

HOME MADE JUICES AND ITS THERAPEUTIC USES: A REVIEW

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ABSTRACT

Nutrients are primarily divided into six types. They are carbohydrates, proteins, fats, vitamins, mineral salts or trace elements and water. Good nutrition is a basic requirement of health. The human body is also formed of different nutrients in various proportions. So to maintain the health of all living beings nutrition is must. If nutrients are taken in minor quantity it will leads to various diseases. Raw fruit and vegetables are solvent, their juices liquefy foreign material in blood stream and eliminate out of the body. Fruit juices are the cleaners of the body due to lofty carbon content, raw vegetable juices are the builders of the bodily cells and tissue. Juices are the most efficient way to renovate health and revitalize the body. So this study will focus on commonly available juices along with their nutritive value. Study includes Beet root juice, Bitter gourd juice, Garlic juice, Zinger juice, Jambul juice, Onion juice, Papaya juice, Pine apple juice, Pomegranate juice and Turmeric Juice. These are commonly available fruits or vegetables in kitchens. One should make use of these fruit juices to maintain the healthy life.

Key words: Nutrition, Fruit, Juice, Health.

INTRODUCTION**BEET ROOT JUICE¹:**

Introduction: The native home of the beet is the Mediterranean area and South-Western Asia. The beetroot has been used as food for the last 2000 years. The early Romans and the Greeks consume it profusely. The old Greeks looked upon the beet as being good for cooling the blood. The beet is a bulbous root. It resembles a top. It is of two colors-red-violet and white.

Qualities: The beet root is somewhat hard to digest. It is oily, cool, nutritious and a bile- controller. It improves the quality of the blood. It reddens and vitalizes the body. The betaine content of the beet helps in cleansing the stomach and the intestine.

Analysis of Contents:

Sr.No.	Contents	Values
1.	Water	83.8%
2.	Protein	1.7%
3.	Fat	0.1%
4.	Carbohydrate	13.6%
5.	Calcium	0.20%
6.	Phosphorus	0.06%
7.	Vit.B1	210 mg/ 100 gms
8.	Vit.B2	90mg/100 gm
9.	Nicotinic acid	0.4mg
10.	Vit.C	8.8mg/100 gm

Use: The beetroot is used as a salad. We in India rarely used the beet, but in foreign countries the beet- juice is widely used and its unique benefits are taken advantages of. Adequate amounts of nutrients can be obtained only when beet is taken in juice form. Juice can be extracted by pounding or shredding the beet. A juicer is very convenient for extracting juice from the beet. Beet- juice can be mixed with the juice of carrots, cabbages, mango, or papaya.

Benefits: In France, there have been many experiments on the use of very large quantities of beet- juice to aid recovery in cases of malignancy. Some promising results have been reported. In Germany, beet-juice is available in bottles. It is widely as a powerful restorative during convalescence.

Many patients gained weight by consuming beet juice. At Sorna Hungary the experiments on this beet therapy are still in progress, in this therapy the patient is supported on water fast for first two days. Then for a few days the patient is given fruit juices. In the third stage, he is given a mixture of 250 grams of beet juice and 250 grams of carrot juice. This regimen is then continued throughout the treatment period. Beet juice is harmless and beneficial. As it is rejuvenating, it is effective in every type of weakness. It also purifies the blood and brings redness to the body.

BITTER GOURD²:

Introduction: Bitter gourd is one of the Indians favorite vegetable. Those who cherish bitter gourd buy them at any price when there is the season of bitter gourds. The bitter gourd is usually five to six inches long.

Qualities: Bitter gourd are bitter in taste, stimulant of gastric fire, light for digestion , warm, purgative, soothing and conducive to digestion. They are excellent appetizer and cure cough, windiness, blood im-

purities, fever, worms, bile, anemia and leucoderma.

