“Design & Fabrication of a Machine to REDUCE the Critical PROCESS Parameters & Improve Productivity of Agro – Based Dhup Agarbatti”

Shri. Krishna S. Vishwakarma, Shri. R.A. Tamboli, Mr. Shailesh V. Nighot, Mr. Alok K. Mandlekar.

ABSTRACT:
In our country still our villager are struggling with short of money, living standard. Mainly our farmer does irrigation related activity when the season comes & rest of the time they remain with no work this causes a biggest trouble to them because they uses money whatever they earn by selling their crops into their idle time i.e. off-season. Hence there living standard remain unchanged due to short of money saving. Keeping this thing into mind we are trying to help farmer by giving them a chance of self-employment, so that, they can change their living standard to some extent.

Hence we are focusing to develop a system/machine which can be run manually. The cost of the system or machine will try to keep very minimum, so that the farmer can purchase it or taken it on rent.

The objective of our machine is to utilize mainly agriculture based product which is available at very low price along with some additives. Through this project the farmer can produce a daily consumable product which would be so called as “Agro Dhup Agarbatti”. 

KEYWORDS: Mixing chamber, Hopper, Critical data, Agricultural waste, Agro Dhup – Agarbatti.

Introduction

The aim of this concept is to support financially to the farmer, with the help of our proposed machine. The objective is to encourage the farmer so that they become self employee. We offer a new home based machine concept which would be a better solution to improve the economical condition of farmer. Various engineering and general technique implanted to form this home based machine concept. Data related to a process has been collected from the selected company.

In this concept we focused on agro based material which is freely or at a very low price rate available in villages.

Here the farmer & his family can utilize Agro based material so to make money by producing Agro based Dhup – Agarbatti.

In this concept we have targeted to make above mentioned project concept so to assist farmer to generate extra wealth by producing an agro based Dhup – Agarbatti by keeping consumer health into consideration.

DataCollection THROUGH LITERATURE SURVEY

CONCEPT AVAILABLE IN MARKET

In the market Dhup product is easily available. The current Dhup products and machines are shown below

TYPES OF PRODUCT AVAILABLE ALONG WITH IT’S SIZE & PRICE

<table>
<thead>
<tr>
<th>S.N</th>
<th>Brand of Product</th>
<th>Size (mm)</th>
<th>Wt (gm)</th>
<th>No.of Stick</th>
<th>Price Rs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shri Hari Agarbatti</td>
<td>3x3</td>
<td>100</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Ah Agarbatti</td>
<td>3x4</td>
<td>100</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Dwarka Agarbatti</td>
<td>3x5</td>
<td>100</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Agarwal Dhup Comp</td>
<td>3x6</td>
<td>100</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>Nimmo agarbatti</td>
<td>3x7</td>
<td>100</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

The above table shows the brands of Dhup product which are available in the market. The tables contain its size and price also.
1.1) TYPES OF MACHINE AVAILABLE ALONG WITH IT’S PRICE & CAPACITY

The above table shows machine related data is shown. In this table machine weight, power required, size, price and capacity is available.

1) CONTENTS AVAILABLE IN MARKET

In the above mention table ingredients required to Dhup Agarbatti production is shown. he basic elements with its price and Co2 level. Bescially all this are useful for production purpose of Dhup Agarbatti.

MATERIAL DATA SHEET

This sheet contains the information about the material which is used to fabricate our Dhup Agarbatti machine. It also contains the material required and its price.

FARMER RELATED DATA

Above table contain the farmer related data in some different countries. Percentage of farmer in the country, average working days and income of farmers is also shown. This table is provides all data which is required to differentiate the farmers in countries.

The percentage of farmers in the different countries in Asia is compared by following graph.
Average working days of farmers in different countries are shown in the following graph.

The following graph shows the average income of farmers in different countries. By comparing with other countries, Chinese farmers earn high income.

PROBLEM STATEMENT

WHY WE WANT TO CHOOSE THIS TOPIC.

If we look up at the nearby market, you will easily find numerous brands of Dhup Agarbatti, but the important thing is how much it is safe to your health.

The smoke comes out from the burning Dhup Agarbatti contains various toxic gases like Co, Co₂, Hc etc. These gases produce bad effect on human eye & health. Sometimes these products contain some high amount of fragrances due to which after sometime of burning the Dhup Agarbatti could cause human headache.

To reduce these effects, we suggest a new concept of making Dhup products which solve the purpose.

By considering all problems, we develop this concept and try to implement this in real life. The main aim of this concept is to make the human life more secured.

