A film “Two Blades of Grass” dealing with grass-land development in southern Australia was introduced by C. M. Donald, Professor of Agriculture, The University of Adelaide, and the following discussion took place as a result of the showing of the film.

DISCUSSION

Q. In the process of development of subterranean clover with phosphate I notice that once you get it built up after a few years, the grass increases. Does the grass come of its own accord?

A. (Professor Donald): Very commonly subterranean clover sown without grass is invaded by annuals such as hair grass. The greater part of the subterranean clover sown in Australia is sown without an associated material.

Q. Regarding sterility due to subterranean clover, I understand this is prevalent in Western Australia. Is there any possibility of it occurring in New Zealand?

A. (Professor Donald): There is less chance of it occurring in New Zealand because ewes must graze on a clover-dominant pasture for a couple of seasons before they become sterile. When they are affected they are sterile for life. Because of better soil fertility here you do not get the extreme clover dominance as we do in Australia where grass cannot grow until the fertility has been lifted. In much of Western Australia pastures are 98-99 per cent subterranean clover. The trouble is largely overcome by management such as keeping young ewes off clover pastures.

Q. Please tell us about Wimmera ryegrass.

A. (Professor Donald): Wimmera ryegrass was first named from the Wimmera district in Victoria. It was an accidental introduction from the Mediterranean. It germinates in the autumn, grows in the autumn and spring and dies early in the following summer. It is extremely useful in southern Australia where no growth of perennial grasses is possible because of summer drought. It grows well in association with subterranean clover but can be a nuisance in cereal crops. Wimmera is an annual.

Q. Last year we had a drought, but it did not kill ordinary perennial ryegrass. Why can’t you grow it?

A. (Professor Donald): Our summers are too severe for New Zealand perennial ryegrass. Roughly speaking, the pastures would be drying off now and would be without growth until the end of April. The Northern European type of perennial ryegrass will not survive drought. We hope to develop strains of Mediterranean ryegrass which will survive. Phalaris can persist because although the top dries...
off the base survives. New Zealand perennial *ryegrass* is of course used extensively in parts of Victoria and Tasmania.

Q. What methods do you employ to introduce grass?
A. (Professor Donald): If phalaris is included we recommend the cultivation and introduction of the grass on the cultivated ground. We often “scratch” in Wimmera *ryegrass* and Victorian perennial ryegrass.

Q. The film referred to the place of medicks in pasture fertility. Which medicks were they?
A. (Professor Donald): *Barrel medick* is used in areas where the season is too short for subterranean clover and on some soils where subterranean clover has difficulty in growing. Here the medicks are certainly proving very valuable in association with cereals. Where we can grow subterranean clover we prefer it to the medicks. Annual medicks tend to fluctuate from year to year and produce yields of dry matter inferior to subterranean clover.