Analysis of Contents:

Sr.No.	Contents	Values
1.	Water	92.4%
2.	Protein	11.6%
3.	Fat	0.2%
4.	Carbohydrates	4.2%
5.	Minerals	0.8%
6.	Calcium	0.02%
7.	Phosphorus	0.07%
8.	Iron	2.2 mg/ 100 gm
9.	Vit.A	210 IU/ 100 gm
10.	Vit.B	24 IU/ 100 gm
11.	Vit.C	88 mg/ 100 gm

Use: Bitter gourd juice purifies blood. It is an excellent appetizer. It eliminates the worms thriving in the intestines. It gives relief in piles. As it is diuretic it relieves the burning in the kidneys. It dissolves kidney stone. Bitter gourd is advantageously effective in the cases of diabetes. A glass of bitter gourd juice taken on an empty stomach is beneficial to the patients suffering from arthritis and jaundice.

GARLIC³:

Introduction: The early home of garlic is Middle Asia. It has been very popular in India since ancient times. In Sanskrit, garlic is called ‘rasona’ which means lacking in only one ‘rasa’(taste). There are six ‘rasas’ (tastes) in all- sweet, sour, saltish, pungent and astringent. Garlic contains all these ‘rasas’ (tastes) except sour. Garlic is widely used both as food and medicine. The root of garlic contains several small cloves forming a compounds bulb. Garlic with a single colve is also available and is

thought to be more effective than an ordinary garlic bulb; people recognize it by its pungent and offensive smell.

Qualities: Garlic is pungent, warm, heavy, aphrodisiac, oily, delicious, medicinal, digestive and refreshing. It improves the voice and eye-sight. It bestows strength. It is laxative. It kindles gastric fire and is a tonic to hairs. It helps the process of calcification in fracture and also is useful in dyspepsia, cough, windiness, worms, heart disease, edema, hiccough, asthma, leucoderma, acidity, piles, hard breathing, colitis, and chronic fever, loss of appetite, catarrh, constipation and tuberculosis.

Analysis of Contents:

Sr.No.	Contents	Values
1.	Water	62.8%
2.	Protein	6.3%
3.	Fat	0.1%
4.	Carbohydrates	29.0%
5.	Calcium	0.03%
6.	Phosphorous	0.31%
7.	Iron	1.3 mg/ 100 gm
8.	Vit.C	13 mg/ 100gm

Use: Garlic should be crushed and pounded for extracting its juice. A teaspoon or two of garlic juice mixed with water can be taken or it can be taken in sauce form.

Benefits: Garlic is a powerful antiseptic. Garlic juice mixed with equal quantity of water destroys cholera germs. Garlic kills both gram positive and gram negative bacteria.⁴

Dr. Minchin pointed out that garlic is a preventive for typhoid. The essential oil sulphide found in the garlic is an excellent remedy for respiratory diseases. Eminent doctor F.W. Crossman is of the opinion

that garlic is a marvelous remedy in the treatment of pneumonia. He used it for several years and, on a paper on this disease, he has written that temperature, respiratory and pulse disturbances the symptoms of pneumonia are brought under control (to normal state) within two days only with the use of garlic.

Garlic is a sure remedy in the cases of windiness of any kind. It cures paralysis, stiffness of the whole body, heart trouble, stomachache and many other ailments.

Garlic has been proved effective as an expectorant and in bronchitis.⁵ A number of medical men recommend the use of garlic even in tuberculosis. Garlic dislodges phlegm, induces sleep, improves the digestion and helps to gain weight.

