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## The grazing value of medicago murex.

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2. THE GRAZING VALUE OF MEDICAGO MUREX

A present, limited information is available on the grazing value of Medicago murex cv. Zodiac on sheep live weights and wool growth. This trial was designed to provide data on the relative performance of sheep grazing Zodiac compared with the recommended subterranean clovers (Junee/Seaton Park) in the > 450mm rainfall zone in W.A.

TRIAL TITLE: Grazing value of Medicago murex.  
 TRIAL NUMBER: 88KA92 EX FILE: 5847  
 LOCATION: Mr R. Bilney, "Forts Valley", Potts Road, East Kojonup.  
 SOIL TYPE: Sandy loam (pH = 6.5, in water)  
 SOWING DATE: May/June, 1988

RESULTS:

88KA92: Establishment/regeneration in 1988 and 1989 seasons.  
 Summary: Averaged across 3 reps.

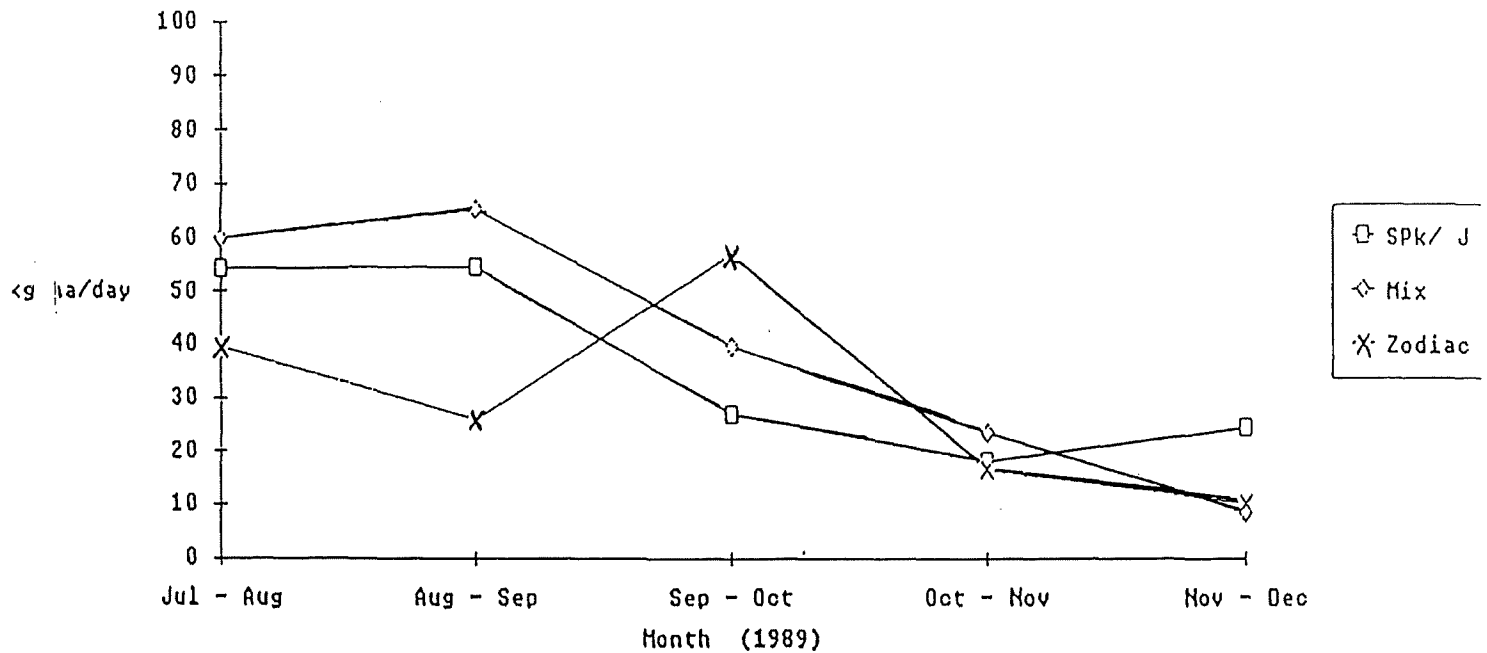
| Treatment | Plants/m <sup>2</sup><br>'88 | Plants/m <sup>2</sup><br>'89 |
|-----------|------------------------------|------------------------------|
| S. Park   | 87                           | 335                          |
| Junee     | 60                           | 529                          |
| S. Park   | 63                           | 579                          |
| Junee     | 33                           | 267                          |
| Zodiac    | 74                           | 7                            |
| Zodiac    | 167                          | 269                          |
| TOTAL     | 484                          | 1986                         |

