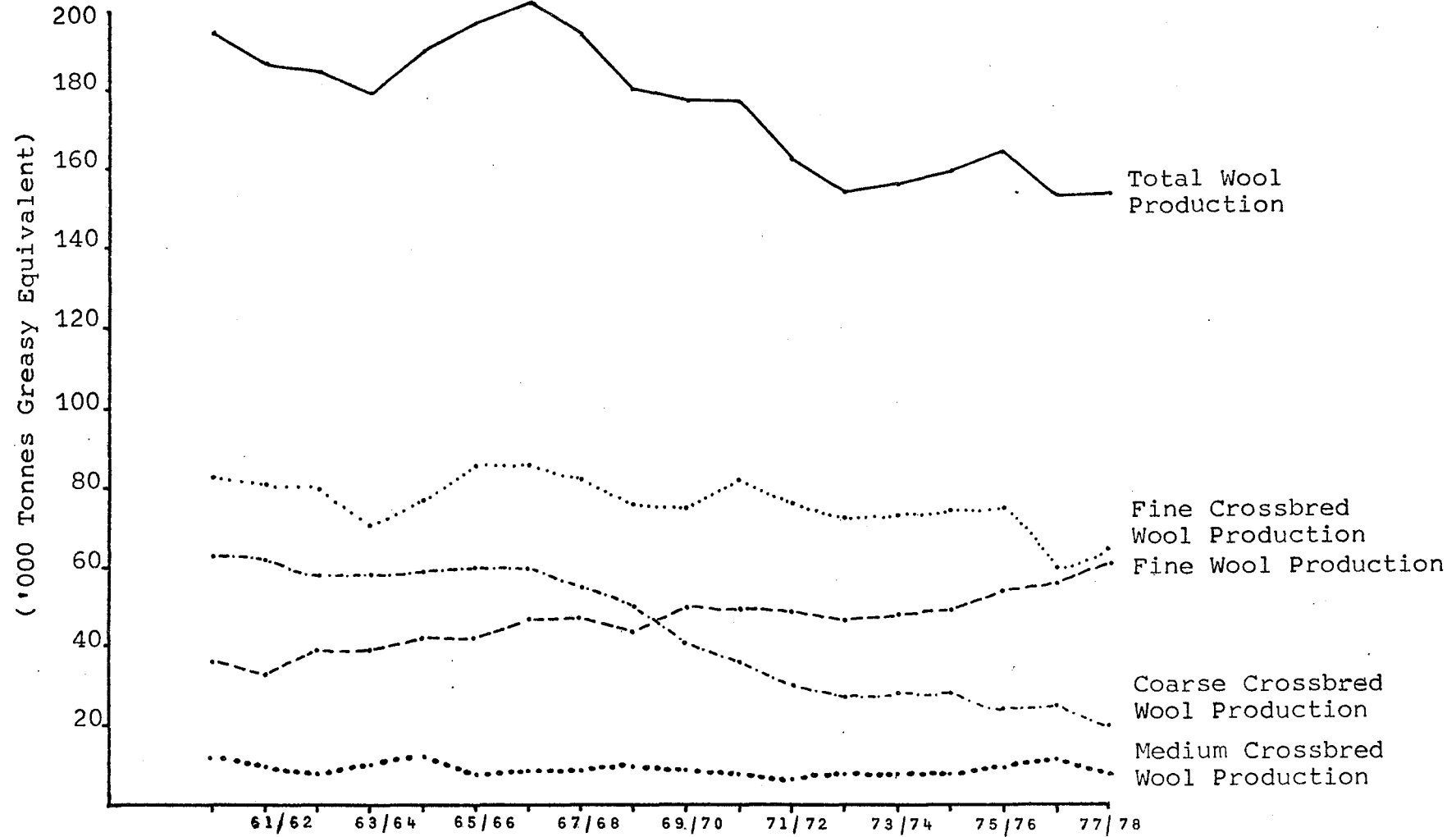
Classification of Argentinian Wool Types

Wool Type	Microns	Bradford Classification
Fine	18.1-25.5	80's-60's
Fine Crossbred	25.6-30.0	58's-54's
Medium Crossbred	30.1-35.1	50's-46's
Coarse Crossbred	35.2-41.2	44's-36's

Source: Ministerio de Agricultura y Ganaderia, Mercado de Frutos "Victoria" Bahia Blanca 1897-1972 75 Años Comercializando Lanas.

⁴ Wool production in 1966/67 was at the highest level since 1947/48. However, by 1977/78 it had fallen to the level prevailing almost 50 years previously.
Source: Secretaria de Agricultura y Ganaderia, Produccion y Comercio de Lanasy, Buenos Aires, 1975; Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

FIGURE 1
Argentinian Wool Production 1960/61 to 1977/78



Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

In Argentina, fine wool is produced from Merinos, fine crossbred wool mainly from Corriedales, medium crossbred wool mainly from the Romney Marsh breed, and coarse crossbred wool largely from Lincoln sheep.

Fine wool production, now the second most important category in terms of volume produced, has increased slightly over the 18 year period considered (Figure 1). The principal type of wool produced in Argentina, fine crossbred wool, has maintained its level of production over the period, although this trend is punctuated by a series of peaks and troughs. Medium crossbred wool production, a traditionally minor wool category, has remained steady over the 18 year period.

On the other hand the level of coarse crossbred wool (greater than 35.1 microns) remained static until 1966/67 when a marked decline occurred, to the extent that this category accounted for 29 per cent of total wool produced in 1966/67, but only 13 per cent in 1977/78.

These production trends, therefore, have dramatically altered the composition of the Argentinian wool clip, as is illustrated by Table 4. Whereas in 1962/63 almost 80 per cent of the clip was classified as crossbred, in 1977/78 only 60 per cent was of crossbred type. Hence the overall Argentinian wool clip is becoming finer.

TABLE 4

Proportion of Total Wool Production in Each Wool Type(%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred
1962/63	21.3	43.0	4.4	31.3
1967/63	24.1	42.5	4.8	28.6
1972/73	30.7	46.6	4.9	17.8
1977/78	40.0	41.9	5.2	12.9

Source: Federacion Lanera Argentina, op. cit.

2.3 Wool Production by Region

Some understanding of these production trends can be gained by an examination of regional patterns of production, which are shown for each type of wool in Figure 2.⁵

Patagonia. The majority of fine wool (86 per cent of total fine wool production in 1976/77)⁶ is produced in the Patagonian provinces. Figure 2 indicates that the slight national increase in production of this type of wool results from increased output from Patagonia. This region also produces approximately one quarter of total fine crossbred wool,⁷ and the production pattern for this proportion is similar to the pattern of total production in this category shown in Figure 1. No coarse crossbred wool and only a very small quantity of medium crossbred wool is produced in Patagonia.

Therefore, Patagonian wool production is predominantly at the finer end of the range of Argentinian wools, as illustrated by the proportions of Patagonian production in different wool types shown in Table 5.

⁵The provinces comprising each region are as follows:-

- (i) Pampeana - Buenos Aires and La Pampa.
- (ii) Patagonia - Rio Negro, Neuquen, Chubut, Santa Cruz, Tierra del Fuego.
- (iii) Mesopotámica - Corrientes, Entre Rios.
- (iv) North-West - Mendoza, San Luis, Cordoba, Santa Fe, San Juan, La Rioja, Catamarca, Tucuman, Santiago del Estero, Chaco, Formosa, Salta, Jujuy.

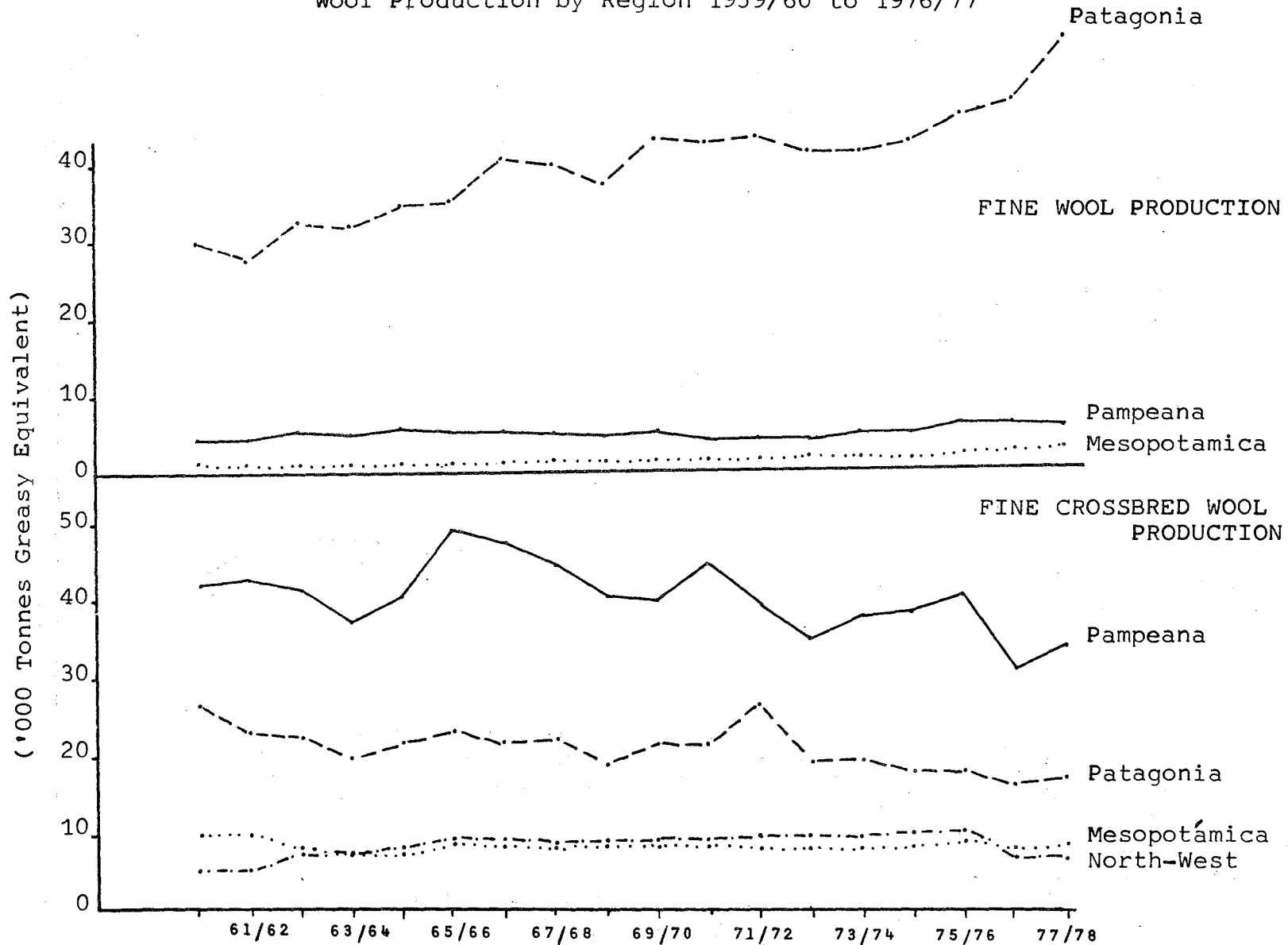
See Appendix I for a map of Argentina showing these regions.

⁶For the 18 years up to 1976/77, this proportion averaged 86 per cent.

⁷Twenty-six per cent of fine crossbred wool production came from Patagonia in 1976/77. This proportion averaged 27 per cent for the 18 years to 1976/77.

FIGURE 2

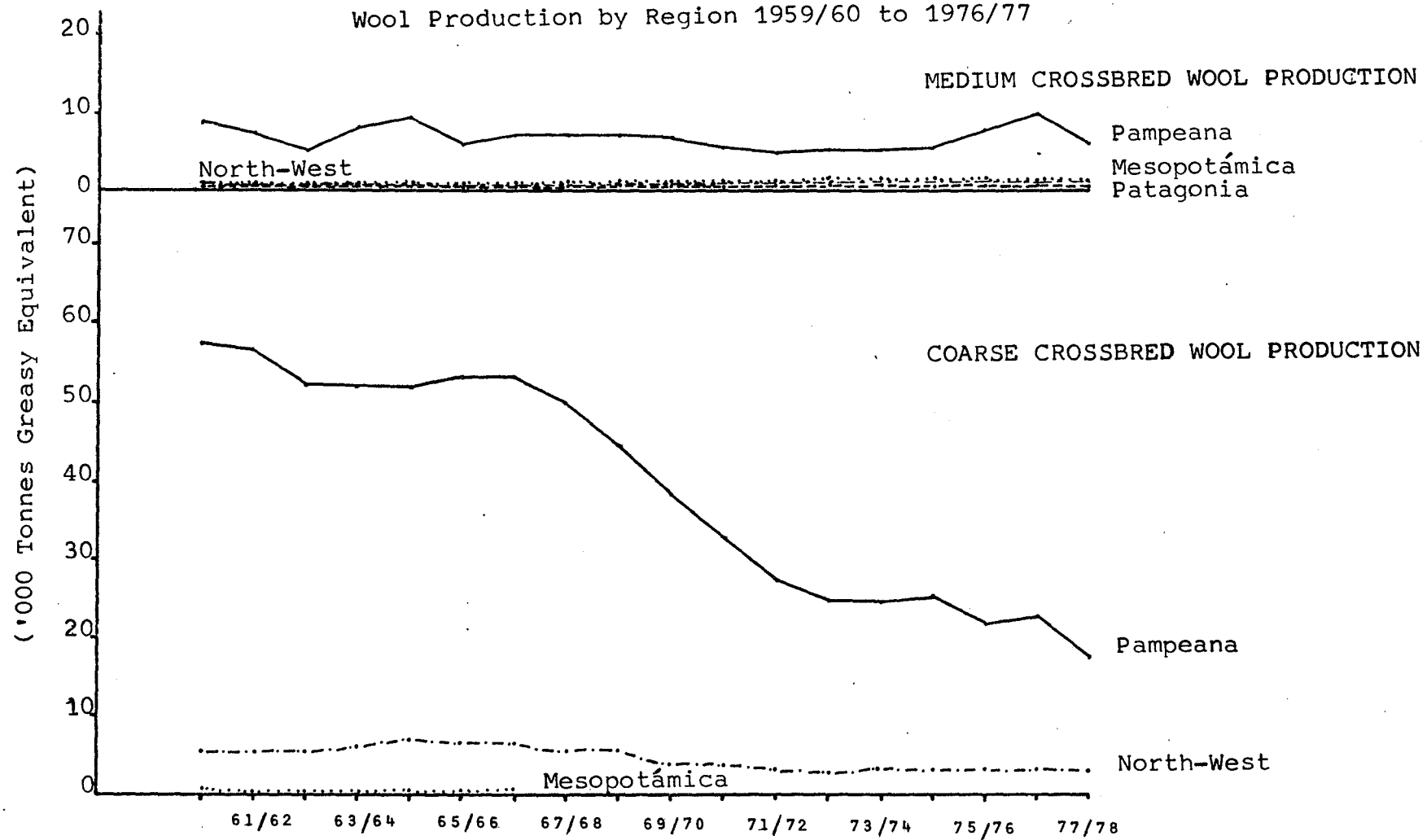
Wool Production by Region 1959/60 to 1976/77



Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

FIGURE 2 (cont'd)

Wool Production by Region 1959/60 to 1976/77



Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

TABLE 5

Proportion of Patagonian Wool Production
in Each Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred
1962/63	58.4	40.2	1.4	-
1967/68	64.7	35.0	0.3	-
1972/73	66.2	33.0	0.8	-
1977/78	75.3	24.0	0.7	-

Source: Federacion Lanera Argentina, op. cit.

