

Presentation
on
Methods to Curb and Control
Malnutrition, Hunger and Suicides
Before Members of the W.C.D. and
Officials of Planning Commission on
23rd Feb. 2012

Join Hands to solve



ACADEMY OF NUTRITION IMPROVEMENT,
SOYMILK COMPLEX, SITABULDI, WARDHA ROAD,
NAGPUR-440012 (M.S.) MOB. NO: 9890343686.

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1. SOYBEANS

Soy connection.com-

http://www.soyconnection.com/health_nutrition

soy online service-<http://www.soyonlineservices.co.nz>

DR. SHANTILAL KOTHARI

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Health Benefits of Soybean

- Soybean are an excellent source of protein and good source of iron, calcium, phosphorus & dietary fiber. They are good source of vitamins B1, B2, B6 and E & folic acid. They also contain other health promoting compounds, including phytosterols, lecithin, Isoflavones, phytoestrogens and protease inhibitors. The amino acid profile of soy is a little low in methionine and tryptophan but is still regarded as an excellent source of protein and equivalent to animal protein.
- Cancer prevention
- Coronary Artery Disease
- FDA approved a soy health claim in 1999 that states that 25 grams of soy protein a day as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease. This is about two servings of soy foods per day but varies in product used. Foods that meet the labeling must have at least 6.25 g soy protein per serving.
- There is a evidence suggesting that exposure to soy during childhood and or adolescence reduces breast cancer risk later in life.



Cont.....

- Soybean & soy products such as soy flour and textured soy protein granules plays a pivotal role towards the reduction of chronic malnutrition among school aged children around the world. Local recipes fortified with soy products provide high quality protein and other nutrients that are well liked by the children.
- Soy flour and textures soy protein blend well into a large variety of cultural foods. They are easy to use, highly acceptable, economical & provide a great protein source.
- Soy based fortified foods & micronutrients supplements are used to improve the health & nutritional status of infants & young children. More than half of the children under 5 years of age in many developing countries are estimated to be malnourished. Adequate nutrition is critical for children.

Govt. of India set-up plant at Bhopal (M.P.) in 1985 -86 for giving training to the entrepreneurs for utilization of soybeans in the daily diet of human beings for solving different problems.



Despite Promoting Cultivation & Consumption of Soybean :

- Problem of Shortages of MILK.
- Problem of Shortages of OIL & PULSES.
- Problem of Shortages of MALNUTRITION, HUNGER & SUCIDES.

Could not be solved

ACTION PLANS : a) Local & state level

1) In light of health benefits of Soybean, Govt's. policies of promoting cultivation & consumption of Soybean by setting up 5 Agricultural universities in the country and launching of programmes to solve problem of shortages of edible oil and protein; removing malnutrition and economic disparities etc. prompted me in 1971 develop process technology of Mfg Soymilk thereby help country solve problem of shortages of milk and malnutrition facing the country.

I have had set up indigenous plant of Mfg soymilk in 1974 in Nagpur.

II) Encouraged Local Scientist & Students to Set-up.

- Nagpur Chapter of NSI.
- Nagpur Chapter of Microbiology of India.

III) Set-up Academy of Nutrition Improvement in Nagpur in 1983.

Help Government solve problem facing country.

- Dairy Milk
- Pulses
- Malnutrition
- Economic Development.



– State Govt. had accepted demand of pulses in 2008 and lifted ban on sale & storage of Khesari Dal.

b) National /International Level

Motivate Govt's for imparting education:

- Which make youth accountable for development of country.
- do-----for protecting and rejuvenating natural resources.
- do----citizen's accountable to respect countries law's, culture & customs.
- do----senior citizen's accountable---- for guiding youth and Govt's offices.

Little Known Scientific facts of soybean

- SOYBEAN was only used as item of food after development off fermentation technology i.e. during Chou Dynasty (1134-246BC). Temph, natto, miso, soy sauce etc. were first fermented products.
- In 2nd century BC- puree cooked from soybean's precipitated with calcium sulphate or magnesium sulphate (plaster of paris or epon salts) tofu or bean curd was discovered.
- Till date Chinese don't consume soybean seeds as they consume other legumes due to anti- nutrients.
- Till date Japanese and Asians eat soybean in very small amounts.... (As a **condiments**) not as a protein substitute nor as a replacement for animals foods.



Cont.....

- Soy advertisers mislead people by claiming lower rates of reproductive cancer for Japanese and Asians eating soy ignoring facts that these people have much higher rates of cancer off - esophagus, stomach, liver, pancreas, thyroid etc.
- Soy protein has not been granted GRAS (generally recognized as safe) status or pre-market approval because of it's toxicity, carcinogenic properties. It is not even legal to add it to food. Pancreatic Cancer had moved to 4th Place from 5th place in 1970 in USA due to increase in consumption of soybean or soy foods.



Soy The Miracle Food or Pandora's Box?

- **Known or unknown harmful effects..**
 - Endocrine disruption
 - Thyroid suppression
 - Immune system suppression
 - Heart diseases
 - Liver diseases
 - Leukemia
 - Cancer:- Breast, Bone, Uterine, liver, colon, Pancreas, Thyroid, etc.
 - soybean acts like a fertilizer, it fertilizes and feeds cancer cells causing them to grow.

