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## Trial 73SG16

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73SG16/3229EX

Locality: Lease block, Salmon Gums

Soil type: Circle Valley sand.

History:

The site was cropped in 1971 and 1972 after two years of volunteer pasture, mainly grasses and some wild legumes (Goldfields medic and wooly clover). In 1973 the trial started with pasture being sown to a mixture of Harbinger, Cyprus and Tornafield medics. The Harbinger quickly became the dominant species.

Grain Yields: Gutha sown May 27  
O'Connor barley is the 2nd crop in 2:2.

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Rotation	Grain yields kg/ha
1 crop : 1 medic	1752
1st crop : 2 medic	1248
2nd crop : 2 medic	1493
1 crop : 3 medic	985

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1. Plots scarified on April 2 and ploughed on May 19. Cereal sown with superphosphate at 104 kg/ha.
2. Annual ryegrass was worst in the 1:1 and the first crop of the 2:2. The other two rotations had low levels of ryegrass, however, barley grass was very bad in the 3 medic : 1 crop rotation and reduced yields.
3. All crops had quite bad rhizoctonia. There was no obvious differences with rotations.

Pasture: Total Production as kg dry matter/ha on September 16.  
Per cent medic in brackets.

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Rotation	Years Pasture		
	1	2	3
1 crop : 1 pasture	2218(74)		
2 crop : 2 pasture	2737(72)	2630(49)	
1 crop : 3 pasture	2590(76)	4036(7)	2762(51)

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1. Medic component is predominantly Harbinger, even though originally sown with an equal mix of Tornafield, Cyprus and Harbinger.

2. Grasses are mainly annual ryegrass and barley grass mixed in a 1:1 and in both years of the 2:2. In the 1:3, rotation grass is 80% barley grass in first year pastures and all barley grass in second or third year pastures. The second year pasture in this rotation was nearly 90% (of total production) barley grass. This could be traced back to very bad barley grass in the 1984 pasture (3rd year) which gave a very serious problem in the 1985 crop (choked with barley grass) which lead to the first year pasture (1986) having bad barley grass which set a lot of seed. Such high levels of barley grass quickly smother the medic and are very difficult to control by practical grazing. Use of chemical pasture manipulation maybe possible, but at what cost.
3. Total pasture production was similar in all rotations with the exception of the second year in the 1:3 rotation. This had 4 tonnes/ha of dry matter, however, 3.5 tonnes of this was matured barley grass which sheep are very reluctant to eat and contributes to heavy contamination of the fleece.