Garlic prevents intestinal infection and vitalizes the intestines. It is an excellent medicine for indigestion, dyspepsia, slow flow of digestive juices and gas. Work by Dr. Weiss of Chicago demonstrated the great benefits received in a controlled trial on sufferers from long standing intestinal disorders such as persistent diarrhea. In wounds and ulcerations, garlic is used for counteracting putrefaction. Garlic juice is employed, together with water, for cleansing infected wounds. When they are thus washed, the condition of the foul ulcer improves within one or two days, the pain ceases and formation of pus decreases. It is necessary to employ the juice diluted with three parts of water. In Russia, it is commonly used for dressing wounds and ulcers.⁶

In the medical college of Lucknow, 15% garlic juice was applied in dressing to 335 patients from various types of ulcers for experimental purpose. In one or two days 60% of the patients improved considerably and were discharged from the hospital. The experiment was carried out with a grant from the U.P. Government. When

there was excessive pus and slough, it was found necessary to use 50 percent garlic juice. Garlic is also useful in gout and stones of the kidney and gall bladder.

Garlic has properties to reduce high blood pressure and hence its importance and popularity in the present times has increased by leaps and bounds. It reduces athero-sclerosis and gives relief to the heart. The hurt thus become vitalized. In the case of ear pain and deafness a drop of juice in the ear is beneficial.

GINGER⁷:

Introduction and qualities: In Sanskrit, ginger is called ‘Vishvaushadha’. It is anti-rheumatic, stimulants, digestive, laxative, good for eyes and throat and nutritious. Its purgative property destroys intestinal worms which are then eradicated through faeces. Ginger is a good tonic for the intestines. Compared to other poisonous drugs, ginger juice is safe and free from ill effects.

Analysis of Contents:

Sr.No.	Contents	Values
1.	Water	80.9%
2.	Protein	2.3%
3.	Fat	0.9%
4.	Carbohydrates	12.3%
5.	Iron	2.6 mg/100 gm

In addition to above nutrients ginger contains vitamin ‘A’, vitamin ‘C’, calcium, phosphorous, etc. in small quantities.

Use: Three or four teaspoonfuls of ginger juice mixed with a very small quantity of mineral salt and a few drops of lemon juice taken half an hour before meals works as an excellent appetizer. Ginger juice stimulates the secretions of digestive juices. This helps digestion and prevents gas trouble.

Benefits: Juice or small pieces of ginger taken before meals eliminate gas. It dislodges cough and exterminates catarrh and cold. It corrects cardiac disorders and allays all the abdominal disorders. Ginger juice is also helpful in edema, uric troubles, jaundice, piles, asthma, cough, dropsy and other diseases.

In the opinion of a number of Ayurveda experts, a regular intake of ginger juice prevents malignancy of tongue and throat. A recent example is worth quoting. Ayurvedacharya Shri. Bapalal Vaidya treated a patient suffering from cancer of the pancreas keeping him only on ginger juice, milk and juice diet. The patient was cured of the malignant disease.

A few drops of ginger juice poured into the nose give sure relief in headache. Toothache will be relieved if a piece of ginger is rubbed on the ailing tooth. Ginger also gives relief in catarrh sinusitis.

JAMBUL⁸:

Introduction: Jambul is one of the noblest fruit. Jambul is as available in the rainy season as mango is in summer. The Jambul fruit is known to all of us. It is delicious, a bit sour and to some extent astringent in taste.

Analysis of Contents:

Sr.No.	Contents	Values
1.	Water	78.2%
2.	Protein	0.7%
3.	Fat	0.1%
4.	Carbohydrates	19.7%
5.	Calcium	0.02%
6.	Phosphorous	0.01%
7.	Iron	1.00 mg/100 gm

Jambul also contains some amount of vitamin ‘C’ and vitamin ‘B’ complex. It also contains folic acid and choline.

Use: Jambol should be soaked in cold water for an hour or two. Then the seed in it should be removed before juice is extracted. As Jambol promotes windiness, it should not be taken on an empty stomach. It should be eaten after meals. Milk should not be taken three hours before or after the consumption of Jambol. Jambol or Jambol juice is forbidden for those who suffer from edema and vomiting. It is also forbidden for a woman just after delivery and for one who observe fast.

