Referring back to Table 19, it is now seen that for the group "up to 85 days" two factors are operating which tend to raise the test, whereas for the remaining groups there is only one. This perhaps explains the dip in the annual tests occurring between the first and third groups. The intermediate tests for the two-year-old Jerseys from 116 to 183 days for limits of ten days only are as follows: 6·09, 6·06, 5·68, 5·67, 5·45, 5·12. Therefore it can be concluded that, with the exception of the high point indicated in the third group of Table 19, the shorter the fallow period during test the higher is the annual test, and the longer that period the lower the test, the latter being true up to a period of about seven and a half months, when no further lowering of tests takes place. This statement is well borne out in Graph 9, page 86, and text, page 87, *Journal*, February last.

YEARLY VARIATIONS DUE TO NATURE OF SEASON.

Variations in annual test due to the nature of the season, though very small, are nevertheless quite interesting. In Table 21 the averages for the Friesian tests, amount of rainfall, and number of rainy days are given season by season. Plus and minus variations are supplied in the adjoining columns for each of the three mentioned items, and for purposes of comparison the mean figures for the eleven seasons are given at the foot of the table. The average tests are estimated equivalent to maturity—that is, for each season the average milk and butterfat figures for the various classes according to age have been raised to what they would be if the records had been made at maturity, and the test obtained from this result. By this means the factor of age is eliminated from the results.

Correlation between amount of rainfall and yearly test variations seems difficult at first, as the table shows tests for six seasons varying inversely with the rainfall, while for the five remaining the relation is direct. However, when both amount of rainfall and number of rainy days are considered with the test variations, one is able to elucidate some of the difficulties. The variations in the first and third right-hand columns agree in sign for each season with but three exceptions—1912–13, 1916–17, and 1919–20. For 1912–13 the South Island was above and the North Island below the mean rainfall, while for season 1916–17 the contrary was the case. In 1919–20, however, the amount of rainfall for each Island was above and the number of rainy days below the mean for all seasons. In the light of this information it is not unreasonable to accept 1912–13 as conforming very closely to a season of average rainfall. The position is strengthened also in regard to season 1916–17. The number of rainy days for season 1919–20 is so much below the average that this season can be safely classed as a poor one for rainfall in general.

Now that the positions in regard to these seasons have been somewhat reconciled, there are left only three other seasons (marked with an asterisk) where the test variations vary directly with the rainfall. When it is borne in mind that the percentage of cows tested in each Island varies from season to season, that the testing season somewhat overlaps twelve months, that the amount of testing is not represented equally or in all districts where rainfall-recording stations