



PEARL MILLET PONGAL MIX

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ABSTRACT:

In this review paper we are going to know how the pearl millet is used for instant pongal mix with Mexican mint, holy basil, turmeric. All these are good for the health and it is mainly a herbal based product and has no side effect. In Mexican mint and holy basil are used for medicinal purpose but now a day these products are also in daily usage. Millet is mainly used instead of rice because of low carbohydrate and it reduces weight and keeps us fit. It reduces cold, cough, fever, anxiety, heart attack. It can maintain the shelf life for long term.

Key words: Mexican mint, holy basil, turmeric, pearl millet

Introduction:

Pearl millet (*Pennisetum glaucum*) is a protean cereal cultivated for food, feed and forages (Arora et al., 2003) particularly in African and Asian countries (Nambiar et al., 2011). It has the capability to survive under failure and high temperature conditions which further increases its eventuality to be grown in those regions where wheat, sludge and other cereal crops fail to persist. Among all the millet kinds, lesser than 29 million hectares area is enthralled by pearl millet; still, its distribution is confined geographically substantially in Africa (15 million) and Asia (11 million), as being the largest patron. Pearl millet is the fourth most important cereal chief food crop in India coming to rice, wheat and sludge. Pearl millet is just one of numerous types of millet. Some other popular kinds of millet are fonio, cutlet millet (ragi), Job's gashes, foxtail, and kodo millet. Most millets have impressive nutritional profiles, including pearl.

- **Calories:** 201,
- **Protein:** 6 grams,
- **Fat:** 1.7 grams,
- **Carbs:** 40 grams,
- **Fiber:** 2 grams,
- **Sodium:** 286 mg,
- **Folate:** 8% of the Daily Value (DV),
- **Iron:** 6% of the DV,
- **Magnesium:** 18% of the DV,
- **Thiamine:** 15% of the DV.
- **Niacin:** 14% of the DV,
- **Phosphorus:** 14% of the DV,
- **Zinc:** 14% of the DV,
- **Riboflavin:** 11% of the DV,
- **Vitamin B6:** 11% of the DV

Mexican mint:

• Karpuravalli also called Indian Borage in English and Karpooravalli, Omavalli, Doddapatre and Panikoorka in other Indian languages is a veritably important condiment that has awful medicinal uses and health benefits. Karpuravalli is traditionally used for treating cold and cough in babies, babies and grown-ups.

• It's also used for treating hair problems like slate hair and dandruff, abetting weight loss, for promoting hair growth and also for treating asthma and fever. Then at home, we make karpuravalli rasam and chutney with the leaves for treating cold and cough. Along with karpooravalli rasam and chutney, karpooravalli pachadi also called doddapatre tambuli in Kannada is also relatively notorious.

Karpuravalli Botanical & Common Names

The botanical name of karpooravalli plant is *Plectranthus Amboinicus* and it belongs to the family Lamiaceae and genus *Plectranthus*. Karpooravalli, Omavalli and Karpuravalli are the Tamil names. It's generally called Indian Borage, Mexican Mint, Indian Mint, Mexican Oregano and Spanish Thyme in English. It's called Patharchur and Patta Ajwain in Hindi, Pathurchur in Marathi, Panikoorka in Malayalam, Sambarballi and Doddapatre in Kannada and Vamu Aaku in Telugu.

An sweet imperishable plant in the family Lamiaceae. It's native to the Indian key and wide as a cultivated plant throughout the Southeast Asian tropics

Botanical names of holy basil

Kingdom:	<u>Plantae</u>
Clade:	<u>Tracheophytes</u>
Clade:	<u>Angiosperms</u>
Clade:	<u>Eudicots</u>
Clade:	<u>Asterids</u>
Order:	<u>Lamiales</u>
Family:	<u>Lamiaceae</u>
Genus:	<u>Ocimum</u>
Species:	<u><i>O. tenuiflorum</i></u>
<u>Binomial name</u>	
	<i>Ocimum tenuiflorum</i>



To improve the shelf life of pearl millet whole grain is used for various by product such as milled powder, variety meals, sevai and so on in this pearl we in-coprated with holy basil leaves and Mexican mint for reduces cough and cold which prevent the viral disease and harm our body because each one them have unique medicinal benefits with anti-nutria, anti-fungal, anti-bacterial. Therefore, main focus of this review is on the impact on product development using pearl millet.

