

**Development and Quality  
evaluation of Convenient *Dahi  
vada* spice premix**

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# Introduction



- India has been a land of spices since ages.
- It is the world's largest producer of spices accounting for one-third of all spice transaction worldwide.
- It holds share of 46 per cent by the volume and 27 per cent by the value (Peter *et al.*, 2005)

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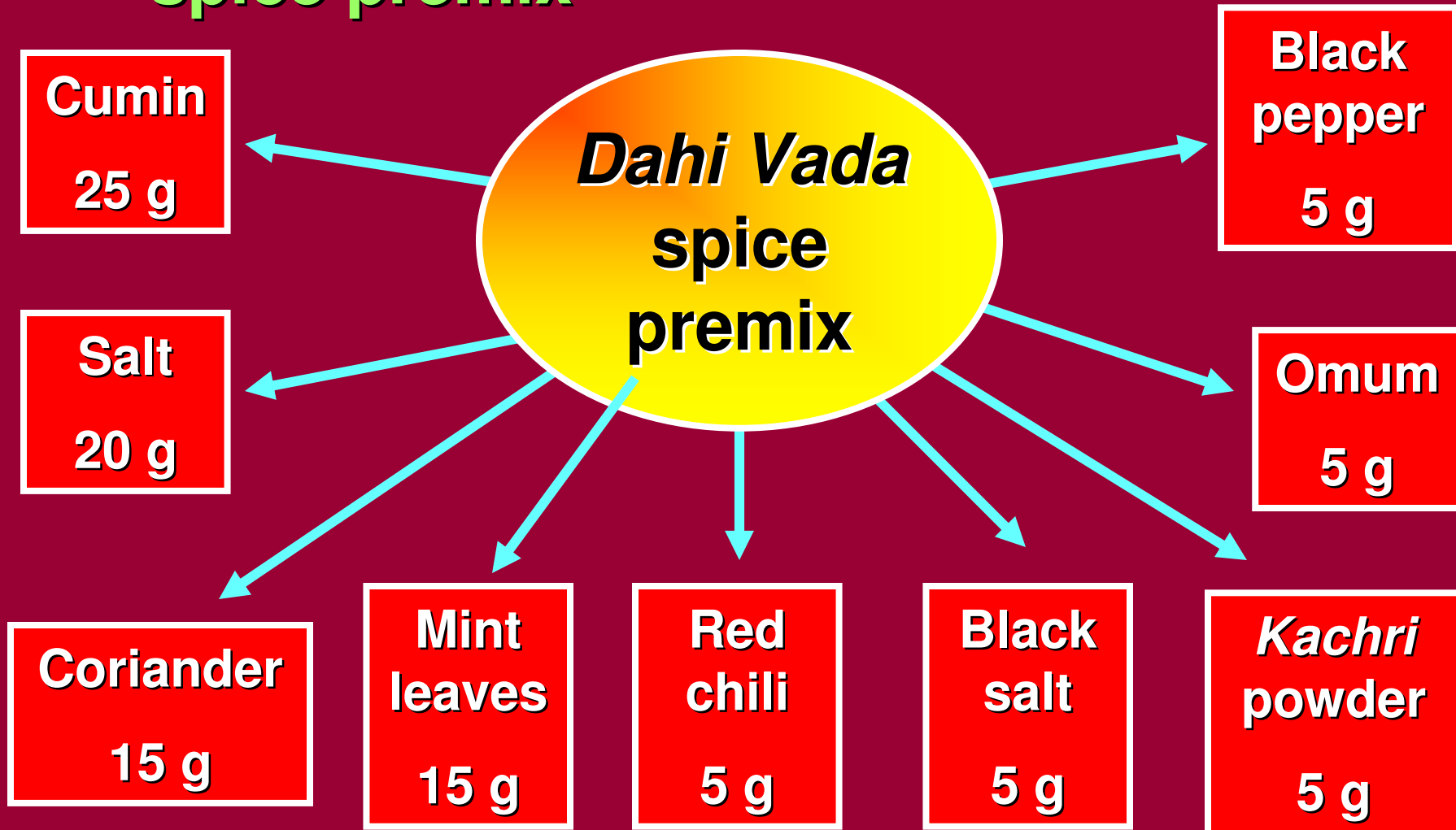
- Processing of spices in the form of premixes may be more useful convenient, time and labour saving for the users.