During this 16 year period, total wool production for this region rose by 25 per cent. This increase appears to have resulted from an increased wool cut per head which rose 18 per cent from 1960 to 1977. This increase more than compensated for falling sheep numbers, which declined by 4 per cent over the same period.⁸

Pampeana. Very little fine wool is produced in the Pampeana region; the production of fine crossbred wool predominates, accounting for 53 per cent of national production of this category in 1977/78.⁹ Pampeana production of this wool type has remained relatively static over the 18 year period.

⁸ Source: Federacion Lanera Argentina, op. cit. Ministerio de Economia Junta Nacional de Carnes de la República Argentina, Sintesis Estadistica 1977 and Sintesis Estadistica Trimestral Segundo Trimestre 1978.

⁹ For the 18 years up to 1977/78, this proportion averaged 52 per cent.

Although the region produces the majority of Argentina's medium crossbred wool (75 per cent in 1977/78),¹⁰ this category accounts for a relatively small proportion of Pampeana and total Argentinian wool production.¹¹ As shown in Figure 2, Pampeana production of this category has not varied greatly over the last 18 years.

A large majority of the country's coarse crossbred wool (87 per cent in 1977/78) is produced in this region. As is illustrated in Figure 2, production of this wool type in the Pampeana provinces remained fairly stable until 1966/67, after which there was a dramatic decrease in production until 1972/73, with a fairly static level of production at this new low level since that time.

Therefore, because of this significant fall in coarse wool output, total Pampeana wool production has fallen 39 per cent since 1961/62. This has made a considerable change to the proportions of different wool types produced in this region since 1961/62, as is shown in Table 6.

TABLE 6
Proportion of Pampeana Wool Production in Each
Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred
1962/63	5.2	39.8	5.1	49.9
1967/68	4.7	41.8	6.6	46.7
1972/73	5.9	50.6	7.4	36.1
1977/78	9.6	53.4	9.6	27.5

Source: Federacion Lanera Argentina, op. cit.

¹⁰ For the 18 years up to 1977/78, this proportion averaged 72 per cent.

¹¹ For 1977/78, medium crossbred wool accounted for 10 per cent of Pampeana production, and 5 per cent of total Argentinian wool production.

This severe decrease in coarse wool production appears to have resulted from a dramatic fall in sheep numbers over this period in the Pampeana region¹² (Figure 3). This drop in numbers coincides with an upsurge in other activity; for example, cattle numbers in these provinces have increased quite significantly from 1960.

The reasons for this shift in pastoral activity are complex. However, it has been noted that there is a strong negative correlation between wool prices and slaughter rates of sheep.¹³ Therefore, in periods of low wool prices, wool production tends to fall also. This relation tends to be stronger in the Pampeana region¹⁴ which has a far greater potential for diversifying output when wool prices are low than does Patagonia.

¹² This decrease in coarse wool production has occurred despite an increase in wool cut per head of 26 per cent from 1960 to 1977.

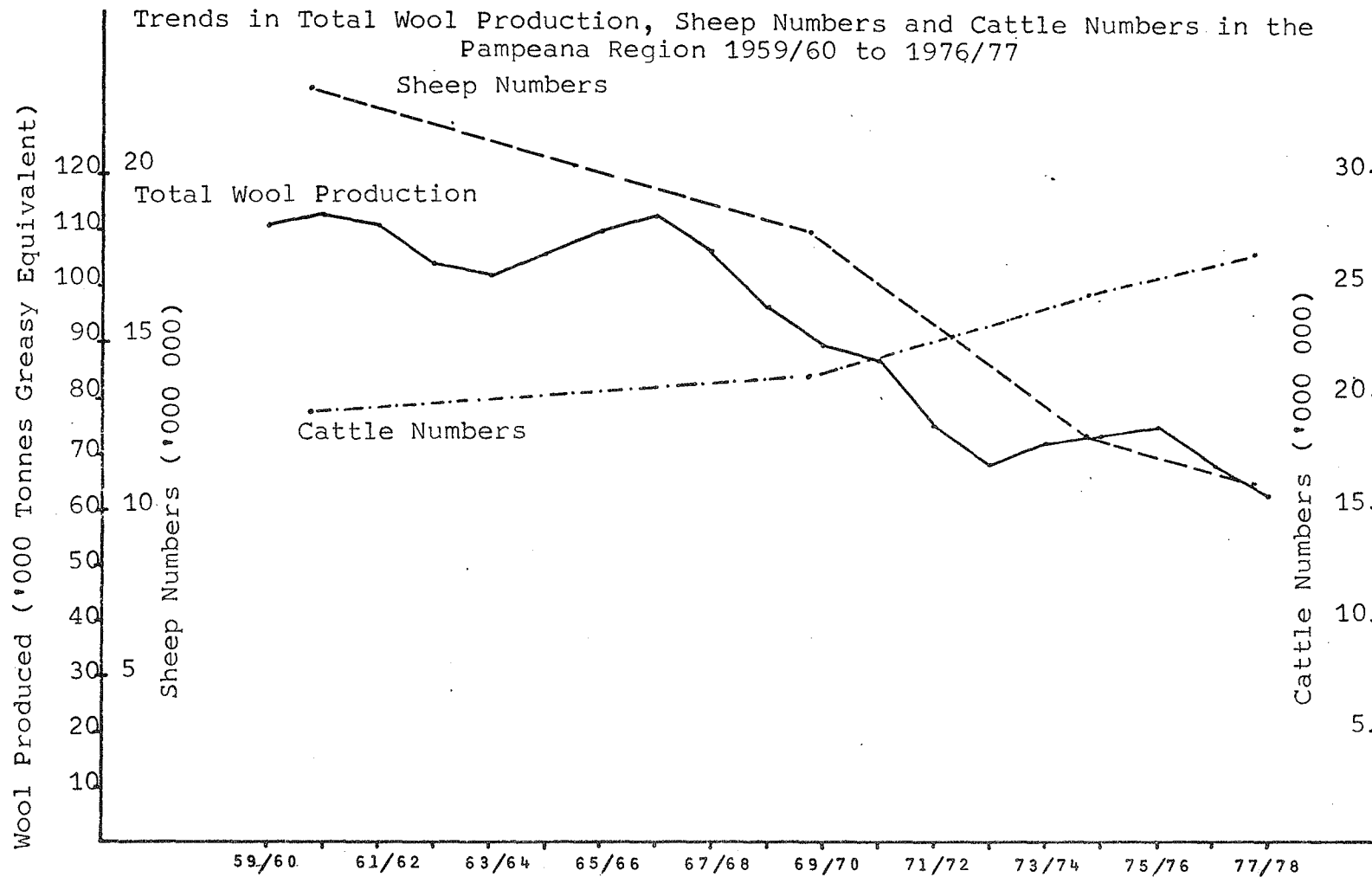
Source: Federacion Lanera Argentina, op. cit., Ministerio de Economia Junta Nacional de Carnes de la Republica Argentina, op. cit.

It is of interest to note that sheep numbers have been declining steadily since 1895, when there were 74 million sheep in Argentina. See Appendix 2 for details of sheep numbers since 1888.

¹³ Anon. La Crisis Ovina, Revista de la Camara de Frigorificos Regionales, Carnes y Mercados, No. 6, Buenos Aires, July 1978, p 56.

¹⁴ Ibid, p 72.

FIGURE 3



Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues; Ministerio de Economia Junta Nacional de Carnes de la Republica Argentina, Sintesis Estadistica 1977.

An extremely severe drop in sheep numbers occurred from 1965 to 1971, when wool prices were very depressed.¹⁵ In fact, slaughtering of stock was so intense that many breeding ewes were slaughtered during this period, with the result that Argentina was unable to take full advantage of any seasons of high wool prices which prevailed after 1972.¹⁶ During this period of heavy slaughtering, the numbers of Lincoln sheep which are concentrated in the Pampeana region appear to have been depleted to a far greater extent than numbers of Corriedales and other breeds.¹⁷

Other Regions. The provinces of Mesopotámica (Litoral) and the North-West are not significant in terms of total wool production contributing only 13 per cent in 1977/78. Production trends for each wool type in these regions are shown in Figure 2. In each case, output has remained fairly steady, although coarse wool production in the North-West has declined slightly since 1966/67.

¹⁵ Anon. *La Crisis Ovina*, op. cit., p 62.

¹⁶ *Ibid*, p 64.

¹⁷ As shown in Figure 2, the production of coarse crossbred wool from Lincoln sheep declined drastically from 1965 to 1972, which suggests a depletion of numbers in this breed, assuming relatively constant levels of wool cut per head. Wool production from other sheep breeds has not suffered to the same extent.

CHAPTER 3

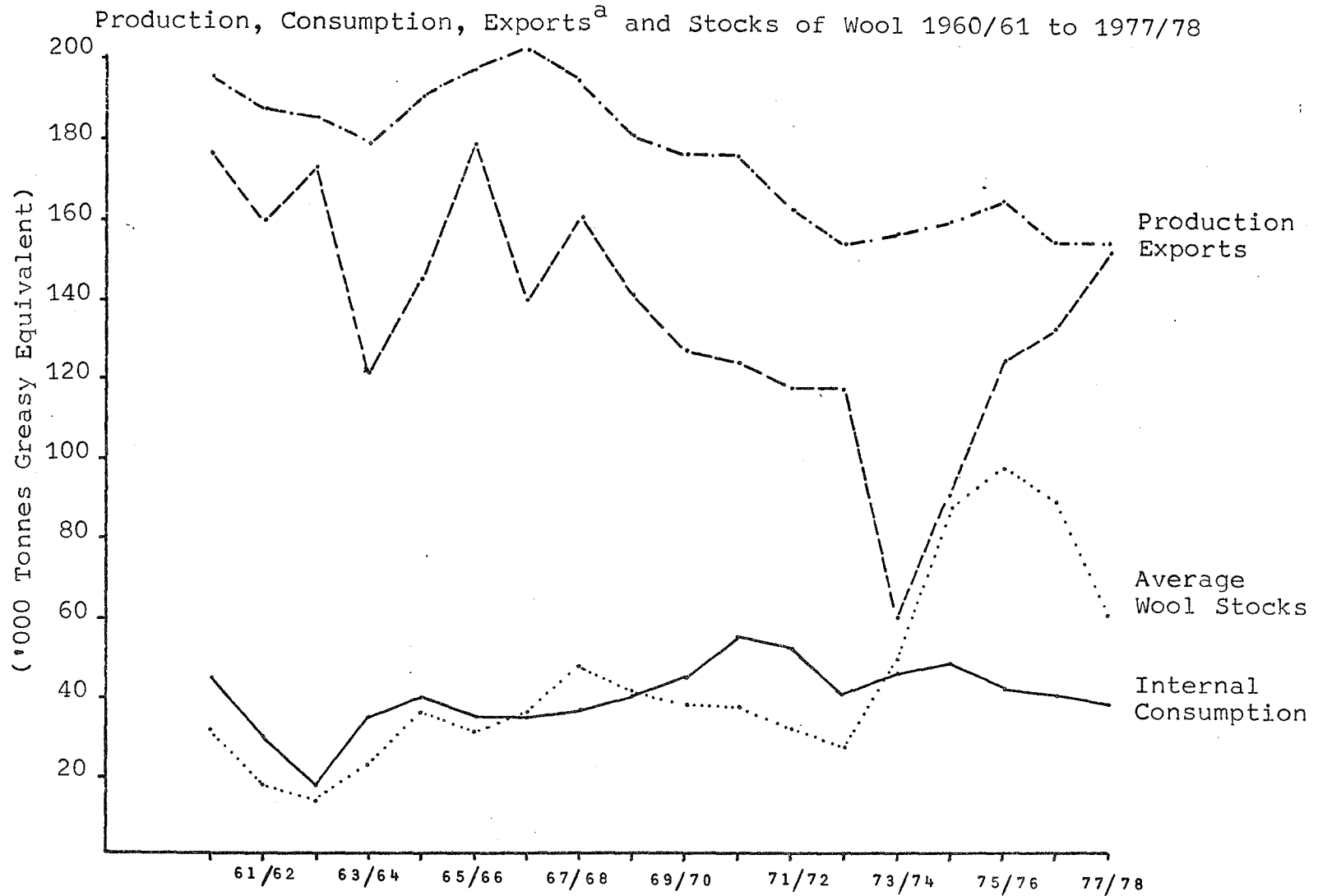
DISPOSAL OF WOOL IN ARGENTINA

3.1 Trends in Internal Consumption

The internal consumption of raw wool in Argentina has not increased greatly from 1960 to 1978, with a trough in 1962/63, and peaks in 1970/71 and 1971/72 (Figure 4). This trend does not appear to be related to the production or export of wool, and further investigation would be necessary to determine the reasons for such a pattern. For example, internal consumption may be highly correlated with the general level of economic activity.