- Arthritis
- Asthma
- Infertility/Lower sex drive
- Growth problems
- Osteoporosis
- Learning disabilities
- Alzheimer's/ Parkinson's disease
- Brain or nervous system damage
- Chromosome fragmentation errors in chromosome orientation.....DNA damage....death

- Genistein found in soybean is known as topoisomerase 2nd poison.
- Genistein also destroys the “myelin sheath” surrounding and protecting the nerves spinal cord, and brain cell tissues, as in Alzheimer’s- Parkinson’s disease, M.S. And also learning disabilities as in ADD/ADHD.
- Soy fried Tofu:-



Contrary----- young Indian Scientist

- Dr. Shantilal Kothari is manufacturing and marketing 'SOYAMEE' from whole soybean seeds a substitute of mother's and animal milk using his own local indigenous technology since last 40 years (1973- till date), which has been found to be:

- Easily digestible
- Refreshing
- Nutritious
- Energetic



- Proved as saviour to lactose intolerant babies, cancer, heart, low immunity patients, pregnant ladies, malnourished children and those allergic to animal protein.

END

2. CONSUMPTION OF KHESARI DAL SAFE, TASTIER AND ECONOMICAL

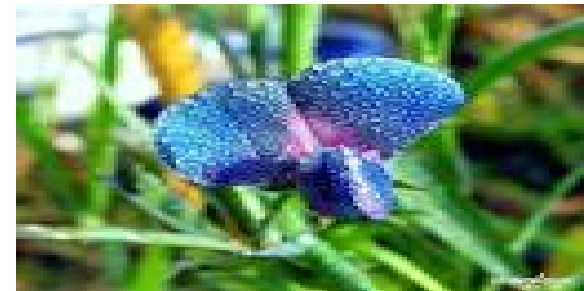
2.1. Khesari is an World Renowned Sustainable Food and Fodder Crop

Crop flourishes during famine and drought period even without cost when all other crop fails.

Unique qualities are due to presence of non-protein amino acids (ODAP, Homoarginine etc) and NOS.

Also it has been found saviour crop of human and animals during natural calamities.

Scientists may have doubts about nutritional qualities and safe consumption till date, but, people of consuming class deadly convinced since Neolithic times that consumption in daily diet is safe, tasty, beneficial and economical. Hence country neither faced problems of shortages and high cost of pulses nor off malnutrition before 1960.



2.2. Nutritive Value of Pulses

Name of Pulses	Mois g.	Protein g.	Fats g.	Min g.	Carb g.	Fiber g.	Ene. kc.	Cal. mg.	Pho. mg.	Iron mg.
Chick pea	9.9	20.8	5.6	2.7	59.8	1.2	372	56	331	5.3
Pigeon pea	13.4	22.3	1.7	3.5	57.6	1.5	335	73	304	2.7
Khesari*	10.0	<u>28.2</u>	0.6	2.3	56.6	<u>2.3</u>	345	90	317	<u>6.3</u>
Khesari (ICMR meeting 4.12.2011)	7.0	31.0	20.0	2.0	41.0	17.0	–	–	–	–

* Nutrient Composition of Indian Foods, N.I.N., Hyderabad, 1989, Page No.47

Cont.....

- 2.3. Khesari contains highest amount of the best quality, safe protein at lowest cost. It was dubiously stigmatised and excluded from list of edible pulses from 2nd Feb 1961 by bureaucratic note (UMH & FW) by ignoring studies suggesting safe use of it : -
- Food scientist found toxin present in KD, ODAP or BOAA water soluble and non toxic (1966).
- Steeping and parboiling removes 80 to 90% so-called toxin ODAP and dal was reported by ICMR (1986) to be safe for human consumption, even as chapati.
- Senior most biochemist & god father of khesari dal Prof S.L.N. Rao reported in 2010 that KD is best dal for cardiovascular health, lower's BP, lower's cholesterol, improves physical and mental health, lower's mortality, bone density etc.

Cont.....

2.4.Despite huge strong scientific evidences and ANI'S persistent demand, union ministry of health had not advised PFA department to withdraw it's bureaucratic obsolete circular dated 2.2.1961 even after submission of scientific report by Dr. C. Gopalan on 2.10.1961. This note is compelling state government and U.T. even in 2010 to put ban on it's sale and storage for sale and medical Doctors insisting for non inclusion of it in daily diet.

Maharashtra Govt. who had banned sale and storage for sale in 1961 on the basis of advisory note had lifted it on 28.5.08. West Bengal & Chhatisgarh Govt. did not put ban on it's sale and storage despite issuing of advisory note dated 2.2.1961.

ANI has unequivocally reaffirmed in 1989 that consumption of KD is safe and had also proved in 1991 that no cause and effect relationship exists between consumption of KD and Lathyrism.

Cont.....

2.5. DEMAND OF ANI

Instant withdrawal of unscientific note dated 02.02.1961 and giving off directives to all the state Govt. and Union territories to withdraw notification issued by them banning sale and storage for sale of Khesari dal and its' products.

Above steps shall enable state Govt's, U.T. and central Govt. to solve problem of shortages and high cost of pulses by increasing area under cultivation of rice fallow which remain idle after harvesting of paddy crop.

Thereby, help country solve problems of pulses indigenously.

3. POOR PEOPLE'S DIET SAVIOUR OF HEALTH OF OUR COUNTRY

- Farmer and tribal people and all those people engaged in hard work are saviour of health, valour and productivity of our country.
- Old people has preserved their good health, efficiency and valour by consuming locally available foods.
- Old local people knows by their experiences methods of proper processing, cooking, uses etc.

