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RECORDS OF PRODUCTION FROM KIKUYU GRASS

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The ability of kikuyu grass to produce a high quantity of palatable feed and to do so in association with white clover, perennial ryegrass, and other grasses has been observed on numerous farms in Northland.

No data to support the observations were available and an investigation was commenced in August, 1951, on a farm at Ruatangata. About 20 acres of kikuyu was being successfully farmed and consisted of a well-balanced sward of kikuyu, perennial ryegrass, and white clover.

The paddock is used as a night paddock to some extent, particularly through the late autumn. There is a tendency for the kikuyu paddock to become rank in growth in the autumn and stock are then concentrated on the area to graze it out. Hay is fed out on the paddock if necessary to ensure that all rank growth is cleaned up. The volcanic soil allows this method of management to be successful without detrimental pugging taking place.

Table I gives the results obtained over the first 2 years of the trial and shows a good proportion of perennial ryegrass and white clover present in the pasture.

Table II summarises the results. It has not been difficult to obtain a good balance of other grasses and clover in association with kikuyu, which has a reputation for suppressing other species. Kikuyu, if properly grazed and managed, can, like paspalum, contribute a high yield of palatable feed and yet form not more than about 60 per cent. of the total production of a perennial ryegrass, white clover, kikuyu sward.

TABLE I.
SEASONAL PRODUCTION 1951-53, KIKUYU PASTURE.

PERIOD	Aug.- Oct.	Oct.- Jan.	Jan.- Mar.	Mar.- May	May- Sept.	Sept.- Nov.	Nov.- Jan,	Jan.- Mar.	Mar.- April	April- Aug.
Total production in pounds of dry matter per acre	2,000	2,400	2,500	1,800	1,000	3,200	6,300	3,400	800	1,500
Kikuyu per cent. of total	34	59	74	83	58	33	52	78	80	92
White clover per cent. of total	15	21	15	12	10	9	34	16	12	1
96 Perennial ryegrass per cent. of total	20	8	2	1	20	32	12	3	4	2
Cocksfoot per cent. of total	1	3	4	2	1	1	-	1	3	4

TABLE II.
PRODUCTION OF DRY MATTER OF HERBAGE IN YEARLY INTERVALS.

	August, 1951 to August, 1952 lb. per acre	August, 1952, to August, 1953 lb. per acre
Yield of kikuyu-dominant pasture	9,700	15,200
Yield of kikuyu only	6,000	9,000
Kikuyu production as per cent. of total	61	59

DISCUSSION

- Q. In dry summers how does the production of cocksfoot compare with that of paspalum?
- A. Paspalum has a vigorous root system and can grow in dry periods providing it is managed well. We have made no direct comparisons of cocksfoot and paspalum production.
- Q. Have any improved strains of kikuyu or paspalum been isolated?
- A. No, I do not think it worthwhile.
- president: requested Dr. Melville's opinion.
- A. (Dr. Melville) : Grasslands Division, has no Northland station and these grasses can be selected and bred only in the place where they are used.
- A. (Corkill) : The vegetative reproduction of these plants must be considered in such work. One plant of kikuyu may cover a large area.
- Q. How can paspalum be introduced rapidly into a pasture ?
- A. (Ballinger): If paspalum is sown in the seeds mixture in autumn it is 3 or 4 years before it is seen in abundance. If it is sown in the spring, say, with soft turnips or red clover, it will establish rapidly. It does not compete well with perennial ryegrass in early stages of establishment.
- A. (Arnold): Paspalum can be increased by allowing re-seeding or feeding out poor quality but seedy paspalum hay.
- A. (Allo) : Best results have been obtained in Tauranga by spring sowing with red clover or soft turnips. He had no success with oversowing paspalum in the autumn.
- Q. Have any tests been made of the germination of Australian paspalum seed ?
- A. (Ballinger): Some recent lines have had the low germination of 20 per cent. The seed has high dormancy: it requires high temperatures and moisture to germinate.
- Q. What is the best topdressing to apply to kikuyu?
- A. (Arnold) : The same as other pasture species. Topdressing should be done according to soil requirements.
- Q. Mr Ballinger quoted figures of cocksfoot production in paspalum swards. Are these two plants competitive as both are summer growers?
- A. (Ballinger): Cocksfoot is a rank winter grower in Northland and dies away in the summer. Paspalum is at least 2 to 3 months later than cocksfoot in the spring. The two plants are not competitive.