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Fishery Leaflet 305

Washington 25, D. C.

May 1948

GUANO ISLANDS  
UNION OF SOUTH AFRICA <sup>1/</sup>

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Contents  
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	Page
Introduction.....	1
Labor.....	2
Protection of Sea-Birds and Seals.....	2
Transport.....	2
Products.....	2
Guano.....	2
Composition.....	2
Price.....	3
Production.....	3
Imports.....	4
Sealskins.....	4
Seal Oil.....	5
Penguin Eggs.....	5

INTRODUCTION

The South African Guano Islands consist of small rocky islands ranging around the coast of Africa from Port Elizabeth, on the east coast, to South West Africa. One or two have sandy stretches, but there is no vegetable growth.

The islands were originally privately worked but have been under Government control since about 1890. They are exploited by the Government Guano Islands Administration, which comes under the Union Department of Agriculture. The cost of administration normally exceeds the revenue derived.

The names of the principal islands from which guano is taken are: Bird and St. Croix Islands (off Port Elizabeth), Dyers Island (near Danger Point), Seal Island (False Bay - there is now a Radar tower on this small rocky island), Ichabo Island, Dassen Island, Elephant Rock, Jutten Island, Meeuw and Schapen Islands (near Saldanha Bay), Malagas Island, Marcus Island, Vondeling Island, Penguin Islet (near Lambert Bay), Penguin and Seal Islands (near Luderitz), Possession, Pomona, Sinclair's and Halifax Islands on the west coast.

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<sup>1/</sup> Prepared by John C. Fuess, American Consul, assisted by Beta S. Wynne. American Consulate General, Capetown, South Africa, February 11, 1948. Report No. 12.

## LABOR

During 1947 a total of 769 casual laborers were employed on the islands for the collection of guano and penguin eggs and to assist in building operations, and during the off-season 98 were retained to serve as boatmen and to assist in clearing and renovating buildings.

Considerable progress has been made on the various islands with work on buildings and jetties, which had to be suspended during the war, but much still remains to be done, and several years will be required to complete all the necessary work.

## PROTECTION OF SEA-BIRDS AND SEALS

The necessity for greater protection of the islands and prohibited areas has been emphasized and legislation is being contemplated with this object in view.

## TRANSPORT

The Administration possesses three vessels: The S.S. Gamtoos is not only very well equipped for guano operations but has also been fitted with the necessary machinery for the manufacture of seal oil. Laboratory experiments showed that it is possible to extract seal oil from blubber at 40 lb. steam pressure by the addition of about 1 per cent caustic soda. The pilot sealing plant on the S.S. Gamtoos is capable of handling about 5 (short) tons of blubber per ten hour day. The same machine can also be adapted to boil seal carcasses for the manufacture of meatmeal, but as yet no suitable method has been found for drying the meat sufficiently to ensure that it will keep; until a suitable press is found for the purpose, the manufacture of meatmeal cannot be undertaken.

The two patrol boats Pikkewyn and Seabird are proving eminently suitable, not only for protecting the islands but also for delivering supplies to the islands. They are also used for the transportation of guano from the smaller islands, and for sealing expeditions.

## PRODUCTS

The products for which the islands are exploited are given below with explanatory and statistical comments:

### Guano

#### Composition

The guano is deposited by Malagas (or Gannets), Penguins and Duikers in the latter half of the year; the collection is undertaken during the ensuing six months. The extraordinary wealth of fish in these waters is indicated by the fact that 20,000,000 birds, each requiring a minimum of one pound of fish per day, are to be found at the same time on the one island of Ichabo. The astonishing quantity of guano on a given area is further demonstrated by the fact that Seal Island, in False Bay, with an area of one acre, yields from 30 - 80 short tons each year.

Guano is sold as a fertilizer in pulverized form and is used principally in the cultivation of cereals and vegetables. It is no longer available for orchards and vineyards on account of the big demand in other respects. Its principal chemical constituents are nitrogen, potash, phosphoric oxide and lime, and as the composition of the deposits obtained from the different islands varies materially in certain essentials all collections are systematically mixed so as to obtain an approximately uniform grade of article.

Analysis of the Guano

	<u>1943</u> %	<u>1944</u> %	<u>1945</u> %	<u>1946</u> %	<u>1947</u> %
Phosphoric Oxide (total)	10.4	10.3	10.4	10.5	10.0
Phosphoric Oxide - soluble in 2 per cent citric acid	9.4	9.5	9.9	9.7	9.2
Phosphoric Oxide - soluble in water	3.2	3.1	2.7	2.7	3.2
Nitrogen	10.8	10.4	10.2	10.0	9.6
Potash	1.7	2.4	2.0	2.1	2.3
Residue	64.5	64.3	64.8	65.0	65.7

Price

Guano has been sold for a number of years now at £10 (about \$40<sup>1/2</sup>) per short ton of which the farmer receives £1 (\$4) subsidy from the Government. It thus actually costs the farmer £9 (\$36) per short ton.