Figure 5 disaggregates this internal consumption according to type of wool. The majority of wool used internally is at the finer end of the spectrum (Table 7).

FIGURE 4

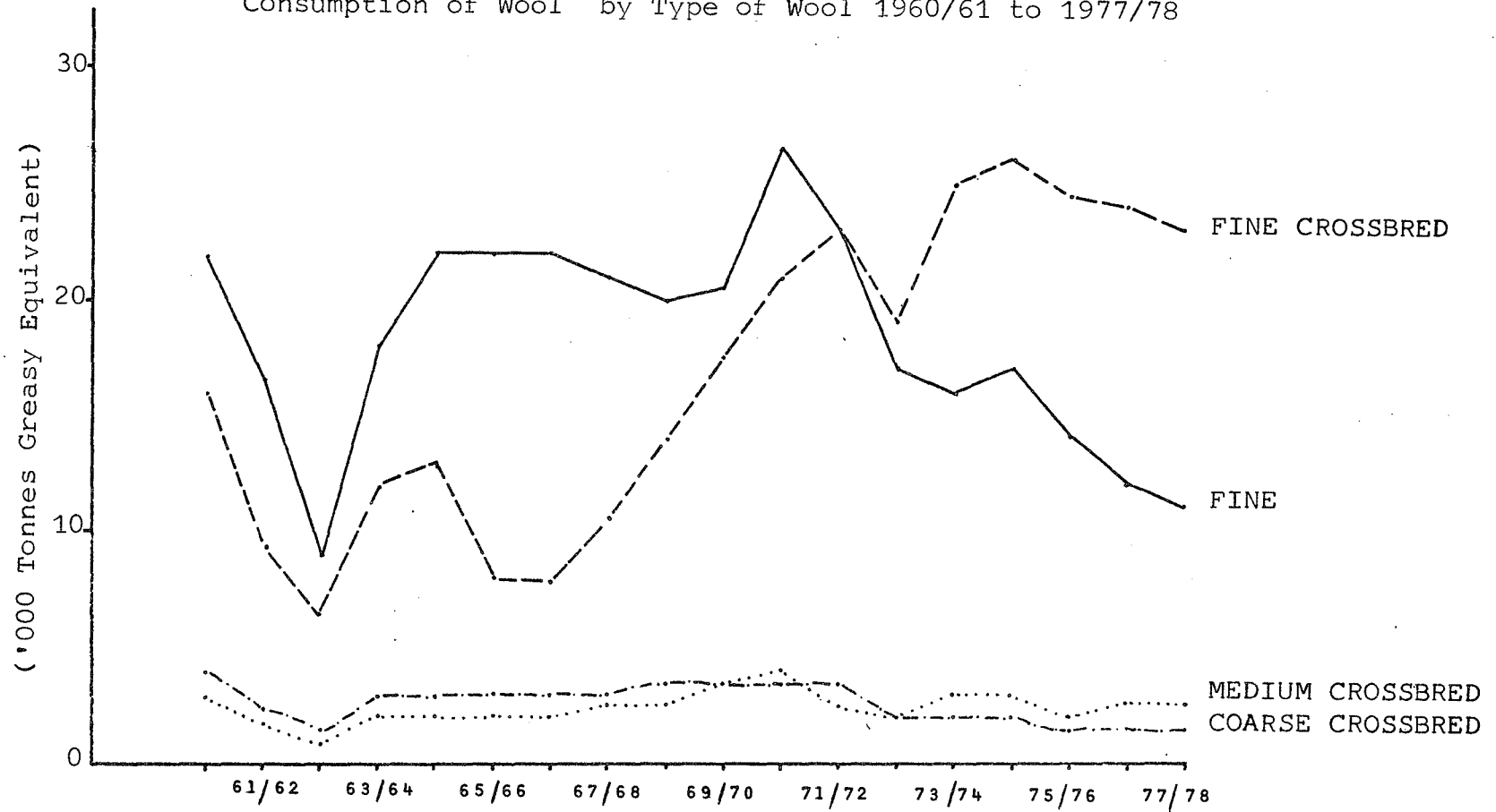


^a Excludes Blousse and Waste which have already been accounted for by internal consumption; also excludes sheep skin exports.

Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

FIGURE 5

Consumption of Wool^a by Type of Wool 1960/61 to 1977/78



^a Excludes sheep skins.

Source: Federacion Lanera Argentina, Informe Mensual Estadistica, selected issues.

TABLE 7
Proportion of Internal Consumption
in Each Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred
1962/63	50.0	36.1	8.3	5.6
1967/68	56.8	28.4	6.8	8.1
1972/73	42.5	47.5	5.0	5.0
1977/78	28.9	60.5	6.6	3.9

Source: Federacion Lanera Argentina, op. cit.

Therefore, it seems reasonable to conclude that wool textile manufacture in Argentina is oriented towards the finer woven fabrics, rather than carpets, blankets, and other coarse wool uses. In the last ten years, there appears to be an increasing amount of fine crossbred wool used at the expense of fine wool (Figure 5).

Internal consumption of all wool types was adversely affected by the previously mentioned trough of 1962/63. After that year, the consumption of fine wool recovered until 1970/71, and then began to decline. The consumption of fine crossbred wool, on the other hand, has continued to rise since 1962/63, despite further troughs in 1965/66 and 1972/73. The consumption of medium and crossbred wools tended to remain relatively static from 1962/63, with a minor trough in 1972/73.

Table 8 gives some indication of the relative importance of domestic wool consumption in relation to the total output of each wool type over the last 16 years. The percentage of total wool available for disposal accounted for by internal consumption in each wool type varied from year to year. However, 19 per cent of all wool available for disposal found its way into domestic consumption over this period. This proportion varies

TABLE 8

Internal Consumption of Each Wool Type
as a Proportion of Total Wool Available for
Disposal^a in that Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred	Total
1962/63	21.3	7.5	16.1	1.6	8.9
1963/64	43.9	15.8	17.4	4.9	18.4
1964/65	44.0	14.9	13.8	4.1	17.9
1965/66	41.3	8.0	16.9	4.2	14.8
1966/67	43.6	8.8	18.0	4.1	15.6
1967/68	39.4	10.4	19.5	3.9	15.2
1968/69	38.7	14.1	19.5	5.6	17.6
1969/70	34.2	19.8	31.3	6.7	21.2
1970/71	42.8	21.8	40.6	7.5	25.6
1971/72	38.3	25.8	26.5	9.0	26.3
1972/73	31.2	22.8	22.3	5.7	22.0
1973/74	30.2	30.3	30.3	5.7	25.5
1974/75	24.2	24.2	25.6	4.5	20.5
1975/76	18.7	18.5	15.3	3.5	16.0
1976/77	15.1	20.3	16.7	4.0	16.0
1977/78	13.0	22.6	21.0	4.4	16.4

^a Wool stocks at the beginning of each year plus production in that year.

Source: Federacion Lanera Argentina, op. cit.

considerably between wool types: 5 per cent for coarse crossbred wool, 18 per cent for fine crossbred, 22 per cent for medium crossbred, and 33 per cent for fine wool. Therefore, domestic wool consumption is of considerable importance to producers of fine wool. Fine crossbred and medium crossbred producers will be concerned to a lesser extent with the domestic wool industry, while coarse crossbred producers will be predominantly export oriented.

Very little information is readily available in New Zealand on wool processing activity in Argentina. However, processed wool ultimately consumed internally accounts for a significant proportion of the total wool processing activity that occurs (Table 9).

TABLE 9

Internal Consumption and Exports of Wool in Different Stages of Processing in Argentina, 1967/68 to 1976/77

Year	Internal Consumption ('000 Tonnes Gsy.Equiv.)	EXPORTS ('000 Tonnes Gsy.Equiv.) ^a			
		Woven	Spun	Tops	Scoured
1967/68	37	-	-	5	68
1968/69	40	-	-	7	66
1969/70	45	-	-	6	54
1970/71	55	-	-	9	59
1971/72	52	-	-	16	57
1972/73	40	2	1	16	37
1973/74	46	1	1	12	23
1974/75	48	-	-	9	37
1975/76	42	1	-	16	50
1976/77	40	5	3	24	41
1977/78	38	3	4	24	49

^a Exports of carbonized and carded wool have been excluded from exports, since these categories are not significant. For example, in 1976/77, no carded wool was exported, and carbonized wool exports accounted for less than 1 per cent of total wool exports.

Exports of blousse and waste are included in internal consumption.

Source: Federacion Lanera Argentina, op. cit.

Tables 10 and 11 indicate that the level of capacity in the spinning industry has remained relatively constant since 1964, with the level of weaving capacity declining slightly over the same period. However, a degree of consolidation appears to be occurring, as evidenced by a decline in the number of spinning mills, combing mills and weaving mills over the last 14 years.

TABLE 10
Argentinian Wool Textile Industry
Spinning Activity

Year	No. of Spinning Mills	Total No. of Spindles ('000)	No. of Spindles -Worsted Process- ing ('000)	No. of Spindles -Woollen Process- ing ('000)	No. of Combs	No. of Persons Employed
1964	97	357	248	109	1,530	15,000
1965	95	351	243	109	1,160	14,800
1966	92	351	243	109	1,150	14,400
1967	90	354	245	109	1,130	14,400
1968	90	357	248	109	1,100	14,200
1969	68	348	220	98	990	14,000
1970	64	340	230	110	700	14,000
1971	60	340	230	110	700	14,000
1972	58	340	230	110	670	14,000
1973	56	346	232	114	670	14,200
1974	51	347	233	115	670	14,200
1975	51	347	233	115	620	14,200
1976	51	348	233	115	600	14,200
1977	50	348	233	115	600	14,200

Source: Federacion Lanera Argentina, op. cit.

TABLE 11

Argentinian Wool Textile Industry
Weaving Activity

Year	No. of Weaving Mills	Looms Installed	Carpet Looms	No. of Persons Employed
1964	286	7,500	180	22,000
1965	275	6,520	190	21,800
1966	270	6,500	202	21,600
1967	277	6,480	200	21,500
1968	280	6,400	190	21,000
1969	260	6,200	160	20,500
1970	220	6,000	180	19,200
1971	220	6,000	200	18,000
1972	215	5,800	210	18,000
1973	212	5,800	220	18,000
1974	210	5,900	230	17,900
1975	205	5,820	230	17,800
1976	205	5,820	225	17,800
1977	205	5,820	225	17,800

Source: Federacion Lanera Argentina, op. cit.

3.2 Trends in Stock Levels

The trend in Argentinian wool stocks over the last 18 years is shown in Figure 4. Until 1972/73, stock levels fell, then rose, and then fell again in a manner which may be related to the level of production. However, since 1972/73, stock levels have increased dramatically, and only began falling after 1975/76.

This trend may have been influenced by a number of factors. In particular, however, stocks began rising during a period of depressed activity in the international wool industry; for example, New Zealand Wool Marketing Corporation wool stocks also rose quite significantly from mid-1973 to mid-1975.¹⁸ In addition, a heavy tax on wool exports was imposed by the previous Argentinian Government in 1973/74 and in subsequent years,¹⁹ and it has been suggested that the recent decline in stocks has been due to the removal of export restraints.²⁰

The proportion of average wool stocks held in each wool type tends to vary from year to year; however, over the period considered, wool stocks in each category averaged the following proportions: 24 per cent for fine wool, 41 per cent for fine crossbred wool, 6 per cent for medium crossbred wool, and 29 per cent for coarse crossbred wool. These proportions tend to correspond to the average proportions of wool produced and exported in each of these categories.

¹⁸ See Appendix 2 for comparative data on wool stocks in New Zealand and Argentina from 1971 to 1978.

¹⁹ Anon, 1977. Producing and Marketing Wool, The Review of the River Plate, April 20, 1977. Buenos Aires, p 497.

²⁰ Ministry of Economy, 1978. Argentine Wool on World Markets, Economic Information on Argentina, No. 86, Buenos Aires, p 21.

Table 12 shows the closing level of stocks for each wool type in each of the last 15 years as a proportion of the total wool available for disposal in that wool type in each year. Although this ratio tends to vary between wool types and between years, on average, 22 per cent of wool available for disposal was held as stocks over the 15 year period to 1977/78. There was very little variation between the average proportions for each wool type: 20 per cent for fine wool, 22 per cent for fine crossbred wool, 23 per cent for medium crossbred wool, and 25 per cent for coarse crossbred wool.

TABLE 12

Closing Stocks of Each Wool Type as a
Proportion of Total Wool Available for
Disposal^a in that Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred	Total
1963/64	19.5	13.2	21.7	22.0	17.9
1964/65	22.0	16.1	24.1	14.5	17.4
1965/66	5.6	4.5	16.9	18.6	9.6
1966/67	12.9	19.9	31.5	29.8	22.1
1967/68	15.0	22.9	23.4	16.9	19.3
1968/69	19.1	13.4	17.2	17.3	16.0
1969/70	22.0	15.7	18.8	20.2	18.8
1970/71	17.8	13.4	26.4	18.6	16.4
1971/72	12.1	13.2	13.8	20.2	14.3
1972/73	9.0	11.9	24.6	21.0	13.4
1973/74	40.2	40.5	37.4	46.3	41.4
1974/75	29.8	53.5	23.9	39.0	42.1
1975/76	30.8	44.2	20.2	29.3	36.8
1976/77	28.7	31.8	26.4	37.2	31.3
1977/78	17.3	17.1	14.3	22.8	17.8

^a Wool Stocks at the beginning of each year plus
production in that year.

