TABLE III

Estimated Sales and Replacement of Total Detergent

Fiscal year	Washing bar soap		Powder soap		Soap, total			Synthetic detergent			Total	
	Sales, ton	Annual change	Sales, ton	Annual change	Sales, ton	Annual change	Share, %	Sales, ton	Annual change	Share, %	Sales, ton	Annual change
1965	58,000	81	27,500	81	85,500	84	19	358,500	115	81	444,000	107
1966	52,000	90	25,000	91	77,500	91	17	392,000	109	83	469,500	106
1967	50,000	95	22,500	90	72,500	94	15	422,500	108	85	495,000	105
1968	47,500	95	22,500	100	70,000	97	14	448,500	106	86	518,500	105
1969	47,500	100	22,500	100	70,000	100	13	472,500	105	87	542,500	105
1970	47,500	100	22,500	100	70,000	100	12	496,500	105	88	566,500	104

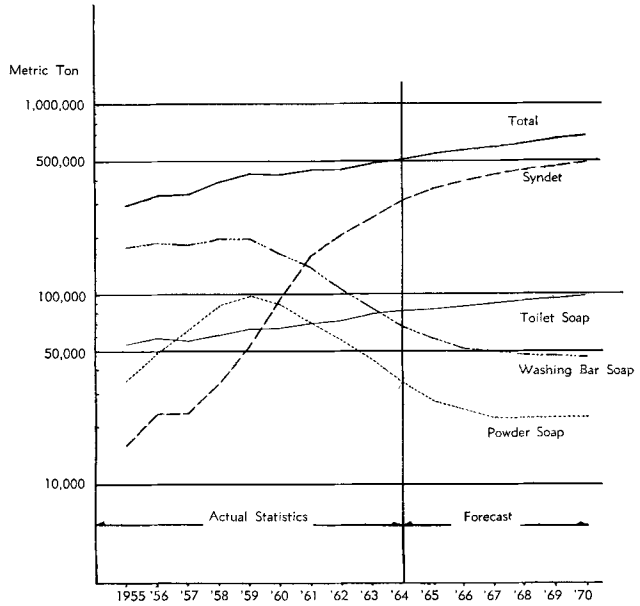

FIG. 1. Sales of soap and detergent.

are based on alkylbenzene sulfonate. Some typical formulas are shown:

	A	B	C
Alkylbenzene sulfonate	20–35%	15–25%	10–21%
Nonionic surfactant	–2%	–3%	1.5–10%
Ethanol	10–25%	–7%	10–20%
Urea	–	10–20%	–
Water, perfume, etc.	50–70%	65–75%	60–75%

Recently a soft detergent formulated with a higher alcohol ethoxylate was introduced. This represents the beginning of a new era in the detergent business in Japan.

Future of Syndets in Japan

The future market of Japanese syndets is estimated in Table III. Steady growth is expected to continue, even though the rate of growth as realized in the past will not be maintained.

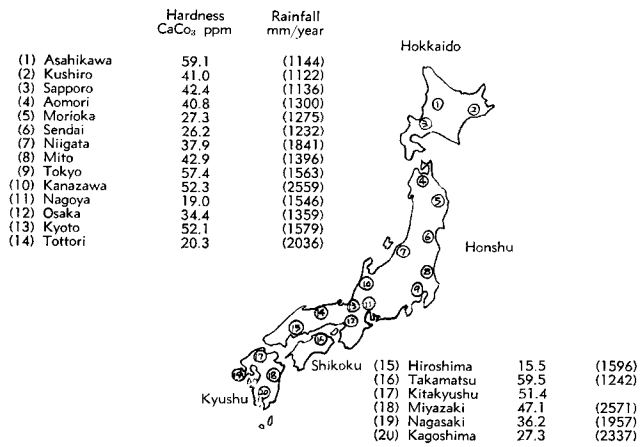

FIG. 2. Hardness of water and annual rainfall in Japan.

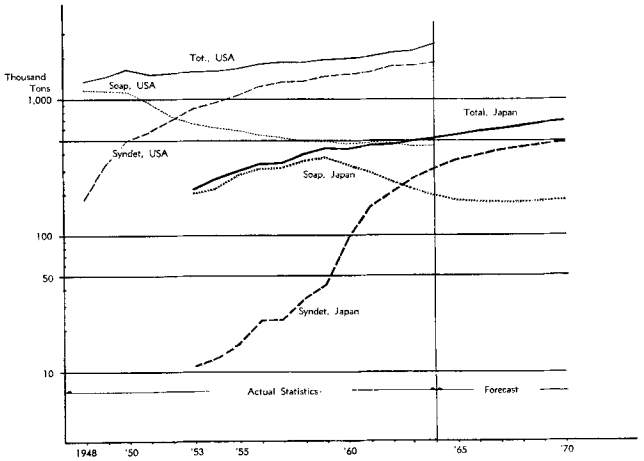

FIG. 3. Soap and detergents in the USA and Japan.

A matter which attracts increasing attention is the problem of soft detergents. At present, there exists no serious foaming problem in Japanese surface waters. Rivers in Japan are short and rapid. Water is said to travel in two days from the origin of the stream to the ocean even in the case of the longest river. In addition, Japan has abundant rain and the water is not repeatedly used through processing.

However, detergent pollution will undoubtedly become a problem in the future. The usage of treated sewage water as industrial water was started in industrial areas around big cities. Therefore, the quality of the treated water becomes important. This increase of requirements for water and sewage grows with the increase of population. However, both water supply and sewage treatment systems are so poorly equipped and developed that only 20–30% of sewage is treated even in big cities. It is suspected that untreated sewage is allowed to go directly into ground and surface water. This makes an early switch to soft detergents important.

It follows that higher alcohol or linear alkylbenzene based detergents will become more important. Research efforts to formulate heavy duty detergents based on these derivatives are being studied. Use of higher alcohols and linear alkylbenzenes will surely increase in the future.

CALL FOR PAPERS FOR PHILADELPHIA

In addition to regular papers on the subject of Fats and Oils, Nutrition and Biochemistry and Detergents, plans are being developed for a number of Symposia. Topics already well-developed are:

Flavors and Odors in Foods
Germicidal Activity in Surface Active Materials
Ore Flotation

Papers are especially solicited in the field of Chemical Derivatives of Fats.

Titles, authors and definitive abstracts should be sent by July 5, 1966, to

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