

FIELD STUDIE

Indian Institute of Packaging has undertaken a project on “Development of Export Pack for Dehydrated Freeze Dried Vegetables” on behalf of APEDA, New Delhi. The objective of the project is to develop consumer and bulk packs for export of dehydrated/freeze-dried vegetables. In the first stage of the project, the present packaging system currently followed for exports is to be studied and identify the areas for improvement. In this connection, the field studies were carried out in Bhavnagar, Mahuva and Ahmedabad.

List of Exporters visited during Field Studies is given below :-

- 1) Janak Dehydration Pvt. Ltd.
- 2) Unique Dehydrates Limited
- 3) Murtuza Foods Pvt. Ltd.
- 4) Ruparel Dehydrators Pvt. Ltd.
- 5) Chhatariya Dehydrates Exports
- 6) Daksh Foods Pvt. Ltd.
- 7) S.Y.P. Agro Foods Ltd.

The above units visited are given in the list at Table-1.

After discussions with the exporters, it was found that generally the products like dehydrated Onion and dehydrated Garlic are being exported.

It was found that dehydrated Onion and Garlic are exported in the following forms :-

- i. Flakes
- ii. Kibbled
- iii. Minced
- iv. Chopped
- v. Powder
- vi. Granules

Present production of dehydrated Onion ranges from 250 Metric Tonnes to 2000 Metric Tonnes for dehydrated garlic, the present production ranges from 250 Metric Tonnes to 500 Metric Tonnes.

Increase in the production of dehydrated Onion by 2005 was indicated in the range of 100 Metric Tonnes to 700 Metric Tonnes and for Garlic 50 to 100 Metric Tonnes.

Present Exports for dehydrated Onion is in the range of 200 to 1500 Metric tones, and for dehydrated Garlic, the present exports is in the range of 100 to 250 Metric Tonnes. Dehydrated Onion and Garlic are exported to the countries like Canada, USA, Australia, Germany, Japan, Netherlands, U.K., Brazil, Poland, Austria, Russia, etc.

After discussions with the exporters, it was found that nobody is using a consumer pack for the exports of dehydrated Onions and Garlic.

Generally all the exporters are using poly bags as intermediate pack for packaging of dehydrated Onion and dehydrated Garlic of all the forms. Each poly bag of the capacity 10 Kg, 11 Kg, 12 Kg, 12.5 Kg, etc. is used for all the forms of dehydrated Onion and Garlic except powder form. Such two poly bags of these mentioned capacities are put into the one CFB box (bulk pack). So one CFB box contains 20 Kg, 22 Kg, 24 Kg, 25 Kg of the products. In the case of dehydrated Onion powder or dehydrated Garlic powder, 25 Kg of the product put in one poly bag and the same poly bag is put in another poly bag of the same specialization and this bag is put in one CFG box. So in powder form only one capacity i.e. 25 Kg. is used. The poly bags are said to be made of HDPE and LDPE. The thickness of poly bags are 450 to 500 gauge. In case of powder form, the thickness will become double i.e. 900 to 1000 gauge. These all the bags used are gusseted bags.

The length of the bag used by the exported varies from 32" to 37" for kibbled, chopped flakes, minced forms of the products and the width remaining 13" to 13½". Total gusset width is 10". Apart from 25 Kg. capacity for powder form, some exporters use 20 Kg. capacity also for powder form. One bag of 20 Kg. or 25 Kg. powdered product put in one CFB box. In case of 20 Kg. powder, the length of the bag used is 24" and width 13" and for 25 Kg. powder, the length of bag used is 30" and width 13". The total gusset width is 10".

5 ply Corrugated film board box is used as a bulk pack for dehydrated Onion and Garlic of all the forms.

