

VALUE ADDITION IN TOMATO

Tomato is one of the most important protective food crops of India. Green tomato is considered as other vegetables whereas ripe tomato is considered as fruit. Tomato is a rich source of vitamins A, C, potassium, minerals and fibres. Tomatoes are used in the preparation of soup, salad, pickles, ketchup, puree, sauces and also consumed as a vegetable in many other ways. In Manipur variety of fruits and vegetables are grown but due to lack of proper storage and processing facilities considerable amount of horticultural produces go waste. Farmers are compelled to sell their produce immediately after harvest, which lead to glut in market and resulting into lower return of their produce. Thus value addition in tomato is one of the scopes for self employment and income generation. According to NIN, Hyderabad the nutritive values of the tomato in two different conditions are given below:-

Table.1: Nutritive values of green and ripe tomato in 100 gm

Items	Minerals (gm)	Fibre (gm)	Ca (mg)	K (mg)	Fe (mg)
Tomato (green)	0.60	0.70	20.00	36.00	1.80
Tomato (ripe)	0.50	0.80	48.00	20.00	0.64

Items	Vit C (mg)	Carotene (µg)	Niacin (mg)	Thiamine (mg)	Riboflavin (mg)
Tomato (green)	31.00	192.00	0.04	0.07	0.01
Tomato (ripe)	27.00	351.00	2.10	0.11	0.06

Some techniques for value addition in tomato are given below:-

I. TOMATO PICKLE IN OIL

S. No.	Ingredients	Quantity
1.	Ripe tomatoes	1 kg
2.	Salt	To taste
3.	Chilli powder	2 tbsp
4.	Oil	200 gm
5.	Onion	¼ kg
6.	Cardamom, jeera & cinnamon	1 tbsp
7.	Mustard seeds	1 tbsp
8.	Garlic	2 pods
9.	Ginger	1 big piece
10.	Green chillies	10 nos.
11.	Cloves	4 whole

Procedure:

1. Wash, wipe and cut tomato into small pieces.
2. Chop onion, green chillies, garlic and ginger.
3. Heat oil and pop the mustard seeds, then add onion, green chillies, ginger and garlic and fry till brown.
4. Add the chopped tomatoes, cloves, salt, chilli powder and powdered spices.

5. Stir & cook till soft and when cool, bottle it.
6. Fill with oil and store in a cool place.

II. TOMATO – IMLI PICKLE

S. No.	Ingredients	Quantity
1.	Tomato	1 kg
2.	Salt	¼ kg
3.	Oil	¼ kg
4.	Curry leaves	A few
5.	Tamarind (deseeded)	¼ kg
6.	Chilli powder	200 gm
7.	Black gram dal	2 tbsp
8.	Chickpea dal	2 tbsp
9.	Garlic	10 – 15 flakes

Procedure:

1. Wash, wipe and cut the tomato into four pieces.
2. In a flat pan of stainless steel vessel or enamel basin arrange the ingredients in the following manner – lay a layer of tamarind, then spread salt followed by tomato pieces and so on till all the tamarind, salt & tomato pieces are used up.
3. Keep it overnight.
4. Next day, separate the tomato pieces from the pulp and spread out to dry. Expose the pulp in the sun too.

5. When the pulp dries up but is in the soft stage, heat oil and fry the curry leaves, channa dal, urad dal and garlic till brown. Add the chilli powder and fry for sometime, then add the pulp and keep turning to avoid getting burnt.
6. Cool and store in a sterilized bottle. Lasts for 2 years

III. TOMATO KETCHUP

S. No.	Ingredients	Quantity
1.	Tomato juice/pulp	1 kg
2.	Salt	1 tsp
3.	Sugar	150 gm
4.	Onion chopped	3 tbsp
5.	Garlic chopped	1 tbsp
6.	Clove	6
7.	Vinegar	6 tbsp
8.	Sodium benzoate	¼ tsp
9.	Cinnamon	¼ tsp
10.	Cardamom powder	1/5 tsp
11.	Black pepper	¼ tsp
12.	Jeera powder	¼ tsp
13.	Red chilli powder	1 tbsp
14.	Glacial acetic acid	¼ tsp

Procedures:

1. Select tart and fully ripe tomato.
2. Extract the pulp by boiling, crushing and straining through a coarse mesh.
3. Use 1/3 of the sugar and heat the fruit pulp.
4. In a muslin cloth, tie all the spices and immerse in the pulp, squeezing out the flavour now and then.
5. Mix well and heat again for a minute or so and bring to boiling point.
6. Add the remaining sugar, salt and boil till the mixture become very thick.
7. Add acetic acid, cook for a minute.
8. In a little water dissolve the sodium benzoate and add to the product & keep covered for 5 minutes.
9. Fill in sterilized narrow mouthed bottle.

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