88KA92: Regeneration counts in 1989 & 1990 after unseasonal rain.  
 Summary: Averaged across 3 reps.

| Treatment | Plants/m <sup>2</sup><br>Mar '89 | Plants/m <sup>2</sup><br>Feb '90 |
|-----------|----------------------------------|----------------------------------|
| S. Park   | 38                               | 181                              |
| Junee     | 58                               |                                  |
| S. Park   | 71                               | 177                              |
| Junee     | 134                              |                                  |
| Zodiac    | 0                                |                                  |
| Zodiac    | 17                               | 130                              |
| TOTAL     | 318                              | 488                              |

\*\*\* N.B. 1990 results are not separated into Junee and Seaton Park as counts were done one week after rains due to the possibility of withering and scorching by hot weather therefore plants were not old enough to distinguish between them.

## Pasture Growth - July to December 1989 (averaged over 3 reps) - 88KA92

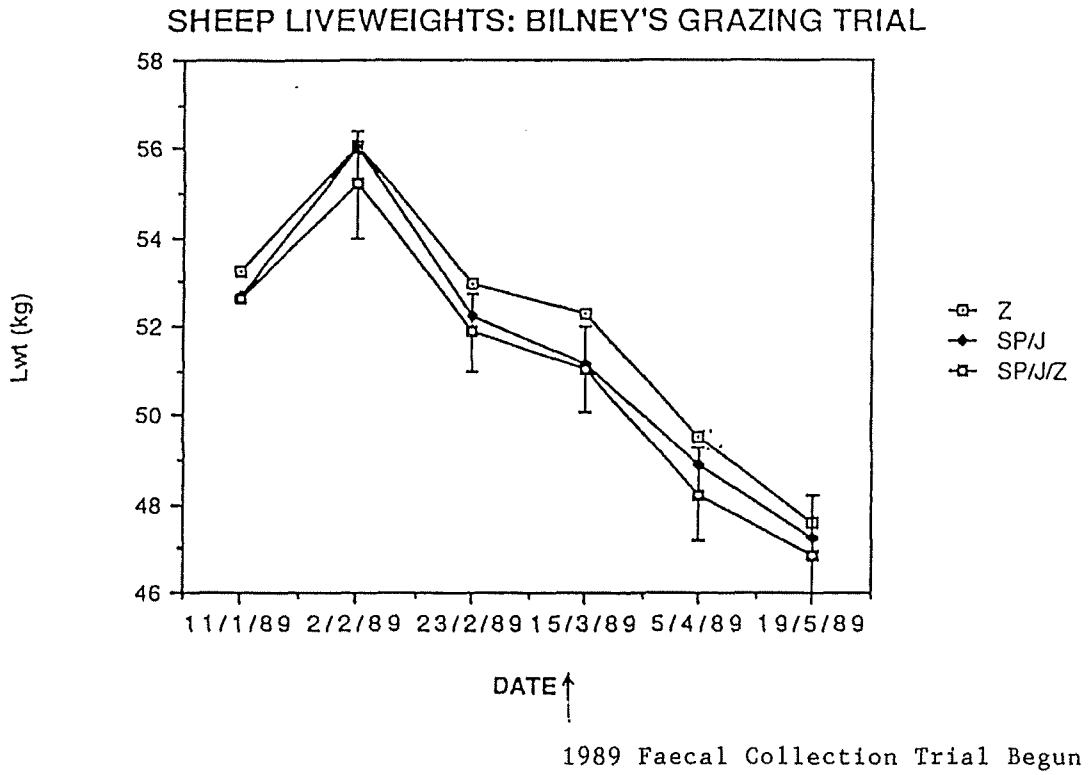


## Summary: 1988 and 1989 Yields

| Treatment | Plot | S. Pk/J (kg/ha) |         | Zodiac (kg/ha) |         | % Zodiac |      |
|-----------|------|-----------------|---------|----------------|---------|----------|------|
|           |      | '88             | '89     | '88            | '89     | '88      | '89  |
| Mix       | 2    | 218.52          | 389.03  | 61.73          | 24.63   | 22.03    | 5.95 |
| Mix       | 3    | 376.67          | 620.48  | 102.52         | 55.74   | 21.39    | 8.24 |
| Mix       | 7    | 593.42          | 630.7   | 77.29          | 67.55   | 11.52    | 9.67 |
|           |      | 396.20          | 546.74  | 80.51          | 49.31   | 18.31    | 7.95 |
| S. Pk / J | 6    | 1127.13         | 674.72  | -              | -       |          |      |
| S. Pk/ J  | 1    | 618.39          | 529.24  | -              | -       |          |      |
| S. PK / J | 9    | 803.09          | 781.66  | -              | -       |          |      |
|           |      | 849.54          | 661.87  |                |         |          |      |
| Zodiac    | 3    | -               | -       | 206.72         | 311.82  |          |      |
| Zodiac    | 5    | -               | -       | 297.97         | 388     |          |      |
| Zodiac    | 9    | -               | -       | 414.1          | 530     |          |      |
|           |      |                 |         | 306.26         | 410.10  |          |      |
| TOTAL:    |      | 3737.22         | 3625.83 | 1160.33        | 1378.21 |          |      |

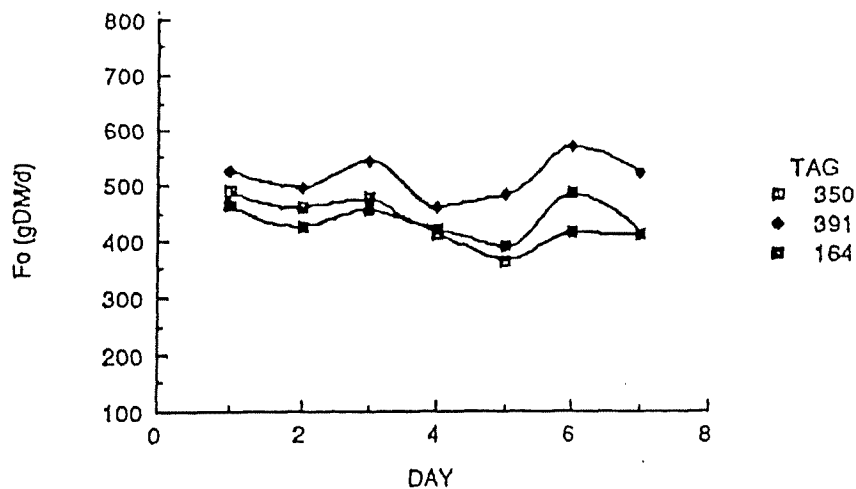
N.B.: In 1989 the sub clover and mixed plots were grazed at higher stocking rate and were also 'crashed' grazed to control clover scorch where as the Zodiac plots were grazed at lower stocking rates and were not 'crashed' grazed.

88KA92: Sheep Liveweights: Bilney's grazing trial.  
(courtesy of T. Casson)