Literature review:

In this literature review the various paper related to the pearl millet have been discussed:

Names of authors	Related paper	purpose	year of publication
Savita Rani, Rakhi Singh, Rachna Sehrawat, Barjinder Pal Kaur and Ashutosh Upadhyay	Pearl millet processing: a review National Institute of Food Technology Entrepreneurship and Management, Kundli, India	Therefore, this paper aims to focus on the impact of different processing methods on the nutrient composition and anti-nutritional components of pearl millet	Nutrition & Food Science Vol. 48 No. 1, 2018 pp. 30-44 © Emerald Publishing Limited 0034-6659 DOI 10.1108/NFS-04-2017-0070

KN Rai1 *, OP Yadav2, Suresh K Gupta3 , RS Mahala4 and SK Gupta	Emerging research priorities in pearl millet	In this paper, we report on the observations included in the presentation as well as the feedback received in response to the questionnaires	SAT eJournal ejournal.icrisat.org December 2012 Volume 10
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Materials and methods:

Accoutrements used in plum millet blend

Major accoutrements

1. Pearl millet
2. Holy basil
3. Mexican mint

• Pearl millet: Pearl Millet is rich in protein, salutary fiber, and iron. It provides 60 of the diurnal value of iron per 100 grams, which may help help anemia. It also has a considerable quantum of calcium, which may ameliorate your bone health.

Some of the health benefits are

1. Good for Heart

Pearl millet has a more quantum of magnesium, which reduces blood pressure. It's also rich in antioxidants and phenolic acids. These factors help help numerous conditions, similar as heart conditions, high blood pressure, and cancer. Pearl-millet helps reduce both LDL and total cholesterol situations.

2. Good for Weight Loss

Pearl millet is a rich source of undoable fiber. It promotes weight loss as fiber helps in burning redundant fat. Pearl millet also contains complex carbohydrates that take time to digest and prevents food pining for longer. Hence, it's an excellent food for those who want to lose weight.

3. Good for Diabetes

Peral millet lower the gultamic indicator. It'll not rise the blood position. Prevents from cancer complaint.



Fig 1 pearl millet



Fig 2 light holy basil

• **Holy basil** : Holy basil are generally known as thusli which very useful for curing the complaint with the entire body.

It has two types of holy basil

Benefits of Tulsi

Tulsi or basil provides an vulnerable modulator that's useful in maintaining and perfecting the vulnerable system. Boosting the vulnerable system causes conditions as they fight bacteria and contagions. In addition, the antioxidants contained in basil help against free revolutionaries and help cell damage caused by inordinate oxidation.



Fig 3 dark basil

- **Mexican mint:** Mexican mint is a rich source of essential fatty acids, vitamins, and mineral contents. The herb contains Vitamin B (Thiamin, Riboflavin, Niacin, Folate), Vitamin A, Vitamin D, and numerous monounsaturated and polyunsaturated Fatty acids.

Some of the major bioactive constituents in Indian borage are Rosmarinic acid, Thymoquinone, Salvianolic acid L, carvacrol, thymol, γ -terpinene, undecanal, Shimobashiric acid, deta-3-carene, camphor, etc.

These phyto components show powerful antioxidant, anti-inflammatory, antibacterial, anti-rheumatic, anxiolytic, and anti-cancer effects



Fig 4 Mexican min

Potential Health Benefits of Mexican Mint

• Mexican Mint May Be an Effective Remedy for Rheumatoid Arthritis. Rheumatoid arthritis (RA) affects around 1 of the mortal population each over the world. The autoimmune complaint causes severe pain and dysfunctions of the joint. implicit benefits of Mexican mint in treating arthritis. It's use to cure arthritis medicines.

• Mexican Mint relieves respiratory diseases. Indian borage has been a remedy for the common deep freeze, sore throat, nasal traffic cough, sinus pressure and other respiratory problems in nearly different corridor of the world.

• Multitudinous medical inquiries have verified the potent expectorant quality of the condiment. Experimenters Tonia Rabe and Johannes van Staden delved 26 Plectranthus species that are used as traditional remedies in South Africa.

• *Plectranthus amboinicus* or Mexican mint is a traditional remedy for coughs, cold, and fever in the region. People consume a hot water infusion of the Mexican mint splint to relieve respiratory problems. Mexican mint was one of the important sauces and the people masticated its fresh leaves or drank the splint infusion to treat cough.

• Mexican Mint May Treat Multitudinous Skin Inflammations.

Mexican mint has multitudinous benefits for the skin. Ethnobotanical reports suggest that the condiment and its excerpts in colorful forms may treat nonentity mouthfuls, injuries, eczema, psoriasis, skin mislike, swelling, greenishness, and so on.

