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Immune boosting super food supplement from natural resources

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Abstract

We are meant to be living in a happy and vibrant state at all times, and for this to happen, our bodies must be in a state of balance. Many factors, such as our environment, genetics, diet, lifestyle, stress, etc. Combine effects on the health of individuals and communities. Characteristics and behavior also add to health issues. Unfortunately, the above reasons result in ignorance of health, which ultimately reduces immunity, which may even lead to a worsening of health if not early controlled. This makes our body more prone to a variety of diseases. For this purpose, our research seeks to keep our generation safe and healthy with powerful immunity by offering an "Organic Supplement" that contains sprouts, super seeds, medicinal crops and probiotics. These natural resources have demonstrated health benefits.

Keywords: Immune boosting, super food, supplement, natural resources

Introduction

The focus is on daily evolving lifestyles, poor food consumption, stress, absence of sleep (Somlonance) and so forth. This leads to bad health and efficiency of the immune system (Abdel-Aziz et al. 2016)^[1]. If not managed, this can result in serious illnesses. In ancient times the man has dependent so much on medicinal plants for health needs due to wide range of climatic conditions and environment India belongs to one of the richest vegetation of the world (Verma et al. 2015) [10]. Immune cells have neurotransmitter receptors or hormones like nor epinephrine, epinephrine and cortisol that mobilize and circulate immune cells to ideally prepare the body to move an immune response if necessary (Geetha et al. 2012) [6]. Recent evidence shows that immunological cells (e.g., lymphocytes) change their responsiveness to signalling from these neurotransmitters and hormones during stress (Das et al. 2014) [4] the pro-inflammatory cytokines, interleukin-1, interleukin-6 and tumor necrosis factor α are classifications as formal Sleep Regulatory Substances (Geetha et al. 2012) [6]. Research models have shown that sleep quality and immune function are closely connected. But there are also sleeve promoting features for several other immune and pro inflammatory cell classes (Abdel Aziz et al. 2016) [1]. Food and dietary supplements have been used to enhance the health and efficiency of the immune system (Geetha et al. 2012) [6]. Synthetic preservatives used in foods may have negative health impacts for hundreds of years (Dar et al. 2017). The sprouts are excellent sources and contain significant nutrients like glucosinolates, phenol and selenium elements for the maintenance of health (Marton et al., 2010) [19]; they are significant sources of protein, vitamins and ore. Some photochemicals that protect the health are discovered much more in the sprout than in the plant (Harrison. 1994, Fernandez Orozeo et al. 2006). Protection from cancer through feed is very alternative, particularly in light of the fact that very little progress has been made in the medication in many types of cancer (e.g. pulmonary cancer) (Ferlayet et al., 2004). In latest years the focus has been on plant and plant extracts to improve health S. Platensis is one of the natural nutrition options in both human and animal S most sought after. Platensis is a microalgae eaten over the millennia because of its elevated dietary value and alleged health advantages. Carotene-rich diets are now considered to be essential to human health because of their impacts on disease risk reduction (Seyidoglu et al. 2017) [16]. At this age, there has been a stronger focus on the natural system for the management, treatment and curation of human illnesses as a result of the several side impacts of chemical therapeutic agents and synthetic medicines (Dwivedi. M. 2017). Healthy living microorganisms (lactic acid bacteria) consumption with prenatal substances. Probiotics are useful to host health by generating metabolites if they are used in enough volumes. Probiotics are living organisms used as additives for foodstuffs that have a beneficial impact on the healthy body in gastrointestinal traction. Lactobacillus acidophilus and Lactobacillus casei are commercially valuable microorganisms that offer various benefits and increase immunity.

(Sazawall and al. 2006). 2006. 2006. 2006. When not enough, probiotics. When not enough. The production, either directly or indirectly, of host metabolites provides a health benefit. Probiotic product development is a research issue and a challenge for the industry and science because customers are better conscious of their ability to safeguard good health and to provide essential nutrition. Probiotic products, such as fermented milk, like yogurt, kéfir, kumis or fermented products that are not likable, are generally eaten as portions of fermented foods.

