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ECONOMICS OF INTER CROPPING IN GUINEA GRASS  
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Economic milk production is possible only if the major feed requirement is met with farm grown fodder. Our aim in cattle development is not to produce more milk alone, but to produce them at a cheaper rate, so that the weaker sections of the society also can enjoy the benefit of such developments. This can be achieved only through enhanced production of good quality fodder.

For getting high tonnage and good quality fodder, there appears to be nothing better than intercropping of protein rich leguminous component crop with a widely adapted fodder grass. But the economics of such intercropping has not been studied so far in Kerala. Therefore an attempt has been made to study the economics of intercropping as a part of the experiment laid out to study the performance of guinea grass under different spacings with and without legumes as intercrop.

The experiment was laid out in the farm attached to the College of Agriculture, Vellayani, Kerala from October-1975 to September 1976. The treatments were three spacings of guinea grass (40 x 20 cm, 60 x 20 cm, 80 x 20 cm) and three types of inter cropping (no intercropping, intercropping with cowpea and intercropping with *Stylosanthes*). Eight cents of guinea grass were taken at 30-35 days interval. Economics of intercropping in guinea grass was calculated by working out the net profit in pure crop of guinea grass as well as guinea grass with inter crops.

The economics of inter cropping over pure cropping is presented in Table 1. It is seen that inter cropping of either cowpea or *Stylosanthes* in between guinea grass recorded an additional income over guinea grass grown alone. In closer spacing of 40 x 20 cm, the intercropping with cowpea has recorded an increased profit of Rs. 1135.15 over no intercrop while with *Stylosanthes* it was only Rs. 260-20. In other two spacings the *Stylosanthes* intercropped treatments had more or less the same additional benefit while that of cowpea was of the order of Rs. 1792-05 and Rs. 2097-15 for 50 x 20 cm and 80 x 20 cm spacings respectively. Although the additional expenditure in intercropping was more in cowpea than *Stylosanthes* it was compensated by higher profit.

It was conclusively proved that intercropping of cowpea is more profitable. The maximum net profit of Rs. 4819-90 was obtained by intercropping

Table 1 Economics of inter cropping.

Treatment Spacing of guinea grass	Combinations 4 inter crop of	Cost of pro- duction for guinea grass		Additional cost far in- ter crop- ping. Rs. Ps.	Total cost of pro- duction Rs. Ps.		Yield of fodder (t/ha).	Price of fodder @ Rs. 150 per tonne Rs. Ps.	Additional pro- fit obtained by inter crop- ping Rs. Ps.	Net profit	
		Rs.	Ps.		Rs.	Ps.				Rs.	Ps.
40 X 20 cm	4 No inter crop	4375	00	..	4375	00	50.135	7520-25	..	3145	25
40 X 20 cm	4 Cowpea	4375	00	529	00	4904	00	61.216	9182-40	1133	15
40 X 20 cm	4 Stylosanthes	4375	00	185	00	4560	00	53.103	7965-45	260	20
60 X 20 cm	4 No inter crop	4010	00	..	4010	00	46.919	7037-85	..	3027	85
60 X 20 cm	4 Cowpea	4010	00	594	00	4604	00	62.826	9423-90	1792	05
60 X 20 cm	4 Stylosanthes	4010	00	217	00	4227	00	50.158	7523-70	268	85
80 X 20 cm	4 No Inter crop	3835	00	..	3835	00	42.308	6346-20	..	2511	20
80 X 20 cm	4 Cowpea	3835	00	624	00	4459	00	60.449	9067-35	2097	15
80 X 20 cm	4 Stylosanthes	3835	00	233	00	4068	00	45.579	6836-85	257	65

cowpea in between guinea grass at 60 x 20 cm spacing. While compiling the results of intercropping of sorghum with cowpea in Madhya Pradesh, Panicker (1960) reported higher yields of fodder in mixed cropping than in pure cropping.

### സംഗ്രഹം

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