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A Study On The Growth Of The Urad Dal Ice Cream And Its Future Trend In The Market

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ABSTRACT

This analysis of Urad dal Export & Import shows the growth of the Urad dal in the world market. The data from the past years shows fluctuating export volumes and a positive outlook for future demand. This trend highlights Urad dal increasing popularity as a nutritious supplement driven by consumer health awareness and sustainable food practices.

1.1 INTRODUCTION

Urad dal, scientifically known as Vigna mungo is a type of pulse most popularly used in Indian cuisine and urad dal belong to very high protein content and is used in various dishes like including dal, Idly, and dosas. The urad dal is highly cultivated in Indian particularly in states like Madhya Pradesh, Rajasthan, and Andra Pradesh. and India, Bangladesh, Nepal countries are also cultivated in their countries. Urad dal is rich in protein, dietary fiber, and essential minerals such as iron, calcium and potassium. It is a staple in vegetarian diets, providing a significant source of nutrition

1.2 OBJECTIVES

Urad dal contains magnesium and folic acid, which can help lower cholesterol and improve heart function. It can also prevent arterial waal damage and increase blood circulation. WEIHT MANAGEMENT Urad dal can help with weight loss by preventing hunger pangs. It can also help weight gain. DIABETES CONTROL Urad dal has a low glycemic intex, which can help regulate blood sugar levels. GUT HEALTH Urad dal is a good source of fiber, which can help with digestion and prevent constipation. It can also help maintain a balance of gut bacteria. SKIN HEALTH Urad dal contains vitamins and minerals that can promote healthy skin. It can also be used as a natural exfoliant. KIDNEY HEALTH Urad dal is diuretic, which can help flush out toxins

and excess fat from the kidneys. BONE HEALTH Urad dal contains minerals like iron, magnesium, potassium, and calcium, which can maintain bone density

1.3 SEVERAL HEALTH BENEFITS

- Urad dal offers a variety of health benefits that can enhance your overall well-being:
- Supports Gut Health: Incorporating urad dal into your diet can promote a healthy gut microbiome.
- Boosts Iron Levels: It's a rich source of iron, crucial for oxygen transport throughout your body.
- Promotes Heart Health: The fiber and other beneficial components in urad dal may support cardiovascular health.
- Strengthens Bones: Packed with calcium and essential minerals, urad dal can contribute to better bone health.
- Assists with Weight Management: High in protein, urad dal can help you feel satiated for longer, which may aid in weight loss.
- Rich in Protein and Fiber: This legume is an excellent source of both protein and fiber, essential for your overall health.
- May Help Regulate Blood Sugar: With its low glycemic index, urad dal can assist in managing blood sugar levels.
- Enhances Skin Health: It is thought by some that urad dal can promote healthier skin. Including urad dal in your meals can be a simple step towards a healthier lifestyle!

1.4 REVIEW OF LITERATURE

Sania M. Abdou, et al., (2021), explored the enhancement of low-fat ice cream quality using various fat replacers, including inulin, maltodextrin, modified starch, whey protein concentrate, and oat. Conducted with buffalo milk fat reduced to 2%, the research compared five treatments against a full-fat control (6% fat) and a low-fat control (2% fat without replacers). Results showed that all treatments were well-received, with maltodextrin achieving the highest sensory scores, similar to the full-fat version. The study highlighted the effectiveness of fat replacers in maintaining texture and flavor while significantly lowering caloric values. Overall, the findings support the use of fat replacers to create healthier low-fat ice cream options that appeal to health-conscious consumers.

Keith Singletary (2022), Cardamom, often called the "queen of spices," comes from the seeds of Elettaria cardamomum and is primarily grown in India, Sri Lanka, and Central America. Traditionally, it has been used for digestive issues and various ailments. While it enhances both sweet and savory dishes, research on its health effects is limited and inconsistent. Some studies suggest potential benefits for conditions like type 2 diabetes and polycystic ovary syndrome, while others show no significant effects. Animal studies indicate it may improve glucose and lipid metabolism and reduce inflammation. Cardamom is generally safe, but caution is advised for those on anticoagulant medications. More rigorous, long-term studies are needed to clarify its health benefits and consumption guidelines.

Loise Raise, et al., (2024), The study focused on creating a stabilizer-emulsifier mixture to enhance ice cream quality and evaluate its characteristics. A structured visual quality assessment scale was developed, examining factors like density, overrun, melt rate, and sensory attributes. Nineteen formulations were tested using a fractional factorial design, incorporating ingredients such as monoglycerides, guar gum, and corn starch. The optimal formulation showed excellent visual quality and sensory attributes, while also lowering production costs by replacing commercial stabilizers. Key findings highlighted improvements in texture, stability, and sensory acceptance, particularly in density and overrun. The research introduced a 5-point scale for visual quality evaluation, addressing issues like pasteurization residues. Overall, the innovative blend proved to enhance ice cream quality and economic viability for the industry.