Source: Federacion Lanera Argentina, op. cit.

3.3 Trends in Argentinian Wool Exports

1. Trends in Total Wool Exports. As shown in Figure 4, Argentinian wool exports have been declining over the last 18 years although there have been rather violent fluctuations about this trend. For example, there was a marked drop in exports in 1963/64, followed by a corresponding rise until 1965/66, after which there was a gradual decline until 1972/73. In 1973/74, exports then plummeted to 60,000 tonnes. After this they rose again but have not reached the levels previously achieved in 1965/66.

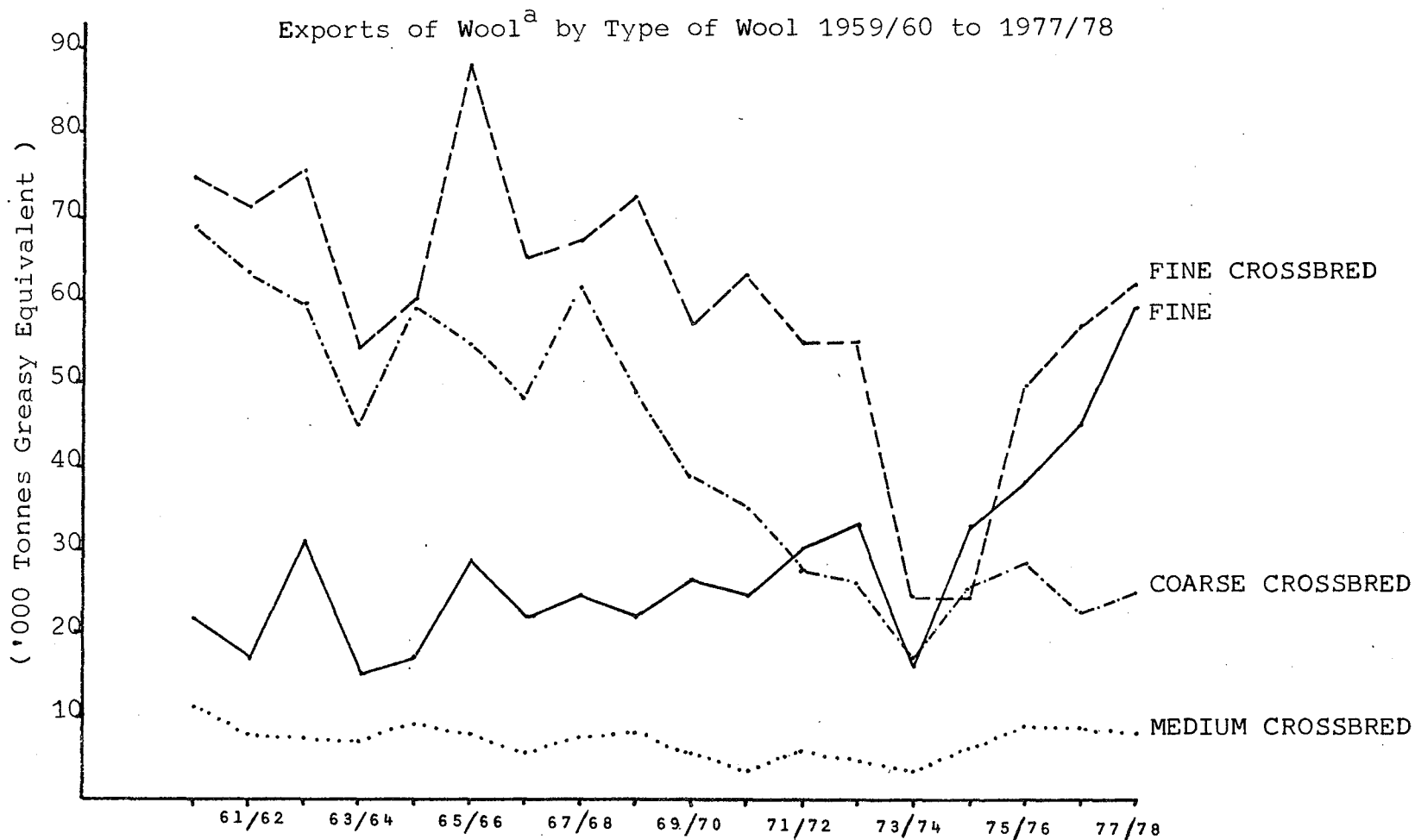
2. Trends in Wool Exports by Type of Wool. Figure 6 shows the trends in wool exports by wool type. The most important category, fine crossbred wool,²¹ follows an export trend similar to the aggregate. Exports of fine wool, now the second most important category of wool exported,²² have tended to rise on average over the 18 years, although this wool type also experienced the export downturns of 1963/64 and 1973/74. Although being subject to minor fluctuations, medium crossbred wool exports have remained relatively static since 1959/60.

As would be expected, given decreased production, the export of coarse crossbred wool has declined dramatically, with the result that coarse crossbred wool exports in 1977/78 were only 36 per cent of the volume exported 18 years earlier. This wool type experienced the downturns noted in aggregate exports, and although an increase occurred in 1974/75 and 1975/76, a further downturn occurred in 1976/77.

²¹ Fine crossbred wool accounted for 43 per cent of total wool exports, on average, for the period 1960/61 to 1977/78.

²² In 1977/78, fine wool accounted for 39 per cent of total exports, in comparison with an estimate of 12 per cent 18 years earlier.

FIGURE 6



^a Excludes Blousse and Waste which have already been accounted for in internal consumption; also excludes export of sheep skins.

Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

Therefore, as with production patterns, the composition of Argentinian wool exports has altered quite substantially in recent years as is illustrated in Table 13.

TABLE 13
Proportion of Exports in Each Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred
1962/63	18	44	4	34
1967/68	15	42	5	38
1972/73	28	46	4	22
1977/78	39	40	5	16

Source: Federacion Lanera Argentina, op. cit.

3. Trends in Wool Exports Relative to Output. Table 14 displays the relative importance of exports in terms of total wool available for disposal in each wool type over the last 15 years. As with the ratio of closing stocks to wool available, this proportion varies considerably from year to year. However, on average, 54 per cent of wool available over the last 15 years was exported: this average was 47 per cent for fine wool, 59 per cent for fine crossbred wool, and 55 per cent and 70 per cent for the medium crossbred and coarse crossbred categories respectively. From 1973/74 to 1975/76 the percentage of wool exported in all categories of wool available has tended to decline, this being a result of the higher levels of wool stocks being held in Argentina.

4. Trends in Wool Exports According to Various Stages of Processing. As indicated by Table 15, approximately three-quarters of Argentina's wool exports are in the form of greasy or scoured wool, with the export of tops and sheep skins accounting for much of the remainder.

TABLE 14

Exports of Each Wool Type as a Proportion
of Total Wool Available for Disposal^a in
That Wool Type (%)

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred	Total
1963/64	36.6	71.0	60.9	73.2	63.7
1964/65	34.0	69.0	62.1	81.4	64.7
1965/66	53.0	87.5	66.1	77.2	75.6
1966/67	43.6	71.3	50.4	66.0	62.3
1967/68	45.6	66.7	57.0	79.2	65.5
1968/69	42.2	72.6	63.3	77.1	66.4
1969/70	43.7	64.4	50.0	73.1	60.0
1970/71	39.4	64.8	33.0	73.9	58.0
1971/72	49.7	61.0	59.8	70.7	59.4
1972/73	59.8	65.3	53.1	73.3	64.6
1973/74	29.6	29.2	32.3	48.0	33.1
1974/75	46.0	22.3	50.4	56.5	37.3
1975/76	50.4	37.3	64.5	67.2	47.1
1976/77	56.2	47.9	56.9	58.8	52.7
1977/78	69.7	60.3	64.7	72.8	65.8

^a Wool stocks at the beginning of each year plus production in that year.

Source: Federacion Lanera Argentina, op. cit.

TABLE 15

Composition of Wool Exports in Various Stages of Processing^a (%)

Year	Greasy	Scoured	Slupe	Carbon- ized	Tops	Spun	Woven	Blousse	Waste	Other	Sheep Skins
1965/66	54	27	5	-	3	-	-	2	1	-	8
1966/67	47	30	6	-	4	-	-	4	1	1	7
1967/68	42	38	5	-	3	-	-	3	1	1	8
1968/69	40	37	4	1	4	-	-	3	1	1	10
1969/70	42	38	4	-	4	-	-	3	1	-	7
1970/71	36	41	3	-	6	-	-	4	-	-	9
1971/72	28	41	2	-	11	-	-	5	1	-	10
1972/73	43	28	2	-	12	2	1	3	1	-	8
1973/74	31	34	3	1	18	2	1	5	1	1	4
1974/75	39	37	2	-	9	-	-	5	1	-	7
1975/76	37	35	2	1	11	1	-	3	1	-	8
1976/77	38	28	2	1	17	3	2	3	1	-	5
1977/78	41	29	2	1	14	2	2	4	1	-	4
Average	40	34	3	-	9	1	-	4	1	-	7

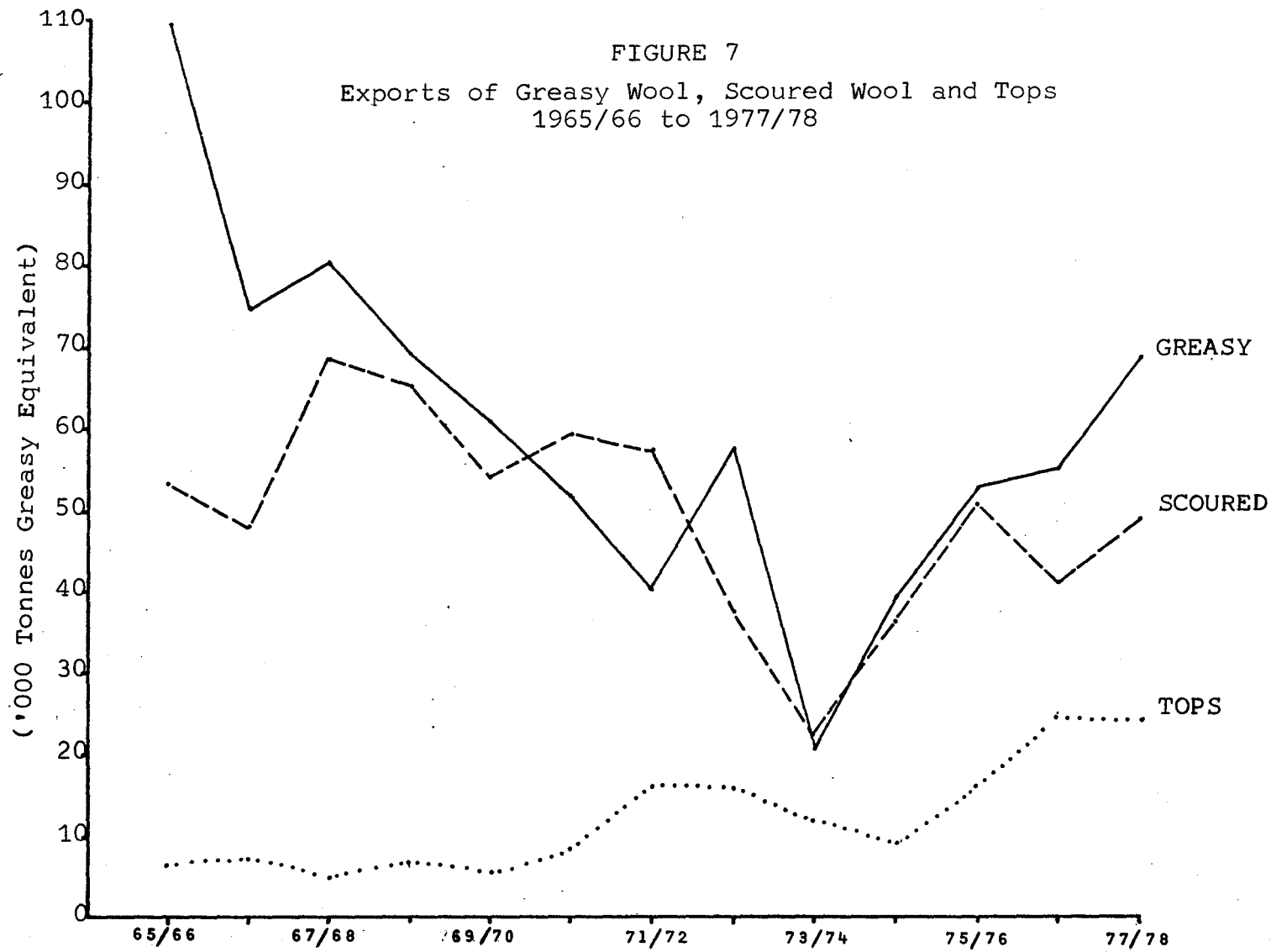
^a Totals may not add due to rounding.

Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

Figure 7 records the absolute level of greasy and scoured wool exports and of tops over this 13 year period.

The most important category of wool exports, greasy wool, has declined, although there was a small upturn in 1967/68, a peak in 1972/73, and a strong recovery after the 1973/74 downturn. The trend in scoured wool exports is less obvious. Minor troughs occurred in 1966/67 and 1969/70, and a major downturn in 1973/74.

Despite a slight downturn in 1974/75, the export of tops has increased quite significantly since 1970/71, to the extent that the volume of tops exported in 1977/78 was more than three times greater than the corresponding figure for 1965/66.



Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

5. Trends in Wool Exports to Different Countries.

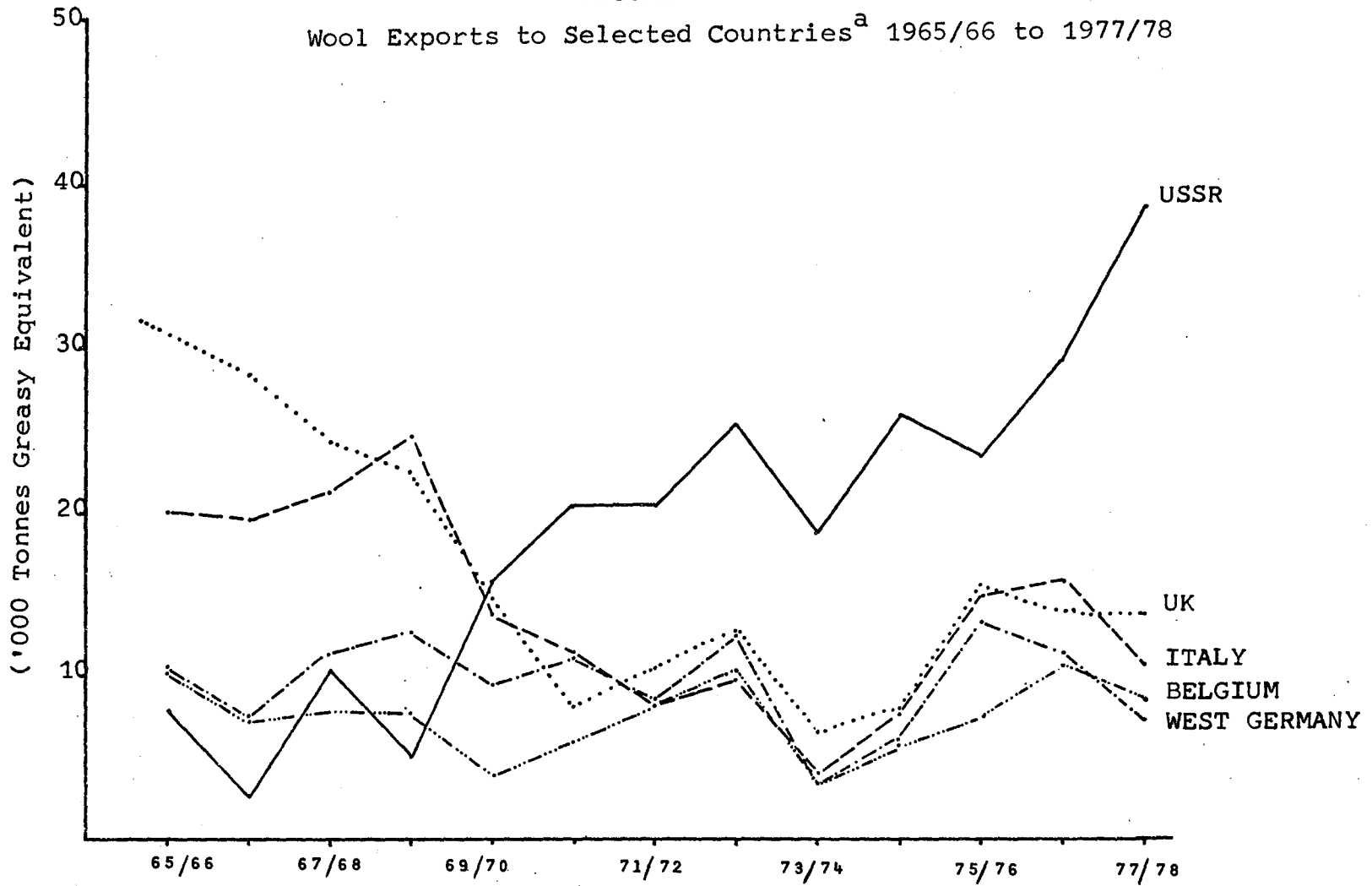
Ten countries account for approximately four-fifths of Argentina's wool exports²³ (USSR, Italy, UK, West Germany, Belgium, USA, France, Iran, Spain and Japan). Figure 8 gives an indication of the pattern of exports to these countries over the period 1965/66 to 1976/78²⁴ while Table 16 gives an indication of the relative importance of each of these ten countries to Argentinian wool exporters.

²³ These countries accounted for 79.5 per cent of Argentina's wool exports from 1965/66 to 1977/78.

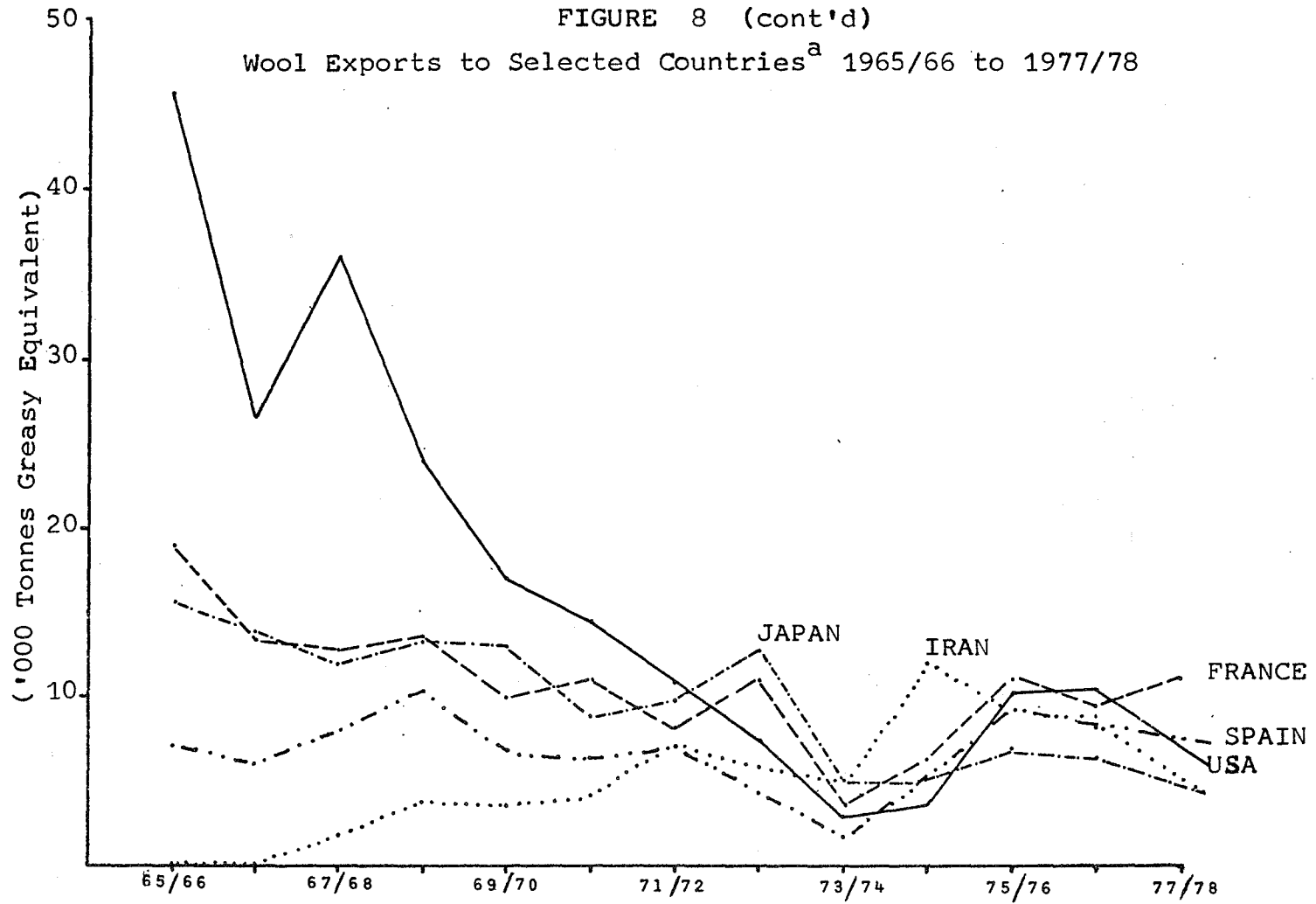
²⁴ When discussing export trends to these countries in this section of this Report, statements refer to data for this 13 year period, unless otherwise specified.

FIGURE 8

Wool Exports to Selected Countries^a 1965/66 to 1977/78



^a Includes exports of sheep skins with wool attached.



^a Includes exports of sheep skins with wool attached.

Source: Federacion Lanera Argentina, Informe Mensual Estadistico, selected issues.

TABLE 16

Wool Exports to Selected Countries as a Percentage
of Total Argentinian Wool Exports 1965/66 to 1977/78

Year	USSR	Italy	UK	W.Germ.	Belg.	USA	France	Iran	Spain	Japan	Other
1965/66	4.0	10.0	15.7	5.1	5.2	22.7	9.5	0.0	3.5	7.7	16.6
1966/67	1.7	12.3	17.7	4.7	4.5	16.6	8.4	0.0	3.8	8.6	21.7
1967/68	5.6	11.7	13.4	6.1	4.3	19.7	6.9	1.0	4.3	6.5	20.4
1968/69	2.9	14.1	12.9	7.2	4.4	13.8	7.7	2.1	5.8	7.6	21.6
1969/70	11.0	9.5	10.3	6.6	2.8	11.8	6.7	2.5	4.6	8.9	25.4
1970/71	14.0	7.9	5.6	7.6	4.1	10.0	7.5	2.8	4.5	6.0	29.9
1971/72	14.4	5.6	7.4	5.7	5.8	7.5	5.7	4.9	5.0	6.8	31.3
1972/73	19.0	7.3	9.5	9.2	7.5	5.5	8.1	4.3	3.2	9.5	16.9
1973/74	27.4	5.8	9.5	5.2	4.8	3.9	4.8	7.2	2.4	6.6	22.4
1974/75	25.8	7.5	7.8	6.2	5.8	3.7	6.0	11.8	5.3	5.1	15.1
1975/76	16.3	10.4	10.7	9.2	5.2	7.0	8.4	6.1	6.3	4.8	15.7
1976/77	19.8	10.7	9.3	7.7	7.2	7.1	6.4	6.2	5.7	4.3	15.8
1977/78	23.1	10.8	10.5	6.9	7.1	6.9	7.5	4.7	4.6	4.0	13.9

Source: Federacion Lanera Argentina, op. cit.

(i) Exports to USSR. As shown in Figure 8, wool exports to USSR have risen dramatically, if somewhat erratically, since 1965/66, to the extent that 23 per cent of total Argentinian wool exports were shipped to USSR in 1977/78, in comparison with 4 per cent in 1965/66. This substantial absolute and relative increase in wool imports means that USSR is now Argentina's most important customer by a considerable margin, as illustrated in Table 16.

Table 17 shows that the vast majority of these wool exports are in a greasy state, although smaller quantities of scoured wool are taken. In recent years, a small proportion of spun wool has also been exported to USSR.

The majority of the greasy wool is of fine or fine crossbred types, with the trend in recent years being towards the fine category, as illustrated in Table 18.

TABLE 17

Stage of Processing when Exported as
a Percentage of Total Wool Exported - USSR

Year	Greasy	Scoured	Spun	Skins
1965/66	100.0	-	-	-
1966/67	73.8	-	-	26.2
1967/68	92.6	7.4	-	-
1968/69	65.3	34.7	-	-
1969/70	80.2	19.8	-	-
1970/71	73.1	24.6	-	2.3
1971/72	69.5	30.3	0.2	-
1972/73	88.7	9.9	1.4	-
1973/74	84.0	15.5	0.5	-
1974/75	87.7	12.0	0.3	-
1975/76	91.9	6.3	1.8	-
1976/77	95.8	1.2	3.0	-
1977/78	99.1	0.1	0.8	-

Source: Federacion Lanera Argentina, op. cit.

TABLE 18

Percentage of Greasy Wool Exported in Each
Category of Fineness - USSR

Year	Fine	Fine Crossbred	Medium Crossbred	Coarse Crossbred
1965/66	24.9	40.6	11.5	23.0
1966/67	7.4	17.4	-	75.2
1967/68	54.9	27.2	0.6	17.3
1968/69	41.9	53.0	-	5.1
1969/70	73.9	26.1	-	-
1970/71	54.4	45.6	-	-
1971/72	53.3	46.7	-	-
1972/73	60.1	39.2	0.7	-
1973/74	66.1	33.9	-	-
1974/75	74.4	25.6	-	-
1975/76	65.4	33.8	-	-
1976/77	76.2	23.6	-	-
1977/78	83.9	16.1	-	-

Source: Federacion Lanera Argentina, op. cit.

(ii) Exports to Italy. Italy is now Argentina's second most important customer for wool and has consistently been a major importer over the last 12 years.²⁵ In 1977/78, wool exports to Italy accounted for 11 per cent of total Argentinian wool exports, which is almost the same proportion as it was 12 years previously (see Table 16).

In 1965/66, 57 per cent of Italy's wool imports from Argentina were in a greasy state; however, by 1977/78 this proportion had declined to 5 per cent.

On the other hand, the proportion of tops in these total wool exports rose from less than 1 per cent to 39 per cent over the same period, thereby making Italy Argentina's most important customer for tops.

The proportion of scoured wool in these Italian wool imports has tended to fluctuate over the 12 year period considered, but has, on average, constituted 37 per cent of the total.²⁶ The high level of these scoured wool imports means that Italy is Argentina's most important customer in this respect also.

The majority of these imports of scoured wool and tops are in the fine crossbred range, with this category comprising 63 per cent of the total for tops, and 46 per cent of the total for scoured wool. However, a significant proportion of these scoured wool imports, 44 per cent, is in the coarse crossbred range.

²⁵ In 1965/66, Italy was third in terms of Argentinian wool exports. Its position remained fairly static until 1972/73, when it fell to seventh, after which it rose again before falling in 1977/78.

²⁶ Remaining wool exports to Italy are accounted for by skins, which constituted 20 per cent of the total over the 12 years considered.