Benefits: Jambol is very effective in spleen and liver disorders. Jambol juice is many a time more effective than costly liver extract injections. It activates the liver and eliminates abdominal pain. It tones up the heart, helps to cure anemia and gives relief in burning sensation in the kidney.

Jambol juice is an excellent medicine in the treatment for gonorrhoea and diabetes. It cures indigestion, diarrhoea, dysentery, kidney stone and leprosy and removes impurities from the blood.

Onion⁹: Introduction: The onion has been cultivated since the dawn of human history. Its medicinal properties have been valued in India since ancient times. There are two varieties of onion – white and red.

Qualities: Vigour, lusture of the body and mental power increase with the use of onions.

From medical point of view, while onions are more useful. White onions are stimulant, vitalizing, pungent, promoters of virility, heavy, refreshing, stimulative of gastric fire and lubricous. They produce cough. They increase virility and induce sleep. They are a remedy for tuberculosis, cardiac troubles, dyspepsia, leprosy, piles swelling and blood impurities.

Analysis of contents:

Sr.No	Content	Value
1.	Water	86.8%
2.	Protein	1.2%
3.	Fat	0.1%
4.	Carbohydrates	11.6%
5.	Minerals	-
6.	Calcium	0.18%
7.	Iron	0.7mg/100 gm
8.	Carotene	50 IU/100 gm
9.	Vit.B1	120microgm/100 gm
10.	Vit.B2	10 microgm/100 gm
	Vit.C	11 mg/100gm
11.	Niacin	0.4 microgm/100 gm
12.	Phosphorous	0.05%

The onion loses its vit c content when preserved for a long time.

The onion has effective germicidal properties .on account of its content of volatile oil, the onion is very useful in respiratory disorders.

Use: Onions are widely used in salads. But to get the maximum benefit of the onion , one should take 2 or 3 teaspoonful of onion juice mixed with honey. White onions should be preferred for medicinal uses.

Benefits: In virile disorders, one should take onion juice with honey daily in the morning for 2 to 3 weeks. This will increase one’s virility. The onion saves one from sunstroke. If one suffers from sunstroke, the onion allays it. Eating onion in the morning and at bed time is beneficial in jaundice.

It is interesting to note that during the plague epidemic in London, when the contagion spread everywhere the owners of

onion and garlic shops were the only persons who proved immune to the disease.

Two Italian physicians Dr. E. Cuboni and C. Moriondi had used onion juice to kill T.B. germs. During experiments TB germs were into the bodies of some guinea pigs. There after onion juice was injected into their blood and within short time, it was noticed that Tb germs were dead. The experiments made by Dr. Heubner have proved that onion juice is very effective vermifuge. Unlike many vermifuges onion juice is more harmless and free from adverse effects.

The onion dislodges mucus and prevents its fresh formation. The onion is beneficial to the aged. The onion is also beneficial in intestinal disorders. The use of onions stimulates the process of peristalsis (contraction and expansion) of the intestines and removes intestinal putrefaction and flatulence. It is also useful in indigestion and biliousness.

The juice of the onion together with sugar is a capital remedy for bleeding piles.

PAPAYA¹⁰:

Introduction:

The original home of papaya is Mexico and the West Indies Island, it is believed that in the early part of the 17th century it was introduced into India, Africa, Australia and other countries.

Papaya is well known, cheap and easily available sweet fruit. It grows during the months of February and yellow. The seeds of the ripe papaya are peeper like black. They are bitter in taste.

Qualities: The ripe papaya is delicious heavy warm oily laxative and ant bilious. It increases virility. It is beneficial to the heart. It helps to alleviate insanity. It is beneficial to the liver. It helps to check splenic enlargement (splenomegaly). It is a good medicine for constipation and urinary disorders.