**Hence**

*Dahi vada* spice premix was developed and standardized to enhance acceptability of *Dahi vada*.

# Material and methods

## (a) Development of convenient *Dahi vada* spice premix



**Spice Premix**



**Control**



**Experimental**

**Product**



**Control**



**Experimental**

***Dahi Vada* Spice Premix**

## (b) Sensory evaluation



- It was carried out to assess colour, texture, appearance, taste, flavour and overall acceptability (Potter and Hotchkiss, 1996).
- Ten semi-trained laboratory panel members evaluated the premix.
- Evaluation was carried out in raw as well as product form along with a control sample.



## **(c) Nutritional analysis**

- **The premix was analyzed for moisture, crude protein, fat, fiber and total mineral contents along with the calculation for carbohydrate and energy contents (AOAC, 1995).**



## **(d) Microbial evaluation**

- **Standard plate count (APHA, 1984).**

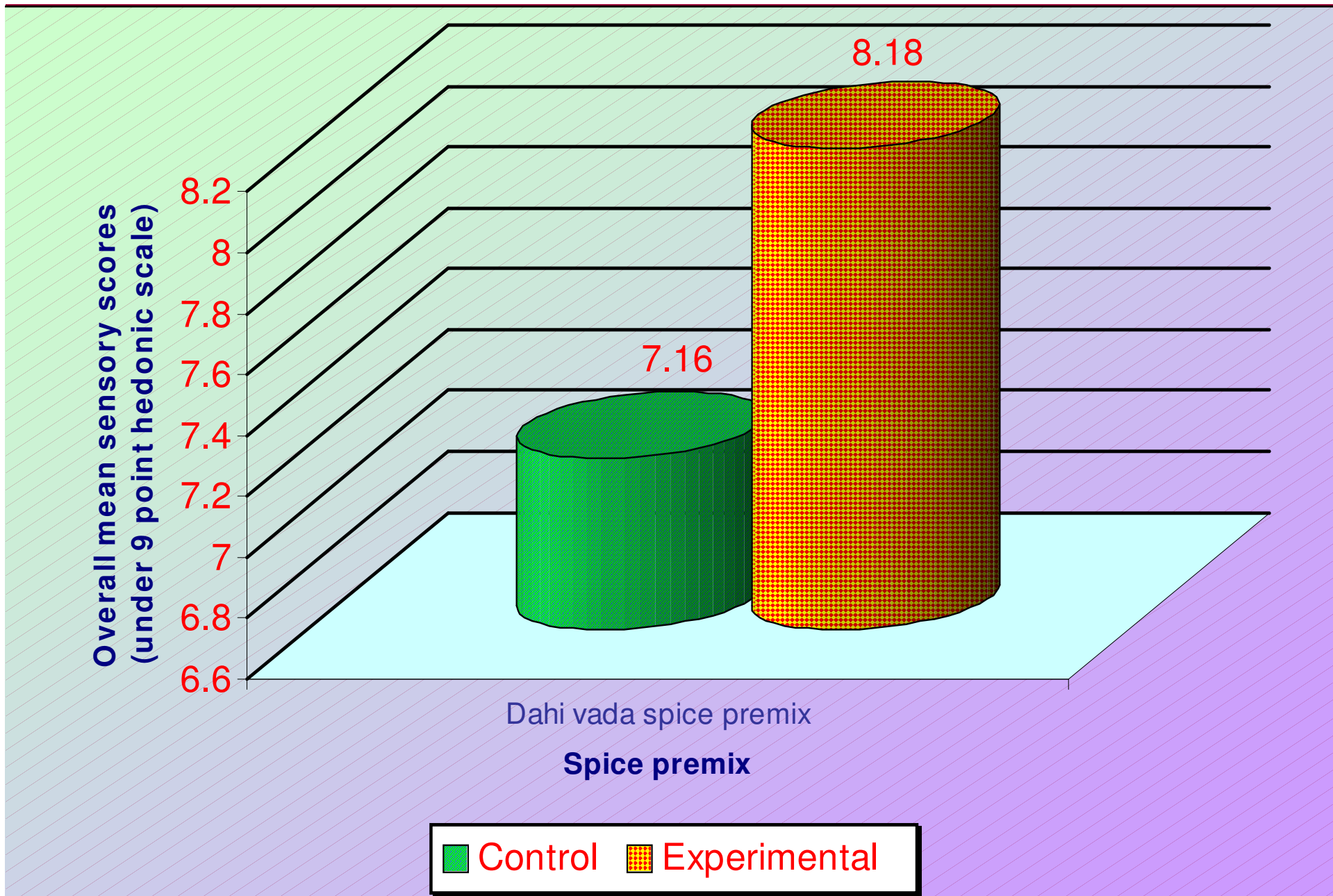
## **(e) Shelf life evaluation**

# Results

**Table 1. Sensory mean score obtained by *Dahi vada* spice premix**

<i>Dahi Vada</i> Spice Premix	Color		Appearance		Texture		Flavour		Taste	
	Px	Pt	Px	Pt	Px	Pt	Px	Pt	Px	Pt
Control	7.5	7.5	7.6	7.6	7.6	7.4	7.3	7.2	7.2	7.2
Exp.	8.0	8.0	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
't' value	4.58**	4.58**	4.58**	4.58**	4.58**	4.58**	6.71**	11.0*	11.0*	11.0*