Production

There is a very large and increasing local demand for guano and as the supply is limited no exportation to places beyond the limits of the Union is permitted. Present production of guano from these islands is stated to meet only about one tenth of local demand.

In spite of early and continual rains along the east coast, which made the collection of guano on islands in those regions impossible, the supply for the 1947 season was up to expectations and no difficulty was experienced in the collection of the allotment of 6,500 short tons, (all of which was supplied to wheat farmers and vegetable growers in the Union of South Africa). A heavy shower along the west coast after the collection was started was responsible not only for a delay but also for a reduction of at least 1 per cent in the nitrogenous content of the guano.

<sup>1/2</sup> Approximate conversions at £1(SA) = \$4.0075

The demand for guano is reflected in the following figures:

Year	Nos. of applications for Guano
1945	6,414
1946	7,222
1947	7,555

As against these applications the following allotments were made in 1947:

Number of 200 lb. bags allotted	65,280
Number of 200 lb. bags taken up	63,208
Value of guano sold	£63,208 (\$252,832)

#### Imports

The following figures showing imports of guano from the Seychelles<sup>1/</sup> may be of interest:

Year	Quantity lbs.	Value £	Approximate \$
1942	33,934,651	18,533	74,132
1943	7,452,480	4,910	19,640
1944	6,659,120	5,104	20,416
1945	14,784,000	11,276	45,104

#### Sealskins

Sealing was the earliest of all South African industries. The industry is controlled by the Government, though permits for certain islands may be obtained by private contractors.

Large numbers of seals were taken both during the summer and the winter season of 1946-47. Details of the operations are as follows:

Skins	Colonial Preserves (Islands around Cape Province coast)	Northern Preserves (Islands off South West Africa's coast)
Pups	3,945	4,615
Wigs (Adults)	4,029	6,152

<sup>1/</sup> A group of British owned islands in the Indian Ocean south of the Equator, between longitude 45° and 60°.

Of the pup skins taken during the winter of 1947, 7,859 were suitable for export and were shipped to the following countries -

United States of America	7,584
United Kingdom	150
Sweden	<u>125</u>
total	7,859

The rejected pup skins and all the wig skins were disposed of locally.

While pup skins have been exported to the United States since 1942, the United Kingdom has almost ceased its purchases and the United States therefore has a virtual monopoly of the export market. Figures of exports to the United States for the years 1942 - 1947 are:-

Year	Number	<u>from Union of South Africa</u>		<u>from South West Africa</u>	
		£	\$	£	\$
1942	2,030	814	3,256	-	-
1943	11,101	4,490	17,960	807	3,228
1944	6,000	150	600	5,700	22,800
1945	3,973	6,518	26,072	9,522	38,088
1946	7,584	18,960	75,840	not available	-
1947	9,086	not available		not available	

The skins of the adults are not at present exported, although they are suitable for the manufacture of leather. It has been difficult to find a market for them since they are not easy to tan or to work. These skins have, however, been marketed in small quantities within the Union. There has been no demand for them outside of South Africa.

#### Seal Oil

Production has averaged 30,000 to 40,000 gallons (Imperial) per annum and the oil is used only in the Union of South Africa. Revenue derived from this product amounts to some £9,000 (\$36,000) annually.

In view of the general shortage of fats and oils, every possible effort is being made to produce the maximum amount of seal oil, and during the past year (1947) 36,511 gallons (Imperial) were extracted. The demand for seal oil considerably exceeds the supply, which during 1947 was 78,853 lbs. The Administration also supplied 2,821 lbs. of shark liver oil for the same period.

#### Penguin Eggs

Penguin eggs are collected from Dassen Island only. The eggs are palatable, nutritious and easily digestible. The "white" is of a seagreen color; the egg is twice the size of the usual hen's egg and must be boiled for twenty minutes.

After a period during which no eggs were taken, collecting was resumed on a restricted scale in 1938. In 1940, 217,450 eggs were taken, and sold to the public

at 10s. 6d (\$2) for a case of fifty. Eggs have since been collected annually, with the exception of the years 1942 and 1945, and sold at 10/- (\$2) per case of two dozen. When collection does take place, approximately 10,000 dozen are collected. The figure for 1946/1947 is given as 5,412 boxes of two dozen each (value £2,706 - \$10,824).

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