Analysis of contents:

Sr.No.	Content	Percentage
1.	Water	89.6%
2.	Protein	0.5%
3.	Fat	0.1%
4.	Carbohydrates	9.5%
5.	Minerals	0.4%
6.	Calcium	0.01%
7.	Vit.A	2020 IU/100 gm
8.	Vit.C	46 to 136 mg/100gm
9.	Iron	0.4mg/100 gm
12.	Phosphorous	0.01%

Nearly one half of the sugar in papaya is constituted of glucose and other half by mostly fruit sugar fructose. As a source of Vit. A among fruits papaya ranks next to the mango. Vitamin C in papaya increases with maturity.

In an experiment carried out in Hawaii¹¹ it was found that extremely raw papaya contained 32 mg, green 40 to 72 mg, half ripe 53 to 95 mg and the ripe papaya 68 to 136 mg of vit C per 100 gm

The sugar and Vit. C contents in papaya are highest during the months of may to October. Papaya also contains Vit. B1, B2 and Niacin.

The white milky secretion of raw papaya contains the digestive enzyme papain in significant amount. Papain is a protein digesting enzyme.

Use- Raw papaya can be used in its juice form. The ripe papaya can be taken in its natural form. Juice can also be extracted from it by adding a little milk or water to it in a mixer. Papaya juice is delicious and refreshing.

Benefits- The raw papaya juice is very helpful in expelling round worms from the digestive tract.¹² the papaya is effective in

liver troubles also. It helps to secure proper menstrual flow. The Ayurveda experts have regarded papain as a remedy for abdominal disorders. It is a good medicine for dysentery, hyperacidity, dyspepsia and constipation. It has also been proved useful in anemia and splenomegaly. In addition to papain papaya contains enzymes such as arginine (for male fertility) carpain (good for heart) and fibrin (required for blood coagulation).

Dr. Lytton Bernard has claimed rejuvenating properties for papaya for the control of ageing. Papaya cleanses the body completely. To get such cleansing benefits one should take about 200 ml of papaya juice daily. The purpose is rapidly served if one undertakes juice fasting and consumes 200 ml of papaya juice alternated each hr with the equal amount of cucumber juice.

Because of the different types of enzymes contained by papaya, it has been recommended for use as a part of the treatment of cancer. After treatment with antibiotics the use of papaya juice will hasten the restoration of friendly symbiotic bacteria in the gut which will have been destroyed by the drugs.

Papaya is also a diuretic. It is therefore beneficial in kidney disorders. The ripe papaya is sure remedy for constipation. It gives relief in asthma too.

Note: Pimples are removed by rubbing the white pulp of raw papaya on the face. It brings lusture to the face and removes wrinkles.

Some Ayurveda experts believe that papaya causes heat in the body. That is why they advise to avoid papaya in pregnancy and in fever.

The seeds of the ripe papaya are used for quenching thirst and for destroying intestinal worms.

A poultice of the leaves of a papaya plant is beneficial in neuralgia (nerve pain) elephantiasis.

Pine apple¹³:

Intro- the pine apple is believed to be a native of brazil and was introduced in Europe by Columbus, the famous navigator. Afterwards it spread everywhere. There is a reference that the Portuguese brought it to India in 1502 AD

It is freely grown in India. It is easily available during the months of July to November.

The pineapples grown in Burma, Malaysia and the Philippine islands are considered to be the excellent quality.

Qualities: The Ayurveda has brought to light many of the properties of pineapple. The ripe pineapple is a diuretic. It destroys intestinal worms and soothes bile. It is delicious and digestive. It expels gas. It is beneficial to the heart and effective in abdominal disorders, jaundice and anemia.

Analysis of contents:

Sr.No.	Content	Percentage
1.	Water	86.5%
2.	Protein	0.6%
3.	Fat	0.1%
4.	Carbohydrates	12%
5.	Iron	0.9mg/100 gm
6.	Calcium	0.12%
7.	Vit.A	60 IU/100gm
8.	Vit.C	63mg/100gm
9.	Iron	-
12.	Phosphorous	0.01%
13.	Vit. B2	120 micro-gm/100 gm

The pineapple contains 12 % of sugar. About 4 % of which is glucose and 7.5 % by cane sugar. 87 % of its total acids are formed by citric acid and 13% by malic acid.