The other side of this project is to produce a machine which makes the Dhup Agarbatti in a very low budget. The concept is to provide Agro Based Dhup Agarbatti which may be produced by farmers at villages.

The main motive of this topic selection is to boost and increase the economical condition of farmers in India because lots of farmer suicide cases occur due to their poor economical condition.

To reduce the suicide cause we try to support them as providing part-time work at their home from this project.

FACTUAL CONDITIONS

In our day to day life, we face the problem of increasing price of all products. The life of common man is very hard to adjust all the things in minimum salary.

If we consider the Dhup product, it also has high cost but the consumption of such product is daily at home.

In the industry of Dhup product, the various types of machines are used. This machine consumed high amount of electricity. The cost of electricity in current condition is on the way of raising which also affects the price of product.

Also in factories, there are three to four labor required to handle the machine. This labor cost is also included in all types of Dhup products that will be manufactured in the company. Therefore, the cost of product is high. These are all the factual conditions in the market for this product.

FARMER RELATED PROBLEMS

Nowadays, some Indian farmers are suffering from very poor economical condition because of fluctuation of rainfall in rainy season. Usually, the farmer earns money in two times in a year because the farmer produces two crops yearly. If the rain is not well than all the works of farmer get failed and they lose their grains. They face the money problem...
in their life. Also they could not be able to gets two times food a day. Due to failure of products they even could not refund the loan of banks.

The children of the farmer are not able to study in the good school due to economical problem.

Farmer and their family spent valuable life in tension & low economical condition only and because of that farmer get try to suicide due to such bad problems of their life.

PROBLEM SELECTION

FARMER FINANCIAL SUPPORT

The condition of the farmer in India has not changed even after independence. They are still dependant on the rain for water and politicians for fixing remunerative prices. But nothing going smoothly. Most of the farmers have burden of loans from banks and private money lenders, which they are not able to return and hence, have to take extreme step like suicide. The government is also not very worried about their condition.

Therefore we try to provide the better solution for the improvement of the economical condition of farmer, when the farmer used our concept they will definitely earn money daily. There is no requirement of higher expenditure also they used the raw material which is freely available in the villages for the production of Agrobased Dhup Agarbatti. hence by spending a small part of time farmer earn money through concept. And this is the best financial support for farmers to improve their economical condition.

ROUTE CAUSES OF PROBLEM

Indian farmers are poor because 1) they are not aware about market needs. 2) There valuable crop is not purchased at time plus they don’t have personal storage facility. 3) They don’t know alternate medium of income. 4) Intermediate parties manipulate them to sell their crop against any previous rate of loan. 5)Improper rain so they faced the shortage of water for crops.

DEVELOPMENT OF OUR CONCEPT


WORKING OF PROJECT

FLOW DIAGRAM
EXPECTED RESULT WITH OUR CONCEPT

FARMER BENEFIT: As we also known that the Indian farmer are poor. They only do the farming at one time and can not do another job. To see that problems we make this machine to provide the farmer some income resources. For this machine farmer can works after doing the farming work & make dhoop agrabatti. In this machine the material used is easily available the village in very low cost. For this machine farmer definitely got the benefit in terms of money.

SMOKE CONTAMINATION

1) The table shows the smoke percentage of the current product. It contains the actual tested value of it.
The above graph shows the comparison of current product with our product. After studying this graph we conclude that our product is less harmful to human being and also less smoke contain when compared to other. The raw material required to make this product is also very cheaper.

**SUMMARY**

Special thanks to guide, collage, ME-dept., Group members to help to develop this concept by spending our valuable time. The aim of this concept is to improve the economical Condition of farmers. This concept contains Problems statements related to farmers, actual condition, farmer financial support, causes of problems, and the solution over it is included.

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**AUTORS DETAILS**

- Shri. Krishna S. Vishwakarma
  krishna.sharma.pce@gmail.com
  Lecturer Mechanical Department
  Shri Datta Meghe Polytechnic
  Nagpur (M.S), India

- Shri. R.A. Tamboli
  Principal
  Shri Datta Meghe Polytechnic
  Nagpur (M.S), India

- Mr. Shailesh V. Nighot
  shaileshnighot786@gmail.com
  Student of Mechanical Department
  Shri Datta Meghe Polytechnic
  Nagpur (M.S), India

- Mr. Alok K. Mandlekar
  alokmandlekar@gmail.com
  Student of Mechanical Department
  Shri Datta Meghe Polytechnic
  Nagpur (M.S), India