An economic analysis of sugarcane cultivation in Karnataka-
A case study of Belgaum district

SCHEDULE

To collect necessary information from the farmers, on adoption of sugarcane cultivation practices in (Karnataka) Belgaum.

I. General information

1. Name of the farmer:
2. Village.
3. Taluka
4. Age
5. Education of the farmer

II. Family information

1. Family size:
2. Number of educated members:
3. Level of education of the family members:

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Level of Education</th>
<th>No. of members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>A</td>
<td>Below 7th</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>7th to SSLC</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>SSLC to PUC</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>PUC to Degree</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Degree and above</td>
<td></td>
</tr>
</tbody>
</table>

4) Yearly income of the family (Rs):
1. Below 25,000
2. 25,000 to 50,000
3. 50,000 to 1,00,000
4. 1 Lakh to 2 lakh
5. Above 2 lakh

2. Nature of the family:
1) Joint family
2) Individual family/ Nuclear family.

II. Social status of the farmer.
1) SC
2) ST
3) OBC
4) General

2. Occupation
1) Only agriculture
2) Agriculture & service

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3) Agriculture & Business  4) Agriculture & livestock farming
5) Any other (specify)

IV. Political participation.
1. Gram Panchayat Member  2. Taluka Panchayat member
3. Z.P. Member  4. MLA
5. If any other (specify)

V. Material possession.
1. Instrument used in cultivation
   1) Bullock cart  2) Levelers
   3) Wooden plough  3) Iron plough
5) If any (specify)
2. Vehicles domestically used.
   1) Bicycle  2) Two wheelers
   3) Jeep  3) Car
5) If any (specify)
3. Media information
   1) Radio  2) News papers
   3) Magazines  4) TV
5) If any (specify)
4. Types of house.
   1) Hut  2) Kaccha
   3) Pacca  4) RCC
5. Machineries
   1) Tractor  2) Sprayer/Duster
   3) Pump set  4) Cane crusher
5) If any (specify)


<table>
<thead>
<tr>
<th>SI No</th>
<th>Area cultivated (Areas)</th>
<th>Area (Acres)</th>
<th>Value (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Irrigated</td>
<td>Non-Irrigated</td>
</tr>
<tr>
<td>C</td>
<td>Total owned cultivated land</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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IV. Cost

1. Cost of cultivation of planted and ratoon crops of sugarcane

A. Input cost of planted sugarcane.

<table>
<thead>
<tr>
<th>SI No</th>
<th>Particulars</th>
<th>Total values (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>A</td>
<td>Seeds</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Farm yard manure expanses</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Fertilizers charges</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Labour charges</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Vermi compost expanses</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Plant protection chemicals charges</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Irrigation charges (if rented)</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Rental value of cane crusher charges</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Transportation charges</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Miscellaneous expenses</td>
<td></td>
</tr>
</tbody>
</table>

b) Input cost of ratoon crop of sugarcane:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Particulars</th>
<th>Total values (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>A</td>
<td>Farm yard manure expanses</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Fertilizers charges</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Labour charges</td>
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<td>Plant protection chemicals charges</td>
<td></td>
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<tr>
<td>E</td>
<td>Irrigation charges (if rented)</td>
<td></td>
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<tr>
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<td>Rental value of cane crusher charges</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Transportation charges</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Miscellaneous expenses</td>
<td></td>
</tr>
</tbody>
</table>
C) Fixed cost:

<table>
<thead>
<tr>
<th>SI No</th>
<th>Particular</th>
<th>Value (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2000</td>
</tr>
<tr>
<td>A</td>
<td>Land tax</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Machinery (Permanent)</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Permanent improvement</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Electricity</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Any other</td>
<td></td>
</tr>
</tbody>
</table>

2. Is cost of cultivation increasing? Yes/No
a) If yes, give reasons.
   1. Increase of labour
   2. Increase of fertilizers cost
   3. Increase of all other costs
   4. In any other (specify)

b) If, no, how specify?
   1. 
   2. 
   3. 

3. What was the per acre net income of the previous year? Rs......................

VII. Cropping pattern.
a) Season of cultivation.
   1. Kharif/ Adasali
   2. Rabi/Eksali
   3) summer

b) Cultivated crop:
   1. Planted
   2. Ratoon

c) Variety of sugarcane.
   1. Co, 671
   2. Co, 8014
   3. Co, 8011
   4. If any other (specify)

B) Area and out put:

<table>
<thead>
<tr>
<th>Years</th>
<th>Area (Acres)</th>
<th>Output (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VIII. Constraints in production of sugarcane.
A. Education/ Training/ Experience.
   1. Did you have any training/ demonstration in agriculture?

