

# ECONOMICS OF INTERCROPPING OF SUGARCANE WITH MUNG

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The economic aspects of intercropping of sugarcane with Mung was studied under normal conditions at Lyallpur. The sugarcane was sown in rows 2½ feet apart. Mung was interplanted in sugarcane in between the lines with single row hand drill. The intercropping of Mung in sugarcane gave similar grain yield as compared to growing Mung alone without showing any adverse affect on cane yield. The intercropping of Mung in sugarcane not only increases production per acre but may also ensure security against financial loss in case of poor yield when Mung is grown alone.

## INTRODUCTION

It is believed that some of the short-duration crops, especially legumes, can successfully and profitably be intercropped with the main crops like cotton, maize and sugarcane without seriously affecting their yields. Gill (1960) reported the superiority of mixed cropping of sugarcane with tobacco as this treatment gave the highest gross income. Singha (1961) observed that sugarcane intercropped with mustard, linseed, coriander, cumin or Bishop's weed, gave satisfactory performance in all respects without having any adverse effect on the yield. However, Silver (1956) reported that the Indian Clover cropped adjacent to corn reduced corn yields and showed a downward trend toward reduced ear-weight. Fashl, *et al.* (1963) were of the opinion that sowing of wheat in between the rows of September planted sugarcane was more economical. Grimes (1963) observed that alternate row cropping depressed the yield of cotton and increased of maize, but the overall cash returns per acre were as high as those from growing cotton and maize in pure stands. In the light of these observations, the present study was, therefore, designed to investigate the possibility of intercropping of mung in sugarcane under Lyallpur conditions.

## MATERIALS AND METHODS

The investigation was carried out at the Agronomy Research Area of the University of Agriculture, Lyallpur during the year 1972-73. A randomized

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complete block design with six replications was followed. The net experimental plot measured  $1/82$  of an acre. The treatments consisted of sugarcane alone, mung alone, and sugarcane and mung intercropped together. After irrigation, when the soil was in proper conditions, the sowing was done in the first week of March. Sugarcane was sown in rows  $2\frac{1}{2}$  feet apart and mung interplanted in sugarcane in between the lines with single-row hand drill. First irrigation was given 35 days after the sowing. One blind hoeing and two interculture were given to sugarcane while mung was hoed only twice. The sugarcane planting received 4.5 maunds ammonium sulphate per acre at the 3rd irrigation, while mung planted alone was not manured. The yields were recorded and the data were statistically analysed using the T test for the treatment means.

### RESULTS AND DISCUSSION

The intercropping of mung in sugarcane gave similar yield of mung beans as compared to mung grown independantly (Table 1). The yield of stripped cane was also not affected by intercropping.

TABLE 1. *Average yield of mung bean and stripped cane*

<i>Treatment</i>	<i>Yield (mds/acre)</i>
Mung alone	1.94
Mung in sugarcane	2.39
Sugarcane alone	649.83
Sugarcane with mung	615.33
	N.S.

N.S. — Nonsignificant

Although the yield of mung bean was very low due, mostly to poor plant stand and poor fruiting, yet growing it with sugarcane increased its production per acre and generated a profit which otherwise would not have occurred (Table 2).

TABLE 2. *Total income from crops per acre.*

<i>Treatments</i>	<i>Income (Rs.)</i>
Mung alone	132.00
Mung in sugarcane	159.74
Sugarcane alone	3574.06
Sugarcane with mung	3384.31
	N.S.

N.S.—Nonsignificant

Our results are supported by Gill (1960) who reported the superiority of mixed cropping of sugarcane with tobacco as this treatment gave highest gross income. Similarly the results of Fasihi, *et al.* (1965), Stiver (1956), Singha (1965), Khan (1965) and Grimes (1963) were in accordance with our results.

Since mung crop is very erratic crop under the conditions obtaining at Lyallpur, growing it in sugarcane may not only increase production per acre but may also ensure security in case of its poor yield when grown alone. This is so because when it is grown in sugarcane, it will not require any additional agricultural operations except sowing and harvesting. The additional cost of these operations was covered by the extra income from the mung bean crop even when its yield was as low as two maunds per acre.

## LITERATURE CITED

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