



## **"A study of dehydrated onion leads to multiplication of value addition process"**

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### **INTRODUCTION:**

Most of the countries of the world are directly or indirectly dependent on agriculture, with the development of agriculture, industrial development is automatically transformed by industries to the production of raw materials and the raw material for industries is fulfilled. Dehydration Industries are completely based on agriculture, vegetables, fruits, garlic, onions, various spices etc. are processed and processed as a raw material and converted into a sustainable product. In the context of India, onion dehydration was first started in Ghaziabad, Uttar Pradesh in 1960-61 and the first plant was laid in Nashik in Maharashtra. In Gujarat, the first plant was laid in Jamnagar, followed by Saurashtra. Rapid development began and the production of onion was especially high in Mahuva and Talja Talukas of Bhavnagar district. Since the industry was not growing speed Various products of dehydrated onion are made which mainly produce onion kibbald, onion flakes, onion powder, onion minced, onion geranuel. About 90% of the product is exported and it is said that this industry is working. And is useful in obtaining foreign exchange

**Key Words :-** Dehydrated onion product, process, value addition,

### **OBJECTIVES:**

1. To Study the Basic steps in dehydrated onion process.
2. To study the export of types of dehydrated onion products.
3. To study the value addition dehydrated Onion Products.
4. Challenges faced by the exporting units.

### **Research Method :-**

For the study about "researcher has used the primary data and secondary data from the various books and other sources"

- **Primary information:-**

The researcher obtain this information through personal inquiry or observation or through selected person

- **Physical inquiry :**

Researcher would gather the information by personal visit in the area of study to arrive at meaningful and trustworthy conclusion ,

- **Secondary information :**

Following sources will be used for obtaining secondary information.

- magazines
- news paper
- other publications

resources published on internet.

Types of dehydrated onion product:

- **Basic steps in dehydrated onion process:**

- The following 5 steps are processed by dehydrated on step by step fresh onion and are made as shown in the chart below:

- [A] HARVESTING [B] TRANSPORTING TO THE PLANT [C] CURING [D]

WASHING [E] SLICING

[F]DEHYDRATION IN TRAY TO FOUR STAGES [G] MILLING [H] PACKAGING

**Types of Product produced from Dehydrated Onion:**

**Kibble:**

Kibble is widely used in specialty ethnic food preparations, dry soups, mixes, canned/dried/frozen vegetable mixes, dry casserole mixes, and stuffing mixes. It is also known as Dehydrated Onion Flakes.



☒ Size : 5 To 25 M.M

☒ Aroma : Natural Indian Strong Aroma

☒ Packing: Poly Bag, Paper Bag, Corrugated Boxes, Cartons etc..

☒ Qualities : A-Grade, Commercial Grade

☒ Bacterial levels : Standard

### **Value Addition:**

Approximately 7.5 Kg fresh onion of cost around 150 Rs. required to Produce 1 Kg Dehydrated Onion Kibble and extra 150 Rs. another cost to prepare it. So total cost of producing 1 Kg Dehydrated Onion kibbled is 300 Rs., whose wholesale selling price is 650 to 750 Rs. per Kg in European market. Approximately 40% revenue generated by upplying

Dehydrated onion Kibbled product to European Market. Dehydrated onion Kibbled is highly demanded product in European Market.

### **Chops:**

Dehydrated onion chops are highly used for preparing ethnic food, canned & frozen vegetable mixes, dry casserole mixes and stuffing mixes.



☑ Size : 3 To 8 M.M

☑ Aroma : Natural Indian Strong Aroma

☑ Packing : 20 Kg. Strong Poly Bag Inside Cartoon

☑ Qualities : A-Grade, Commercial Grade

☑ Bacterial levels : Standard

### **Value Addition:**

Approximately 7.5 Kg fresh onion of cost around 150 Rs. required to Produce 1Kg Dehydrated Onion Chops and extra 150 Rs. another cost to prepare it. So total cost of producing 1 Kg Dehydrated Onion Chops is 300 Rs., whose wholesale selling price is around 850 per Kg. in European market. Approximately 60% revenue generated by supplying Dehydrated onion Chops product to European Market. Dehydrated onion

Chops is less demanded compare to Dehydrated onion Kibbled product in European Market.

**Mince:**

Dried onion minced works well in any kind of salad. It is used into the dressing for leafy greens, beans or grains. Or toss it into chicken, tuna or potato salad when you add the mayonnaise or a creamy dressing.



