

## Lucerne and sainfoin production on two alpine soils in East Gippsland, Victoria

L.J. Hamilton

Department of Agriculture, Bairnsdale, Vic. 3875

Sainfoin (*Onobrychis viciifolia*) is being evaluated as a perennial dryland legume to replace lucerne (*Medicago sativa*) on two alpine soils in East Gippsland.

This species has been reported to be non-bloating, easily established on suitable soils and resistant to most of the insect pests and diseases that affect lucerne (1). In terms of animal production, the species has excellent feed value and will persist when rotationally grazed (2). Evaluation of sainfoin began in October 1980.

### Methods

Two lucerne and sainfoin cultivars were sown in two replicated blocks at Bindi and Cobungra. At both sites all seed was inoculated and sown with superphosphate and molybdenum.

The cultivars of lucerne were WL 318 and WL 219, as previous work (unpublished) has indicated that winter-dormant cultivars were 10% more productive than Hunter River. The two cultivars of sainfoin were Fakir and Remont. The sowing rate used was 10 kg/ha (viable seed) lucerne and 40 kg/ha (viable unhulled seed) sainfoin.

Site details are listed below:

	Soil Origin	Texture	pH	K ppm (Skene)	P ppm (Olsen)	Altitude m
Cobungra	Granite	Clay loam	5.4	343	26	1000
Bindi	Limestone	Clay	6.2	560	5.8	600

### Results and Discussion

Yield measurements (kg dm/ha) taken from these species are as follows:

Species	Cultivar	Bindi		Cobungra
		15/4/81	21/10/81	29/10/81
Sainfoin	Fakir	983	2454	4321
	Remont	669	3032	4098
Lucerne	WL 219	435	718	3439
	WL 318	429	1853	4053
Between species	1.s.d. 1%	135	438	492

These results indicate that at Bindi, sainfoin is a more productive species than lucerne during the year after establishment. At Cobungra, the yield difference between the two species is not significant. However this soil is strongly acidic and the sainfoin and lucerne production is better than expected. The evidence shows that sainfoin may be useful species on some soils in East Gippsland, and further evaluation has begun.

1. Lodge, G.M. 1980. Agric. Gazette of NSW, December, 29-31.

2. Spedding, C.R.W., and Dickmahns, E.C. 1971. Grasses and Legumes in British Agriculture. Bulletin 49. Commonwealth Agricultural Bureaux.