

to prove that new permanent pasture when properly sown can equal during its first year the production from similarly sown Italian rye-grass. But the figures do indicate that new permanent pasture sown alone, in the fashion outlined, is capable, under ordinary circumstances, of giving satisfactorily high grazing when used as green-feed. It should be stated that the examples recorded above have been used because the methods of tillage and seed-bed preparation and the grazing procedure were under close observation, and are known to have been most satisfactory.

CONCLUSION.

Where permanent pastures are desired, whether it be on light or heavy land farms, the method of establishment and grazing-management as outlined is economically applicable to at least one paddock each year.

Such a practice allows some reduction at least in the area of costly temporary feeds ; on account of the method and time of sowing, successful establishment is almost certain ; by correct management valuable feed is obtainable at every special "green-feed" season for a period of approximately one year ; the production of a valuable strain of seed is possible in the first harvest year if desired, but otherwise in later years ; and, finally, a truly permanent first-class pasture is established. This last consideration, on all farms except those of the dominantly cropping type, and they are few, cannot help but appeal to the farmer who has tried the method thoroughly.

This method of establishing and managing new permanent pasture has become a definite part of a profitable programme on a large number of Canterbury farms.

BACTERIOLOGICAL EXAMINATION OF EXPORT BUTTER.

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A SURVEY of the literature dealing with the bacteriological content of butter gives a rather confusing impression. On one hand many butters containing large numbers of bacteria are classed as superior by those best qualified to judge, while on the other hand lower-grade samples have frequently been found to contain comparatively few organisms. The tendency for some years has been to devote most time to determinations of the yeast (and mould) content of butter, as these are held to provide a good indication of the sanitary conditions in the factory. On the other hand, few yeasts appear to be capable of actually spoiling butter, while small numbers of lipolytic (fat-spoiling) bacteria may do serious damage by actually decomposing the butterfat. Proteolytic types may also decompose the curd, and some of the lipolytic germs are said to be potent also in this respect. It is conceivable that a butter may be seriously infected with other organisms than yeasts, so that, if a yeast count alone is relied upon to indicate factory conditions, some cases of bad contamination may be overlooked. Counts of other organisms besides yeasts seem, therefore, to be necessary.

In order to deal with large numbers of samples, simplified methods are essential. Barkworth(1) has reported favourably on Van Oijen's modification of the Frost Little Plate method as a quick and economical