The dimensions of CFB boxes used by the exporters are as follows :-

20 Kg (10 Kg X 2) : 480 X 450 X 310 mm
Kibbled/Chopped/Minced : 500 X 440 X 320 mm
490 X 400 X 310 mm

24 Kg (12 Kg X 2) : 585 X 510 X 315 mm
Kibbled/Chopped/Minced : 590 X 500 X 320 mm

25 Kg (12.5 Kg X 2) 380 X 500 X 320 mm
Flakes/Slices/Chopped : 570 X 525 X 280 mm
578 X 495 X 317 mm
585 X 510 X 325 mm

28 Kg (14 Kg X 2) : 625 X 525 X 325 mm
Flakes/Chopped

20 Kg (10 Kg X 2) : 510 X 315 X 280 mm
Powder : 500 X 320 X 290 mm

25 Kg (12.5 Kg X 2) : 490 X 370 X 220 mm
Kibbled/Chopped/Minced : 350 X 370 X 240 mm
500 X 365 X 228 mm
470 X 370 X 215 mm

One of the exporters use 10 Kg. capacity poly bags in one paper bag. This paper bag is stitched. 5 ply paper bag (bulk pack) is put directly in container.

Packaging Materials Cost :-

Plastic Bags (Intermediate Pack)

10 Kg/11Kg capacity : Rs.6.00 to 6.60 per bag
flakes/chopped/kibbled/granules Rs.6.60 to 6.90 per bag

12 Kg/12.5 Kg capacity : Rs.7.20 to 7.50 per bag
flakes/chopped/kibbled

20 Kg Powder : Rs.6.00 per bag
25 Kg Powder : Rs.6.20 to 6.50 per bag

CFB box (bulk pack)

Powder : Rs.22.00 to 24.00 per box
Rs.20.00 to 25.00 per box

Flakes/Kibbled/Chopped : Rs.25.00 to 28.00 per box
Rs.28.00 to 30.00 per box
Rs.25.00 to 30.00 per box

After discussions with the exporters, it was found that after production and packing of the product, the boxes are stored at 20°C to 25°C or at room temperature for duration of 15 to 20 days, 1 month or 1 to 1½ months depending upon the export order. One of the exporters stores the product in A/C for one week before dispatch.

It was found that the mode of transportation for Export of these boxes is by Sea using containers of the size 20 feet and 40 feet. These empty containers are first fumigated. No ventilation is provided. Containers are again fumigated after filling with the consignment.

The dimension of the containers are as follows :

20 feet : 20' X 8' X 8'
40 feet : 40' X 8' X 8'
40 feet : 40' X 8' X 9'
high cube

In 20 feet container, 300 to 400 boxes are stuffed depending upon the size of the box.

In 40 feet containers, 600 to 750 boxes are stuffed depending upon the size of the box.

In 40 feet high cube containers, 700 to 825 boxes can be stuffed depending upon the size of the box.

Moisture content of the dehydrated Onion should remain between 5% and 7%.

HACCP is the Hazard Critical Quality Control Parameter (Hours Keeping) which is adopted by all the exporters.

All the exporters get the shelf-life of 1 to 1½ years in present pack.

TABLE - 1
LIST OF EXPORTERS

1. Shri Dilip Mehta
Managing Director
JANAK DEHYDRATION PVT. LTD.
34, Keri Bazar, P.B. No.58
Old Darbar Gadh, Madhuva - 364 290
2. Mr Rajendra Sharma
Managing Director
UNIQUE DEHYDRATES LTD.
Survey No.215, GIDC, IV
Sihor – Ahmedabad Road
Dist. Bhavnagar (Gujarat)
3. Shri Aliraza Badami
Joint Managing Director
MURTUZA FOODS PVT. LTD.
P.B. No.17, Near GIDC Estate
Umaniyawadar
Madhuva
4. Shri J.P. Ruparel
Director
RUPAREL DEHYDRATED PVT. LTD.
43, Industrial Plot, P.B. No.12
Madhuva – 364290, Distt. Bhavnagar
5. Shri S V Charania
Manager
CHHATARIA DEHYDRATED EXPORTS
Chhatariya Industrial Estate
Madhuva -364 290
6. Shri Devendra Patel
B-32, Marketing Yard, Chitra
Bhavnagar - 364004
7. Mr Manish Mohan
Export Executive
S.Y.P. AGRO FOODS LTD.
Top Floor, Mahashakti Complex
Stadium Cross Road
Navarangpura, Ahmedabad – 9