Asmaa Harfoush, et al., (2024), The document reviews the ice cream manufacturing process and strategies for system improvement, addressing challenges like complex supply chains, food safety, and sustainability. It highlights the role of Industry 4.0 technologies, such as smart manufacturing and data analytics, in overcoming these issues. Key processes in ice cream production—pasteurization, homogenization, and dynamic freezing—are discussed for their influence on product quality. A semi-systematic literature review identified 34 relevant articles focusing on process and system aspects. The authors propose future research in quality enhancement, safety, maintenance, and supply chain optimization using Industry 4.0. They stress the importance of real-time data and AI models to boost product quality and efficiency. Overall, the review advocates for integrating advanced technologies to improve production and meet consumer demands while addressing sustainability and safety concerns.

A. Mohammed Ashraf, et al., (2024), The document is a review related to "Vigna mungo," also known as black gram or urad bean. However, it is currently a binary file that hasn't been fully downloaded, preventing access to its specific content. The review likely covers several key areas, including the taxonomy and classification of Vigna mungo, as well as an analysis of its nutritional components such as proteins, vitamins, and minerals. It may also discuss cultivation techniques and best practices for growing black gram, along with pest management and disease resistance strategies. Additionally, the document might include traditional and modern recipes that incorporate Vigna mungo, highlighting its cultural significance in various cuisines. To provide a comprehensive summary, the file needs to be fully accessible, as its current incomplete state limits the extraction of detailed information.

1.5 SCOPE OF THE STUDY

The examination of urad dal encompasses a variety of fields, including agriculture, economics, nutrition, food science, and environmental sustainability. Important topics include cultivation methods, enhancing yields, analyzing market trends, exploring nutritional advantages, and developing value-added products. This study also delves into supply chain dynamics, farmer incomes, and the influence of government policies on the sector. Moreover, advancements in technology, such as precision agriculture and biotechnology, play a vital role in driving future growth. The research can further investigate the cultural significance of urad dal, explore regional varieties, and assess its contributions to food security and sustainable practices.

1.6 NEED OF THE STUDY

Blood sugar regulation: The urad dal has a low glycemic index, which means it releases glucose into the bloodstream gradually. This can help people with diabetes manage their blood sugar level. DIESTION: The urad dal high fiber content can help with digestion and health. BONE HEALTH: The urad dal contains mineral like calcium, magnesium, iron, and potassium, which can help improve bone mineral density. SKIN HEALTH: The urad dal can help can with acne, dark spots, and marks. HEART HEALTH: The urad dal's high protein content can help with muscle growth. ENERGY LEVELS: The urad dal can help improve energy levels. WEIGHT LOSS: The urad dal can help with weight loss.

1.7 METHODOLOGY

Level the land and prepare the land for cultivation plow the land two to three times to bring it to fine tilth. Treat the seeds with rhizobium culture and PSB Treat the seed with Thiram at a rate 2.5 g/kg of seed. Treat the seed with captain, Mancozeb, or Carbendazim at a rate of 2.5 g/kg of seed dry the seeds in the shade after chemical treatment. Sow the seeds in furrows that are 20 – 25 cm apart Use a seed drill to sow the seed. Sow the seeds at a depth of 4 – 6 cm. Sow the seeds at the right time for the season Irrigation.

1.9 EXPORT OF URAD DAL IN TONS FROM THE YEAR 2012-2023

Table No : 1

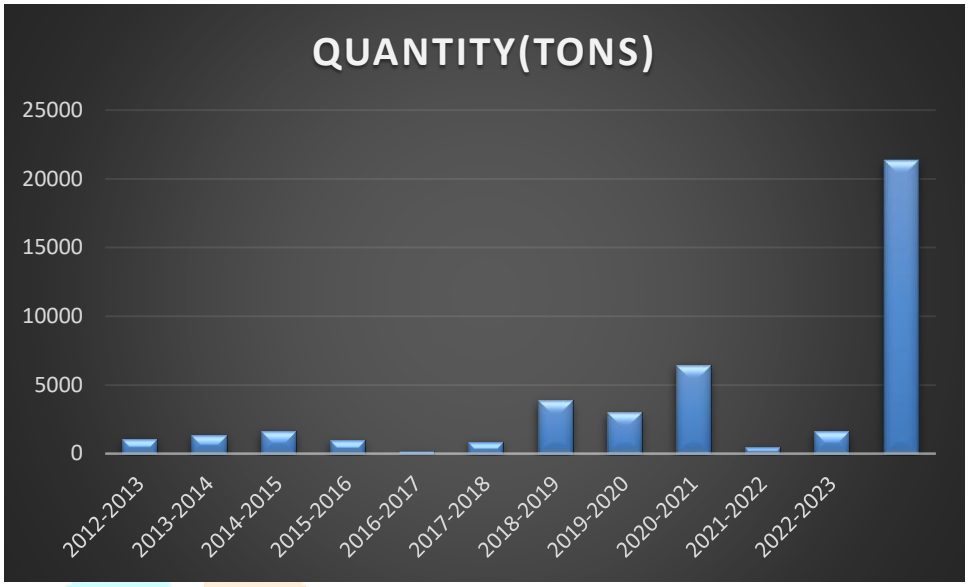
YEAR	QUANTITY(TONS)	PER UNIT	PERCENTAGE
2012-2013	1055.65	284.56	6.285896054
2013-2014	1333.99	235.68	5.206142754
2014-2015	1621.89	191.34	4.226677505
2015-2016	964.17	272.03	6.009109866
2016-2017	159.1	1733.83	38.30009543
2017-2018	854.9	355.04	7.842790747
2018-2019	3850.47	85.72	1.893544454
2019-2020	3011.26	104.06	2.29867284
2020-2021	6453.15	45.21	0.998683443
2021-2022	449.8	938.2	20.72472476
2022-2023	1603.53	281.29	6.213662149
	21357.91	4526.96	100

