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Nutritive analysis of seeds of Cassia fistula

Sneh Sharma
Dept of Chemistry. Govt P.G.College, Dausa

Abstract: *Cassia fistula also known as golden shower, Indian l a b u r n u n is a flowering plant of family of fabeceae. Leaves, bark,pulp of the plant has been extremely investigated and used in the treatment of different diseases. Seeds have been reported to be useful in the treatment of jaundice, skin disorders and gastric disease .In the present investigation we have carried nutritive analysis of Cassia fistula seeds.*

I. Introduction :

Cassia fistula tree is commonly found in Africa, Asia and some parts of the world. It is one of the most beautiful trees .When the tree shades leaves ,it bursts into a mass of long grape like bunches of yellow golden flowers. These flowers eaten by people and are used as used as cattle feed .Fruit pulp is purgative in nature .Cassia fistula is used as mild laxative and is given to children and pregnant women .It also finds use in the treatment of intestinal disorders. Plant is one of the ingredient of preparation known as constivac(Lupeon herbal)a powerful regulator and relieves constipation. The plant also is one of the ingredient of pilex (drug company) for piles and is used as detoxifier also. The plant is rich in lupeol, hexa cosanol. Seeds are rich in glycerides with linoleic, oleic and palmitic acid as chief fatty acids and also contains some traces of caprylic and myristic acid. The plant has high therauptic value and shows antipyretic and analgesic effect (1-3). Hence the plant is used in the treatment of controlling diseases. Plant also shows anti inflammatory and hypoglycemic activity (4)Work on the phytochemistry of plant has also been carried out. Seeds are sweet and powder is used in amoebiasis. The 50% ethanolic extract of seeds showed antifertility activity in female rates.The heated pods are applied to swellings on neck due to cough. The ashes are burnt and mixed with little salt and honey to relieve cough. Fruit pulp also contains fistulin, rhein,Kaempferol and some triterpenes. The medical term for Cassia fistula is aragvadha meaning killer of diseases.

II. Experimental:

The pods were collected from plants of forest of Kota division of Rajasthan and identified with the help of RUBL herbarium .The pods were washed with water. These were dried and seeds removed from them .Dried seeds were ground immediately by passing through sieve in cyclotech sample mill .The grounded seeds were used for proximate analysis . These were determined by following procedures of A.O.A.C.(5). Ashing was done in muffle furnace .Iron and phosphorus was determined spectrophotomatically and calcium was determined titrimetrically using centrifuzing machine .

Table 1 Proximate and nutritive analysis of seeds

Moisture moisture 3.16%

Ash 9.04%

Protein 13.35%

Fat 10.07%

Fibre 2.51%

Calcium 68.5 milligram / 100 gram

Phosphorus 1167.32milligram / 100 gram

Iron 209.26 milligram /100 gram

Sodium 7.70 ppm

Potassium 7ppm

Determination of moisture was done by oven method .Protein content was determined by estimating nitrogen content of material and multiplying by factor of 6.25. Kjeldahl method was used to determine nitrogen (6) .Fat was determined by extracting the dry material with hexane. Total dietary fibre was determined by blue

colour formed when a solution is treated with ammonium molybadate using PDF 100 kit made by Sigma company. Calcium was estimated as calcium oxalate by precipitating calcium from solution with saturated ammonium oxalate solution. Phosphorus was estimated by measuring colori matrically the first colour formed is reduced. Iron was determined by making use of the fact that ferric ion gives blood red colour with potassium thiocyanate solution .Sodium and potassium were estimated by flame photometry.

III. Results And Discussion:

It is evident from result cited in table seeds of Cassia fistula are rich in Calcium, Phosphorus and Iron .These are also rich in fat and sodium content . The use of these seeds in our diet shou

IV. Conclusion:

Our study on seeds of Cassia fistula as nutritive supplement is justified and also support s the traditional use of phytomedicines.

References:

[1]. M. Gupta, B.K .Majumdar andB.K. Rath,D.K.Mukhopadhyay J.of ethano pharm.72,2 000 ,151-156 .
[2]. M.Danish , P.Singh,S.S.Mishra,K.K. Srivastava, K.K .Jha ,R.L. Khosla, J.nat. prod.1(1),2011,101-118.
[3]. R Yadav, G.C .Jain ,Intern. j. of pharm. tech. res. 1, 2009, 438-444.
[4]. Maya kushvaha and and Aarti Agrawal ,J. of sci. res. in pharm. 11,2012.
[5]. Official methods of analysis ,15 th edition, Association of official analytical chemist s,Washington DC 1990.
[6]. A Text book of quantitative inorganic analysis , longman London page 529, 1974.
[7]. S Gopalan , B.V. Rama Shastri ,Bala Subramaniam, The nutritive value of Indian foods, NIN, 1991.