The pineapple contains an enzyme called bromelin which resembles pepsin and therefore helps to digest food.

Use: It should not be taken on an empty stomach. The upper rind and the innermost flesh of the pineapple should be discarded. The remaining portion should be cut into pieces. Juice should be extracted from these pieces. Raw pineapple or excessively ripe pineapple should be avoided during pregnancy.

Benefits: Fresh pineapple juice exercises a soothing effect on the throat. It is very useful in preventing affections of the vocal organ. In diphtheria it is used for removing the dead membranes from the throat. This antiviral property of the pineapple juice has been confirmed even by the Ayurveda experts.¹⁴ As per their opinion the juice allays bile, destroys intestinal worms and is beneficial to the heart.

Chlorine contained in the pineapple juice stimulates the activity of the kidneys and helps to remove toxic elements and waste products from the body.¹⁵ It also gives relief in cellulitis.

POMEGRANATE¹⁶:

Pomegranate is believed to be a native of Persia and Afghanistan. It has been used in India for centuries. In ancient times King Solomon had a garden exclusively of pomegranates. Before a few years muskati pomegranates were very popular. But now pomegranates of excellent qualities grow also in India. Pomegranates from dholka of Gujrat are very popular. Pomegranate is a summer fruit.

Qualities: Pomegranate has three varieties-sweet, sourly sweet and sourly sweet with astringent taste. Sweet pomegranates are excellent. They are delicious, light, astringent, constipating and lubricous. They increase intellect. They vitalize the body and satisfy hunger. According to Ayurveda, they are tridoshanasaka i.e. they effectively alleviate all the three ailments (windiness, biliousness and cough). They are also beneficial in thirst, burning sensation, fev-

er, cardiac trouble, mouth-disease and vocal disorders. Furthermore, they cure dysentery and increase blood and vitality.

Analysis of contents:

Sr.no	Contents	Percentage
1.	Water	78%
2.	Protein	1.7%
3.	Fat	0.1%
4.	Carbohydrates	14.5%
5.	Calcium	0.01%
6.	Phosphorous	0.07%
7.	Iron	0.03mg/100 gm
8.	Vit B2	10 micro-gm/100 gm
9.	Vit C	16mg/100gm

Sugar content of pomegranate is in the predigested form contains only 0.15% of sucrose.

Use: Pomegranate juice is a bit costly but compared to other juices it is easily digestible. The juice can be extracted by squeezing its seeds in a piece of cloth. Only sweet pomegranates should be selected for medicinal uses. It is effective in all types of fevers. It provides nutrition without giving any undue exertion to the digestive system.

Benefits: It is a tonic for the heart and allays cardiac pain.¹⁷ It cures vocal and mouth diseases. It has a soothing effect on the burning sensation in the stomach. It increases appetite and gives relief in anemia. It is also useful in diarrhea, dysentery and cough.

Turmeric¹⁸:

Introduction: Powdered turmeric is freely used while cooking; but green turmeric is rarely used. It is desirable that green turmeric should be widely used. Turmeric grows under the ground in a root form. It is yellow in color.

Qualities: According to Ayurveda, turmeric is bitter, pungent, warm, stimulant, vermifuge, cleanser and the remover of cough, swelling and gas. It is dry in nature. It heels wounds, stimulates the liver, promotes lusture of the body and improves the color of the skin. It is useful in cold, cough, gas, blood impurities, leucoderma, diabetes, wounds, skin diseases, swelling, anemia, dyspepsia etc.

Analysis of contents:

Sr. no	Contents	Percentage
1	Water	13.1%
2	Protein	6.3%
3	Fat	5.1%
4	Carbohydrates	69.4%
5	Minerals	3.5%
6	Calcium	0.15%
7	Phosphorous	0.28%
8	Iron	18.6mg/100 gm
9	Vitamin A	50 IU/100gm

Use: Juice can be extracted by pounding turmeric. Two or three teaspoonfuls of turmeric juice should be taken directly or mixed with water.

