

Introduction.

This investigation was originally begun as part of an attempt to discover why so many services were needed before high grade dairy cows would settle to the bull.

On making enquiries it was discovered that many dairymen kept a bull of Zebu (*Bos Indicus*) type to serve those cows which had failed to settle to several successive services by pure-bred *Bos Taurus* bulls, or high grade bulls of that type. They stated that the Zebu was usually able to settle these difficult breeders in calf, and attributed this to the fact that the latter animal possessed a longer penis.

It was considered that little importance need be attached to this explanation, but the fact that Zebus were more successful in settling cows seemed to indicate that they possessed some advantage over *Bos Taurus* type animals. One possibility which suggested itself was that they served with more vigour, and in so doing deposited their semen nearer to the cervix, thereby shortening the time during which it is essential for the spermatozoa to remain viable if fertilisation is to be accomplished.

In the light of this fact, it was decided to make use of artificial insemination since this method of breeding entailed placing the semen actually within the cervix; using the semen of *Bos Taurus* type bulls on cows which had in the past proved difficult to settle. If this method resulted in settling these cows in calf to fewer services than had been necessary on previous occasions, it would prove that *Bos Taurus* bulls were not depositing their semen close enough to the cervix.