QUESTIONS AND ANSWERS.

THE VALUE OF BUTTER FAT.

To the Editor of FARMING :

I desire to ask you a few questions, which are a source of trouble to me, and, perhaps, to some of your other readers as well.

(1) How are pure fats, such as butter-fat, assimilated or digested?

(2) What are the relative values of butter-fat and casein as structure nourishment, or is fat capable of repairing or building up vital structures?

(3) Has butter-fat any greater food value than lard, fish oil, linseed oil, or any other animal or vegetable oil?

(4) Is it reasonable to suppose that the milk best suited to human consumption is that which approximates woman's milk in its composition (3.94 per cent. fat, according to the average of a large number of tests)?

(5) If fat alone gives commercial value to milk, why not feed infants, motherless lambs and calves on cream

instead of milk?

Thanking you in advance, I am, very truly yours, W. A. C.

St. George, Dec. 26, 1898.

Answered by Professor A. E. Shuttleworth, Ontario Agricultural College, Guelph.

(1) During what is known as intestinal digestion by the action of the bile, which has the power of mechanically separating the fat into minute globules, which are readily taken up by the intestines.

(2) Casein can produce flesh, but fat cannot: therefore, upon this basis, fat and casein cannot be compared. Upon the basis of heat production, which may be taken as a means of comparison, casein is to fat as 1:2.14.

(3) A quantity of pure butter-fat has no greater heat-producing power than the same quantity of pure fat from other sources.

(4) Such milk is best suited for the nourishment of infants, but not necessarily for grown people.

(5) Fat alone is sometimes taken as the measure of the commercial value of milk, not because it is the only nutrient in milk, but because it is regarded as an accurate basis for the valuation of the butter or cheese-producing capacity or power of milk. Cream would cause serious disorder of the digestive system.

MANMOTH CLUSTER OATS.

Bouck's Hill, Ont., Dec. 26, '98. Mr. J. A. McDonald:

My DEAR SIR,-I see by reading (FARMING) that you speak of a new variety of oats (Plymouth Cluster) that a farmer in your county is sowing, which yields somewhat extra. Now, sir, will you be kind enough to give me his address, or what part of New York State that he got his seed; also the man's name that he bought his first seed from, and oblige

I would say to E.M., as well as to other readers of FARMING, that I was slightly in error in naming the new



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