Thus, programme of utilization of local natural resources could be launched by meeting local people and tasting products made by them by hand with pride and respect.

3.1. Proximate Principles: Common Foods*

All the values are per 100 gms. of edible portion

Sl. No.	Name of the food	Moisture g.	Protein g.	Fat g.	Minerals g.	Fibre g.	Carbo. g.	Energy Kcal.	Cal. mg.	Phos mg.	Iron mg.
1	BAJRA	12.4	11.6	5.0	2.3	1.2	67.5	361	42	296	8.0
2	BARLEY	12.5	11.5	1.3	1.2	3.9	69.6	336	26	215	1.67
3	JOWAR	11.9	10.4	1.9	1.6	1.6	72.6	349	25	222	4.1
4	WHEAT	12.8	11.8	1.5	1.5	1.2	71.2	346	41	306	5.3
5	MAIZE	14.9	11.1	3.6	1.5	2.7	66.2	342	10	348	2.3
6	RAGI	13.1	7.3	1.3	2.7	3.6	72.0	328	344	283	3.9
7	RICE,	13.3	7.5	1.0	0.9	0.6	76.7	346	10	190	3.2

* Nutrient Composition of Indian Foods, N.I.N., Hyderabad, 1989, Page No.47

3.2.1-NUTRITIVE VALUE ON 100 GRAMS BASIS*

Normal Requirement Per Adult Person Per Day		VITAMINS			MINERALS			
		A 2400 ug Micrograms	C 40 mg Milligrams	Iron 30 mg	Cal 400 mg	Phos 1 gm	Protein 1 gm/kg BW	Fibre Grams
A-POPULAR CITY VEGT.								
Potato	Aalu	24.00	17.00	0.48	10.00	40.00	1.60	0.40
Ladies Finger	Bhindi	52.00	13.00	0.35	66.00	56.00	1.90	1.20
Ridge Gourd	Taroi	33.00	5.00	0.39	18.00	26.00	0.50	0.80
Bottle Gourd	Loki	0.00	0.00	0.46	20.00	10.00	0.20	0.60
Brinjal	Baigan	74.00	12.00	0.38	18.00	47.00	1.40	1.30
Cow Pea Pods	Matar	564.00	14.00	2.50	72.00	59.00	3.50	2.00
Cucumber	Kakdi	0.00	7.00	0.60	10.00	25.00	0.40	0.40
Cauliflower	Fulgobhi	30.00	56.00	1.23	33.00	57.00	2.60	1.20
Chilli (Giant)	Shimla Mirch	427.00	137.00	0.51	10.00	30.00	1.30	1.00
Tomato (Green)	Tamatar	192.00	31.00	10.80	20.00	36.00	1.90	0.70
Spinch	Palak	5,580	28.0	1.14	73	21	2.0	0.6
Fenugreek Leaves	Methi	2,340	52.0	1.93	395	51	4.4	1.1

*Nutrient Composition of Indian Foods, By B. S. Narasinga Rao et al, Page No. 48, 49, 50 & 51

3.2.2-NUTRITIVE VALUE ON 100 GRAMS BASIS*

Normal Requirement Per Adult Person Per Day	VITAMINS			MINERALS				
	A 2400 ug Micrograms	C 40 mg Milligrams	Iron 30 mg	Cal 400 mg	Phos 1 gm	Protein 1 gm/kg BW	Fibre Grams	
B-POPULAR VILLAGES / TRIBAL AREAS.								
1. Amaranth								
a) Math	Chouli	5,520	99.0	3.49	397	83	4.0	1.0
b) Katemath	Chouli	3,564	33.0	22.90	800	50	3.0	1.1
c) Lalmath	Chouli	3,520	99.0	12.50	200	40	3.0	1.0
d) Rajgira	Chouli	14,190	81.0	18.40	530	60	5.9	2.1
2. Tarota	Cassia Tora	10,152	82.0	12.40	520	39	5.0	2.1
Ghol	Kulfa	2,292	29.0	14.80	111	45	2.4	1.3
Kena	Kena	-	-	-	100	50	2.1	0.8
Khaparkhuti	Khprkhuti	-	27.0	18.40	667	99	6.1	1.3
Patur	Paturi	-	70.0	38.50	100	30	2.0	0.9
Kukarda	Kukarda	-	-	-	323	38	2.0	1.5
Bathua	Bathua	1,740	35.0	4.20	150	80	3.7	0.8

*Nutrient Composition of Indian Foods, By B. S. Narasinga Rao et al, Page No. 48, 49, 50 & 51

3.2.3-PROXIMATE PRINCIPLES:COMMON FOODS

All the value are per 100 grams of edible portion

Root & Tubers	M	P	F	M1	F	C	Energy	Cal	Phos	Iron	Vita A	Vita C
Arrarot Root Flour	16.5	0.2	0.1	0.1	-	83.1	334	10	20	1.0	-	-
Beet Root	87.7	0.4	0.1	0.8	0.9	8.8	43	18.3	55	1.19	0	10
Carrot	86.0	0.9	0.2	1.1	1.2	10.6	48	80	530	1.03	1890	3
Colocasia	73.1	3.0	0.1	1.7	1.0	21.1	97	40	140	0.42	24	0
Potato	74.7	1.6	0.1	0.6	0.4	22.6	97	10	40	0.48	24	17
Raddish Pink	90.8	0.6	0.3	0.9	0.6	68	32	50	20	0.37	3	17
Sweet Potato	68.5	1.2	0.3	1.0	0.8	28.2	120	46	50	0.21	6	24
Topioca	59.4	0.7	0.2	1.0	0.6	38.1	157	50	40	0.9	-	25
Turnip	91.6	0.5	0.2	0.6	0.9	6.2	29	30	40	0.4	0	43
Onion Small	84.3	1.8	0.1	0.6	0.6	12.6	59	40	60	1.2	15	2