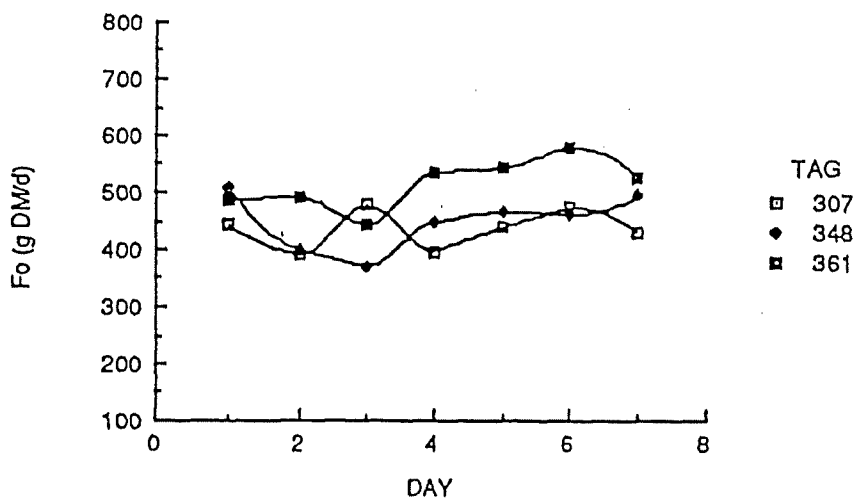


88KA92: Faecal output of sheep grazing Seaton Park/June mix.  
(courtesy T. Casson).

