



Garam Masala

Tested, Tasted, and Passed

This delectable blend is a sort of final touch that can give any food an Indian flavour. Its ingredients are a special mixture of common spices that together give a subtle and unique (while being non-spicy and only mildly hot) flavour to foods. Garam masala is one of the 'must have' elements in a typical Indian kitchen. In powdered form, branded by some company, it is now available at almost every mom-and-pop store down the street.

Ashok Kanchan

With people mostly avoiding grinding spices at home, the consumption of prepared and packed garam masala brands is consistently increasing. Many companies are cashing in on the development and retail stores now have dedicated shelves to stock branded garam masala packets.

This month, *Consumer Voice* experts picked up top nine brands of garam masala on the basis of their popularity and market share, and took them to an NABL-accredited laboratory to test if all of them were fit for consumption. They also evaluated which brand is better than the other, and why.

Packaged Food Series

What Makes Garam Masala Powder?

There's no typical single garam masala recipe; the ingredients differ by region and also according to each chef's individual preferences. However, in the branded powdered form, garam masala primarily includes coriander, cumin, cardamom, cloves, black pepper, cinnamon and nutmeg. In some variations, ingredients may also include turmeric, saffron, fennel seeds, ginger, garlic, mustard seeds, mace, star anise, tamarind, and fenugreek and bay leaves.



Is Your Powder Good?

Garam masala powder will have pleasant colour, taste better and retain its nutritional values if it passes the parameters set by AGMARK. These primary parameters include specifications for the presence of volatile oil and microbiological load (given in the accompanying boxes).

The aroma of many naturally occurring spicy plants is due to volatile oils, also called essential oils. The more the volatile oil in garam masala powder, the





stronger will be the taste and flavour of the preparation where it is added. Microbiological parameters are an indicator to check if the food is safe for human consumption.



KEY FINDINGS

- All brands of garam masala powder were found microbiologically fit for human consumption.
- All brands passed AGMARK limit for volatile oil – that is, aroma of all brands was good.
- Only CATCH and OK are AGMARK-certified.
- Brand OK was cheapest.
- In sensory evaluation test, the top three brands were: OK, BMC and CATCH.

BRANDS EVALUATED

Brands →	MDH	Everest	Catch	Sahiba	
					
Maximum retail price (in Rs)	65	60	60	70	
Net weight (in grams)	100	120 (20 grams free)	100	100	
Unit price of 100 grams (in Rs)	65	50	60	70	
AGMARK	No	No	Yes	No	

1. Specification for volatile oil in garam masala on dry basis

For special grade: Minimum 1.0% v/w
For standard grade: Minimum 0.5% v/w

2. Microbiological load

Garam masala powder shall conform to the microbiological requirements as laid down below:

Total viable count: 1,000,000 per gram (maximum)

Moulds: 10,000 per gram (maximum)

E. coli: 1,000 per gram (maximum)



Salmonella: Not detectable in 25 grams of the sample

Know the AGMARK

AGMARK certification is given to agricultural commodities for the benefit of producer/manufacturer and consumer. Certification of adulteration-prone commodities such as rice, pulses, butter, ghee, vegetable oils, ground spices, honey and wheat flour is done under AGMARK.

AGMARK is covered under Agricultural Produce (Grading & Marking) Act, 1937. For garam masala powder, AGMARK is not mandatory and can be obtained voluntarily. To obtain AGMARK certificate, the manufacturer should have adequate infrastructure to process the commodity and access to an approved laboratory for determination of quality and safety factors.



	Patanjali Aarogya	KBM	Tattva Organic	OK	BMC
					
	55	50	85	90	57
	100	100	100	200	100
	55	50	85	45	57
	No	No	No	Yes	No

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FINDINGS

◆ Volatile Oil Percentage and Microbiological Parameters

In an NABL-accredited laboratory, all the brands were tested for total viable count, moulds, e. coli and

salmonella and found to be within the prescribed limits set by AGMARK standard.

- All the brands passed the microbiological test and are safe to be consumed.

VOLATILE OIL % AND MICROBIOLOGICAL PARAMETERS

Parameters ↓	AGMARK Standards ↓	MDH	Everest	Catch	Sahiba	Patanjali Aarogya	KBM	Tattva Organic	OK	BMC
Volatile oil %	1% (min.)	1.98	1.66	1.64	1.78	1.63	1.48	1.33	1.36	1.72
Total viable count (cfu/g)	1,000,000 (max.)	1,528	1,304	1,819	1,021	1,646	1,897	1,378	1,098	1,475
Moulds (cfu/g)	10,000 (max.)	60	40	65	35	60	70	55	35	50
E. coli/gram	1,000 (max.)	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.
Salmonella/ 25 grams	Not detectable	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.	Ab.

◆ Sensory Evaluation

All garam masala powder brands were evaluated by expert panellists at the food and nutrition laboratory of a reputed college under Delhi University. The brands were rated on appearance, aroma, taste and aftertaste as well as overall acceptability for consumption. For all these parameters, panellists gave scores on the rate of five.

In order to evaluate masala on the sensory parameters, 200 grams of boiled potatoes were sautéed in refined oil and mixed evenly with garam masala. Nine such preparations, one from each brand of garam masala, were prepared. Each preparation involved sautéing potatoes in half a teaspoon of



garam masala (using standardized measuring spoon) for three minutes.



SENSORY EVALUATION SCORE

Brand ↓	Appearance	Aroma	Taste	Aftertaste	Overall Acceptability
OK	3.69	3.63	3.48	3.51	3.69
BMC	3.56	3.59	3.50	3.59	3.65
Catch	3.49	3.49	3.34	3.34	3.48
Patanjali Aarogya	3.60	3.54	3.29	3.31	3.43
Sahiba	3.63	3.60	3.40	3.29	3.40
Everest	3.69	3.40	3.26	3.17	3.34
Tattva Organic	3.14	3.57	3.17	3.17	3.34
MDH	3.34	3.37	3.00	3.20	3.20
KBM	3.09	3.34	3.20	3.14	3.20

1: very poor; 2: poor; 3: average; 4: good; 5: excellent

OK is on top and KBM at bottom in overall acceptability among all brands.

The Social Connect

Across India, the lives of common people are becoming hectic. People’s stress levels are increasing and health levels are depleting. We need not mention the country’s millions being spent towards healthcare by the country’s government as well as civic and social bodies. These investments are going towards addressing many causes of shorter life spans, below-average physical development, anxiety and many chronic diseases including ailments related to heart, liver and kidneys. Many of these diseases are also caused by consumption of unhygienic, adulterated or infected edible products available in the market.

This test of garam masala, which is probably the most sold powdered commodity used for cooking after salt, is our bit to ensure that sub-standard masala does not reach the kitchens of innocent consumers and their health is not compromised. It is, thus, *Consumer Voice’s* bit towards overall healthcare.