\*\* = 1% level of significance, Px = Premix, Pt = Product



**Fig. 1. Overall Mean scores obtained by *Dahi Vada* spice premix**

**Table 2. Nutritional composition of *Dahi vada* spice premix (100 g)**

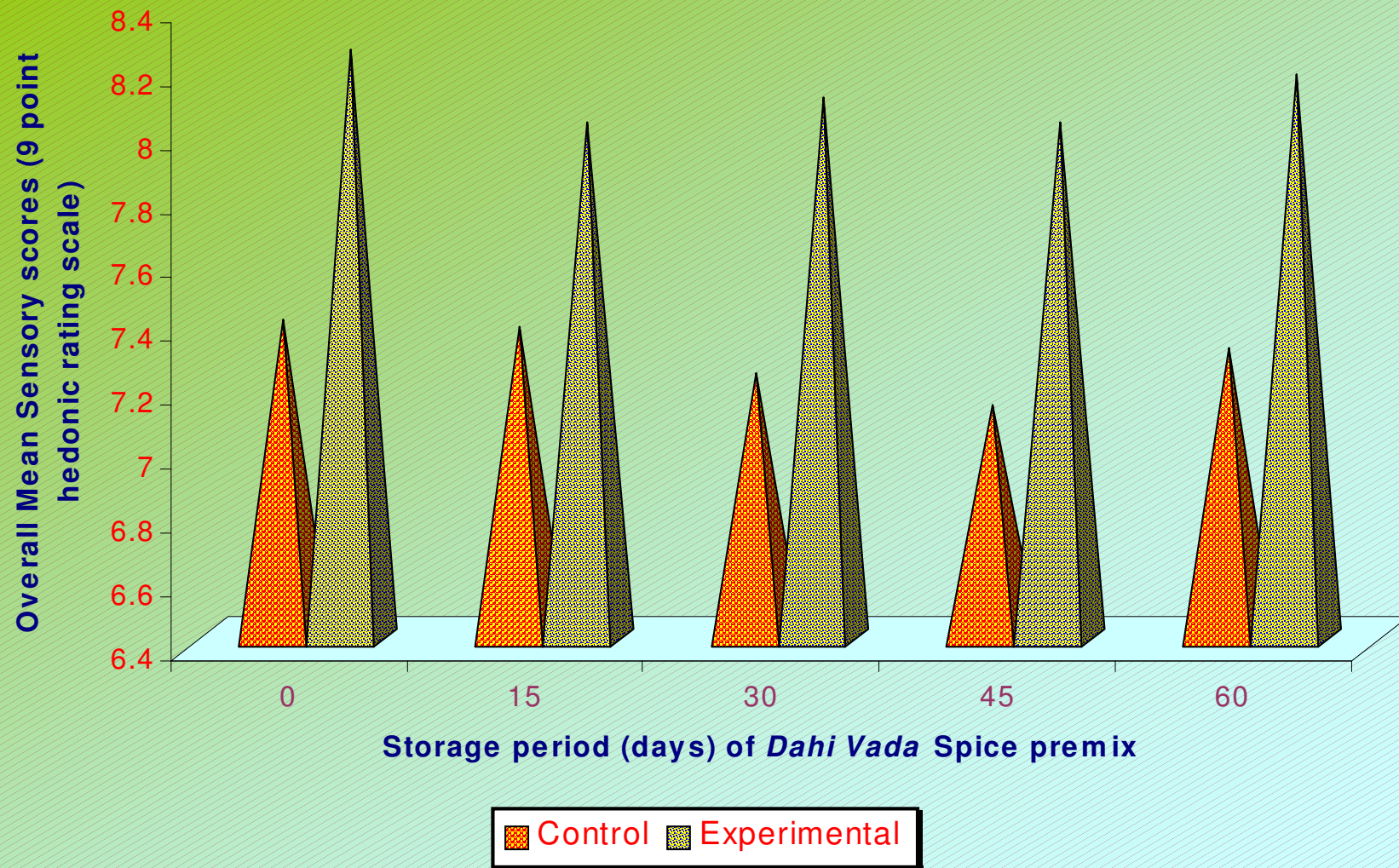
<b>Nutrient (g%)</b>	<b><i>Dahi vada</i> spice premix</b>		
	<b>Control</b>	<b>Experimental</b>	<b>'t' value</b>
<b>Moisture</b>	7.02	3.12	5.13**
<b>Protein</b>	12.5	10.5	5.00**
<b>Fat</b>	15.76	10.79	23.60**
<b>Fiber</b>	14.19	6.96	15.71**
<b>Ash</b>	24.46	40.58	24.42**
<b>Carbohydrate</b>	26.07	28.05	-
<b>Energy (Kcal)</b>	296.12	251.2	-

\*\* = 1% level of significance



## **(e) Shelf life evaluation**

- **Shelf life of the premix was evaluated on the basis of:**
  - Sensory evaluation**
  - Moisture content**
  - Microbial load**



**Fig. 2. Overall mean scores of *Dahi vada* spice premix during the storage period**

**Table 3. Moisture content of the *Dahi vada* spice premix during the storage of 60 days**

<i>Dahi vada</i> spice premix	Moisture (g%) during storage (60 days)				
	0	15	30	45	60
Control	7.02	7.04	7.71	8.41	8.41
Experimental	3.12	5.50	5.80	5.84	6.41

**SEm<sub>±</sub> = 0.289**

**CD (P=0.01) = 1.14**





**Table 4. Microbial load of the *Dahi vada* spice premix during the storage of 60 days (Standard plate count)**

<b><i>Dahi vada</i> spice premix</b>	<b>CFU/g of the premix during storage period (days)</b>				
	<b>0</b>	<b>15</b>	<b>30</b>	<b>45</b>	<b>60</b>
<b>Control</b>	<b>Nil</b>	<b>Nil</b>	<b>0.5 × 10<sup>4</sup></b>	<b>0.9 × 10<sup>4</sup></b>	<b>1.5 × 10<sup>4</sup></b>
<b>Experimental</b>	<b>Nil</b>	<b>Nil</b>	<b>Nil</b>	<b>0.8 × 10<sup>4</sup></b>	<b>0.9 × 10<sup>4</sup></b>

# Conclusion



**There is a great scope of home made spice premix for entrepreneurial sector. Inclusion of such spice premix in diet will definitely help in improving taste as well as nutritive value of the meals.**



**Thanks**



**By  
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