# Do healthy cows produce milk showing less than 12 per cent. of total solids? / Geo. Abbott.

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## Do Healthy Cows Produce Milk Showing Less Than 12 Per Cent. of Total Solids?

Every person conversant with cows and with milk analysis knows that they do; yet since the appearance in the Times and Register of the article entitled "Milk Legislation," now presented in pamphlet form, in which is demonstrated that milk generally falls at times below 12 per centum in solids, parties whose theories on milk inspection have been overthrown thereby are giving out that when milk falls below 12 per centum in total solids it is the result of disease of the cows, and consequently that such milk should be condemned. On page 7 of said pamphlet are extracts from the reports of the agricultural experiment stations of New York, New Jersey and Pennsylvania. The analyses therein recited are free from the aspersion of bias, being part of the data established in the course of scientific investigation relative to different breeds of cattle, buttermaking, etc. These results show beyond all reasonable controversy that the milk of well-fed cows frequently falls below 12 per centum of solids. Now, were these cows diseased? For the purposes of complete proof, the officers of the said State experiment stations have been addressed on this account. It is hoped that their replies will be accepted as conclusive.

L. L. VanSlyke, Ph. D., Chemist in Chief at the New York Experiment Station, Geneva, writes under date of 6 mo. 17th, 1893—"Our cows are all free from chronic diseases, such as tuberculosis, as we have them examined now and then by Dr. Law of Cornell University. Some of the cows were temporarily ailing, but the milk at such times was excluded."

Prof. E. B. Voorhees, Director of the New Jersey Experiment Station, New Brunswick, writes—"While no regular inspection of the cows was made at the college during the year 1890, all the animals were in a healthy condition." Again, "I know that no milk was included in the test of quality from cows in any way sick or indisposed. This is true for the whole period under experiment, as I had personal supervision of the whole matter."

Prof. C. B. Cochran, Inspector of the Department of Hygiene and Food Inspection of the State Board of Agriculture of Pennsylvania, writes—"The herds mentioned in 'Agriculture of Pennsylvania, 1885,' seemed to be in perfect health. I have no question but that the herd of Dr. J. Cheston Morris was so, and I had very full knowledge of the herd of Friesian cows, as I saw it almost daily. I was always present at the milking when I took samples for analysis. A better appearing, better kept herd of cows could scarcely be found anywhere. Although the herd was a large one, I do not think there was a single case of sickness in it during the entire year of 1885." And further, "I am very confident of the purity and wholesomeness of the milk

of this herd at the time mentioned in your pamphlet."

It seems hardly needful to much extend this line of evidence, but it may be stated that the herd of Wayne MacVeagh, composed of Jersey and Holstein cows, which have been abundantly fed and admirably cared for upon his rich and elegant farm near Bryn Mawr, Pa., has for years been subjected to strict veterinary surveillance; also, the milk of the herd has been under constant analytical supervision during the past year. Dr. Bridge, the veterinarian in charge, and who has long held the appointment of veterinary surgeon to the State Board of Agriculture, writes—"I hereby certify that the health of both Jersey and Holstein cattle was very good, and that the general health of both herds could not have been better than during 1892. The sanitary arrangements of Mr. MacVeagh's stables are all that could be desired and great care is exercised in the management of feeding, to see that the food is wholesome and good." Notwithstanding, the records of Marshall & Cochran, who made the analyses, show that the milk frequently fell below 12 per cent of solids.

Again referring to the above mentioned pamphlet, page 8, attention is called to the statement of Dr. James Bell, Chief Analyst at the Government Somerset House Laboratory, London, where he says—"For a long time it was contended that cows which gave milk that contained less than 11.5 per cent solids, were either diseased or starved; but this notion may now be said to be dispelled, for the more the matter has been investigated the more has such a position been found untenable."

Geo. Abbott.