(iii) Exports to U.K. The United Kingdom was Argentina's second most important customer in 1965/66, taking 32,000 tonnes of wool (greasy equivalent).²⁷ However, by 1977/78, this volume had fallen to 18,000 tonnes.²⁸

The majority of wool received by U.K. from Argentina is in a greasy form; this amounted to 61 per cent of the total over this period. Scoured wool accounts for much of the remainder, comprising 25 per cent of the total.²⁹

Most of these greasy wool imports were at the finer end of the spectrum, with 33 per cent of the greasy total being in the fine range, and a further 41 per cent being in the fine crossbred range. However, a significant minority, 23 per cent, is in the coarse wool category. The majority of scoured wool received, 79 per cent, is also in this coarse crossbred range.

²⁷ This accounted for 16 per cent of total wool exports from Argentina.

²⁸ This accounted for 10 per cent of total wool exports from Argentina.

²⁹ Slipe wool accounted for most of the remainder, amounting to 9 per cent of wool exported from Argentina to U.K.

(iv) Exports to USA. In 1965/66, USA was Argentina's most important customer for wool by a considerable margin, taking 23 per cent of its total wool exports. However, the level of these exports fell drastically after that year with the result that, in 1977/78, USA was importing less than a fifth of the volume of wool which it took from Argentina thirteen years previously.³⁰

The majority of these exports are in either a scoured or a greasy form, with these categories comprising 30 per cent and 37 per cent of total exports, respectively.³¹

A large proportion of these exports have been in the coarse crossbred range, with this category comprising 62 per cent of scoured wool exports, and 38 per cent of greasy wool exports.³² In recent years fine and fine crossbred wool have become an increasingly important component of exports; fine wool accounted for 31 per cent of greasy exports, and fine crossbred wool for 39 per cent of scoured wool exports in 1977/78.³³

³⁰ In 1977/78, USA had fallen in importance to become Argentina's eighth most important customer.

³¹ On average, slipe wool exports accounted for a further 10 per cent of the total, and blousse for 15 per cent.

³² Seventy-eight per cent of slipe wool exports were in this range.

³³ In addition to these categories, creole wool was also of significance, accounting for 24 per cent and 27 per cent of scoured and greasy wool exports respectively.

(v) Exports to West Germany and Belgium. West Germany and Belgium are now Argentina's fourth and fifth customers respectively. Both countries have similar trends in their levels of wool imports from Argentina, and in the composition of these imports.

For both countries, the majority of Argentinian imports were scoured, although the proportions in this category did not greatly exceed those for greasy wool.³⁴

A large proportion of scoured wool imported is of the coarse crossbred type, with lesser proportions in the fine crossbred range, and, in the case of West Germany, in the creole range.³⁵ Greasy wool exports, on the other hand, tend to be in the fine and fine crossbred categories.³⁶

³⁴ On average, the proportions of scoured wool exported to these countries were 45 per cent for West Germany and 44 per cent for Belgium. The corresponding proportions for greasy wool were 36 per cent and 44 per cent respectively. Tops accounted for a significant proportion of remaining wool exports in later years.

³⁵ West Germany receives 43 per cent of its Argentinian scoured wool in the coarse crossbred range, and 43 per cent as fine crossbred wool. For Belgium these proportions were 63 per cent in the coarse crossbred range, 15 per cent in the fine crossbred range, and 17 per cent in the creole range.

³⁶ On average, 41 per cent of West Germany's greasy wool was in the fine range, and 47 per cent in the fine crossbred range. For Belgium, these proportions were 31 per cent and 60 per cent respectively.

(vi) Exports to France and Spain. Despite slightly differing trends in Argentinian wool exports to each country (see Figure 8), the composition of these exports to France and Spain is very similar. Both countries take a significant proportion of sheep skins, with the majority of the balance being greasy wool.³⁷ Of these greasy wool imports, the majority is in the fine and fine crossbred ranges.³⁸

The volume of these exports of skins to France and Spain is such that these two countries were Argentina's most important customer in this respect over the period considered, with France taking 48 per cent of total Argentinian sheep skins exports, and Spain taking 28 per cent.

³⁷ Fifty-two per cent of France's Argentinian wool imports were skins, and 35 per cent were in the greasy wool category. For Spain, the corresponding proportions were 55 per cent, and 34 per cent, respectively.

³⁸ For France, 23 per cent of greasy wool imports from Argentina were in the fine wool range, and 63 per cent in the fine crossbred range. For Spain, the relevant statistics were 61 per cent and 37 per cent, respectively.

(vii) Exports to Iran. Wool exports to Iran rose quite dramatically from zero in 1965/66 to 9,000 tonnes (greasy equivalent) in 1976/77. In 1977/78, however, this had fallen to 8,000 tonnes. The vast majority of this wool is scoured, and comprised 84 per cent of Iranian wool imports from Argentina after 1966/67.³⁹ This made Iran Argentina's second most important customer for scoured wool.

The proportion of this scoured wool in each wool type varied from year to year; however, on average, 36 per cent was in the coarse crossbred range, and 35 per cent in the fine crossbred range.⁴⁰

³⁹ In recent years, Iran has taken an increasing proportion of its Argentinian wool imports in the form of tops; in 1977/78, this proportion was 21 per cent, making it Argentina's third most important destination for tops in that year.

⁴⁰ A further 21 per cent of scoured wool exports to Iran were in the medium crossbred range.

(viii) Exports to Japan. The majority of Argentina's wool exports to Japan⁴¹ are in the greasy category; this amounted to 70 per cent over the 12 years considered. However, in the last three years, the proportion of scoured wool rose considerably,⁴² and, since 1972/73 the proportion of tops has been quite significant.⁴³ Of the greasy wool exports, the vast majority, 93 per cent, was in the fine crossbred range.

⁴¹ Over the 12 year period considered, total wool exports to Japan have, on average, been falling.

⁴² In 1977/78, scoured wool exports accounted for 43 per cent of the total.

⁴³ From 1972/73 to 1977/78, the proportion of tops amounted to 28 per cent.

CHAPTER 4

COMPARISON OF MARKETS FOR NEW ZEALAND AND ARGENTINIAN WOOL

4.1 End Use

Argentinian wool production and export statistics are presented in fineness categories ranging from approximately 18 to 25 microns, 25 to 30 microns, 30 to 35 microns, and all wool coarser than 35 microns. In broad terms, these categories correspond to wool destined for use in light apparel wear in the finer ranges from 18 to 30 microns, heavier apparel goods in the medium range from 30 to 35 microns, and heavy-duty woollen goods, such as carpets, in the coarse range over 35 microns.⁴⁴ To coincide with this logical categorization, New Zealand export statistics have been extracted on a similar basis for the purpose of this Report. In this way, it is possible to establish, to some extent, the areas where competition between the two countries is likely to be strongest.

⁴⁴ These categories do not correspond to the above end uses in any mutually exclusive sense, since there will obviously be overlaps in end uses at the margins; however, they give a general idea of representative uses for different types of wool.

Whilst comparisons here are based on fineness, other fibre characteristics can also be extremely important in determining end use and, hence, demand. For example, Argentinian wool in the range greater than 35 microns originates from Lincoln sheep and tends to be extremely coarse, high lustre wool, unlike New Zealand Romney wool in this category, which tends to be finer and less lustrous. Although this Argentinian wool is suitable for carpet manufacture providing it is not too long, it is also used to meet specialty markets from time to time. For example, 1978/79 prices for Argentinian coarse crossbred wools are extraordinarily high,⁴⁵ as a result of a strong demand for this wool, particularly from Europe, for blending with currently high priced mohair fibre to produce a suitable mohair-type blend.⁴⁶

Also, it is difficult to gauge the degree of competitiveness between New Zealand and Argentinian wools by reference only to the relative volume of wool exported in each fineness category to various destinations, since such an analysis does not take into account other important factors. For example, the relative importance of a supplier in any market will also depend on the strength of historical trade linkages, the potential economic stability of the supplier and the manner in which private buyers operate.

⁴⁵ Prices for coarse crossbred greasy wool sold in the Pampeana region averaged 374 cents (NZ) per kg for the period January to April 1979. These high prices have had the effect of reversing the traditional ratio of fine to coarse crossbred wool prices in Argentina from a normal level of approximately 1.5 to a level of 0.4. Source: Derived from data published in various issues of Preçios de la Lana en el Mercado Interno by the Secretaria de Estado de Agricultura y Ganaderia, Buenos Aires.

⁴⁶ Source: Economic Survey No. 1567, Buenos Aires, 1979, p. 31.

In addition, the suitability of the preparation methods and standards of the suppliers, and the level of freight rates, are also important considerations to a wool importer.

Nevertheless, a study of the relative volumes of wool exported by each country to various destinations does provide some insight into the respective market profiles for wool exports from New Zealand and Argentina.

4.2 Comparative Wool Exports in Different Micron Categories

Recent trends in the export of greasy and scoured wool⁴⁷ from New Zealand and Argentina are shown in Tables 19 and 20.⁴⁸ In the finest range considered, the 18-25 micron category, the proportion of total wool exported from Argentina has risen considerably from 17 per cent in 1966/67 to 49 per cent in 1977/78. On the other hand, New Zealand exports less than two per cent of its wool in this category, and, in 1977/78, the volume of New Zealand's exports in this range amounted to only seven per cent of that exported from Argentina in the same category.

⁴⁷ These categories account for the majority of wool exported from both countries. For example, in 1977/78 they accounted for 89 per cent of actual tonnes of wool exported from New Zealand, and 77 per cent of actual tonnes exported from Argentina. Source: NZWMC Statistical Handbook 1977/78, Federacion Lanera Argentina, Informe Mensual Estadistica, No. 239.

⁴⁸ Unless otherwise specified, data referring to New Zealand wool exports are extracted or derived from the New Zealand Wool Board, Statistical Handbook, 1977/78, the New Zealand Wool Marketing Corporation, Statistical Handbook 1972/73, 1973/74, 1974/75, 1975/76, 1976/77; New Zealand Wool Commission, Statistical Analysis of New Zealand Wool Production and Disposal, 1966/67, 1967/68, 1968/69, 1969/70, 1970/71, 1971/72.

TABLE 19

Proportion of Greasy and Scoured Wool Exported
from New Zealand in Each Micron Category
1966/67 to 1977/78 (%)

Year	Micron Category				Total Volume of Wool Exported ^a (Tonnes)
	18-25	25-30	30-35	35-41	
	%	%	%	%	
1966/67	1.9	13.7	34.6	49.8	196,024
1967/68	1.7	12.0	34.1	52.2	225,602
1968/69	1.5	10.5	34.9	53.1	273,139
1969/70	1.4	9.5	30.9	58.2	270,125
1970/71	1.7	9.9	32.0	56.4	254,628
1971/72	1.7	9.8	29.2	59.3	262,906
1972/73	1.7	11.2	29.3	57.8	238,192
1973/74	1.7	11.9	30.5	55.9	184,526
1974/75	1.5	8.8	33.6	56.1	189,480
1975/76	1.7	9.2	32.0	57.1	244,787
1976/77	1.5	10.8	27.6	60.1	231,329
1977/78	1.6	13.2	28.5	56.7	217,092

^a Total of actual greasy and scoured wool exported.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.; New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.; New Zealand Wool Commission, Statistical Analysis of New Zealand Wool Production and Disposal, op. cit. Since New Zealand's export statistics are published on the basis of < 28 microns, 29-34 microns and 35-41 microns, these statistics have been recalculated to conform with the micron categories used for Argentinian wool exports. NZ exports of less than 35 microns were allocated to the categories 18-25 microns, 25-30 microns and 30-35 microns on the basis of the proportion of greasy wool sold each year. Estimates were converted to tonnes using a conversion factor of 1 bale = 0.154 tonnes for greasy wool exports. Conversion factors for each year for scoured wool exports were derived from details of wool scoured on account of exporters.

TABLE 20

Proportion of Greasy and Scoured Wool Exported
from Argentina in Each Micron Category^b
1966/67 to 1977/78 (%)

Year	Micron Category				Total Volume of Wool Exported ^a (Tonnes)
	18-25.5	25.6-30	30.1-35.1	> 35.1	
	%	%	%	%	
1966/67	16.5	48.1	2.9	27.7	103,726
1967/68	17.4	42.6	3.1	30.7	117,391
1968/69	15.5	49.9	2.6	26.5	107,710
1969/70	22.4	46.9	1.4	24.5	92,555
1970/71	18.4	52.4	1.3	22.2	85,783
1971/72	21.5	51.0	1.2	19.8	72,193
1972/73	29.2	47.4	1.6	18.7	79,328
1973/74	31.0	35.6	3.1	28.9	34,680
1974/75	44.7	24.5	4.8	25.5	61,478
1975/76	36.6	36.7	4.2	21.3	82,014
1976/77	42.9	37.3	2.5	14.0	78,650
1977/78	48.6	33.2	2.5	12.1	96,154

^a Total of actual greasy and scoured wool exported.

^b The proportions in all micron categories do not sum to 100 because of the small proportion of creole wool exported that has been excluded from the table.

Source: Federacion Lanera Argentina, op. cit.

In the 25 to 30 micron range, the proportion of Argentinian wool exported has tended to decline, accounting for a third of total exports in 1977/78. The proportion of New Zealand wool exported in this category has averaged 11 per cent over the 12 year period. In absolute terms, Argentina and New Zealand are exporting similar volumes of wool in this range; in 1977/78 New Zealand exported 29,000 tonnes and Argentina 32,000 tonnes.

Argentina exports very little wool in the 30 to 35 micron range; over the period considered, it averaged less than three per cent of total exports. However, this category comprises a significant proportion of New Zealand's exports, averaging 31 per cent of the total. In absolute terms, New Zealand's wool exports in this category in 1977/78 were 26 times greater than the corresponding Argentinian volume.

The coarser wool category over 35 microns accounted for 56 per cent of total exports from New Zealand, whereas the corresponding Argentinian proportion has declined from 28 per cent in 1966/67 to 12 per cent in 1977/78. Consequently, in 1977/78, New Zealand was exporting more than ten times as much wool as Argentina in this category.