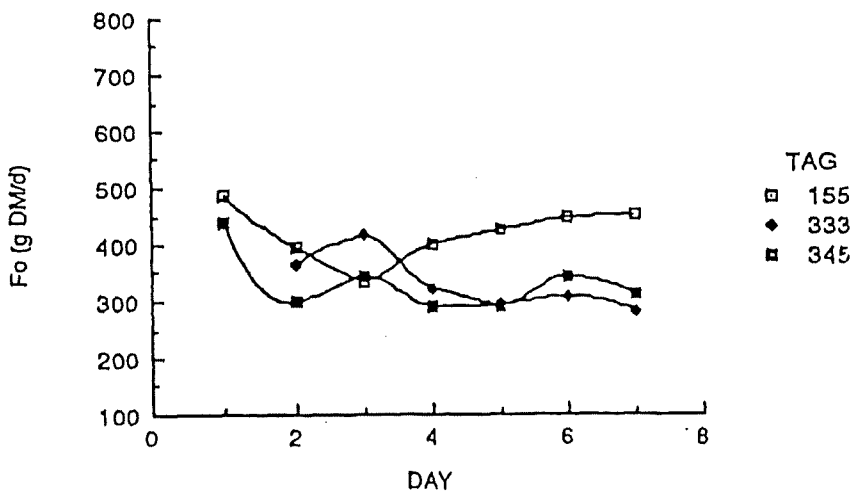
PLOT 1 Faecal output



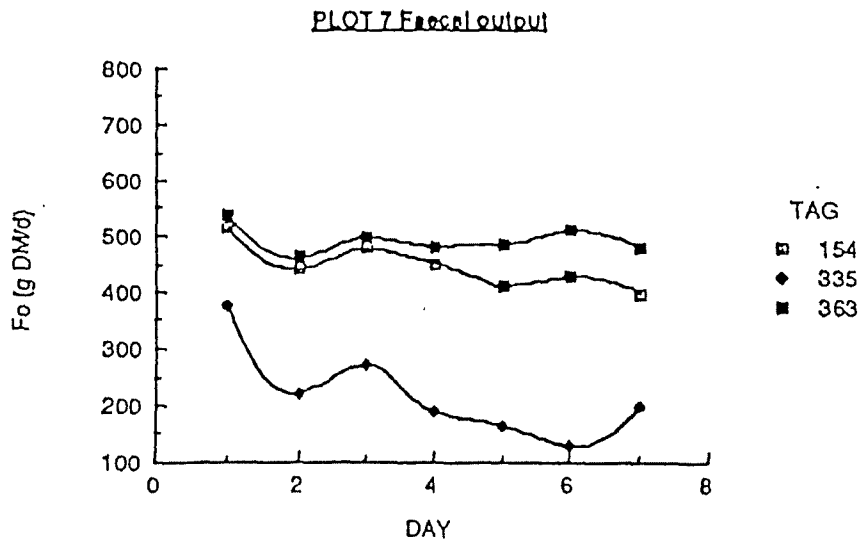
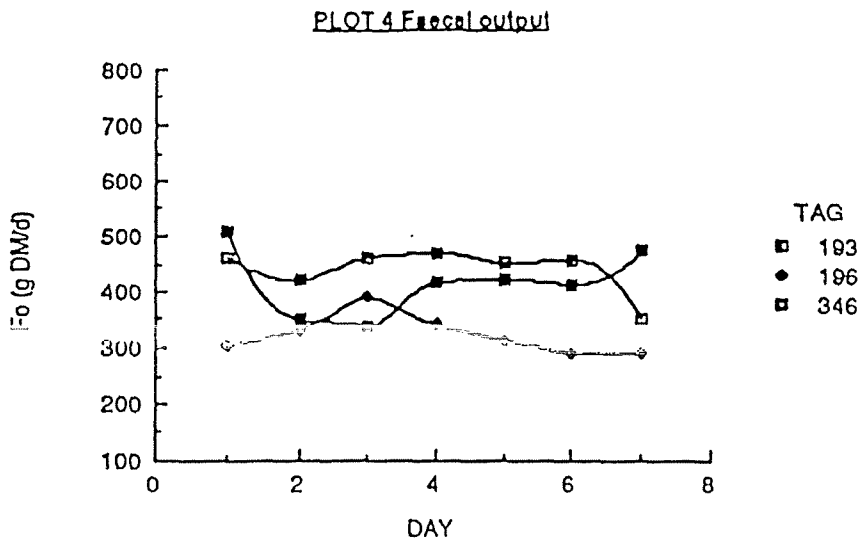
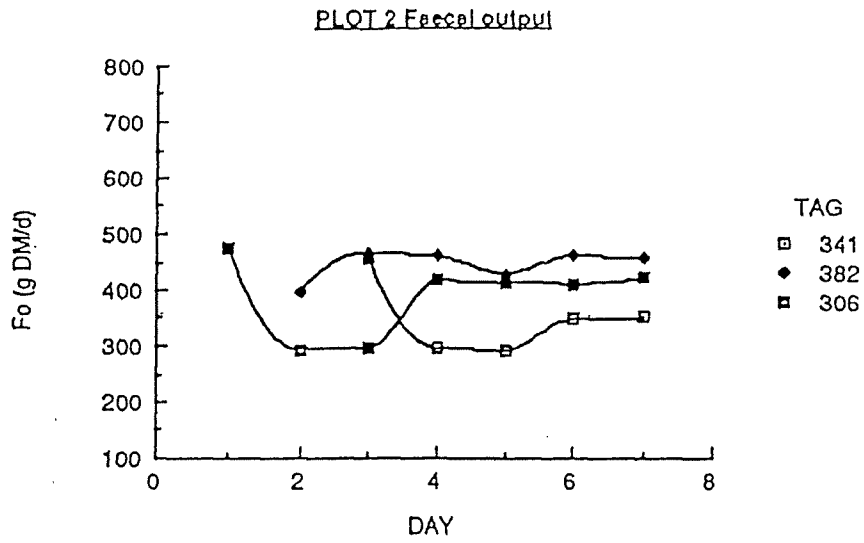
