The trend of variation in test for the factor of age is more clearly seen in Graph 13, which represents the results given in Table 22. The most striking feature in these two curves occurs at the age of five years for the Friesians and at six years for the Jerseys. At these points the practically uniform trend of the curves is considerably upset. These points seem quite unaccountable, but if they are omitted and the blanks bridged by the dotted lines shown in the graph it is found that the trend of the curves is quite uniform.

The abnormal point varies slightly with the breed, the ages at which it occurs for the chief New Zealand breeds being as follows: Jersey, six years; Friesian, five years; Ayrshire and Milking Shorthorn, seven years. These abnormal points are all high ones, but when United States and New Zealand Jersey tests are compared for the factor of age, as given in Table 23, quite an astonishing position is revealed. The abnormal point for the American Jerseys occurs, as in the case of the New Zealand Jerseys, at the age of six years, but for some unknown reason it is abnormally low. In the right-hand column of the table the mean of the two results is given. The abnormal point has been absorbed, showing that in the one case it was as high as it was low in the other. Unfortunately, the writer has no American data except for the Jersey breed. It would be interesting to see if the abnormal points for the other breeds of the United States were all low ones. One important point, however, is that in all cases the abnormal point is practically coincident with maximum butterfat-production, occurring if anything just before this stage. The ages of maximum production and maturity would be expected to coincide, and thus it appears that the abnormal-test point depends on the reaching of maturity, and is due to a physiological change in the cow at this stage. The connection between the action and changes of metabolic activity and the quality of milk and its variations is not very well understood, but there seems good reason to believe that this factor is quite an important one.

Table 22.—Variations in Annual Tests due to Age.

Age.	Jerseys.		Friesians.	
	Average Test.	Number of Records.	Average Test.	Number of Records.
Years.				
Two	5·60	1,154	3·56	413
Three ..	5·56	407	3·53	213
Four	5·55	250	3·50	137
Five	5·53	178	3·59*	79
Six	5·61*	152	3·51	66
Seven ..	5·42	99	3·49	55
Eight.. ..	5·41	54	3·46	26
Nine	5·32	51	3·58	12
Ten and over ..	5·29	46	3·48	41
Average tests for all ages	5·55	2,391	3·54	1,042

* Abnormal points.