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RESEARCH RESULTS AND FUTURE TRENDS OF THE
DEVELOPMENT OF THE SYNTHETIC FIBRE INDUSTRY
IN GERMANY

by

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The manufacturing of man-made fibres in Peru started around 1947 with the production of filament fibres. Two kinds of filament only were produced (viscose and acetate). The necessary raw materials were imported. Staple fibre filaments of polyamide and polyester were produced before 1967. In that year, some polyester in staple form was manufactured. During the next three years two more extruding plants were established in the country in the vicinity of Lima.

For 1968 we can give the following production figures.

figures.

Acetate (F)	785	Tons
Nylon Viscose (F)	895	"
Polyester (S) Ø	1,289	"
Polyester (F) ØØ	124	"
Polyester (low)	95	"

Ø 1.5 - 3.0 Denier

ØØ 70 and 150 Denier

At the moment two more plants have been built in the country: one is in Lima and the other is in the south of Peru. The latter is dedicated to the production of nylon and polyester filament and the former produces only acrylic staple fibre. All the factories import the main raw material in the form of chips; the amount brought into Peru is as follows:

	1971	1972	1973
Polyamide	3,700	3,276	4,250
Polyester	2,133	2,490	2,500
in metric tons.			

Three out of these four plants have the intention of producing their own chips so they will be properly integrated, but they will probably run into some strong opposition from the government for obtaining their licences, since it is not considered economical to have so many small chip manufacturing units.

All the quantities mentioned above at present being all synthetic fibres in content in the output of these five factories (some data will be given below about the manufacturing of woven sacks made of polypropylene). The amount imported into the country has been as follows.

Polyester (Filament)

1971 - 1,031,073 Kgs.
 1972 - 224,000 "
 1973 - 273,304 "
 1974 - 202,600 "

Polyester (Filament)

1971 - 119,217 Kgs.
 1972 - 128,067 "
 1973 - 749,063 "
 1974 - 1,452,603 "

Very probably the imported quantities will come down for 1975 for the existing plants in Peru are also producing fine deniers. These ones account for 70% of all the figures shown above.

No rayon in the staple form or acetate is produced in Peru and some large quantities, by American standards, are imported. It is mainly used for the manufacturing of blankets. Tricetate has been allowed into Peru in very small quantities; the same goes for spun high tenacity polyester for the making of sewing thread by plying. By the end of the year we expect to have some high tenacity polyester produced in one of the plants already mentioned. The production of the four plants is as follows:

	1971	1972	1973	1974
Viscose (F)	578	919	941	776
Acetate (F)	2,206	1,428	1,473	1,182
Polyester (F)	239	270	809	1,289
Polyester (S)	2,009	2,490	2,499	3,798
Polyester (low)	248	111	181	179
Nylon (F)	2,091	1,827	2,379	2,598
Nylon (S)	--	--	--	9
in metric tons.				

The fifth plant is a synthetic fiber in the state form and its production is to be completed in 1961. It started producing (1957) 1,000 tons per year and now is producing 1,500 tons. Of this some 400 tons are exported to the domestic market and to the Andean Pact. This factory is a by-product of the plant in the low-temperature.

The plant of Puno of the extruding plant, textured, lower new filament. It could be said that it accounts for something around 70% of the production. The other plant is in Lima and Dora in 1958 - 1959 for the manufacture of filament and cord. The production should be around 50 tons per year. There is only one plant which only textured and is led by the Peruvian extruding plant, but they export some type thread. There is one project for a textile, fiber extruding and texturing plant - its equipment will come from Lima and its capacity will be of the order of 1,500 tons per year.

There is one project for the manufacture of yarn and cord cord filament and it is still on the drawing. However, it has received a lot of encouragement from government sources. They intend to produce 1,000 tons per year and to manufacture 180 tons of industrial filament for fishing nets and cordage. It seems that they have a problem with the amount of financing and that they have not come to a final decision whether they will produce nylon 6 or 6.6.

Peru has a big reserve of fishing oil in the low basin part of the country. This probably will come true about 1977/78 and then a solid nearshore fishery could be opened in the 20's, so that the man-made fiber industry will receive an appropriate backing.