☑ Size : 1 To 3 M.M

☑ Aroma : Natural Indian Strong Aroma

☑ Packing : 20 Kg. Strong Poly Bag Inside Cartoon

☑ Qualities : A-Grade, Commercial Grade

☑ Bacterial levels : Standard

**Value Addition:**

Approximately 7.5 Kg fresh onion of cost around 150 Rs. required to Produce 1Kg Dehydrated Onion Mince and extra 150 Rs. another cost to prepare it. So total cost of producing 1 Kg Dehydrated Onion Chops is 300 Rs., whose wholesale selling price is

around 750 per Kg. in European market. Approximately 55% revenue generated by supplying Dehydrated onion Mince product to European Market. Dehydrated onion Mince is less demanded compare to Dehydrated onion Kibbled product in European Market.

### **Granula:**

The Dehydrated onion granule is a finer version of onion flakes, mainly used to dress or garnish the salads and prepared dishes to add the sweetish and nutty onion flavor. The onion granules are mostly utilized for a heightened taste of fruit salads, snacks, momos, and hot fast foods. It is also applied to baked or roasted food items and spicy soups for a pungent aromatic flavor of onion.



☒ Size : 0.1 To 0.5 M.M

☒ Aroma : Natural Indian Strong Aroma

☒ Packing : 20 Kg. Strong Poly Bag Inside Cartoon

☒ Qualities : A-Grade, Commercial Grade

☒ Bacterial levels : Standard

### **Value Addition:**

Approximately 7.5 Kg fresh onion of cost around 150 Rs. required to Produce 1 Kg Dehydrated Onion Granula and extra 150 Rs. another cost to prepare it. So total cost of producing 1 Kg Dehydrated Onion Chops is 300 Rs., whose wholesale selling price is around 750 per Kg. in European market. Approximately 55% revenue generated by supplying Dehydrated onion Granula product to European Market. Dehydrated onion Granula is less demanded compare to Dehydrated onion Kibbled product in European Market.

### **Powder:**

Dehydrated Onion Powder is a very common component of spices mix all over the world.



- ☒ Size : 80 To 120 Mesh
- ☒ Aroma : Natural Indian Strong Aroma
- ☒ Packing : 20 Kg. Strong Poly Bag Inside Cartoon
- ☒ Qualities : A-Grade, Commercial Grade
- ☒ Bacterial levels : Standard

### **Value Addition:**

To produce powder of dehydrated onion powder no requirement of any additional fresh onion. To Produce 1 Kg Dehydrated Onion powder 150 Rs. cost to prepare it. So total cost of producing 1 Kg Dehydrated Onion Powder is 150 Rs., whose wholesale selling price is around 550 per Kg. in European market. Approximately 65% revenue generated by supplying Dehydrated onion Powder product to European Market. Dehydrated onion powder is same demanded compare to Dehydrated onion Kibbled product in European Market.

### **Sequential step of production method :-**

#### **1. Top and Tail Cutting:-**

- This process is completely laborious.
- The machine is not used in operation.
- Dehydration processes start with the laborious production method.
- In this process most women workers are found engaged

#### **2 .Washing and Screen Remover Machine:-**

In labor both labor and machinery are used.

- After cutting the top and tail, such onion box goes to the washing tank by the workers.
- Automatic cutting is done by the machine and removes the peels from the onion



### **3. Cutting and Bleaching :-**

- Onion washed by washing machine in automatic washing tank.
- The onion is cleansed by chemicals.
- This cleanser destroys the harmful bacteria in the onion.
- This process is also completely mechanical, only the role of the supervision sufficient labor is seen

### **4. conveyor belts:-**

- Washing, cutting and bleaching onion slices mount directly on the conveyor belt.
- This process is automatic.

### **5 . Dryer Machines:**

- About 90% of the water in the onion on this machine is dry.
- Then the onion is placed in a non-dryer box.
- The remaining 10% of the water in the onion slices in this box also flies.
- After this process, the onion becomes completely dehydrated.
- All the above processes are done by the machine.
- This machine plays the most important role.

### **6. Cooling Process:-**

- Dehydrated onion is called flax.
- The prepared flakes are allowed to be cooled in the air conditioner room.

- This process is called cooling process.
- The trafficking of goods is done by the workers

#### **7. hurler machine:-**

- Cold flakes are brought to the hauler machine.
- Remnants of traps or peels left by the air fan.
- Here the goods are almost ready.
- Dehydrated onion prepared in this way is called kibble.
- This process can be considered a joint process of labor and capital

#### **8. Destoner & Magnet:-**

- The finished kibble magnetic stick comes in a configured cabin.
- This machine is called Distoner & Magnet Machine.
- Now the material passes through a magnetic stick, so if any metal is left in it, it is clipped with a magnet.
- Two workers are engaged in this process.