• Ultramodern scientific exploration tested the sesquiterpenoids, monoterpenoids, diterpenoids and phenolic composites of Mexican mint to establish their remedial values. Chemical ingredients showed significant inflammatory goods against colorful skin inflammations.

• Mexican Mint May Relieve Anxiety. Karpooravalli has been an implicit remedy for anxiety and stress. The experimenters anticipate having further clinical exploration on the anxiolytic goods of Mexican mint in humans.

• Mexican Mint has Anti-Cancer Goods. Recent medical exploration has verified the anti-cancer goods of different corridor of Mexican mint condiment. The hydroalcoholic excerpts of Mexican mint leaves have antitumor goods as well.

• Mexican Mint Is a Diuretic and May Relieve Order Problems. Indian borage can help your order and lymphatic system function duly. Mexican mint may be an effective remedy for order problems in humans as well

Methods used:

Mexican mint and holy basil(70g,14g)



Both are dried in sun- drying



For 2 days based on the climatic condition



cooling



Grind the Mexican mint and holy basil,
peral millet, turmeric powder together



Preparation of instant pongal mix with all ingredient



Packing instant pongal mix



storage

Sun drying:

It is cheapest mode of drying. It can be used for large quantity of food products. Mexican mint (62g) and holy basil (14 g) are used in the sun drying process. After 2 days it becomes stiff and breakable condition for making powder.

Grinding:

In the grinding process both Mexican mint and Holy basil are ground thoroughly using a mixer to make it as fine powder. After grinding, all the required ingredients are added to the instant pongal mix.

Packing and storage:

In the packing process, the instant mix is packed using a film-type cover which reduces moisture loss. It can be stored for a long time. The instant pearl pongal mix can be stored for more than 3 months without any spoilage.



Fig 5 light holy basil



Fig 6 Mexican mint



Fig 7 dried Mexican mint and holy basil



Fig 8 powdered Mexican mint and holy basil



Fig 9 pearl millet mix

Test used in the instant pongal mix:

Some of the possible testing for ready-made mix:

Alteration:

Food screener:

The food screener enables the detection of unpredicted and even unknown fraud. Complex statistical models allow the testing.

Rapid test:

Take a transparent glass of water. Add 2 teaspoon of food grains and mixed fully. Pure food grains will not leave any color. Adulterated food grains left the color immediately in water.

Physical test:

Physical testing in the food industry refers to the testing methods used to evaluate various physical properties of food product. Commonly tested properties of food products include the colour, viscosity, weight, thickness, granulation size and texture.

Sensory evaluation:

In sensory evaluation is called as the scientific discipline which is compressed of human responses to the property of foods. It mainly used for the sensing condition food by sight, smell, taste, touch, hearing(sound). This is the basic test we use for food quality and safety standards condition in major food industry. The test must be set up in such way that to minimize the error and the basis during the testing.

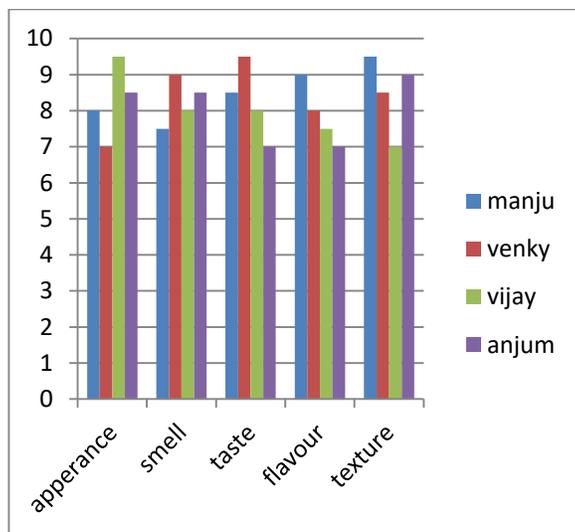


Fig 10 sensory evaluation for pearl millet pongal mix

Conclusion:

Some of the possible that can be used as ready to mix are quality control, physical test, alteration test, tested properties of food products include the color, viscosity, weight, thickness, granulation size and texture. Each one of the products are tested using the process in rapid testing the powder material is tested using this method. The product has good aroma, flavor, texture and acceptable property. The instant pongal mix is very tasty to eat. The shelf life of the product is more three it can stable the food product. Mexican mint and holy basil has more aromatic flavor in it.it is very good balance diet. In pongal mix all the ingredients all equal ratio. Each product can be proper ratio based the quantity they consume with proper diet. The pongal mix is easily digestable food and it can be consumed by all age, as it is world is in running shot of time this food products are moving faster in recent days.

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