Benefits: Turmeric possesses a unique property. Not found in any other substance to stimulate and strengthen the liver. The ancient books of the Ayurveda have accepted this fact. Modern dietarians also have accepted this property of turmeric. In the February 1937 issue of British official medical journal Lancet, an article was published in which the above fact had been recognized. Turmeric wards off old age and disease. There is no doubt that the medicine which keeps the liver healthy and activates it can make the entire body healthy and activated. Turmeric juice also gives benefit in chronic jaundice.

Turmeric juice is a purifier of the blood and remover of cough. Turmeric juice

drops have been found to deliver favorable effect in eye diseases such as glaucoma, corneal ulcer and conjunctivitis. If fresh turmeric juice is taken regularly in the morning and at evening it gives benefit in leucoderma and swellings of legs and arms. Fresh turmeric juice or turmeric powder mixed with warm milk gives sure benefits in cough and cold. A warm ointment of turmeric powder can be beneficially applied over sprained and swollen body parts.

Turmeric juice checks mucous coming out of the nose, the throat or the wind pipe. It dries mucus membranes and reduces phlegm.

Turmeric is very beneficial in skin diseases. It purifies the blood and breast milk. The skin becomes smooth and fair complexioned. Skin diseases are cured when massaged with butter mixed with turmeric.

Discussion and Conclusion: Juices should be used in our day today life regularly as they have the ability to cure the diseases as well as cleansing property. The important factor about juices is its fat free property. So it can be used by people of all the age groups. But consultation of physician or dietician is mandatory before use of any juice for therapeutic purpose.

REFERENCES:

1. Dr. Dhiren Gala, Juice diet for perfect health, Beet root, Page no. 56-7.
2. Dr. Dhiren Gala, Juice diet for perfect health, Bitter gourd, Page no. 59-60
3. Dr. Dhiren Gala, Juice diet for perfect health, Garlic, Page no. 79-82.
4. Morris B. Jacobs, Ph.D – The Chemistry and Technology of Food and Food Products, P.1213, Inter science Publisher Inc., New York.
5. Sir George Watt, M.B.- Dictionary of Economic Products of India, Page no. 173, Govt. Press, Calcutta.

6. Santi Prakas Gupta and others- Journal of Medical Association, Oct. 1952.
7. Dr. Dhiren Gala, Juice diet for perfect health, Ginger, Page no. 82-3
8. Dr. Dhiren Gala, Juice diet for perfect health, Jambul, Page no. 91-2.
9. Dr. Dhiren Gala, Juice diet for perfect health, Onion, Page no. 97-9.
10. Dr. Dhiren Gala, Juice diet for perfect health, Papaya, Page no. 102-4.
11. Carey D. Miller, Lucille Louis, Kisako Yanazawa, Honolulu- "Vitamin Values of Food in Hawaii", Page no. 26, University of Hawaii.
12. Dr. R.N. Chopra, M.D., The Medical and Economic Aspects of Some Indian Plants, Page no. 312, Patna.
13. Dr. Dhiren Gala, Juice diet for perfect health, Pine apple, Page no. 105-6.
14. An Indian Dietarian- Food and Nutrition in India, Page no. 191, Calcutta
15. W.B.Hays- Fruits Growing in India, Page no. 221, Allahabad.
16. Dr. Dhiren Gala, Juice diet for perfect health, Pomegranate, Page no. 107-8
17. Wilson- Popenoe- Manual of Tropical and Sub-tropical Fruits, Page no. 375, Macmillan and Co., New York.
18. Dr. Dhiren Gala, Juice diet for perfect health, Turmeric, Page no. 115-17.Rajjala Anshuman Rameshwar Naik Mahantkumar Pandappa

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