to compare a high with a low level of feeding during the last three months of pregnancy. Two groups of 13 cows evenly matched on previous production records, calving dates, and body weights were fed on a "high" and "low" plane respectively. The "high" group was wintered rotationally on autumn-saved pasture, supplemented with a full ration of silage and free access to hay. The consumption averaged 37 lb. of silage and 7 lb. of hay for the twelve weeks of the feeding period. The "low" group was wintered on a relatively bare pasture with hay on a rationed basis averaging 5½ lb. per day. Both groups were calved down and run for the season on the same pastures.

Data are being collected for changes in body weight, weight of calf, and production, including total milk, fat percentage, solids-not-fat percentage, and the number of days in milk. The experiment is now in its second season, and results already indicate that the difference in favour of the well-wintered group will vary considerably from season to season.

Digestibility of Dairy Cow Pastures.—During the season an almost continuous series of digestibility trials was conducted on material from the "controlled" and "uncontrolled" pastures of the No. 2 area (dairy cow nutrition project). Sheep were employed for this work. Trials from the two types of pasture ran concurrently, and, in all, twenty-six were carried out from September to March. Results showed that during most of the spring and early summer the digestibility of the feed from the "uncontrolled" farm was slightly, but significantly, higher than from the "controlled" pastures; during November a change over occurred, and since then digestibilities have been substantially in favour of the "controlled" area.

The relationship between the lignin content of the feed and digestibility established from previous work was tested further on the above data. Good agreement was obtained between digestibility figures calculated from lignin and actual figures. This short-cut method was also tested out on data derived from digestibility trials with paspalum at various stages of growth, but further work will be essential before the method could be used with confidence.

Further checks on the usefulness of stalled sheep for measuring the digestibility of cut pastures have been made, and it is apparent that there are some defects in the technique.

Nutritive Value of Pampas-grass.—Most of the previous work on pampas was conducted on cows fed indoors on cut material. Intake was always very low under such circumstances, and seldom sufficient to provide for maintenance requirements. In consequence, dairy cattle on digestibility trials with pampas usually lost weight. The points arose, therefore, as to whether intake would be greater under free grazing, and whether such intake would be improved by the addition of supplementary feed. Accordingly, three trials have been conducted to measure intake under grazing conditions. The "bag" technique for collecting fæces was employed. Pampas was fed alone, and in combination with dried grass of high quality. Complete results are not yet available, but it appeared that intakes of pampas alone were adequate for maintenance of dry cows.

Two further trials were undertaken to measure the effect of seed-head removal on digestibility. These trials were on twelve months' growth of pampas-grass. The following figures were obtained:—

	Average Digestibility Organic Matter, per Cent.
With seed heads	45·1
Without seed heads	44·1

Measurement of Intake by the Grazing Animal.—This still remains the greatest limiting factor in the study of New Zealand stock. The chromic-oxide method of determining appetite has been gradually but steadily improved, and now it is capable of giving results within about 5 per cent. of those obtained by direct measurement of dry weight of fæces. The main improvements were in the method of determination