*Nutrient Composition of Indian Foods, By B. S. Narasinga Rao et al, Page No. 50 & 61

3.3-Proximate Principles: Common Foods*

All the values are per 100 grams. of edible portion

S.N.	Nuts & Oil Seeds	Mois gm	Protein gm	Fat gm	Mineral gm	Fibre Gm	Carbo gm	Energy Kcal	Cal mg	Phas mg	Iron mg
1	Coconut Dry	4.3	6.8	62.3	1.6	6.6	18.4	662	400	210	7.8
2	Ground Nut	3.0	25.3	40.1	2.4	3.1	26.1	567	90	350	2.5
3	Mustard Seed	8.5	20.0	39.7	4.2	1.8	23.8	541	490	700	7.9
4	Sunflower	5.5	19.8	52.1	3.7	1.0	17.9	620	280	670	5.0
5	Linseed	6.5	20.3	37.1	2.4	4.8	28.9	530	170	370	2.7
6	Niger seeds	4.2	23.9	39.0	4.9	10.9	17.1	515	300	224	56.7
7	Gingeely Seeds	5.3	18.3	43.3	5.2	2.9	25.0	563	1450	570	9.3
8	Piyal Seeds	3.0	19.0	59.1	3.0	3.8	12.1	656	279	528	8.5
9	Coconut Meal Deoiled	8.7	23.8	2.8	7.0	9.8	47.9	312	112	646	69.4
10	Garden Cress Seeds	3.2	25.3	24.5	6.4	7.6	33.0	454	377	723	100.0

*Nutrient Composition of Indian Foods, By B. S. Narasinga Rao et al, Page No. 52

3.4-PROXIMATE PRINCIPLES:COMMON FOODS

All the value are per 100 grams of edible portion

Condiments & Spices	Moistur gm	Protein gm	Fat gm	Min. gm	Fibre gm	Carbo gm	Energy kcal	Calcium mg	Phos mg	Iron mg
Asafoetida	16.0	4.0	1.1	7.0	4.1	67.80	297	690	50	39.4
Cardamom	20.0	10.2	2.2	5.4	20.1	42.1	229	130	160	4.60
Chillies Dry	10.0	15.9	6.2	6.1	30.2	31.6	246	160	370	2.30
Chillies Green	85.7	2.9	0.6	1.0	6.8	3.0	29	30	80	4.40
Cloves Dry	25.2	5.2	89	5.2	9.5	46.0	286	740	100	11.7
Coriander	11.2	14.1	16.1	4.4	32.6	21.6	288	630	393	7.1
Cumin Seed	11.9	18.7	15.0	5.8	12.0	36.6	356	1080	511	11.7
FENUGREEK Seeds	13.7	26.2	5.8	3.0	7.2	44.1	333	160	370	6.5
Garlic Dry	62.0	6.3	0.1	1.0	0.8	29.8	145	30	310	1.2
Turmeric	13.0	6.3	5.1	3.5	2.6	69.4	349	150	282	67.8

*Nutrient Composition of Indian Foods, By B. S. Narasinga Rao et al, Page No. 53

3.5.1-PROXIMATE PRINCIPLES:COMMON FOODS

All the value are per 100 grams of edible portion

FRUITS	Mois. Gm	Prot. gm	Fat gm	Min. gm	Fib. gm	Carb gm	Eng. Kcal	Cal. mg	Pho. mg	Iron mg	Vit A	Vit C
Apple	84.6	0.2	0.5	0.3	1.0	13.4	59	10	14	0.66	0	1
Grapes (Angur)	79.2	0.5	0.3	0.6	2.9	16.5	71	20	30	0.52	0	1
Lime Sweet (Mosambi)	88.4	0.8	0.3	0.7	0.5	9.3	43	40	30	0.70	0	50
Orange (Citrus)	87.6	0.7	0.2	0.3	0.3	10.9	48	26	20	0.32	1104	30.0
Pomrgr-anate (Anar)	78.0	1.6	0.1	0.7	5.1	14.5	65	10	70	1.79	-	16.0
Sapota (Chiku)	73.7	0.7	1.1	0.5	2.6	21.4	98	28	27	1.25	97	6.0
Amla (Aawla)	81.8	0.5	0.1	0.5	3.4	13.7	58	50	20	1.2	9	600.0
Banana (Kela)	70.1	1.2	0.3	0.8	0.4	27.2	116	17	36	0.36	78	7
Lemon (Nimbu)	90.5	0.7	0.3	0.5	0.7	7.3	35	30	20	0.7	15	63
Guava (Amrud)	81.7	0.9	0.3	0.7	5.2	11.2	51	10	28	0.27	0	212

Continued....