This way the dehydrated onion becomes quality

#### **9. Sorting:-**

- In this section kibble sorting is done.
- Rubber, plastic is a waste made by the workers if left unattended.
- This process is entirely Minister of Labor

### **10. Drill Machine:**

- The drill goes up to the machine to prepare the goods according to the order.
- Here the kibble is converted into powder.
- This is a capitalist process.
- Supervision of labor needs is sufficient

### **11. Sealing and packing:-**

- Here the weight of the goods is done.
- Dehydrated onion is packed in a polythene bag after weighing.
- The prepared parcel is arranged in a large cartoon and dispatched as per order.
- This process is completely laborious.

### **Direction of export:**

India has the second highest number of onion production in China, followed by one to two months throughout the year. Onion production can be taken in many different varieties of onion. More than 45% of the total onion production is in Maharashtra, Occurs in Karnataka, Madhya Pradesh and Gujarat. In Maharashtra and Karnataka, onion is being trained to increase onion production, while in Gujarat, onion has been focusing on enhancing the productivity and quality of onion in organic method. Subsidy is being disbursed to develop a collectible storage structure. In Gujarat, onion storage is made for storage of onions where naturally air, light onions can be prevented from spoiling. Various steps are required to increase the export of onions, increase the quality of the onions such as enhancing the quality of onions, developing high yielding varieties and increasing production by adopting modern agricultural practices.

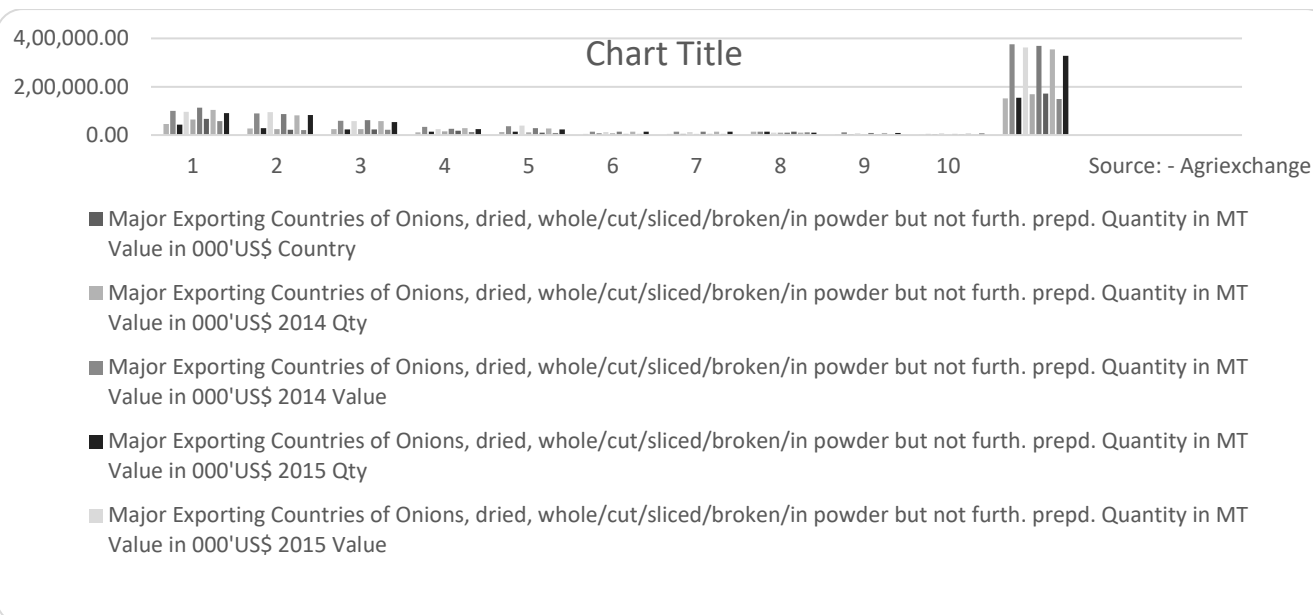
Gujarat produces 1-57 lakh metric tonnes of onion in 2017-18 and 31000 metric tonnes of production is projected in 2019, Gujarat is ranked 5th in the production of onion after Maharashtra, Karnataka, Madhya Pradesh and Rajasthan and total 6.5% of the product holds its own stake. It is projected to be 2.6% lower than the year 2017-18 (Second Advance Estimate), though it is 10.8% higher than the average production of

last 5 years. India is the second largest onion growing country in the world. Indian onion is famous for its sharpness. Onion production in India is divided into two crop cycles:

