



## **Doubling income by production of fermented vinegar making**

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### **ABSTRACT**

The chemically synthesized vinegar is fraction of petrochemical industry containing traces of lead and has harmful impact on gastro-intestinal tract. The commercial synthetic vinegar is many a times is artificially flavoured and coloured with caramelized sugars and/or essences to give an impression of fermented product. Further, mineral acid contamination of commercial vinegar is given to provide a tangy sourness. Lack of awareness regarding ill effects of synthetic vinegar and its cheaper price, Indian markets are flooded with different brands of synthetic vinegar. Fermented vinegar being from natural raw materials viz. fruits, vegetables, cereals etc. is enriched with vitamins and minerals of fermenting microorganisms and the source fruit, hence, it is referred as a nutraceutical and used as a food, tonic and antiseptic. Krishi Vigyan Kendra, Patiala has employed various extension strategies to create awareness regarding harmful effects of synthetic vinegar and popularise the technology of PAU fermented vinegar among rural youth and farmers especially jaggery manufacturers. Fermented vinegar technology was initially adopted only for home use only. Krishi Vigyan Kendra, Patiala with its continuous efforts has succeeded in developing some entrepreneurship in the field of fermented vinegar technology.

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### **INTRODUCTION**

#### **Situation analysis**

S. Chamkaur Singh is 64 year old ex-serviceman from Nabha, Patiala. He somehow could complete his formal education up to 10 class and joined Indian Army with a great zeal to serve the nation. After taking voluntary retirement from the army service in 2008, he engaged himself in various jobs. He has two daughters and a son. He wanted to educate his daughters. His pension was not sufficient to meet the family expenditures. He is not satisfied with his job. He realized that the earnings he was getting were pretty much discouraging to continue the job. His army background has helped him to fight back and had lifted his spirit in the time of distress; and instead of giving up job, he started looking for different ways to increase his income. He visited KVK and attended many trainings and decided to try his hand on fermented vinegar production along with his job.

#### **Plan, Implementation and support**

Krishi Vigyan Kendra, Patiala with its continuous efforts has succeeded in developing

some entrepreneurship in the field of fruits and vegetable processing. He attended training on production of fermented vinegar and non-alcoholic carbonated beverages from fruit juices. Fermented vinegar making enterprise can be started with a small investment. So, he decided to venture in this enterprise. This enterprise does not require much time, space and money but it requires skill.

Indigenous practice is the natural fermentation of jaggery or sugarcane juice in earthen jars/tanks till it becomes sour. The method is crude, unhygienic, often takes 4-6 months and may lead to accumulation of slime. Punjab Agricultural University, Ludhiana has given the method of scientific fermentation of sugarcane, apple and grapes using optimized cultures. After training, he has prepared fermented vinegar from sugarcane, apple and grapes. On demand of his customers, he prepared Jamun vinegar with slight modification in the process. Innovative farmer has also prepared fermented vinegar from beetroot using this technology. KVK, Patiala guided him in preparation of inoculum, upscaling of technology,

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### Year wise detail Product

Sr. No.	Name of product	2017-18	2021-22	2022-23	2023-24
1.	Sugarcane vinegar (litres)	200	1200	1770	1960
2.	Apple vinegar (litres)	100	640	1390	1540
3.	Grape vinegar (litres)	100	180	170	1150
4.	Jamun vinegar (litres)	200	680	1210	1520

### Income generation through Fermented vinegar making

Product	Income generation (Rs.)			
	2017-18	2021-22	2022-23	2023-24
Sugarcane vinegar	50050/-	78000/-	130980/-	152880/-
Apple vinegar	33150/-	64000/-	166800/-	223300/-
Grape vinegar	4900/-	12600/-	14450/-	115000/-
Jamun vinegar	18900/-	61200/-	118580/-	179360/-
Total	107000/-	215800/-	430810/-	670540/-

testing of alcohol and acidity, bottling, labelling, registration and marketing etc.

### Output

Temperature requirement for vinegar making is less than 30°C. Jamun fruit comes in summer when temperature is more than 35°C. For preparing Jamun vinegar, maintenance of the room temperature below 30°C in July is the basic requirement. He sprinkled water and kept wet jute bags in room, used paddy straw at roof to maintain temperature. He prepared 250ml and 750ml capacity bottles of various vinegar. He has also prepared vinegar from other fruits like guava, strawberry and karonda etc. He is selling his products under the brand name of Kamal. He advertised and marketed his products through various social media platforms. Demand of his products increased exponentially. His unit has also been registered under FSSAI (Food Safety & Standards Act of India).

S. Chamkaur Singh is a regular participant in various exhibitions and competitions being organised by PAU, Ludhiana. He regularly attended various kisan melas and public gatherings organised by PAU, ATMA, Deptt. of Horticulture, NGO's and KVIC. He attended SARAS fairs at Patiala and CII fairs at Chandigarh with the support of NABARD.

### Outcome

A sale outlet named “ATMA KISAN HUT” has also been provided to them by Department of Agriculture at Nabha town; district Patiala which has substantially improved the daily sale of his products. Recently KVK Patiala made a short documentary film on his success story to motivate other farm families and youth. He is able to increase his income from sale of fermented vinegar from 107000/- in 2017-18 to 670540/- in 2023-24.

### Impact

Chamkaur Singh has established his name in fermented vinegar making. Fermented vinegar has immense and wide spread market potential due to its health benefits. He guided many people in preparing fermented vinegar as per PAU technology and helped them in taking up this as an enterprise. His personal rapport and good quality products ensured the marketing of products. He has also delivered many radio talks and is invited as resource person at several occasions. He is regularly invited as motivator and resource person in the training programmes organized by various development departments and agencies. There is improvement in the family economic and social status. He built a pucca house. He sent his two daughters abroad for higher education.

## Doubling Income By Production Of Fermented Vinegar Making



Food adulteration is a curse to our society. He is providing adulteration free products and also at reasonable prices. It should be mentioned here that he carries all the activities with the help of his family members without engaging any outside labour.

Vinegar is being used in large quantity in restaurants, hotels and other eating places.

However, domestic market for fermented vinegar can be developed by making people aware about its benefits and encouraging them to use fermented vinegar instead of synthetic vinegar. The setting up of cottage scale units can help in generation of good quality fermented vinegar and its easy availability in the market.