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INSTITUTE OF ANIMAL GENETICS,  
KING'S BUILDINGS,  
WEST MAINS ROAD,  
EDINBURGH.

9th February, 1933,

Dear Dr. Fisher,

I now send you the results for 3 combined dairy herds as regards total yield of milk. You have already seen the results of two of the herds, namely, Robinson and Hobbs. Actually we had the data drawn from about 12 Dairy Shorthorn Herds, but as these were scattered in different parts of the country, and as there was very little common blood amongst them, and as all the three herds mentioned were ~~small~~, we decided to discard the others. The Silcocks Herd did not give sufficiently large figures to make it significant when taken by itself. As regards the 2 groups in this herd, we got 486 pairs of cows whose sires were unrelated, but whose dams were paternal half-sisters. The average of the squared difference came to 101,850, as compared to the figure 133,175 which was obtained from 109 pairs where the sires were paternal half-brothers and the dams were unrelated.

In the figures for the combined herds which I am sending you, it is interesting to notice how close are the figures for the following groups:-

- 1. The same sires..... Dams, unrelated
- 2. Sires, Maternal Half-Brothers .. Dams, unrelated
- 3. Sires, unrelated..... Dams, Maternal Half-Sisters
- 4. Sires, unrelated..... Dams, Paternal Half-Sisters

<sup>It has taken</sup>  
~~That is~~ over 18 months' work to procure this table. At the present moment I do not feel inclined to start another investigation of this nature.

Yours sincerely,

A. D. Buchanan Smith

Dr. R. A. Fisher, F.R.S.,  
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H E R T S +

With reference the figures of Robinsons herd which I sent you I find by enquiring that the number of ~~one~~ heifers drafted out annually before being milked is unusually high. This may give the reason why we found no <sup>indication of sex-linkage</sup>