3.5.2 PROXIMATE PRINCIPLES: COMMON FOODS

All the value are per 100 grams of edible portion

FRUITs	Mois. gm	Prot. gm	Fat gm	Min. gm	Fib. gm	Carb gm	Eng. Kcal	Cal. mg	Pho. mg	Iron mg	Vit A	Vit C
Jamun (Syzygium Cumini)	83.7	0.7	0.3	0.4	0.9	14.0	62	15	15	0.43	48	18
Seetaphal-Custard apple (Annona Squamosa)	70.5	1.6	0.4	0.9	3.1	23.5	104	17	47	4.31	0.0	37
Tomato - Ripe	94.0	0.9	0.2	0.5	0.8	3.6	20	48	20	0.64	35	37
Papaya-Ripe	90.8	0.6	0.1	0.5	0.8	7.2	32	17	13	6.5	666	57
Mango-Ripe	81.0	0.6	0.4	0.4	0.7	16.9	74	14	16	1.3	2743	16
Melon-Musk (Kharbuja)	95.2	0.3	0.2	0.4	0.4	3.5	17	32	14	1.4	169	0.11
Melon Water (Tarbuja)	95.8	0.2	0.2	0.3	0.2	3.3	16	11	12	7.9	0.0	0.02
Ziglyphus (Bor/Ber)	81.6	0.8	0.3	0.3	-	17.0	74	4	9	0.50	21	76
Baeal	61.5	1.8	0.3	1.7	2.9	31.8	137	85	50	0.6	55	8
Mahua-Ripe (Bassia Longifoli)	73.6	1.4	1.6	0.7	-	22.7	111	45	22	0.23	307	40

*Nutrient Composition of Indian Foods, By B. S. Narasinga Rao et al, Page No. 53, 54 & 55

4.Oil seeds

Linseed (Flaxseed)

Botanical name: *Linum Usitatissimum*

Linseed is the richest source of omega 3 essential fatty acids and contained almost twice the quantity present in fish oil.

Nutrient content of Linseed: (100 gm)

- Oil -37.1 (35 to 45)%
- Protein -20.3 (20 to 25)%
- Carbohy.-28.9 (25 to 30)%
- Fibre -4.8 (3 to 8)%
- Minerals -2.4 (2.5 to 3.5)%
- Energy -534 k cal



Uses of Linseed oil :-

Depends on methods of extraction of oil.

Linseed oil :- Uses depends on methods of extraction of oil:-

1. Modern method

- Processed or heated seed are used and oil- is extracted with the help of solvents.
- Uses :- It is non-edible oil and used as a lubricant in the industries. And also used in preparations of varnish and paints

2. Traditional Method

- Cleaned whole seeds are pressed
- between two stone or metals and
- mechanical pressure is applied i.e. Expeller
- method.
- Uses:- It is edible oil and best s
- among all the available oils and
- benefits every body.

Use this oil like any other oils or ghee.



Uses of Linseeds: miracle food

- Fresh ground seeds are used as a food-Chatni, Yoghurt, Buttermilk or as an ingredient of food , cooked daily & consumed daily.
- Eating of linseed food (ground) every day keeps you Young, Fit, Healthy & Energetic.



Requirement:

- Three to five tablespoon (30 to 50 gm) per day in three serving (Freshly hand ground whole seeds) or 20 to 30 grams of oil per day.

Benefits of taking linseed in daily diet

- Help to regulate body weight by controlling appetite.
- Helps to lower cholesterol and triglycerides and decreases clots in the arteries which may lead to stroke, heart attack, pulmonary embolism or peripheral vascular diseases. Also ,Lowers high blood pressure,.
- Omega3 fatty acids kills human cancer cells thereby protects from cancer including prostate cancer.
- Improves quality of hair, nails and skin.
- Arthritis: Used in treatment & preventions of arthritis.
- Asthma: Relieve asthma by decreasing inflammation& improving lung function.
- Useful in treatment for people suffering with depression, mood alteration, memory loss etc.
- Promotes strong immune system.
- Helps in reducing symptoms of menopause.

Cont.....

- Help in reducing inflammation in joints, kidneys & skin. Also reduces joint pains
- Reduces risk of osteoporosis and makes bones stronger.
- Help in curing diabetes.
- Help in curing people suffering with hypertension, low blood pressure, cardiovascular disorders, water retention etc.
- Promotes Brain health:-help body to produce DHA (docosahexaenoic) which promotes brain health & function.

SIDE EFFECTS OF LINSEED (FLAXSEEDS)

- Only occurs when consumed in large amounts i.e. more than 30 to 50 grams per day or more than 10 grams per serving (one tablespoon).
- Person allergic to linseeds.
- When person take medicines before two hrs of eating flax seeds.
- Person suffering with gastro intestinal disorders consume it.
- Person suffering with gas or stomach cramps.
- Hormone dependent person namely suffering with breast cancer or prostate cancer.
- Person taking blood thinners or anti-coagulant medicines(may lead to uncontrolled bleeding).
- Pregnant & Breastfeeding women should avoid eating large quantities.

Signs & Symptoms indicating that you may be deficient in omega 3 fatty acids

- Dry Skin.
- Chicken skin- thin, rough bumps that are usually found in the backs of the arms.
- Dry and unruly hair
- Dandruff
- Soft, fraying or brittle nails.
- Menstrual cramps.
- Premenstrual breast tenderness

END.

5.Mahua

Botanical name:- Mudaka indica
Maduca longifolia
Maduca latifolia
Bassia latifolia
Bassia longifolia



Plant :- Large deciduous tree grows widely under dry tropical and sub-tropical climatic conditions.

Height :- 30 to 50 ft **Age :-** 200 to 250 years

Grows :- Naturally in Forest, Revenue and Private land.