4.3 Comparative Wool Exports to Different Regions

Table 21 shows that 40 per cent of Argentina's exports in 1977/78 went to EEC countries and 38 per cent to USSR. By contrast, 53 per cent of New Zealand's corresponding exports went to the EEC, with the balance being spread over a number of other destinations, more notably Japan and other Asian countries, Western European countries, excluding the EEC, and USSR.⁴⁹

TABLE 21

Percentage of Wool Exports from the Principal Exporting Countries
to Different Destinations 1976/77 and 1977/78

Destination	Principal Exporting Countries											
	Australia		New Zealand		South Africa		Argentina		Uruguay		Total	
	76/77	77/78	76/77	77/78	76/77	77/78	76/77	77/78	76/77	77/78	76/77	77/78
EEC	33.0	29.4	53.7	52.9	74.8	79.2	39.0	40.0	48.0	56.2	41.0	40.8
Other Western Europe ^a	3.8	4.4	7.1	8.4	7.6	9.3	8.0	5.7	10.2	3.9	5.2	5.9
Eastern Europe	5.0	5.2	5.9	4.8	-	-	2.7	2.4	13.0	9.4	4.9	4.6
USSR	12.2	14.8	8.9	9.0	-	-	32.7	38.1	6.1	11.6	12.0	14.5
Japan	30.9	29.7	7.3	7.7	10.4	4.6	3.5	2.3	1.4	1.8	21.8	18.8
Other Asia	10.9	11.7	8.1	8.8	-	-	5.2	3.6	9.9	6.8	9.2	9.1
USA	2.5	2.5	3.9	3.5	1.0	0.4	4.3	3.6	5.4	5.5	2.9	2.8
Other North America	0.5	0.6	0.9	0.8	-	-	1.4	1.6	-	0.2	0.6	0.7
Other Countries	1.2	1.7	4.2	4.1	6.2	6.5	3.2	2.7	6.0	4.6	2.4	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Exports ^b ('000 Tonnes)	729	540	253	243	78	74	81	98 ^c	24	32 ^c	1165	987

^a Includes Yugoslavia

^b Includes greasy, slipe, scoured and carbonised wools

^c Estimated by BAE.

Source: Bureau of Agricultural Economics, Wool Situation and Outlook, 1979.

Therefore, in terms of the relative volumes of wool exported from both countries, New Zealand has the Argentinian markets well covered⁴⁹ in Japan,⁵⁰ other Asian countries,⁵¹ and Eastern Europe.⁵² However, the level of coverage is not quite so great for EEC, other Western European countries and the USA. In the case of USSR, New Zealand sells only 60 per cent of the volume of wool sold by Argentina to that market.⁵³ Therefore, comparative exports to these regions are analysed at a disaggregated level.

⁴⁹ In 1977/78, the ratios of total New Zealand to Argentinian wool exports to Japan, Other Asia and Eastern Europe, were 8.3, 6.1 and 5.0 respectively. Source: Derived from Table 21.

⁵⁰ However, both Argentina and New Zealand export similar quantities of wool to Japan in the range below 30 microns, although this category accounts for only 9 per cent of New Zealand's exports to Japan (see Appendix 7 for further details).

⁵¹ This region includes Iran, where the ratio of New Zealand to Argentinian wool exports was 1.8 in 1977/78. (Iran is discussed further in Section 4.3.) The majority of the remainder of New Zealand's exports from this region go to China, which took no wool from Argentina in 1977/78. Iran and China account for 66 per cent and 89 per cent (respectively) of New Zealand and Argentinian wool exports to Asian countries other than Japan.

⁵² In 1977/78, exports to Poland and Czechoslovakia accounted for 83 per cent of wool exports to Eastern Europe from both New Zealand and Argentina. The ratio of New Zealand to Argentinian exports to these countries was 7.4 and 2.6 respectively.

⁵³ Exports to other North American countries and to other regions not previously considered accounted for only five per cent and four per cent respectively of New Zealand's and Argentina's wool exports in 1977/78. The majority of New Zealand wool in these categories went to Australia, a market in which Argentina does not operate to any extent.

4.4 Exports to Individual Countries

As shown in Tables 19 and 20, New Zealand exports very little wool in the 18-25 micron category, and Argentina exports very little in the 30-35 micron category. As would be expected, there are virtually no markets to which both countries export similar volumes of wool in these categories. In most cases where both countries market wool in the 25-30 micron range, similar volumes are exported.

1. EEC Countries.

In those EEC countries to which both New Zealand and Argentina supply wool, New Zealand does not cover Argentina's exports in the 25-30 micron range (Table 22). However, in general, not a great proportion of New Zealand's exports to these countries are in this range,⁵⁴ since, as would be expected, most New Zealand exports are in the coarse category greater than 35 microns, where New Zealand covers Argentina's exports by a large margin.⁵⁵

⁵⁴ However, one-fifth of New Zealand's exports to France are in this category.

⁵⁵ Italy is somewhat of an exception, where the ratio of New Zealand to Argentinian exports was relatively low in 1977/78.

TABLE 22

Relative Volumes of Wool in the '25-30' Micron and
'Over 35' Micron Ranges Sold by New Zealand and
Argentina to Selected Countries 1977-78^a

Country	Ratio of NZ to Argentin- ian Exports - 25-30 Microns	% NZ Exports to that Country in 25-30 Micron Range	Ratio of NZ to Argentin- ian Exports - > 35 Microns	% NZ Exports to that Country in > 35 Micron Range
<u>EEC</u>				
UK	0.7	11	5.4	63
West Germany	0.6	9	13.4	68
France	1.0	21	13.9	35
Belgium	0.3	10	9.2	68
Italy	0.6	14	2.2	54
<u>USSR</u>	0.7	17	1014.0	48
<u>USA</u>	0.7	13	3.9	55
<u>OTHER ASIAN</u>				
Iran	0.3	9	10.5	65

^a See Appendices 4 to 12 for details on the relative volume of wool sold by New Zealand and Argentina in each micron category to selected countries from 1966/67 to 1977/78, and for the percentage of total New Zealand wool exports to these countries in each micron category over the same period.

2. Other Western Europe.

In Western European countries other than the EEC, New Zealand and Argentina operate in separate markets, with 5 per cent of New Zealand's exports in 1977/78 going to Greece, a country to which took only 1.5 per cent of Argentina's exports in the same year. On the other hand, 5 per cent of Argentina's exports went to Spain, in comparison with only 1 per cent of New Zealand's exports.

3. USSR.

Although USSR is Argentina's top wool importer and is now the second most important destination for New Zealand wool, Argentina concentrates its exports in the range less than 25 microns, while the majority of New Zealand's exports are coarser than 35 microns. Although similar volumes from both countries are sold in the 25 to 30 micron range, this accounts for only 17 per cent of New Zealand's exports to USSR (Table 22).

4. USA.

Once again, New Zealand does not cover Argentina's wool exports to the USA in the 25-30 micron range; however, this category accounts for only 13 per cent of the USA's imports from New Zealand, and is a declining market for both suppliers.

5. Iran.

Although the aggregate volumes of wool sold by both countries to Iran are similar, in this case also, New Zealand concentrates its exports on coarse wool, while Argentina exports predominantly fine wool of less than 25 microns.

4.5 Conclusion

Because of changing production patterns in Argentina, the volume and composition of wool exports from that country have changed over recent years, with the result that Argentina does not currently share New Zealand's markets, and cannot be regarded as a serious competitor in specific markets for New Zealand wool. However, with the installation of the new regime in Argentina in early 1976, there was a change of direction in agricultural policy, with the new government recognizing the role of the agricultural sector in the provision of basic foodstuffs and the earning of foreign exchange. To this end it has instituted policies designed to bolster output from this sector.⁵⁶ Therefore, Argentina may prove a competitive threat to New Zealand's wool exports in future years, since this new emphasis in government policy may assist in realising the vast agricultural and pastoral potential of the country, thereby altering the situation currently prevailing in the Argentinian wool industry.

⁵⁶ For details of some of these policies, see M. Johns, Production and Export Projections for the Argentine Beef and Veal Industry 1978-82, BAE Occasional Paper No. 50, Canberra, 1978.

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APPENDIX 1

FIGURE 9

Map of Argentina by Province and Region



APPENDIX 2

TABLE 23

Sheep Numbers in Argentina and New Zealand
1888-1977

Year	No. of Sheep (Millions)	
	Argentina	New Zealand
1888	66.7	15.0
1895	74.4	19.8
1908	67.2	22.4
1914	43.2	24.8
1922	36.2	22.2
1930	44.4	30.8
1937	43.9	31.3
1947	51.2	32.7
1960	48.5	47.1
1969	44.3	59.9
1974	34.7	55.9
1977	34.3	59.1

Sources: Secretaria de Agricultura y Ganaderia, Produccion y Comercio de Lanas, Buenos Aires, 1975; Ministerio de Economia Junta Nacional de Carnes de la Republica Argentina, Sintesis Estadictica 1977, Buenos Aires, 1978; Ministerio de Economia Junta Nacional de Carnes de la Republica Argentina, Sintesis Estadistica Trimestral Segundo Trimestre 1978, Buenos Aires, 1979; Woodford, K.B. and Woods, L.D., 1978. Production and Supply Relationships in the New Zealand Sheep and Beef Industries, AERU Research Report No. 88, Lincoln College, p 3; Department of Statistics, New Zealand Agricultural Statistics, 1975-76, 1977/78, New Zealand Year Books 1901, 1910, 1916.

APPENDIX 3

TABLE 24

Wool Stocks Held in Argentina^a and
New Zealand^b 1971-1978 (Tonnes)

Year	New Zealand	Argentina
1971	40,422	35,200
1972	10,718	28,200
1973	-	24,450
1974	3,040	74,650
1975	32,783	98,450
1976	7,686	96,700
1977	15,969	78,300
1978	31,094	41,350

^a Total wool stocks held in Argentina as at 30 September each year.

^b Wool stocks held by the New Zealand Wool Board in New Zealand and UK as at 30 June each year. Bales converted to tonnes using a statistical bale equivalent of 154 kgs per bale.

Sources: Federacion Lanera Argentina, Informe Mensual Estadistico, op. cit.; New Zealand Wool Commission, Statistical Analysis of New Zealand Wool Production and Disposal 1971/72; New Zealand Wool Marketing Corporation, Statistical Analysis of New Zealand Wool Production and Disposal 1972/73, 1973/74, 1974/75; New Zealand Wool Marketing Corporation, Statistical Handbook 1975/76, 1976/77, 1977/78.

APPENDIX 4

TABLE 25

Wool Exported from New Zealand to the UK
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to UK (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for UK
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	1.7	12.6	35.3	50.4	30,307	15.8
1967/68	1.7	12.9	39.2	46.2	37,020	16.5
1968/69	1.6	10.8	37.2	50.4	43,281	15.9
1969/70	1.6	10.3	34.8	53.3	39,753	14.7
1970/71	1.7	9.6	33.4	55.3	30,423	11.9
1971/72	N/A	N/A	N/A	N/A	35,820	13.5
1972/73	1.5	10.7	30.5	57.3	29,652	12.5
1973/74	1.2	8.8	26.8	63.2	20,712	11.4
1974/75	1.3	8.2	31.0	59.5	20,872	10.9
1975/76	1.1	6.2	24.3	68.4	21,585	8.6
1976/77	1.3	10.1	26.3	62.3	27,480	11.4
1977/78	1.3	11.2	24.4	63.1	28,049	12.6

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op.cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op.cit.

TABLE 26
 Wool Exports to the UK - Ratio
 of New Zealand to Argentinian
 Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	0.1	0.5	13.3	2.3
1967/68	0.1	0.8	20.6	2.9
1968/69	0.2	0.8	133.1	3.5
1969/70	0.3	1.4	865.2	4.3
1970/71	1.0	2.1	216.2	5.1
1971/72	N/A	N/A	N/A	N/A
1972/73	0.2	0.9	111.7	5.4
1973/74	0.4	7.1	30.0	5.1
1974/75	0.2	3.1	76.1	3.9
1975/76	0.1	0.4	15.6	3.1
1976/77	0.3	0.7	24.6	5.5
1977/78	0.1	0.7	20.2	5.4

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
 New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
 New Zealand Wool Commission, Statistical Analysis of New Zealand Wool Production and Disposal, op. cit.;
 Federacion Lanera Argentina, Informe Mensual Estadistica, op. cit.

APPENDIX 5

TABLE 27

Wool Exported from New Zealand to the USSR
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to USSR (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for USSR
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	2.2	15.9	37.4	43.5	11,223	5.6
1967/68	2.1	13.8	35.0	49.1	10,266	4.4
1968/69	1.5	10.4	36.0	52.1	14,926	5.5
1969/70	1.6	10.6	32.2	55.6	19,588	7.1
1970/71	2.1	11.9	41.2	44.8	20,646	8.2
1971/72	N/A	N/A	N/A	N/A	25,921	10.2
1972/73	2.4	15.4	37.3	44.9	17,350	7.2
1973/74	2.0	14.2	37.7	46.1	21,853	11.9
1974/75	1.9	12.4	57.2	28.5	21,233	11.3
1975/76	2.1	11.0	34.9	52.0	28,541	11.8
1976/77	2.2	13.3	29.0	55.5	24,405	10.8
1977/78	2.4	16.8	32.8	48.0	24,337	11.1

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 28

Wool Exports to the USSR - Ratio
of New Zealand to Argentinian
Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	1.6	4.8	*	3.1
1967/68	0.1	0.6	64.1	2.2
1968/69	0.0	0.9	*	6.1
1969/70	0.0	0.7	*	3.9
1970/71	0.1	0.3	*	6.0
1971/72	N/A	N/A	N/A	N/A
1972/73	0.0	0.3	44.0	3.3
1973/74	0.0	0.6	*	3.8
1974/75	0.0	0.5	27.7	2.8
1975/76	0.0	0.5	68.2	10.8
1976/77	0.0	0.5	98.3	38.9
1977/78	0.0	0.7	*	1014.0

* Argentina exported no wool in this category in this year.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool Production and Disposal, op. cit.;
Federacion Lanera Argentina, Informe Mensual Estadistica, op. cit.