Foxtail millet –avoids cancer and disease, reduces incidence of tumor, decreases blood pressure, the risk of cardiac disease, and decreases cholesterol and fat adsorption. Amaranth-a extremely nutritious source of magnesium, manganese, phosphorous and iron, wealthy in fibers and protein, includes antioxidants such as gallic acid, vanillian acid, etc. The protection against illnesses, inflammation and infection decreases.

Sorghum— improves hemoglobin, has anti-inflammatory impacts, activates the immune system, excellent vitamin source, mineral ah, antioxidant content-i.e. compounds of phenol, has an increased amylase activity approximately 10 times that of wheat. Mung bean-delivers a boost of vit-c and vit-k with an rich presence in essential amino acids and includes anti-oxide substances such as phenolic acids, flavonoids, caffetate acids, cinnamic acids etc. (Professor Landry *et al.* 2017) [8].

Traditional use of medicinal products has been transferred from generation to generation to address certain health issues. In preventing the human being from multiple pathogenic microorganisms and illnesses, medicinal plants have an important part to play. Often known as adaptogen, Panax ginseng increases life and longevity, and enhances mental ability. Its use is directed at prevention of cancer, blood sugar regulation, exhaustion, immunomodulation, and human health and illnesses. (Gopalakrishnan V. et al. 2002, Fatma n. et al. 2005). It has immune modulating activity by influencing the hypothalamic hypophysis adrenal axis (HPA). The intestinal tract is directly affected by ginger. It has been used in the treatment of motion (Sharma PV chakra ChakraDatta 1997; Change H. M. 1998) and pregnancy nausea. The main element of ashwagandha is the alkaloids and steroid lactones. Anti-carcinogenic effects in animal-cell cultures (Gennaro et al. 2000, Visen & et al. 1996) [5]. The main parts of astragalic membranes are polysaccharides, saponins, flavonoids, amino acids and trace elements (Boswell A. 2006, Kirchner, et al. 2004) [2]. Seeds of flax-High in omega 3 fats; a wealthy source of lignans that can decrease cancer risk; rich in fiber and nutritional fiber; enhanced concentrations of cholesterol. Sowed with hemp-a large source of vitamin E and a excellent source of arginine and gamma of linolenic acid- hemp plants, like phosphate, sodium, magnesium, sulfur, calcium, iron and zinc decreases danger for heart illness. Sesame seed-wealthy in diabetes-proof magnesium, adds excellent flavor. Pumpkin seeds-rich in antioxidants, iron, zinc, magnesium, blood pressure, heart disease risk reduced, and blood sugar concentration regulated. Seed chia -containing the fiber and omega-3 fatty acids, high-quality proteins: zinc, vitamin B3, potassium, vitamin B1 (thiamine) and vitamin B2 (riboflavin). (Fernandez and others 2007).

Material and Methods

Probiotic Bacteria: Lactobacillus acidophilus, Lactobacillus Casei., Medicinal Plants: Ocimumbascilicum (Basil), Zinguber officinale (ginger), Withania sominifera

(ashwagandha), Super seeds: Linum usitatissimum (Flax seed), Sesamum indicum (sesame seed), and Cucurbita maxima (pumpkin seed), Vegetable Sprouts: Setaria italica (Foxtail millet), Amaranths (amaranth), sorghum (jowar), pearl millet (bajra), Vigna radiate (moong bean). Glassware: Beakers, Conical flask, Reagent bottles, Test tubes, Funnels, Petri plates. Miscellaneous: Filter paper, Aluminium foil, Cotton swab, Micropipette tips. Others: Pan balance, Micropipette, Water bath, Hot air oven, Incubator, Autoclave, Mixer, Laminar air flow, Muslin Cloth.

