

PRODUCTION DURING THE YEAR.

The kauri-gum received at Auckland from the gumfields for the past seven years is shown, month by month, in the following table :—

Kauri-gum received in Auckland.

	1920-21.	1921-22.	1922-23.	1923-24.	1924-25.	1925-26.	1926-27.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
April ..	612	191	543	480	439	483	338
May ..	532	331	514	613	501	330	332
June ..	370	358	654	459	344	395	362
July ..	434	404	548	352	363	399	401
August ..	376	368	689	522	407	326	392
September ..	577	508	781	450	373	403	287
October ..	447	420	610	490	471	299	229
November ..	371	482	601	612	427	486	341
December ..	339	285	667	576	591	410	325
January ..	289	331	590	506	525	365	265
February ..	301	466	658	475	492	396	198
March ..	359	608	700	537	520	541	441
	5,007	4,752	7,546	6,072	5,453	4,833	3,911

For the first two months of the new year the arrivals at Auckland were—April, 317 tons, and May, 277 tons. The exports for these two months were—April, 471 tons, and May, 386 tons.

PRODUCTION ON A LARGE SCALE.

The chief difficulty in the way of production on a large scale has been the inability to obtain labour-saving machinery, especially in the direction of enabling the companies to deliver gum-bearing material into the washing-machines at a cheaper rate than could be done by small parties of diggers working on their own account and in competition with these larger concerns. This was largely accounted for by the presence of considerable deposits of buried timber in most gum swamps.

During the past year one company operating at Sweetwater, near Awanui, has made what appears to be the best attempt so far at large-scale production. Those connected with the operations have been carrying on investigations in regard to the digging and handling of gum-bearing soil for some considerable time, and a good deal of capital has been expended in bringing the company's plant to its present stage of efficiency. The process is a continuous one, the soil being carried on tram-lines to the plant, where it is dumped into hoppers, and from that point gravity is applied and the material is washed, freed from impurities, dried, and graded as it passes through the various stages.

SHRINKAGE IN WEIGHT ON CHALK GRADES.

In the report for the year ended the 31st March, 1924, particulars were given of a test which is being made to illustrate the shrinkage of chalk gradings as a result of the almost continuous evaporation of moisture.

The "chalk" selected for the test was a typical lot which had been purchased in the ordinary way, and which had been worked over a sieve at the store in Auckland, the chips and dust having been taken out as well as any woody pieces and any "hearty" chalk present. The gum was considered dry when first purchased, and had remained in the sack awaiting grading for some weeks. From a commercial point of view it was quite dry when graded.

The trial sack was stored in a warm, sunny room with a good draught passing through. It is doubtful if any further loss will result while the gum remains sacked, since there has been no loss since April, 1926; but if the gum were crushed and air-dried it is very probable that a further appreciable shrinkage would take place as a result of the evaporation of moisture still contained within the larger pieces. A number of experiments made with what the trade regards as "dry chalk" showed shrinkages up to 35 per cent. when crushed and air-dried, and the shrinkage of the gum in this test when crushed and air-dried later on, will probably approximate that figure.

The weighings to date, with percentages of shrinkages since the first weighing, are as follows :—

Date of Weighing.	Weight.	Percentage of Loss to Date.	Date of Weighing.	Weight.	Percentage of Loss to Date.
	Cwt. qr. lb.			Cwt. qr. lb.	
1922—Feb. 1 ..	1 1 14	..	1923—Feb. 1 ..	1 0 11	20.13
Mar. 1 ..	1 1 5	5.84	Mar. 1 ..	1 0 9	21.43
April 1 ..	1 1 0	9.09	April 4 ..	1 0 7	22.73
May 1 ..	1 0 25	11.04	May 1 ..	1 0 6	23.38
June 1 ..	1 0 23	12.33	June 1 ..	1 0 6	23.38
July 1 ..	1 0 21	13.63	Aug. 1 ..	1 0 5	24.03
Aug. 10 ..	1 0 19	14.93	1924—Feb. 1 ..	1 0 0	27.27
Sept. 1 ..	1 0 19	14.93	July 1 ..	0 3 24	29.87
Oct. 6 ..	1 0 17	16.23	1925—Jan. 15 ..	0 3 24	29.87
Nov. 1 ..	1 0 16	16.88	1926—April 26 ..	0 3 20	32.47
Dec. 1 ..	1 0 14	18.18	Nov. 26 ..	0 3 20	32.47
1923—Jan. 3 ..	1 0 12	19.48	1927—June 13 ..	0 3 20	32.47

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