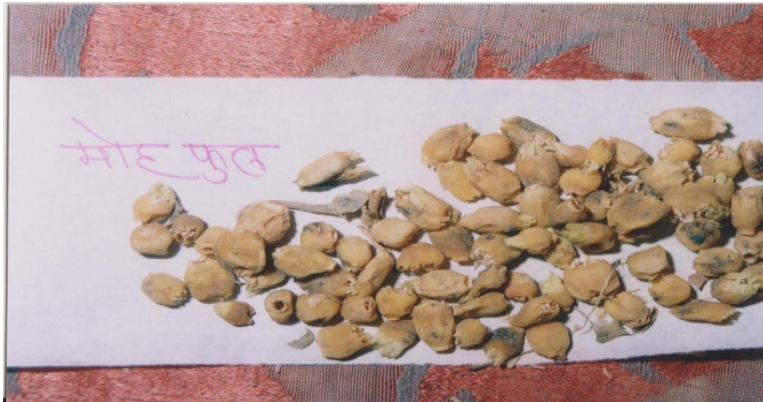
Seeds :- are distributed by birds and dropping of the monkeys and animals.

Parts used :- Bark, leaf, flower, seeds, gum & wood

PLANT:- Known as a “KALAP VARX” & Worshiped.



- The flowers are expectorant and nutritive and are useful in chronic bronchitis & wasting disease. Flowers are stimulant, diuretic, sweet, refrigerant and anthelmintic and are useful in strangury, verminosis, haemophysis and hepatopathy and gastropathy especially in children.



- Fresh juice of the plant is alterative, flowers are cooling, demulcent, expetorant, tonic, nutritive and stimulant.

- Decoction of the flower is helpful in curing heart diseases and ear complaints, promotes removal of mucous secretions from bronchial tubes, help in soothing the alimentary tract and relieving inflammations and is also used for curing coughs.

- **Mahua Sharbat (Decoction)**



Certificate of Analysis for Mahua Sharbat

from Qualichem Laboratories, Gokulpeth Market, Nagpur.

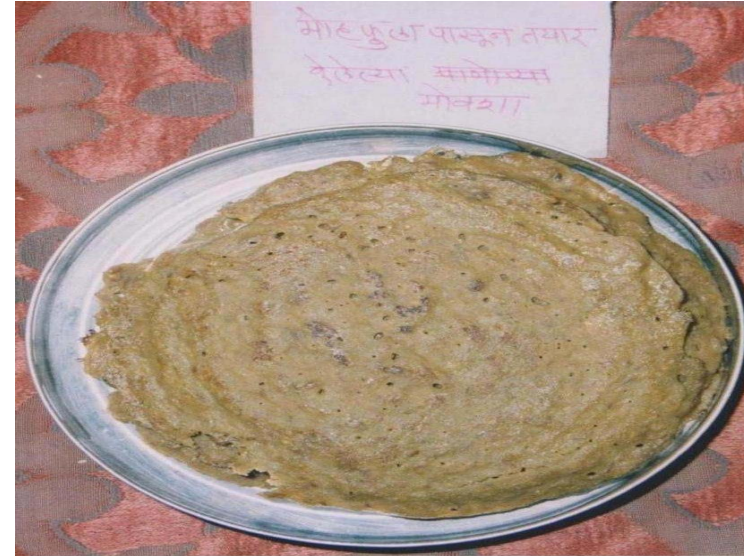
Name of Party--- Dr. Shantilal Kothari

Date :-17.9.2005

Report No F/216/2005

No	Test	Standard		Result	Remarks
		NLT*	NMT**		
1	DESCRIPTION Dark brown color liquid, free from fungal & microbial infestation & abnoxious odour.	-		-	-
2	TOTAL SOLIDS %W/W	-		11.1	-
3	TOYAL ASH %W/W	-		0.21	-
4	FAT %W/W	-		0.05	-
5	PROTEIN %W/W	-		0.31	-
6	CANE SUGAR %W/W	-		10.1	-
7	OTHER CARBOHYDRADE %W/W	-		0.42	-
8	TOTAL CALORIES kcal/100gm	-		43.8	-
9	TEST FOR ETHYL ALCOHOL	-		Negative	