B) Input constraints:
   1. Water:
1) Did you have enough water for irrigation? Yes/No
a) If yes, what are the sources of irrigation?
1. Owned well 2. Owned boar well 3. Hired from others
4. From co-operative irrigation 5. Canal irrigation
6. Pipe live from rivers
b) If no, how do you manage crop irrigation?
1. By depending rain only 2. Partial rain & well
3. Partial rain & boar well 4. Rain & Canal
5. If any other (Specify)
2. From these sources, are you getting sufficient water to cultivate cane?
a. If yes, specify which sources.
1. 2. 3. 4.
b) If no, what are the reasons
1. Irregular supply of electricity 2. Problems in lift irrigation system
2) Seed setts.
1. Were the improved variety of modern sets of sugar cane seed available? Yes/No
a) If yes, adequate/inadequate.
b) If no, give reasons.
1. Not required 2. They need more money
3. They need more are 4. They need more water
5. Not available in proper time
2. Suppose there is new high yielding variety of sugarcane available then what will you do?
1. No response 2. Wait and see results
3. Try my self 4. No option
5. If any other (specify)
3. Fertilizers.
1. Did you get adequate amount of fertilizer? Yes/No
a) If yes, How much?
1. 3-5 quintals/acre 2. 5-7 quintals/acre
3. 7-9 quintals/acre  
4. 9 and above/acre  
5. If any other (specify)  

2. When did you use the fertilizers?  
   1. With planting  
   2. Just after the planting  
   2. Any time during the crop season  
   4. according to office direction  

3. Did you use mixed fertilizers? Yes/No  
   a. If yes, what are those?  
      1. DAP  
      2. 17,17,17  
      3. Sampoorn  
      4. 20, 20, 20  

4. Did you sue organic manure yearly? Yes/ no  
   a.) If yes, how much per acre?  
      1.  
      2.  
      3.  
      4.  
   b) If no, give reasons  
      1.  
      2.  
      3.  
      4.  
   c) When you will put it to crop?  
      1. Before the planting  
      2. Planted crop only  
      3. To ratoon crop  
      4. Whenever FYM avails  

5. Did you use micronutrients to cane crop? Yes/No  
   a) If yes, what are they?  
      1. Iron  
      2. Copper  
      3. Zinc  
      4. mixed micronutrients  
   b) If No, why?  
      1. They were not needed to crop  
      2. We don't know about them  
      3. They were costlier  
      4. They are not available nearby  

4. Plant production chemicals.  
   1. Did you put any plant protection measures to the crop? Yes/No  
   a) If yes, how many times?  
      1. Once  
      2. Twice  
      3. Three times  
      4. Four times  
   b) If no, give reasons.  
      1. No severe attack of pest or disease.  
      2. Costlier  

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4. Difficulty in producing requirements like sprayers, dusters etc
3. Not profitable
2. Did you use Biological pest control? Yes/No
   1. If yes, what are they?
      1. 2. 3. 4.
   b) If no, give reasons.
      1. 2. 3. 4.
5. Labour.
1. Did you face any labour problem? Yes/No
   a) If yes, what are those?
      1. Adequate human labour not available during critical stages of crop growth and harvest.
      2. Skilled labour not available
      3. Wages are to high
      4. Labours doesn't want to do work in this field.
   b) If no, how do you manage?
      1. By using technology         2. By using home labours
      3. Self managing              4. By giving rental bases
5. Constraints in processing & marketing of sugarcane.
1. Did you dispose sugarcane to factory? Yes/No
   a) If yes, Why?
      1. Factories offer more price.
      2. Factories harvest in exact time
      3. Factories will provide vehicle facility
      4. Provide labours to harvest
      5. Advance payment advantage
   b) If no, give reasons.
      1. Lifting of cane was not timely.    2. Price fixed was low.
      3. Payment was not timely.           4. Factories are not weighting properly
2. Is disposing of sugarcane factory a problem Yes/No
   a) If yes, what are those?
1. Very low price
2. Labour problem
3. Vehicle problem
4. Credit problem
5. Constraints of transportation.

1. How do you transport your sugarcane from field to place of market?
   1. Transport by bullock cart
   2. Tractors
   3. Lorry
   4. If any other (Specify)

2. Can sugar factories provide transportation? Yes/No.
   a) If yes, what are those?
      1. By providing lorries for hire.
      2. By providing tractors hire.
      3. Through gaining bullock cart for hire
   b) If no, how do you transport your cane?
      1. By own bullock cart
      2. By own tractor
      3. By own lorry

X. Do you practice inter/ companion cropping? Yes/No
   a) If yes, which crop do you combine?
      1. Maize
      2. Soabeen
      3. Sunflower
      4. Chillies
      5. Onion
      6. Others
   b) If no, why give reasons?
      1. It is not need
      2. It will affect main crop
      3. It is not profitable
      4. If any other (specify)

XI. Did you take credit? Yes/No
   1. If yes, provide the information.

<table>
<thead>
<tr>
<th>Si No</th>
<th>Sources-I (Institutional sources)</th>
<th>Amount of credit</th>
<th>Rate of interest</th>
<th>Repayment period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>KSFC and DCC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Rural development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Co-operative societies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Commercial banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PACS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>SI No</th>
<th>Sources-II (Institutional sources)</th>
<th>Amount of credit</th>
<th>Rate of interest</th>
<th>Repayment period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land lords</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Traders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Intermediary</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Relatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Friends</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. If no, mention the reasons.
1. It does not required
2. It is difficult to gain
3. Due to high interest
4. Very experience
5. If any other (specify)
6. Customer procedure

XII.1. How many ratoons taking usually?
1. One  2. Two  3. Three  4. Four

2. Usually what do you do to trash?
1. Firing  2. Make it organic (FYM)
2. Manures