

Contagious Abortion.—The demand for calthood vaccination of dairy heifers with strain 19 has shown a steady increase, 231,000 doses of vaccine being sold during 1948.

The results from vaccination have continued to be satisfactory, as is shown in the following table :—

INCIDENCE OF ABORTIONS IN VACCINATED DAIRY COWS, 1943-47

			Abortions.	Per Cent.
First pregnancies	113,549	3,141	2.8	
Second pregnancies	46,878	1,156	2.5	
Third or later pregnancies	26,910	490	1.8	
Total pregnancies	187,247	4,787	2.6	

In these herds, during the season immediately preceding that in which the vaccinated heifers calved, 18.8 per cent. of unvaccinated heifers and 6.8 per cent. of unvaccinated older cows aborted. Blood tests indicated that approximately 40 per cent. of the abortions of vaccinated animals were not due to contagious abortion. Thus abortions directly attributable to contagious abortion would be less than 2 per cent.

An experiment has been started at Ruakura to test the effect of infection with contagious abortion on semen production and the possibility of protecting bulls against infection by vaccination with strain 19. No results are yet available.

Trichomoniasis.—Trichomonas investigational work has continued during the season. The main aim has been to obtain some measure of the incidence and distribution of this disease and to obtain experience of the tricin test and the blood agglutination test for the presence of the disease in herds.

Though a search was made for trichomonads in twenty-four herds where the breeding history was very suggestive of this disease, the organism was found only in one instance. Three of these herds gave positive reactions to both the tricin test and blood agglutination test, three herds to the blood test, and six herds to the tricin test, a total of twelve herds showing positive reactions. Five herds showed "high normal" readings of the blood test, two of these also giving positive reactions with other tests. Because of the difficulty of diagnosis under such circumstances, the blood test has been carried out in one of the Ruakura herds believed to be free of the disease. Of 47 cows tested, 45 showed "normal" and 2 "high normal" reactions.

Field veterinarians have also sent in many samples of mucus and aborted fetuses for examination, but in only one case was any flagellate organism found. Identification was not positive. Arrangements have been made for field veterinarians to be supplied with outfits for the collection of mucus blood and semen samples from suspect herds and bulls.

It is not possible on available evidence to give more than an opinion as to the probable incidence of the disease. From data collected so far it would seem that many herds are harbouring the organism but have become sufficiently immune over a period of years to enable them to attain conception rates and final calving percentages which, though far from satisfactory, are not disastrous. These herds, however, are dangerous to the industry as reservoirs of infection.

Sterility Survey.—To obtain a measure of the relative incidence of different types of female sterility, cows culled as empty from the herds in the artificial insemination groups have been slaughtered and the genitalia post-mortem examined. Difficulties at the freezing-works because of rate of killing have made it impossible to handle more than a small number so far, but the provision of a slaughterhouse at Ruakura should increase the general efficiency of this work in future.