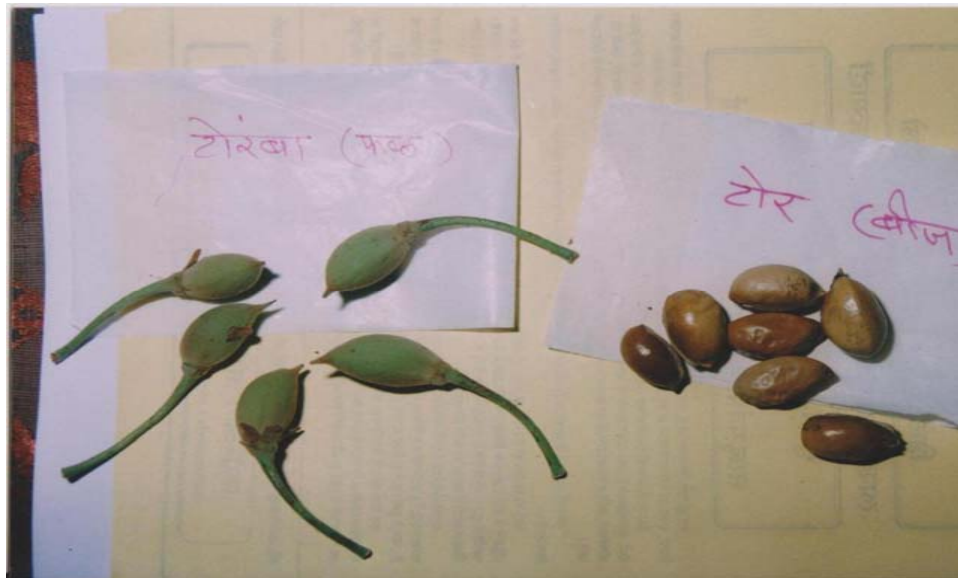
- Roti - Wheat + Mahua
Jowar + Mahua



- Bhajia (Pakoda)-Bonde



MAHUA FRUIT (TORI) & MAHUA SEEDS



MAHUA OIL



Proximate principles: common Food

All the values are per 100 gm of edible portion

	Protein gm	Fat gm	Min gm	Fibre gm	Carbo gm	Ene kcal	Cal mg	Phos mg	Iron mg
Fenugreek Seeds(Methi)	26.20	5.80	3.00	7.20	44.10	333	160	370	6.50
Cassia tora Seed(Tarota)	22.95	7.30	4.17	8.42	45.73	351	-	-	-

METHI



TAROTA



PALAS

(Flame of Forest, Dhak, Khakra, Bastard teak)

Botanical Name: Butea monosperma- (Lam) Tab plant
Butea frondosa- Koeing

Plant :- A deciduous

Height :- 20 to 30 ft **Age** :- 100 to 150 years

Grows :- Through out country, Naturally in Forest,
Revenue and Private land.

Leaves :- Three foliate.

Flowers :- Bright orange- red. Common variety .
yellow, white & blue very rare variety .

Parts used :- Bark, leaf, flower, seeds, gum & wood



- Flowers are astringent, sweet, acrid and alleviate morbid pitta and kapha & cures burning sensations, thirst, skin diseases & painful micturition. (Ayurvedic Drug & their plant sources- V.V. Sivarajan and Indra Balachandran).
- Flowers are astringents, sweet, cooling, constipating, aphrodisiac, haemostatic, diuretic, febrifuge, depurative and tonic. They are useful in vitiated conditions of pitta and kapha, diarrhoea, haemorrhoids, menorrhagia, strangury, fever, leprosy, skin diseases, swelling, hyperdipsia, haemoptysis, arthritis, burning sensation, bone fractures and are every efficacious in birth control (Indian Medicinal Plants, Orient Langman, page 314)
- Fresh juice is given internally in phthisis and also as external application to ulcers and congested septic throats. (Indigenous Drugs of India, R.N. Chopra et al page 302)
- The decoction of the flower is used to cure Leprosy in the early stages gout and skin diseases.

CERTIFICATE OF ANALYSIS
FOR
PALAS SHARBAT
FROM

QUALICHEM Laboratories
Gokulpeth Market, Nagpur.

Name of the party---- Dr. Shantilal Kothari

Date of Sample---17/9/05 Report No. F/214/2005

No	Test	Standard		Result	Remarks
		NLT*	NMT**		
1	DESCRIPTION Dark brown color liquid, free from fungal & microbial infestation & abnoxious odour.	-		-	-
2	TOTAL SOLIDS %W/W	-		9.92	-
3	TOYAL ASH %W/W	-		0.08	-
4	FAT %W/W	-		0.19	-
5	PROTEIN %W/W	-		0.26	-
6	CANE SUGAR %W/W	-		8.1	-
7	OTHER CARBOHYDRADE %W/W	-		1.1	-
8	TOTAL CALORIES kcal/100gm	-		40.0	-
9	TEST FOR ETHYL ALCOHOL	-		Negative	

TAROTA PLANT WITH LEAVES, PODS & FLOWER



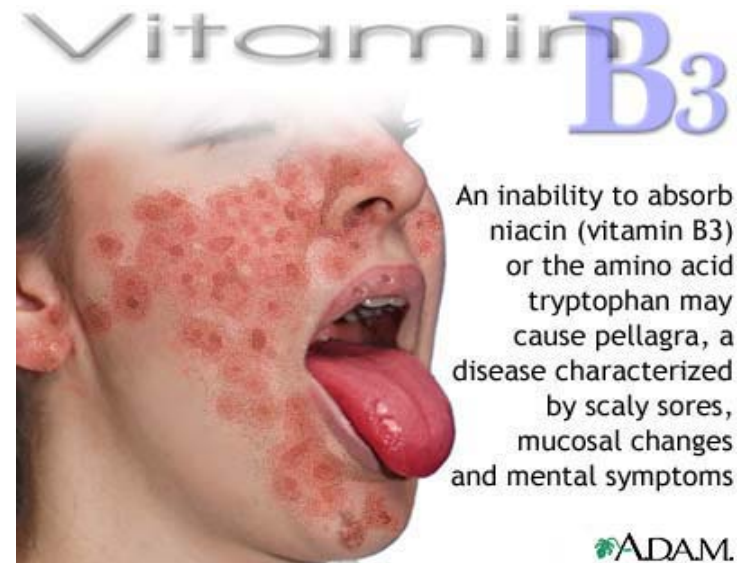
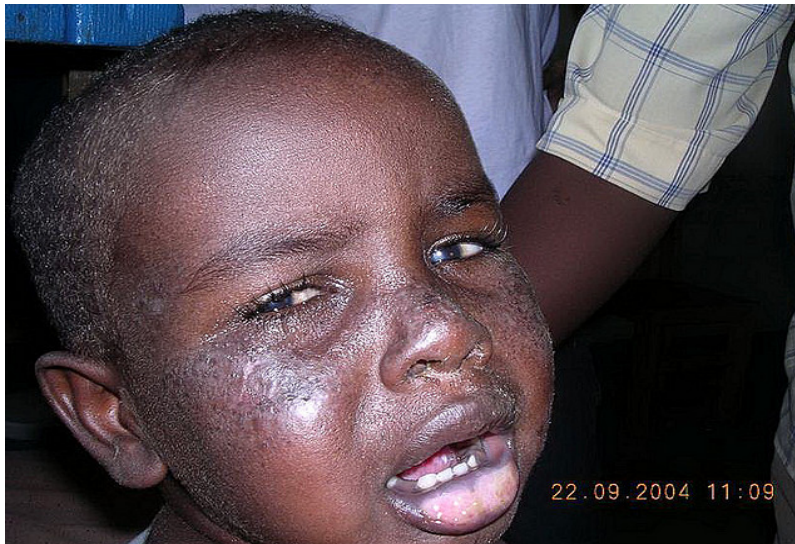
SEEDS



