

and Human Develop., College of Physicians and Surgeons, Columbia Univ., New York, NY) *J. Nutr.* 107, 1969-74 (1977). Adipose tissue is known to consist of at least two compartments, the adipocytes and the non-lipid filled cells. During normal growth and development of the rat epididymal fat pad, these two compartments changed in different manners. From 12 to 35 days of age, the DNA contained in both compartments increased linearly, indicative of hyperplastic growth. From 35 to 70 days of age, the DNA in the non-lipid filled cells continued to increase linearly; DNA in the adipocyte fraction increased more slowly. From 70 to 182 days of age, DNA accretion continued in the non-lipid filled cells while remaining unchanged in adipocytes. From 35 to 70 days of age, an abrupt change in the rate of tissue lipid accumulation occurred, shown both by a tripling of fat cell size and a markedly increased slope in the accumulation of lipid per pad. These data confirm that adipose tissue growth proceeds as suggested by radioactive thymidine incorporation studies and further suggest that a critical period for the onset of lipid filling may begin around 35 days of age.

CHARACTERISTICS AND POSTNATAL DEVELOPMENT OF THE ACID LIPASE ACTIVITY OF THE RAT SMALL INTESTINE. P.M. Coates, S.A. Brown, J. Jumawan and O. Koldovsky (The Joseph Stokes Jr. Res. Inst., Univ. of Pennsylvania, Philadelphia, PA) *Biochem. J.* 166, 331-8 (1977). Acid lipase was identified in the rat small intestine by using esters of 4-methylumbelliferone as substrates. Maximum activity towards the oleate ester was found at pH 4.0. In adult animals, the

activity of acid lipase exhibited both latency and sedimentability, indicating a lysosomal localization. The activity of acid lipase was practically the same along the height of the villus, thus paralleling the distribution of acid  $\beta$ -galactosidase. In adult rats, the activity of acid lipase in proximal (jejunum) and middle (mid-jejunum) sections of the small intestine was practically the same and exceeded the activity in the distal (ileum) section by a factor of 2. In suckling rats, the activity of the enzyme in the mid-jejunum exceeded that in the jejunum and ileum by 2.5- and 1.5-fold respectively. During postnatal development, the acid lipase activity of the mid-jejunum showed a peak between days 10 and 15, at which time it exceeded the adult mid-jejunum activity by 5-6-fold.

COMPOSITION OF CHOLESTEROL IN ARAUCANA AND COMMERCIAL EGGS. D.W. Peterson, A. Lilyblade, C.K. Clifford, R. Ernst,

FEBRUARY 1978

### Tall Oil Fatty Acids & Statistics

IN THOUSAND POUNDS

	2% & OVER ROSIN CONTENT		LESS THAN 2% ROSIN CONTENT	
	February	Percent change from January 1978	February	Percent change from January 1978
Stock on Hand February 1, 1978	10,530	+ 11.6	7,468	- 9.8
Production	14,348	- 5.0	16,094	+ 44.5
Purchases & Receipts	0		0	
Disposition				
Domestic	11,113	+ 3.4	13,118	+ 23.7
Export	4,957	+ 29.0	2,848	+ 112.8
Total Disposition	15,970	+ 14.0	15,966	+ 33.7
Net Disposition*	15,970	+ 14.0	15,966	+ 33.7
Total Stock February 28, 1978	8,908	- 15.4	7,595	+ 1.7

\* Net - Less purchases & receipts.  
 Definition: Fatty acids fractionated from crude tall oil having a minimum of 90% fatty acids, not including rosin acids. Primary fractions containing less than 90% fatty acids are classified as distilled tall oil.

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## Acids in thousand pounds

Month	Issued	NUMBER OF MANUFACTURERS REPORTING	FINISHED GOODS INVENTORIES (F) ON 1/31	PRODUCTION (A)	RECEIPTS (B)	DISPOSITION			TOTAL DISPOSITION	FINISHED GOODS INVENTORIES (F) ON 2/28
						Capative Consumption (C)	Domestic Shipments (D)	Shipment for Export (E)		
February 78	April 5, 1978									

### Saturated

SP - Single Pressed, DP - Double Pressed, TP - Triple Pressed

FRACTION	DESCRIPTION	SP	DP	TP	DISPOSITION			TOTAL DISPOSITION	FINISHED GOODS INVENTORIES (F) ON 2/28
					Capative Consumption (C)	Domestic Shipments (D)	Shipment for Export (E)		
	STEARIC ACID (40-50% Stearic Content) (11)	8,884	8,980	1,222	3,340	495	165	11,254	7,832
HYDROGENATED ANIMAL & VEGETABLE ACIDS	60 C maximum (ster & minimum I.V. 5) (2a)	6,761	7,826	---	---	7,878	---	7,878	6,711
	57 C minimum (ster & maximum I.V. under 5) (2b)	5,455	16,466	1,887	6,689	11,787	---	18,476	5,342
	Minimum Stearic Content of 70% (2c)	2,111	2,631	---	715	1,805	22	2,542	2,200
	HIGH PALMITIC (Over 60% palmitic I.V. maximum 12) (3)	2,077	882	---	892	831	1	1,724	1,235
	HYDROGENATED FISH & MARINE MAMMAL fatty acids (4)	899	418	---	29	380	12	421	896
	LAURIC-TYPE ACIDS (I.V. minimum 5-Sapon val. minimum 245- including coconut, palm kernel, babassu) (5)	4,555	6,770	149	2,464	4,321	32	6,817	4,657
FRACTION: FATTY ACIDS	C <sub>12</sub> or lower, including capric (6a)	427	1,630	10	104	1,532	36	1,672	385
	Lauric and/or myristic content of 55% or more (6b)	2,284	1,276	59	576	670	4	1,350	2,289
	TOTAL SATURATED FATTY ACIDS	33,463	46,881	3,327	14,909	36,953	272	52,124	31,537

### Unsaturated

ND - Not distilled; SD - Single distilled; MD - Multiple distilled

FRACTION	DESCRIPTION	ND	SD	MD	DISPOSITION			TOTAL DISPOSITION	FINISHED GOODS INVENTORIES (F) ON 2/28
					Capative Consumption (C)	Domestic Shipments (D)	Shipment for Export (E)		
	OLEIC ACID (free oil) (7)	10,884	11,428	---	5,219	3,885	236	11,984	10,328
	ANIMAL FATTY ACIDS other than oleic (I.V. 26 to 30) (8)	6,231*	13,317	449	3,578	11,305	1,072	15,955	4,042
	VEGETABLE OR MARINE FATTY ACIDS (I.V. maximum 115) (9)	289	179	---	---	12	---	12	456
	UNSATURATED FATTY ACIDS (I.V. 116 to 130) (10)	2,775	4,281	153	253	3,077	471	3,801	3,408
	UNSATURATED FATTY ACIDS (I.V. over 130) (11)	3,136	1,626	---	(15)	1,377	10	1,372	3,390
	TOTAL UNSATURATED FATTY ACIDS	23,315*	30,831	602	9,035	22,300	1,789	33,124	21,624
	TOTAL ALL FATTY ACIDS SATURATED & UNSATURATED	56,778	77,712	3,929	23,944	59,253	2,061	85,258	53,161

\* Corrected opening stocks