



Egg and Egg products

MODULE NO. 26: Technology of dehydrated egg products



Introduction

- Egg products also refers to processed and convenience forms of eggs for commercial, foodservice, and home use.
- Food ingredient having desirable functional attributes.
- Egg products can be used interchangeably without affecting formula weight.



Dried egg Products

- Product obtained by drying of liquid egg product.
- Fresh eggs are difficult to transport.
- Whole egg powder is consumed in hotels, hospitals, restaurants, bakeries and military establishment etc.
- Shelf stable.
- Dried egg products:
 - ❖ Whole egg powder.
 - ❖ Dried egg yolk.

Technology



Shells

Washing, rinsing, sanitizing and candling

Breaking

Whole liquid egg

Filtration/ clarified

Pasteurization (HTST)

Spray drying

Whole egg powder



Shell removing

Standardization

Filtration

Cooling

Heating

Spray drying

Whole egg powder

Filling/ packing



Dried egg yolk

- Pasteurised and spray dried product with improved heat stability.
- Emulsifying system.
- 1kg egg yolk powder = 103 egg yolks of 60 eggs.
- Applications
 - ❖ Mayonnaise
 - ❖ Dressing
 - ❖ Sauces
- Long shelf life



Suggested readings

- Caboni, M. F. Effect of processing and storage on the chemical quality markers of spray-dried whole egg. *Food Chemistry*, v. 92, n. 2, p. 293–303, 2005.
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- Millqvist-fureby, A. Characterization of spray-dried emulsions with mixed fat phases. *Colloids and Surfaces B: Biointerfaces, Amsterdam*, n. 31, v. 1, p. 65-79, 2003.
- Toledo, R. T. *Fundamentals of food process engineering*. Westport: AVI, 1980, p. 370-372.
- Baek S.B. (1990). Study on the estimation of genetic parameters for the compositions and egg qualities in Korean native ogol fowl. M.Sc. Thesis, Chung Nam National University.



Nutritional values

Constituent	Content
Proteins	30g/100g
Fats	53 g/100g
Carbohydrates	5 g/100g
Calories (approx.)	2600 kJ/100g