APPENDIX 6

TABLE 29

Wool Exported from New Zealand to West Germany
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to West Germany (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for West Germany
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	1.0	7.7	24.1	67.2	13,354	7.1
1967/68	0.9	7.1	25.6	66.4	16,809	7.8
1968/69	1.2	8.2	32.2	58.4	22,510	8.6
1969/70	1.2	8.0	31.1	59.7	20,044	7.8
1970/71	1.7	9.7	33.4	55.2	20,873	8.5
1971/72	1.5	8.6	25.3	64.6	21,570	8.5
1972/73	1.1	8.1	26.9	63.9	21,169	9.4
1973/74	1.0	8.4	27.0	63.6	13,261	7.5
1974/75	1.0	6.0	26.5	66.5	17,538	9.5
1975/76	1.1	6.1	25.3	67.5	23,822	9.8
1976/77	0.8	7.6	22.6	69.0	22,724	9.7
1977/78	0.7	8.8	22.7	67.8	18,940	8.8

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op.cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 30
 Wool Exports to West Germany - Ratio
 of New Zealand to Argentinian
 Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	0.2	0.5	23.8	5.6
1967/68	0.2	0.4	13.1	5.5
1968/69	0.3	0.5	75.6	6.4
1969/70	0.3	0.6	271.0	6.6
1970/71	0.3	0.7	19.6	6.0
1971/72	0.6	1.0	70.0	8.4
1972/73	0.1	0.5	55.3	8.7
1973/74	2.3	2.6	96.9	13.8
1974/75	0.1	1.2	87.8	9.5
1975/76	0.1	0.5	22.5	9.5
1976/77	0.8	0.7	25.1	21.7
1977/78	0.1	0.6	46.6	13.4

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
 New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
 New Zealand Wool Commission, Statistical
Analysis of New Zealand Wool Production and
Disposal, op. cit.;
 Federación Lanera Argentina,
Informe Mensual Estadística, op. cit.

APPENDIX 7

TABLE 31

Wool Exported from New Zealand to Japan
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to Japan (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for Japan
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	2.7	19.5	48.4	29.4	26,571	13.5
1967/68	2.2	15.8	47.7	34.3	16,778	7.6
1968/69	1.7	11.8	45.0	41.5	30,738	11.4
1969/70	1.3	8.9	38.4	51.4	32,143	12.3
1970/71	0.8	5.1	24.7	69.4	28,380	11.1
1971/72	1.5	9.0	31.8	57.5	21,822	8.6
1972/73	1.1	7.8	23.7	67.4	31,058	13.7
1973/74	0.9	7.2	24.3	67.6	14,221	8.0
1974/75	1.1	7.3	34.5	57.1	16,431	9.0
1975/76	1.0	6.2	32.5	60.3	22,753	9.0
1976/77	0.7	8.2	26.5	64.6	17,368	7.3
1977/78	0.5	8.7	24.8	66.0	18,041	8.4

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 32
 Wool Exports to Japan - Ratio
 of New Zealand to Argentinian
 Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	1.0	0.5	167.0	16.4
1967/68	2.3	0.3	44.7	12.3
1968/69	2.2	0.4	48.3	31.1
1969/70	2.0	0.3	*	64.0
1970/71	2.8	0.2	304.3	153.8
1971/72	6.9	0.3	*	110.5
1972/73	1.9	0.5	334.3	255.2
1973/74	*	0.4	*	457.4
1974/75	0.6	0.7	*	62.1
1975/76	4.5	0.7	30.5	25.6
1976/77	1.1	0.6	*	35.5
1977/78	0.7	0.9	*	51.3

* Argentina exported no wool in this category in this year.

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
 New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
 New Zealand Wool Commission, Statistical Analysis
of New Zealand Wool Production and Disposal, op. cit.;
 Federacion Lanera Argentina,
Informe Mensual Estadistica, op. cit.

APPENDIX 8

TABLE 33

Wool Exported from New Zealand to France
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to France (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for France
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	2.6	18.8	43.9	34.7	28,045	14.0
1967/68	2.4	16.2	41.1	40.3	38,282	16.3
1968/69	2.5	16.8	47.5	33.2	44,464	15.7
1969/70	2.2	13.7	37.1	47.0	28,708	10.2
1970/71	3.1	17.3	46.4	33.2	24,658	9.2
1971/72	3.3	18.5	46.0	32.2	27,254	9.9
1972/73	3.0	19.1	44.9	33.0	19,863	7.9
1973/74	2.7	17.9	40.2	39.2	10,744	5.6
1974/75	3.8	20.9	58.4	16.9	15,950	7.9
1975/76	3.4	16.9	49.3	30.4	26,007	10.8
1976/77	3.0	19.2	43.9	33.9	18,935	8.4
1977/78	2.9	20.9	40.8	35.4	16,287	7.5

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 34
 Wool Exports to France - Ratio
 of New Zealand to Argentinian
 Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	1.3	1.0	22.2	6.1
1967/68	5.2	1.5	53.4	9.6
1968/69	1.7	2.0	72.0	15.5
1969/70	0.7	1.5	154.3	11.9
1970/71	1.9	1.2	200.6	13.6
1971/72	3.4	4.4	895.6	18.0
1972/73	0.5	1.4	125.8	13.3
1973/74	8.6	7.1	65.4	11.2
1974/75	0.5	8.1	160.6	6.4
1975/76	0.6	1.9	57.6	9.0
1976/77	0.4	2.6	162.8	12.5
1977/78	0.3	1.0	14.3	13.9

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
 New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
 New Zealand Wool Commission, Statistical Analysis
of New Zealand Wool Production and Disposal, op. cit.;
 Federacion Lanera Argentina,
Informe Mensual Estadistica, op. cit.

APPENDIX 9

TABLE 35

Wool Exported from New Zealand to Belgium
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to Belgium (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for Belgium
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	2.0	14.4	35.9	47.7	10,443	5.3
1967/68	1.4	9.9	26.7	62.0	15,011	6.5
1968/69	0.8	5.8	17.7	75.7	23,158	8.3
1969/70	1.1	7.3	20.8	70.8	28,779	10.3
1970/71	1.7	9.5	27.3	61.5	32,004	12.1
1971/72	1.6	8.9	23.9	65.6	31,512	11.5
1972/73	1.1	7.3	18.4	73.2	21,066	8.5
1973/74	0.5	3.7	11.5	84.3	12,208	6.4
1974/75	0.9	5.4	22.6	71.1	6,218	3.2
1975/76	1.1	6.1	22.9	69.9	8,474	3.5
1976/77	1.7	11.3	25.5	59.5	9,686	4.3
1977/78	1.2	9.8	20.7	68.3	9,757	4.5

^a Excludes slipe wool exports

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 36

Wool Exports to Belgium - Ratio
of New Zealand to Argentinian
Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	0.5	0.7	15.0	2.8
1967/68	0.3	0.7	20.9	4.5
1968/69	0.3	0.5	21.8	13.9
1969/70	0.7	4.1	122.2	16.4
1970/71	24.8	4.4	349.6	8.6
1971/72	11.4	1.6	123.5	8.4
1972/73	0.2	0.4	48.5	8.4
1973/74	8.4	0.9	25.1	8.5
1974/75	0.0	0.5	67.0	3.0
1975/76	0.1	0.6	13.9	3.1
1976/77	0.1	0.8	14.7	4.2
1977/78	0.1	0.3	4.0	9.2

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical
Analysis of New Zealand Wool Production
and Disposal, op. cit.;
Federacion Lanera Argentina,
Informe Mensual Estadistica, op. cit.

APPENDIX 10

TABLE 37

Wool Exported from New Zealand to Italy
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in each Micron Category				Total Wool Exports to Italy (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for Italy
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	2.2	16.0	40.9	40.9	10,256	5.2
1967/68	1.7	12.7	41.2	44.4	16,512	7.5
1968/69	1.8	12.7	43.0	42.5	18,825	6.9
1969/70	1.6	10.8	36.5	51.1	17,915	6.6
1970/71	2.0	11.0	34.9	52.1	12,465	4.9
1971/72	1.7	10.1	29.5	58.7	10,061	3.8
1972/73	1.9	12.2	31.1	54.8	8,727	3.6
1973/74	1.8	12.6	32.4	53.2	7,386	4.0
1974/75	1.2	7.6	31.1	60.1	6,971	3.7
1975/76	1.5	8.0	28.3	62.2	9,599	3.9
1976/77	1.0	9.6	28.4	61.0	8,045	3.4
1977/78	1.5	13.7	31.0	53.8	8,288	3.7

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 38

Wool Exports to Italy - Ratio
of New Zealand to Argentinian
Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	0.1	0.3	14.6	1.9
1967/68	0.1	0.4	19.4	2.8
1968/69	0.1	0.3	39.3	2.6
1969/70	0.2	0.4	43.6	6.3
1970/71	0.4	0.5	70.2	7.7
1971/72	1.4	1.0	92.8	10.4
1972/73	0.2	0.6	90.5	5.6
1973/74	1.5	1.7	184.1	8.6
1974/75	0.1	0.8	108.5	2.6
1975/76	0.1	0.4	67.9	2.6
1976/77	0.1	0.6	108.7	2.7
1977/78	0.2	0.6	42.2	2.2

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical
Analysis of New Zealand Wool Production
and Disposal, op. cit.;
Federacion Lanera Argentina,
Informe Mensual Estadistica, op. cit.

APPENDIX 11

TABLE 39

Wool Exported from New Zealand to the USA
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in Each Micron Category				Total Wool Exports to USA (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for USA
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	0.7	4.8	11.7	82.8	24,665	12.5
1967/68	0.7	5.0	13.4	80.9	27,279	11.8
1968/69	0.8	5.5	17.2	76.5	29,491	10.6
1969/70	0.9	5.6	16.4	77.1	28,790	10.5
1970/71	1.0	5.7	16.6	76.7	24,987	9.7
1971/72	N/A	N/A	N/A	N/A	24,176	9.1
1972/73	0.9	5.9	14.0	79.2	17,399	12.5
1973/74	0.7	4.8	11.5	83.0	7,000	3.8
1974/75	0.8	4.7	14.9	79.6	4,893	2.5
1975/76	1.0	5.3	16.6	77.1	6,515	2.7
1976/77	0.5	5.0	15.1	79.4	7,764	3.4
1977/78	1.3	12.9	30.6	55.2	6,340	2.9

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 40

Wool Exports to USA - Ratio
of New Zealand to Argentinian
Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	0.2	1.4	39.5	2.4
1967/68	0.2	0.9	60.0	1.7
1968/69	0.8	4.5	*	2.7
1969/70	0.7	1.4	53.6	4.2
1970/71	11.4	3.8	153.7	4.4
1971/72	N/A	N/A	N/A	N/A
1972/73	0.2	*	*	12.0
1973/74	*	*	*	14.4
1974/75	0.1	21.0	*	5.9
1975/76	0.0	2.1	*	21.8
1976/77	0.0	0.5	*	9.8
1977/78	0.2	0.7	64.6	3.9

* Argentina exported no wool in this category in this year.

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical
Analysis of New Zealand Wool Production
and Disposal, op. cit.;
Federacion Lanera Argentina,
Informe Mensual Estadistica, op. cit.

APPENDIX 12

TABLE 41

Wool Exported from New Zealand to Iran
in Each Micron Category 1966/67 to 1977/78

Year	% Total Wool Exports in Each Micron Category				Total Wool Exports to Iran (Tonnes) ^a	% Total NZ Wool Exports ^a Destined for Iran
	18-25 Microns	25-30 Microns	30-35 Microns	Over 35 Microns		
1966/67	0.0	1.3	12.1	86.6	223	0.1
1967/68	0.4	2.4	15.4	81.8	247	0.1
1968/69	0.5	3.8	20.3	75.4	399	0.2
1969/70	0.0	1.5	15.2	83.3	1,307	0.5
1970/71	0.1	1.2	13.1	85.6	908	0.4
1971/72	0.0	0.0	0.0	100.0	1,244	0.5
1972/73	0.2	1.1	3.4	95.3	3,830	1.6
1973/74	0.0	0.4	2.1	97.5	3,665	2.0
1974/75	0.0	0.8	7.6	91.6	8,343	4.7
1975/76	0.0	0.3	2.5	97.2	6,470	2.7
1976/77	0.0	1.4	4.9	93.6	7,621	3.3
1977/78	0.4	8.6	25.8	65.2	6,745	3.3

^a Excludes slipe wool exports.

Source: Derived from New Zealand Wool Board, Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation, Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical Analysis of New Zealand Wool
Production and Disposal, op. cit.

TABLE 42

Wool Exports to Iran - Ratio
of New Zealand to Argentinian
Exports by Micron Category 1966/67 to 1977/78

Year	Micron Category			
	18-25	25-30	30-35	Over 35
1966/67	0.0	*	*	6.4
1967/68	*	0.02	0.14	0.35
1968/69	0.67	0.06	0.17	0.22
1969/70	0.25	0.03	0.40	1.54
1970/71	*	0.01	0.39	1.11
1971/72	0.0	0.0	0.0	1.10
1972/73	*	0.05	0.23	2.17
1973/74	0.02	0.02	0.12	6.7
1974/75	*	0.03	0.29	3.14
1975/76	*	0.0	0.09	9.00
1976/77	0.43	0.05	0.54	14.70
1977/78	5.20	0.34	3.87	10.45

* Argentina exported no wool in this category in this year.

Source: Derived from New Zealand Wool Board,
Statistical Handbook, op. cit.;
New Zealand Wool Marketing Corporation,
Statistical Handbooks, op. cit.;
New Zealand Wool Commission, Statistical
Analysis of New Zealand Wool Production
and Disposal, op. cit.;
Federacion Lanera Argentina,
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