FLOWER



COARSE GRAIN - JOWAR , BAJARA, MAIZE ETC CAUSES DISEASES - PELLEGRA, BERIBERI etc



POPULARIZATION OF LOCAL FOOD PRODUCTS

GOVERNMENT & LOCAL HOSPITAL'S OF NAGPUR



POPULARIZATION OF LOCAL PRODUCTS

School & College (Gadchiroli / Bhandara)



Conference – RTM Nagpur & Amravati University



Mahua Parishad – Sakoli



कृषि को देश के अस्तित्व के लिये बचाओ :
**स्थानीक प्राकृतिक संसाधनों का उपयोग करके गरीबी मिटाये
 व भ्रष्टाचार मुक्त मार्ग से पुनः स्वस्थ, सुखी, सम्पन्न एवं निरोगी बनों**

तेल में	:	तिल, जवस (अलसी), महुआ, मुंगफल्ली, सरसों, राई, नारियल इत्यादी (किसी का भी रिफाइण्ड तेल नहीं)।
दालों में	:	खेसारी, उड़द, मुंग, मसुर, राजमा, मोठ, इत्यादी (साबुत दाने अथवा छिलके वाली दाल ज्यादा पोषिक होती है) सभी प्रकार की पोलिस्ट्र दाल हानिकारक होती है।
अनाज में	:	गेहूँ, चावल, मक्का, ज्वार, बाजरा, रागी, कोन्डो, कुटकी, महुआ इत्यादि।
दूध में हरी	:	गाय, भैंस, बकरी, उंटनी इत्यादी का ताजा दूध। फुंफाडिया (तर्रोटा) माठ, गोल, खापरखुट्टी, पातुर, कुर्कडा, कुंजर, गुइयाँ
सब्जियों में	:	व खेसारी, चना, मुंगना, मुली व सरसों के हरे अथवा सुखाये गये पत्ते इत्यादि।
फलों में	:	स्थानीय बैर, सीताफल, पपीता, केला, जामून, अमरूद, आँवला इत्यादि।
पीने में	:	स्थानिक नदी, झरने अथवा कुओं का, मिट्टी अथवा ताँबे के घड़े में रखा हुआ पानी (जो गाँव वाले हमेशा पीते रहते है) छाछ, राब, आम्बील, कांजी, संतरा, मौसंबी, निम्बू का शरबत इत्यादि।
चाय में	:	पलास के सुखे हुये फूलों की गोल्डन (दूध के साथ) अथवा काली (नीम्बू के रस के साथ) चाय। अदरक, तुलसी, नीम, अस्वगंधा, गवती इत्यादी के पत्तों को डाल कर ज्यादा स्वादिष्ट बना सकते है।

नाना-नानी, दादा-दादी की तर्ज पर ठाथ से नवाने मिठे पकवान बनाओ,
 आथ में बैठके नवाओ, चंचल बनों एवं उनके अनुभवों से आज की दुवा
 पीढ़ी को स्वस्थ, सुखी, अंतोधी, निरोगी व सम्पन्न बनाओ।

युवा पीढ़ी को सशक्त बनाओ : "कच्चा सोयाबिन, आयोडाईज्ड नमक, मशीन से बने मैदे के
 जंकफुड, रिफाइण्ड तेल, एनरजेटीक ड्रिंक, प्रिजर्वड एवं पैकड फूड, मिनरल वॉटर इत्यादि पिला कर
 रोगी नहीं बनाओ एवं रोगियों का देश नहीं बनाओ" तम्बाखू की तरह प्लास्टिक की जगह
 प्राकृतिक संसाधनों से बनी वस्तुओं का ही उपयोग करें एवं रोगों से बचें एवं बचाएँ।

: अधिक विस्तृत जानकारी हेतु सम्पर्क करें :
डॉ. शान्तिलाल कोठारी, संचालक, सोघर्ट फूड प्रॉडक्ट्स अंड कंपनी,
 सोयामिल्क कॉम्प्लेक्स, वर्धा रोड, सिताबर्डी, नागपुर-440 012 (मध्यप्रदेश)
 मोबाईल नंबर : 09890343686



JOIN HANDS

**To Make Country Self-
Sufficient & Every Citizen
Happy, Healthy & Prosperous**

THANKS