SOURCE: Export Import data bank ministry of commerce

From the above table it is understood that the year 2016-2017 the export percentage is increased to the highest of 38.30 percentage bur at the same time the volume of export is reduced to 0.998683443 in the year 2020-2024

1.10 EXPORT CHAT OF FROM 2013-2024 to 2022-2023

Chart No: 1



1.11 EXPORT PROJECTION TABLE

Table no : 2

YEAR	QUANTITY(TONES)	USD VAULE PER UNIT	X	XY	X
2012-2013	1055.65	284.56	-5	-1422.8	25
2013-2014	1333.99	235.68	-4	-942.72	16
2014-2015	1621.89	191.34	-3	-574.02	9
2015-2016	964.17	272.03	-2	-544.06	4
2016-2017	159.1	1733.83	-1	1733.83	1
2017-2018	854.9	355.04	0	0	0
2018-2019	3850.47	85.72	1	85.72	1
2019-2020	3011.26	104.06	2	208.12	4
2020-2021	6453.15	45.21	3	135.63	9
2021-2022	449.8	938.2	4	3752.8	16
2022-2023	1603.53	281.29	5	1406.45	25
		4526.96	0	3838.95	110

1.12 FUTURE EXPORT PROJECTION TABLE

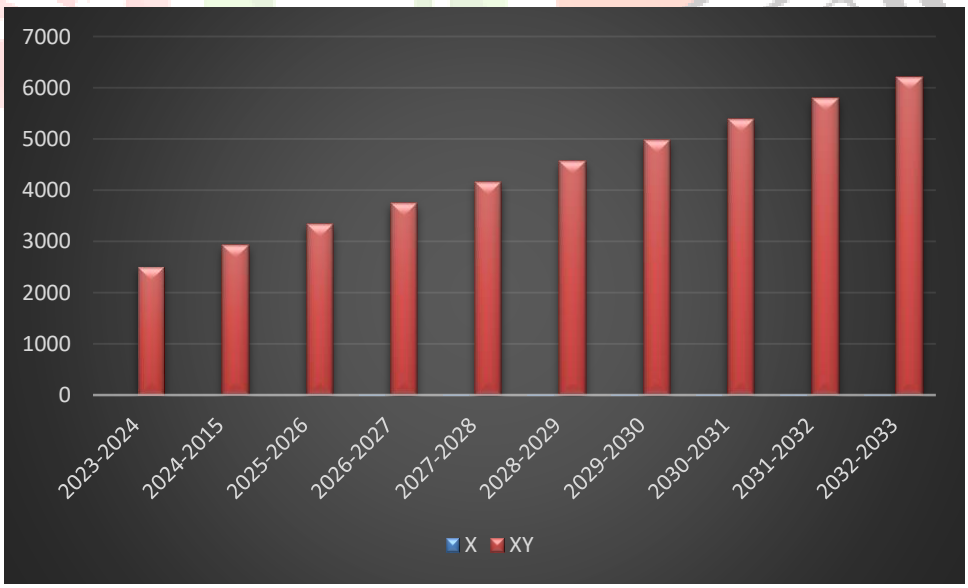
Table No :3

YEAR	X	XY
2023-2024	6	2504.13
2024-2015	7	2915.67
2025-2026	8	3327.21
2026-2027	9	3738.75
2027-2028	10	4150.29
2028-2029	11	4561.83
2029-2030	12	4973.37
2030-2031	13	5384.91
2031-2032	14	5796.45
2032-2033	15	6207.99

SOURCE: FUTURE EXPORT PROJECTION TABLE

From the above table it is revels that the future export production of urad dal by India will be increasing year by year.It is clearly under that the Indian urad dal export industry have a better chance widening its market.

1.13 GRAPH CHAT OF FUTURE EXPORT PROJECTION



1.15 CONCLUSION

This study analyzed the exports data of Ice cream for past 5 years and also predicts the future export trent for the Ice cream. Comparing the market of Ice cream the demand will increase year by year. The study suggests that the Ice cream market will attain boom, so that the manufacturing introduce the Urad dal Ice cream, so that it will capture the future Ice cream market. Innovative product formulation enhance the quality standards, and strategic market expansion could pave the way for sustained growth in the Ice cream industry.

REFRENCE

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