Probiotics

MRS agar plates were used for the isolation of Lactobacillus acidophilus and Lactobacillus Casei from 1gm of youghurt mixed in sterile saline (0.85gm in 100ml).Dilutions were prepared in 14 pipes (10 ^ 1... 10 ^ 14 all sterile) and circulated to MRS agar plates, incubated at 37oc for three days (anaerobic) for 48hrs. Following incubation, the colonies were moved to the MRS broth medium. It was streaked on MRS agar covers and incubated at 37 ^ 0c for 24 hours. Colony characterization was conducted by Gram staining and biochemical screening (motility, catalase research)

Preparation of starter culture using skim milk

A 10-minute sterilization of 115 degrees C with 1 percent sucrose was performed with 10% of skim milk. After heat (37 0C), a 2% crop was inoculated and incubated at 37 0C for 12 hours.

Preparation of fermented milk

Skim milk was prepared on the basis of 7.5 per cent, 10 per cent, 12.5 per cent, 15 per cent and 17 per cent, followed by sucrose on the basis of 0 per cent, 5 per cent, 10 per cent and 15 per cent, and CMC on the basis of 0.05 per cent. These materials were homogenized using a mixer at a velocity of 1000 rpm for 5 min and then pasteurized at 85 0C for 15 min. After the medium became cold (37 0C), it was inoculated with a starter of 5 percent and incubated at 37 0C for 12 hours. Bajra: In a pot filled with water, covered with a covering, washed bajra was taken over for a soak overnight. Grains were strained next morning and added into a moist cotton cloth. It began to sprout after 12 hours. Water was sprinkled and hung again for another six hours in each hour. Keep on 4-5 hours drying cotton cloth. Grains have become finely powdered. Mung bean: Washed beans were 8-10 hours soaked in potable water. It was noted after 24 hours of sprouting. Sorghum (Jowar): Washed and stored overnight in a moist cloth. Water was sprinkled every one hour to maintain it moist. The next day, sprouts were dried and stored for 1-2 days. Amaranth: Washed grains have been soaked for five hours in filtered water and held for 8 hours or overnight in a cotton cloth. Sprouting was inspected and kept for another 6 hours if not observed. Sprouts were dried and ground. Foxtail Millet: Washed foxtail millet added to a container filled with water, covered with a cover and kept overnight for soaking. Grains were strained and held on a moist cotton cloth. After 12 hrs, it began to sprout. Water was sprinkled and hung for another 6 hrs. Sprouts were prepared and spread on cotton cloth for 4-5 hrs or until dry. Once dried, they were toasted and ground.

Medicinal plants

Basil (leaves) Washed and spread on the cloth in the shade for 2-3 days. The leaves were ground into powder and placed in the airtight container after 3 days of drying. Ashwagandha

(roots) Washed roots have been cut into tiny parts and dried for 2-3 days in sunlight. Roots were ground into fine powder and stored in containers after drying. Ginger (roots) Washed and soaked in water for few minutes in order to get rid of dirt and then chopped into tiny bits, plated, dried and ground into fine powder.

Super seeds

Flax seeds: Flax seeds have been cooked in the medium fire until the grains are splintered and color changed. Removed, cooled and ground out of the fire. The powder was distributed to cool down and stored in a container that was tightly fitted with air. Pumpkin seeds through 1 day, washed well and sundry (no roasting, grind it straight). Screened into airtight containers and stored for maximum life in the refrigerator. Sesame seeds on medium flame (maintaining stirring), sesame seeds were roast until the spots were black. Cooled down and stored in a container.

Result

The supplement was prepared successfully from the dried sample of Krishna tulsi (Basil), Ashwagandha root powder, ginger root powder, different sprouts of Foxtail millet, and Amaranth, Bajra, Sorghum, Mung bean(Fig 1) and super seeds such as Flax, Sesame & Pumpkin seeds (Fig 1,2).