PLOT 6 Faecal output



PLOT 8 Faecal output

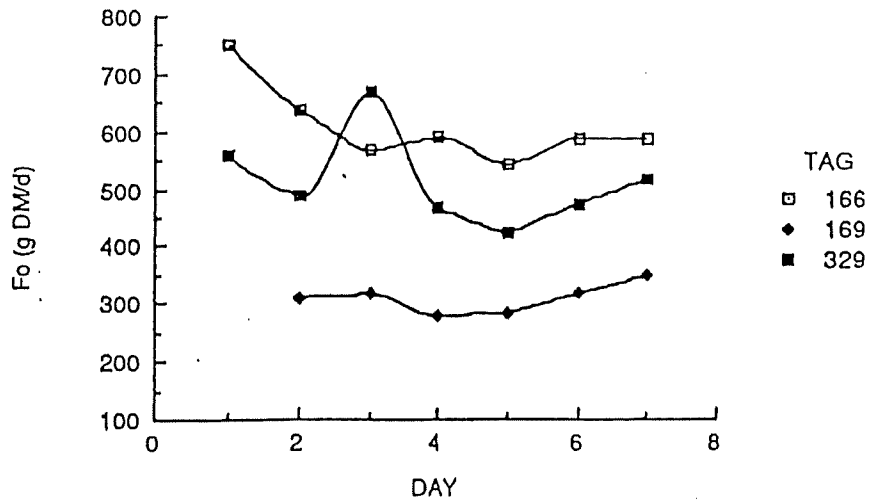


88KA92: Faecal output of sheep grazing Seaton Park/Junee/Zodiac mix.  
(courtesy T. Casson)

