

Original Research Article

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Cold Press Oil Extraction in Oil Seed Crops: A Profitable Enterprise for Doubling Farmer's Income

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ABSTRACT

Keywords

Ground nut, Oil extraction, Cold press oil

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A case study was conducted by Agricultural Extension Education Center, Koppal with an innovative ground nut grower and small scale entrepreneur for a period of two years. Cold press oil extraction unit established by the farmer could successfully extract 3.60 tons of oil seeds in a month with a net savings of Rs. 16485. The unit became self sustain in a span of one year and could generate employment of 365 man days. The consumers are satisfied with the quality and purity of oil which they purchased for consumption. Establishment of such small scale units at village level could help the farmers from the drudgery in marketing and helps to overcome market uncertainties apart from creating employment opportunities during off season which paves a way for doubling the farmer's income.

Introduction

Oilseeds are among the major crops that are grown in India apart from cereals and pulses. India is the largest producer of oilseeds in the world contributing seven per cent of the global vegetable oils production with 14 per cent share in the area (Jha *et al.*, 2012) and the oilseeds sector occupies an important position in the agricultural economy of the country. Oilseeds are generally grown in energy starved conditions with hardly about 25 per cent of the area under irrigation. Karnataka is one of the major oilseeds

producing states and it is one of the project states covered under the oilseeds development programmes. Nine districts of the state namely Belagavi, Bellary, Bidar, Vijayapura, Chitradurga, Dharwad, Kalaburgi, Raichur and Tumkur were selected as lead districts for concentrating research and development activities. main oil seed crops grown are ground nut and sesamum and sun flower. Farmers immediately after harvest sell the produce in local markets for a lower price. Value addition through oil extraction not only fetches high returns but also creates employment opportunity during off season.

Hence, this study was made by Agricultural Extension Education Center, Koppal to highlight the importance of value addition to the small and marginal farmers.

Materials and Methods

The study was conducted with an innovative farmer Mr. Venkateshwara Rao of Kakkaragola village in Gangavathi Taluk of Koppal district. Farmer procured a cold press oil extraction unit from the manufacturer and installed in his farm. The machine has 3 HP motor capacities. The machine was running for 8 batches with 15 kg capacity per batch in a day. Approximately one unit power consumption was required per batch. For each batch of oil extraction nearly 90 minutes were required. The average oil to cake percentage was 35:65 ratio. Decorticated seeds of groundnut and sesame seeds grown by the farmer were used for oil extraction after thorough drying when moisture content was below 8 per cent. The best available groundnuts were used for oil production to increase yields and reduce the risk of disease.

This requires testing for oil and moisture content. The groundnuts were sorted and graded to check for damaged, shrivelled and mouldy seeds which may carry aflatoxin and removed and destroyed if any.

Results and Discussion

Nearly 120 kg of seeds were crushed in a day with an oil output of 42 kgs approximately. Groundnut oil was sold at a price of Rs. 310/kg and sesame oil at Rs. 400/kg and cakes were sold at Rs. 350/q. The unit generated 365 man days of employment opportunity. The groundnut and sesame produced by the farmer was completely utilized for oil extraction and saved him from the challenges of marketing. Through this small intervention farmer became the small scale entrepreneur which raised his respect among the fellow farmers and more over provided employment opportunity during off season. Value addition fetched a high price which doubles his income in a short period and also in a sustainable way.

Table.1 Details of fixed cost invested

Sl. No.	Cost details	Price (Rs)
1	Cold oil extraction unit	160000
2	Electricity and miscellaneous	20000
	Total	180000

Table.2 Cost economics of oil extraction and marketing

Sl. No	quantity of Seed/month (kg)	seed cost (Rs/q)	Electricity charges (Rs)	Labour wages (Rs)	Quantity of oil extracted (kg)	Cost of oil produced @ 310/kg (Rs)	Oil cake produced (kg)	Price of cake @ 35 Rs/kg (Rs/q)	Room rent/month	Net savings
1	3600	288000	2520	9000	1260	390600	2340	81900	2000	170980

* Ground nut considered for calculation

20% of amount was recovered towards fixed costs and other routine maintenance

Customers who were accustomed to consume adulterated oil were so happy to buy pure oil which is produced in front of their eyes. The health conscious of consumers is being increased day by day people are demanding more and more oil produced locally. Hence there is tremendous scope for oil extraction and supply at local village level.

In conclusion, oil extraction and supply is the major need of the hour providing additional income to the farmer along with employment opportunity and also helps to overcome the

problems of marketing. Consumers will get good quality oil at reasonable price at village level.

References

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