**Major Exporting Countries of Onions, dried, whole/cut/sliced/broken/in powder but not furth.  
prepd.**

											<b>Quantity in MT Value in 000'US\$</b>	
S r N o .	Country	2014		2015		2016		2017		2018		
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Q t y	Value	
1	India	46,280	1,00,517	43,769	95,913	64,787	1,13,245	67,368	1,03,554	58,288	90,486	
2	U S A	27,693	89,545	28,443	94,723	24,676	86,776	21,771	81,999	20,015	82,368	
3	China P RP	24,466	58,565	23,674	57,683	24,818	61,770	22,771	57,498	22,303	54,363	
4	France	11,720	33,323	13,333	25,096	15,449	25,954	18,018	28,807	12,670	24,830	
5	EGYPT A RP	12,708	37,155	14,314	39,008	11,771	28,681	10,346	27,867	9,157	23,479	
6	Spain	4,907	14,205	6,486	12,313	6,807	13,989	5,168	13,969	4,952	14,463	
7	Germany	4,520	13,841	5,029	12,662	5,043	13,910	4,760	14,035	4,954	13,361	





The above table shows the statistics of the countries that are exporting the most dehydrated onion. From the last 5 years of data, it is found that the highest number of 67368 MT dehydrated onions are produced by India in view of the last 5 years. The second is followed by China's export of dehydrated onion, and tenth by the UK, followed by India's large-scale India's geographical environment and large-scale raw onion supply. So India is number one in the area of dehydrated onion export

Sum of Value	Column Labels											
Row Labels	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Grand Total
Africa	7461682	8099603	8716307	9118019	9582157	9304218	8806588	11000192	12212433	11871452	12174553	108347204
Americas	9251559	8864815	9221241	9513091	9473929	9085509	9066031	9386058	9578080	10290491	10384547	104115351
Asia	48858649	48840465	47213092	51635576	55499943	54180684	57309246	58549616	59585487	62465234	64611150	608749142
Europe	7947114	8951951	9004267	8651981	10374067	9642258	9179463	10054021	9786052	10049403	10429425	104070002
Oceania	246506	257585	283830	259958	330859	346653	301686	256059	314950	264564	263254	3125904

<b>Grand Total</b>	<b>737 655 10</b>	<b>7501 4419</b>	<b>7443 8737</b>	<b>7917 8625</b>	<b>8526 0955</b>	<b>8255 9322</b>	<b>8466 3014</b>	<b>8924 5946</b>	<b>9147 7002</b>	<b>9494 1144</b>	<b>9786 2929</b>	<b>9284 0760 3</b>
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### **Challenges Faced by the Export Unit:**

The onion dehydration industry has many economic importance, especially by providing export and earning foreign exchange through exporting. This is especially because the industry is agro-based and the natural or artificial changes in agriculture are taking place globally. Face a number of factors such as changes in trade policy

\* The international standard of the industry is still small and medium sized, resulting in higher production costs and lower profitability.

\* It is still not possible to use modern technology so that quality issues arise. In addition to quality issues, issues of proper maintenance during the export of manufactured goods also arise

\* As the industry is mainly private limited companies, the owners have to take long or medium loan from the bank or other finance companies, thus causing interest on the debt due to financial debt which creates a situation where long-term production units are closed. \*\* The industry lacks the trained technological management and laborers with advanced technology

Liquidity of money is essential for steady and volatile expenditure in dehydration industry but this adversely affects the industry on time / non capital.

\*\* Modernization of the industry is essential but even now the industry is facing many difficulties in obtaining financial support which is making it difficult to sell in the international market.

\* Lack of education, training, economic incentives, seminars and public awareness is the biggest problem in the industry.

### **Conclusion:**

Based on the above study, it is known that the Onion Dehydration Industry is a very important industry for the economic vision of India. As a result of this industry, it is contributing significantly to increasing employment, infrastructure and foreign exchange. Requires formulation of incentive and development policies, and if periodically promoted by



the Government Month will be provided and various vikasapreraka policy will be implemented within the coming days, the country was also the development of the industry. There is no doubt that this will be an important industry in the economic prosperity of a very developed country.

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