the products of the reaction of n-butyl fumarate with the dimethylamides of tall oil or tallow fatty acids in the presence of di-tert-butylcatechol (Dazzi, *U.S. 2,913,431*) and the reaction products of alkyl or alkoxyalkyl fumarate (di-n-butyl fumarate), also long-chain nonconjugated dialkyl alkadienedioates (di-n-butyl 1,2-eicosadienedioate) (Dazzi, *U.S. 2,909,500*). Ten maleinated jojoba oil derivatives were tested as plasticizers in vinyl resins and as softeners in Buna-N rubber. Three of the products (those from the methyl ester, butyl ester, and hydrogenated methyl ester of jojoba acids) were comparable to dioctyl phthalate as primary vinyl plasticizers. Two of the compounds (those from the butyl and hydrogenated butyl ester) met aircraft requirements for low-temperature flexibility in Buna-N (Fore *et al., J. Am. Oil Chemists' Soc., 37*, 387). Adducts of tung oil with methyl vinyl ketone, dimethyl maleate, methyl acrylate, and acrylonitrile and their hydrogenated counterparts were tested as softeners in Buna-N rubber. Five of the materials met low-temperature flexibility requirements (Placek *et al., ibid.*, 305). Esters for use as plasticizers were prepared from chloromethylnaphthalene and sodium salts of fatty acids (especially oleic and lauric) in the presence of tertiary amine catalysts (Yamashita and Shimamura, *Kôgyô Kagaku Zasshi, 62*, 1552). Refined custard apple seed oil could be used as an alkyd plasticizers or in soap manufacture (Naidu, *Indian Oil and Soap J., 10*, 350).

Miscellaneous products containing fatty materials included a composition intended for use as a paint when mixed with water, containing Portland cement, a stearate water-repellent compound, and an aliphatic monohydric alcohol with 6–10 carbon atoms (Jones and Jackson, *U.S. 2,953,467*); a tall oil suitable for use in reclaiming rubber, prepared by heating crude tall oil and then adding a stabilizing solution, whereby crystallization of the abietic acid was prevented (Van Valkenburgh, *U.S. 2,908,676*); a hot-melt coating containing oxidized polyethylene wax, a water-insoluble aluminum salt of a saturated fatty acid, and conventional hot-melt coating additives (Rosenbaum, *U.S. 2,943,069*); a protective-coating material for solder, intended to be wiped on the molten solder, consisting of propylene glycol and the diester of ethylene glycol with palmitic acid (Thayer, *U.S. 2,933,412*); a protective coating for the skin, insoluble in water, consisting of a dextran ester of saturated fatty acids with about three fatty acid radicals per anhydroglucose unit (Novak and Tyree, *U.S. 2,954,372*); binary mixtures of polyvinyl acetate and fatty acids, giving monomolecular films stronger than the films from either component alone (*Chem. Eng. News, 38* [40], 40).

Miscellaneous nonfatty products included pentaerythritol arsenite esters. These could be selectively hydrolyzed, acetolyzed, or nitrolyzed to produce the corresponding pentaerythritol monoester, the pentaerythritol ester triacetate, or the pentaerythritol ester trinitrate (Stevens, *J. Organic Chem., 24*, 1715). Synthetic resin, protective coatings were removed from objects by immersion in phenol or cresol containing small amounts of orthophosphoric acid and a wetting agent (Leithauser, *U.S. 2,937,111*). An automatic paint-manufacturing machine was described (Logan *et al., U.S. 2,923,438*).

Report of the Cellulose Yield Committee, 1960-61

THREE SETS of three samples each of linters were sent out to nine laboratories during the past season, 1960–61. All laboratories equipped to run cellulose yield analyses are included in these nine. The following table gives the average results for the three tests.

Lab. No.	No. of tests	A Linter	B Linter	C Linter	Over-all avg. for the year
1	3	78.9	75.0	72.6	75.5
2	3	78.9	75.2	72.5	75.5
3	3	77.7	74.1	71.6	74.5
4	3	78.6	74.8	72.0	75.1
5	3	78.5	74.7	72.1	75.1
6	3	78.5	74.6	71.8	75.0
7	3	78.4	74.5	71.7	74.8
8	3	78.0	73.8	71.0	74.2
9	3	78.2	74.2	71.5	74.6
		78.4	74.5	71.8	74.9

The average analyses of each laboratory are within experimental error. The spread is a little wider than the past year but entirely satisfactory.

No changes are recommended for the method at this time. It is further recommended that samples be sent out at least three times during the next year to check laboratory equipment. The first samples should be sent out no later than the first part of September.

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