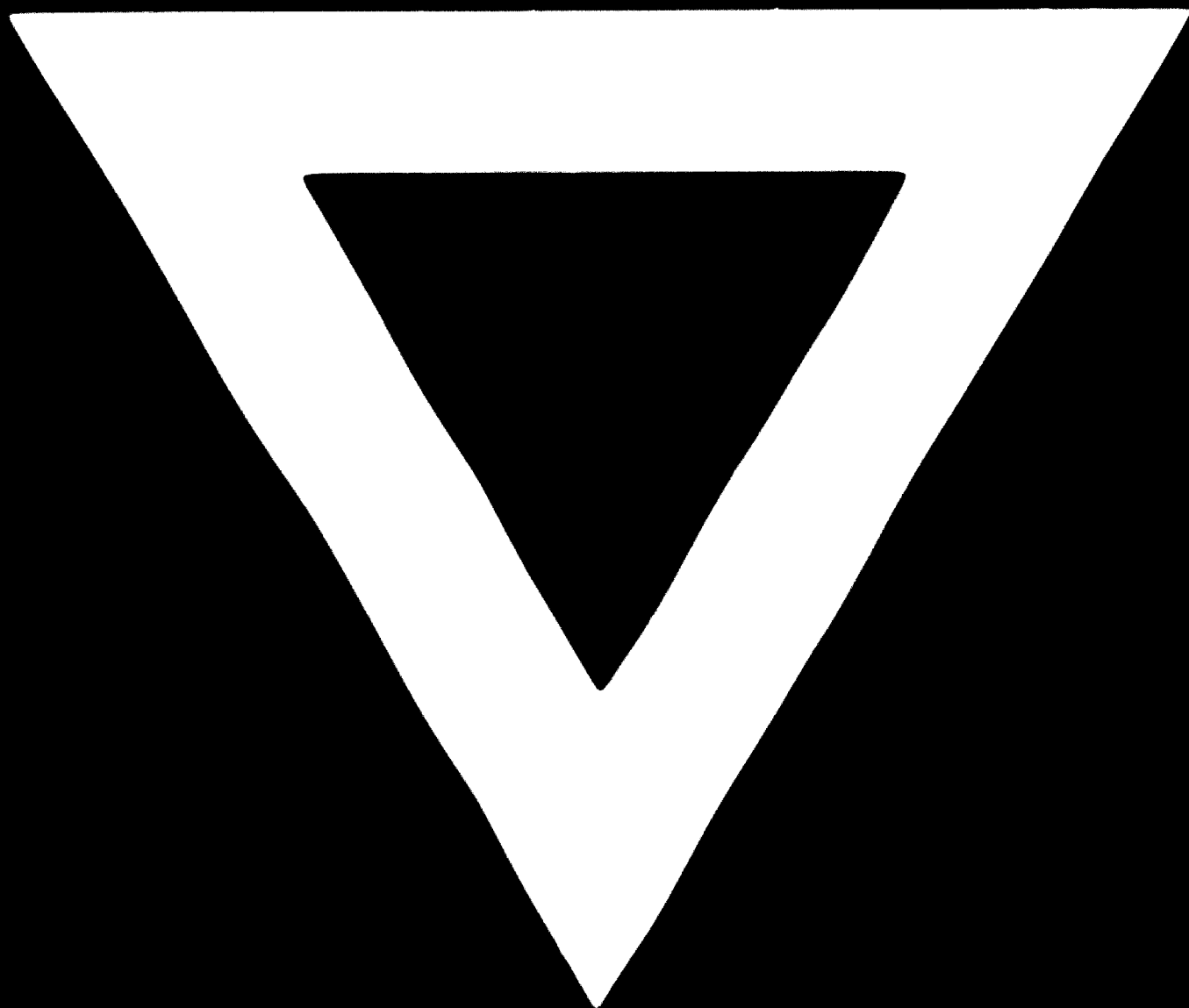
Good quality control work is only carried out in a satisfactory manner by the factories which are subsidiaries of the ones from abroad (American, Japanese) and Bayer (Germany). At two out of the three main factories they have good laboratories but they lack the required experience. They do not keep data nor have a proper method of low to run a quality control department. The third plant of this group has a very primitive arrangement for looking after its quality control work which is practically non-existent.

IFIDE could fund its activities through universities and through some government institutions like INIDE (the Peruvian Institution for Intellectual Property). Some science and technology would be appreciated especially on the quality studies, and more than anything other studies on sectors of technological methods will be eagerly welcome.

The use of man-made fabrics has increased enormously. They are used in all the fields of the textile industry. About 30,000 needles are used exclusively for synthetic fibers. The cotton polyester blend (50 - 50) is used widely. Approximately 500,000 blankets are made entirely of synthetic (some synthetic waste is also imported into Peru).

Three factories for making polypropylene flat filament and then weaving it into sacks operate in Peru. The chips are imported and they have an output of 42,000,000 sacks a year. The average weight per sack is about 10 grams.





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