



## Research Article

### WATERMELON PRODUCTION: MULTIPLIES INCOME IN SUMMER

KIRAN M. KANDIR\*, SINGH SEEMA, SINGH SRIKANT, MUNDA S.S. AND SINGH R.P.

ICAR - Krishi Vigyan Kendra, Dumka, Birsa Agricultural University, Ranchi, 834006, Jharkhand

\*Corresponding Author: Email-kandirkm@gmail.com

Received: April 02, 2018; Revised: April 11, 2018; Accepted: April 12, 2018; Published: April 15, 2018

**Abstract-** Irrespective of land condition of river bed types required for cultivation of watermelon, farmers of Jharkhand are doing their best for watermelon production after harvesting of paddy to multiply income in summer season. The research & extension efforts have been tried to increase income level of farmers by providing market led extension activity through early and timely cultivation of crop, group formation, skill development training regarding marketing, demonstration and on farm trial on nutritious & delicious summer fruit – watermelon varieties.

**Keywords-** Watermelon varieties, land condition

**Citation:** Kiran M. Kandir, *et al.*, (2018) Watermelon Production: Multiplies Income in Summer. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 10, Issue 7, pp.-5779-5781.

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#### Introduction

In the last 10 years farmers of Saraikela - Kharsawan are producing watermelon beside Kharkai river and local perennial rivers. In Jharkhand, unlike watermelon producing states like Bihar, farmers are utilising medium paddy land after it's harvest. Before 2013-14 only hybrid variety, mostly var. Ayesha was under cultivation. In 2013-14 two improved variety, var. ArkaManik from IIHR, Bangalore has been introduced along with another improved variety-Sugarba by KVK, Saraikela-Kharsawan [1]. Ayesha the hybrid variety which is suitable for truck marketing i.e., marketed in distant places, transported by the means of big trucks is very much liked by local farmers. Because of it's size Ayesha was much preferred by the farmers commercially but when sugarbaby was introduced, it was also accepted for local market as it's size is small, weighing 3-4.5 kg, suitable for a small family. The character of Ayesha that influenced the farmers was its bearing of fruits per vine, which is 3-4 numbers with full size weighing 6-7.5 kg. The climatic condition didn't suit the character of ArkaManik to exhibit it's best as compared to Ayesha. Although the size (approx. 7.5-8 kg) and ultimately number of fruits per vine was equivalent to Ayesha, the colour of flesh which is the customer's first choice could not reach up to its likeness in Saraikela-Kharsawan. From distant to local marketing farmer of Saraikela-Kharsawan are getting benefit cost ratio upto 8.6 and 5.02 for Ayesha and Sugar baby respectively [2]. The approach of assessment of nutritious & delicious fruit watermelon has opened a new innovative opportunity of earning multiple income for number of small & marginal farmers and farmwomen by selling fresh fruits through e- marketing in the season, producing not only for commercial purpose, it's consumption will fight against malnutrition in tribal area of Jharkhand.

The flesh of watermelon is nutritious in addition to its seed kernel which is helpful in overcoming anaemia in farm women as well as children in villages. Exploiting the nutritional character of watermelon there is a need to aware women in rural to incorporate and grow it in their kitchen garden and relish their desert in summer season with their family.

The main constraints during cultivation that has to be take care are the attack of fungal diseases [4]. This causes rotting of fruits and at early stage infestation of red beetles can damaged the leaves hampering the process of photosynthesis and ultimately reducing the fruit size and ultimately its productivity. Drenching of trichoderma (4gm/lit.) and Pseudomonas (4 gm/lit.) at initial stage has proved effective in control of fungal diseases and dusting with chlorpyrifos can control the red beetle in field. In paddy fields, monocot weeds are very much prevalent. Fluchloralin and Oxadiazon@ 1.25 lit./per/ hectare before plant emergence are very much effective to control weeds.

Sri Kamal Mahato of Saraikela district was nominated and received innovative farmers award in AgrotechKisanMela 2014-15organized at Birsa Agricultural University, Ranchi. He became an example among those farmers who have land with source of irrigation water and have zeal to get profit out of watermelon cultivation. He says, scientific and timely growing of watermelon can fetch much income at farmers end.

The next very Farmers of Pakur & Dumka districts have started their effort in perennial river side areas, as it requires irrigation very frequently. As our government is promoting organic agriculture farmers producing watermelon should also use organic inputs [3] in their fields This practice will enhance the quality of fruits with respect to increasing shelf life of fruits as it suffers longer duration of transportation in vehicles.

**Application of research:** Soil and climate of Jharkhand is suitable for watermelon production. Selection of variety along with scientific cultivation are very much important to fetch income in multiples for small and marginal farmers

**Research Category:** Fruit science /Horticultural crops



Fig-1 Watermelon var. Sugarbaby & Arka Manik





Fig-2 Varietal trial of watermelon in Kharkai riverside( sandy loam) and Paddy- watermelon (Loamy soil)



Fig-3 Watermelon var. Arka Manik and field visit with guest scientist



Fig-4 Farmer showing flesh colour of var. Ayesha and Sugarbaby to bargain its price with stockist before supply



Fig-5 Field day to aware and empower farm women through watermelon cultivation in village Nuagarh, dist. Saraikela-Kharsawan

**Table-1** Nutritional Importance of Watermelon per 100 gms Fresh fruit

S.No.	Nutrients	Seeds(Kernel) watermelon	Watermelon fruit
1.	Energy (Kcal)	628	16
2.	Water (gm)	4.3	95.8
3.	Protein (gm)	34.1	0.2
4.	Fat (gm)	52.6	0.2
5.	Carbohydrates (gm)	4.5	3.3
6.	Fibre (gm)	0.6	0.2
7.	Calcium (mg.)	100	11
8.	Phosphorus (mg)	937	12
9.	Iron (mg.)	7.4	7.9

**Abbreviations:**

ICAR-Indian Council of Agricultural Research

BAU-Birsa Agricultural University

Kcal-Kilo calorie

gm-Gram

mg-Milligram

SAC- Scientific Advisory Committee Meeting

KVK-Krishi Vigyan Kendra

**Acknowledgement / Funding:** Author are thankful to Indian Council of Agricultural Research, New Delhi, Delhi 110001 for financial support. Author are also thankful to ICAR - Krishi Vigyan Kendra, Dumka, Birsa Agricultural University, Ranchi, 834006, Jharkhand.

**\*Research Guide or Chairperson of research: Dr R.P. Singh 'Ratan'**

University: Birsa Agricultural University, Ranchi, 834006, Jharkhand

Research project name or number: Nil

**Author Contributions: All author equally contributed**

**Author statement:** All authors read, reviewed, agree and approved the final manuscript

**Conflict of Interest: None declared**

**Ethical approval:** This article does not contain any studies with human participants or animals performed by any of the authors.

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