

## Performance of Moong as intercrop in newly planted mulberry garden

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Earlier in survival oriented sericulture emphasis was on risk aversion but now in production oriented sericulture emphasis has to be on efficient use of resources viz., land and water and sustainability has to be the part at the roots of sericulture. Intercropping with agriculture crops is one way of attaining the objective. Hence, an experiment was carried out to study the performance of intercrop of Moong in newly planted mulberry garden. Results reveal that intercropping of Moong in newly planted mulberry field did not show any adverse effect like incidence of diseases and pest on mulberry and intercropping can generate additional income of Rs 3600/- apart from harvesting cocoon crop. This would make sericulture more remunerative and a viable occupation.

**Key words :** Sustainability, Sericulture, Mulberry, Intercropping, Moong.

Sericulture, the art of production of silk is an age old tradition in India. One of the most striking factors in today's Indian Sericulture is evidently the touch of professionalism that is gaining prominence. One can make out clearly the technological shift that is taking place, specially in the pre cocoon sector; practicing sericulture is no loner a poor man's last resort (Anonymous, 2008). Farmers are increasingly becoming aware of the advantage of practicing sericulture more as a profession to reap better returns.

Mulberry (*Morus* spp.), the only food for silk producing caterpillar, the mulberry silkworm, *Bombyx mori* L., form the backbone of sericulture and is cultivated in India mainly for production of silk. Earlier in survival oriented sericulture emphasis was on risk aversion but now in production oriented sericulture emphasis has to be on efficient use of resources viz., land and water and sustainability has to be the part at the roots of sericulture. This calls for integrating sericulture with agriculture, dairy etc so that most economic return per unit can be obtained. Intercropping with agriculture crops is one way of attaining the objective. Few reports are available on intercropping in established mulberry garden (Mohan, 1988; Ahsan, 1989; Tikader *et al.*, 1992; Koul *et al.*, 2008). However, no reports are available on this aspect in newly planted mulberry garden. Hence an experiment was carried out to study the performance of intercrop of Moong in newly planted mulberry garden, mulberry being the main crop.

### MATERIALS AND METHODS

The experiment was carried out at farmers level in Aurangabad district during 2005-06 in newly planted garden of mulberry, variety V1, raised at spacing of 2 x 3 x 4'. Mulberry plantation was raised and maintained as per recommended practices (Ravindran and Rajanna, 2007). Seeds of moong (*Phaseolus radiatus*) was sown during June - July and harvested during January. Mulberry leaves were used for rearing of mulberry silkworms as per standard practice (Dandin and Giridhar, 2000). Data were recorded on cocoon yield, yield of intercrop and income earned by sale of produce.

### RESULTS AND DISCUSSION

Perusal of Table 1 reveals that in a newly raised mulberry garden intercropping with moong generated an additional income of Rs. 3600/- in addition to income earned by sale of cocoons. The studies did not show any adverse effect like incidence of diseases and pest on mulberry due to intercropping. New mulberry plantation looked healthy and growth of mulberry plants was good. Results of present study find support from work of Koul *et al.* (2008). They recommended that intercropping of mulberry with crops like moong, Chari and Barseem for commercial purposes as these crops don't require supply of any additional input.

Normally mulberry is cultivated as mono crop and in case of newly planted mulberry garden only culture activities are carried out followed by leaf harvest, after 4- 6 months from date of plantation. Results of present study reveal that intercropping of Moong in newly planted mulberry field can generate additional income of Rs. 3600/- apart from harvesting cocoon crop. This would make sericulture more remunerative and a viable occupation.

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**Table 1: Performance of Moong as intercrop in newly raised mulberry garden**

Sr. No.	Particulars	Name of farmer and village
		Tayyab Pathan, Palsi
1.	Mulberry farm under intercrop (acre)	01
2.	Age of Mulberry plantation	New, plantation done in June
3.	Mulberry variety	V1
4.	Spacing in mulberry	2 x 3 x 4'
5.	Intercrop	Moong
6.	Month of plantation of intercrop	June-July
7.	Month of harvest	January
8.	Quantity of intercrop harvested (kg)	250
9.	Expenditure for raising intercrop (Rs) This excludes labour charge as family labour used	150
10.	Pest and disease incidence on mulberry	No adverse impact observed
11.	Dfls reared (No.)	100
12.	Silkworm race reared	2 x 3 x 4'
13.	Rearing period	November-December
14.	Cocoon yield (kg)	47
15.	Income by sale of total cocoons (Rs)	6354
16.	Income by sale of intercrop (Rs)	3750
17.	Total income (Rs) Sr. No. 14 + 15	10104
18.	Net additional income (Rs)	3600

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