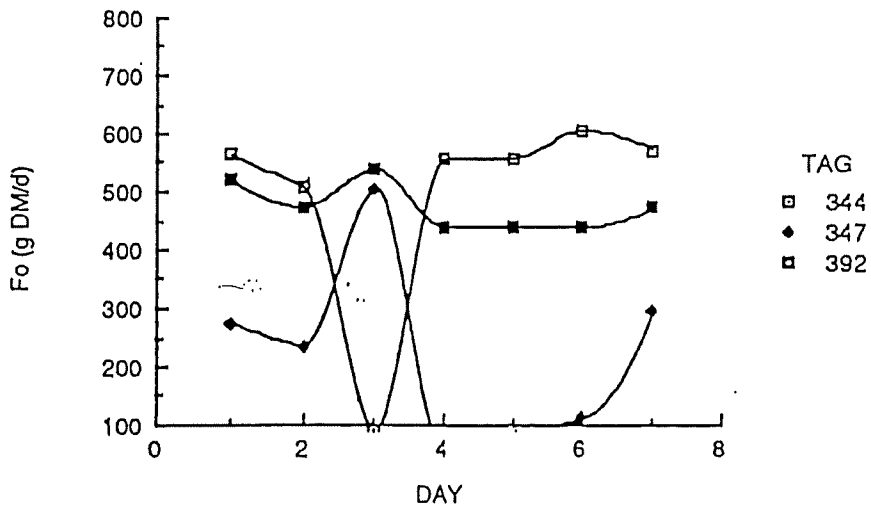


88KA92: Faecal output of sheep grazing Zodiac. (courtesy T. Casson)

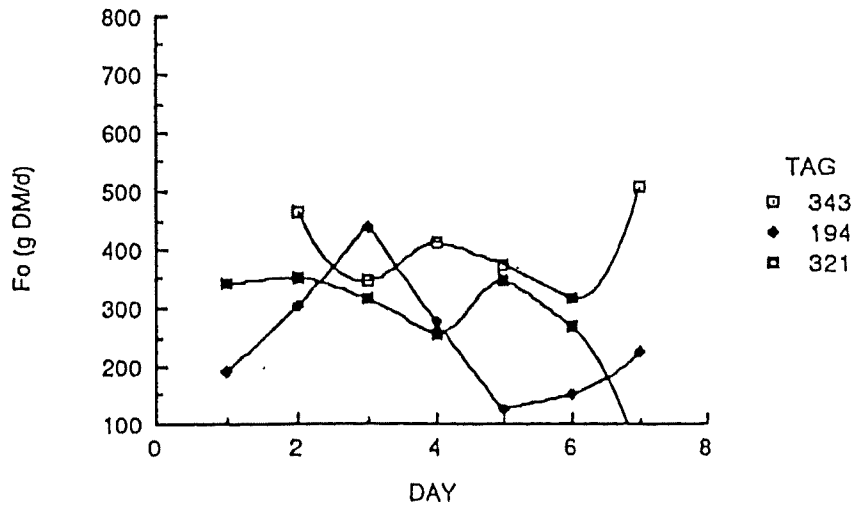
PLOT 3 Faecal output



PLOT 5 Faecal output



PLOT 9 Faecal output



COMMENTS:

Initial establishment and regeneration was generally good for all treatments. Sub-clover had a greater germination than Zodiac after unseasonal rain, due to Zodiac having higher levels of hard seededness.

Zodiac appears to have a late start to the season, however it shows tremendous spring growth.

Zodiac is not competitive in the mixed plots, however this may be a result of the site being managed as a 'sub-clover' pasture and not as a 'medic' pasture.

Seed loss/faecal collector studies are carried out in conjunction with Dr. Jim Fortune, Animal Science Group, University of W.A. The first collection trial was done in March 1989.

Another two such studies were done in March and April 1990. This data was unavailable at the time of report writing, hence only 1989 data (courtesy T. Casson) is presented.

Wool growth results were also unavailable.