ratio. Thus intercropping of soybean with niger would boost the total oilseed production and fetch more economic return for the farmers.

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**Performance of chilli (Capsicum annuum) under different intercropping systems and fertility levels**

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A field experiment was conducted at Main Research Station, Dharwad, during the rainy (_kharif_) season of 1989. The soil was medium deep black clay soil having total soil nitrogen 0.064%, available phosphorus 0.008% and available K2O 0.014%, with pH 7.6. The total rainfall received during the crop season (July–November) was 391.50 mm. The factorial experiment was laid out in randomized block design with 4 replications. Fifteen treatment combinations comprising 3 intercropping systems, viz. chilli (Capsicum annuum L.) + garlic (Allium sativum L.), chilli + onion (Allium cepa L.) and chilli + coriander (Foeniculum vulgare L.); and 5 fertilizer levels, viz. recommended dose of NPK alone for both crops, recommended dose of NPK + farmyard manure for both the crops, 50% of recommended dose of NPK + farmyard manure for both crops, farmyard manure alone for both crops and no NPK and farmyard manure (control). The common spacing of 30 cm x 75 cm was followed for garlic, onion and coriander except chilli (90 cm x 45 cm).

The number of chilli fruits produced under different intercrops did not differ significantly with each other (Table 1). However, chilli + garlic combination recorded highest number of fruits/plant. The recommended dose of fertilizer + farmyard manure recorded highest number of fruits/plant (25.47) and the lowest in the control (11.60). This was due to favourable influence of fertilizers on chilli crop as fruit number was the highest.

Chilli + garlic combination recorded the highest dry weight/fruit (0.86 g). Among the fertilizer levels, recommended dose of fertilizer + farmyard manure recorded the highest dry weight of chilli fruit (0.76 g). However, lowest dry weight of fruit (0.54 g) was

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Table 1. Effect of garlic, onion and coriander intercrops and fertility levels on yield attributes of chilli

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Fruits/plant</th>
<th>Dry weight/fruit</th>
<th>Dry-chilli yield (q/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chilli + garlic</td>
<td>Chilli + onion</td>
<td>Chilli + coriander</td>
</tr>
<tr>
<td>Recommended dose of NPK alone</td>
<td>23.33</td>
<td>23.00</td>
<td>18.53</td>
</tr>
<tr>
<td>Recommended dose of NPK + FYM</td>
<td>24.80</td>
<td>24.27</td>
<td>27.33</td>
</tr>
<tr>
<td>50% recommended dose of NPK</td>
<td>24.47</td>
<td>24.53</td>
<td>24.20</td>
</tr>
<tr>
<td>FYM alone</td>
<td>21.53</td>
<td>15.00</td>
<td>11.60</td>
</tr>
<tr>
<td>Control</td>
<td>30.00</td>
<td>10.40</td>
<td>11.40</td>
</tr>
<tr>
<td>Mean</td>
<td>21.43</td>
<td>19.44</td>
<td>18.61</td>
</tr>
</tbody>
</table>

*CD (P = 0.05) for*  
Intercrops: NS  
Fertilizer: 5.95  
Intercrops X fertilizer: NS

FYM, Farmyard manure  
NS, Non-significant
recorded in the control. Similar observations were also reported by Patil (1981) in chilli + cotton cropping systems.

The highest dry yield of chilli was recorded with chilli + garlic combination (3.87 q/ha). It was maximum with recommended dose of fertilizer + farmyard manure (4.46 q/ha). The increase was owing to more number of fruits and dry weight of fruit. Chilli + garlic intercropping combination with recommended dose of fertilizer + farmyard manure recorded the maximum dry yield of chilli (5.77 q/ha) during the study.

REFERENCE


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Cane yield and water-use efficiency of autumn-planted sugarcane (Saccharum officinarum) under sole and intercropping stand at different levels of irrigation

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A field trial was conducted during 1991–92 at Chiplima, Sambalpur (Orissa), on sandy-clay loam soil with autumn-planted sugarcane (Saccharum officinarum L.). The treatments consisting of 3 cropping systems, viz. sugarcane sole, sugarcane + wheat (Triticum aestivum L. emend. Fiori & Paol.), sugarcane + Indian mustard [Brassica juncea (L.) Czernj. & Cosson], and 3 levels of IW : CPE (0.8, 1.0 and 1.2) were tried in randomized block design with 3 replications. Sugarcane ‘Co 6304’ was planted on flat-bed rows 80 cm part on 11 October 1991 and Indian mustard ‘M 27’ (1 : 2) and wheat ‘Sonalika’ (1 : 4) were sown on 9 and 4 November 1991 respectively. The sugarcane was fertilized with a basal dose of 100 kg P₂O₅/ha and 60 kg K₂O/ha. Nitrogen was applied @ 225 kg/ha in 3 equal splits, at 30, 90 and 120 days after planting. The recommended dose of NPK was applied to intercrops of wheat and Indian mustard as per sole crop, i.e. @ 120, 60 and 60 kg N, P and K/ha, respectively for wheat; and 40, 20 and 20 kg N, P and K/ha for Indian mustard (50% N and full of P and K as basal and 50% N 21 days after sowing). Indian mustard, wheat and sugarcane were harvested on 30 January, 22 February and 16 December 1992 respectively.

Significantly highest cane yield of 131.60 tonnes/ha was obtained from sugarcane sole