Fig 1: A. Sprouted seeds of Foxtail millet, Amaranth, Bajra, Sorghum, Moong bean B. Dried sample of Rama leaves C. Dried sample of Basil leaves

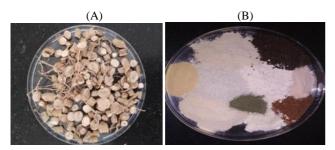


Fig 2: A. Dried roots of Ashwagandha B. Powder form of Resources

The base of the supplement contains 65% sprouts, 30% super seeds, 4% medicinal plants & 1% of probiotics (Fig 3).

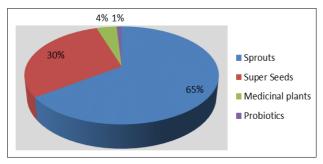


Fig 3: Content of Supplement in percentage

The solubility of the supplement was checked in both warm milk and water and it is observed that the solubility of one supplement is more in warm milk as compared to warm water.

Probiotics strain isolation

Identification of Lactobacillus. Acidophilus

The bacterium was isolated from yoghurt/curd. The isolated bacteria were observed by light microscope. It is clear that the bacterium was gram positive rod shaped structure occurring singly or in chain. The gram staining result indicating that the isolated bacteria could be identified as *lactobacilli*. (Fig 4. A) Hanging drop wet method showed that the isolated bacteria were non-motile. Therefore this method confirmed that the bacterium under the investigation was non-motile. The non-motile behavior is characterizes of *Lactobacillus*. *Acidophilus*.

Identification of Lactobacillus casei - Shirota

The isolated bacterium from the Yakut was gram positive, purple color short rod shaped bacteria were observed by light microscope. These bacteria occurring in chain. The gram staining result indicating that isolated bacteria could be identified as lactobacillus casei.

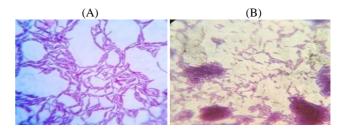


Fig 4: Gram's staining of Probiotic bacteria (A) Lactobacillus acidophilus

(B) Lactobacillus casei

Hanging drop wet method showed that the isolated bacteria were non-motile. Therefore this method confirmed that the bacteria under the investigation were non-motile. The catalase test is one of the most useful diagnostic tests for the recognition of bacteria due to their simplicity. In performing catalase test no bubbles were observed indicating that the isolated bacteria is catalase negative and could not medicate the decomposition of H₂O₂ to produce O₂. It is well known that LCS is catalase negative. Further examination of supplements will be carried out by testing it on two volunteers of the different life style. Prior to the consumption of CBC, kidney and liver test of the volunteers will be done for a stretch of 15 days 30gm supplement in warm milk per day is consumed. After a course another CBC, Kidney and liver test will be done based on the report (before & after) whether the supplement boosts immunity or not will be concluded and then termed as "IMMUNE BOOSTING SUPPLEMENT" (Fig 4. A, B)

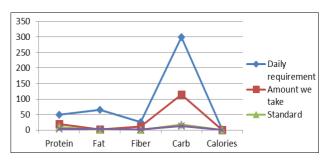


Fig 5: Comparison of essential contents of body of daily requirement, we consumed, standard organic product and our product

Calcium, magnesium, phosphorous, potassium and sodium are having good proportion when compared to the standard products. Since Vit are essential and obtain very less quantity from our daily diet, therefore we are providing it. Vitamins (Vit A, Vit B5, Vit B6, Vit E, Vit K) are present in our supplement but in less amount. Vit K, thiamin and riboflavin are given in good proportion which are not provided in the standard product (Protein X). The standard product, includes more fat, fiber, and magnesium in our supplement. Protiens, carbohydrates, calories, Ca, P, K are provided in quite good proportion. From Fig. 5, Vit K and selenium are provided in higher amount as compare to standard product. Vit E, Vit A are also provided in good proportion in our food supplement (Fig.5). As compared to the lab tested report, our super food supplement made from organic resources contains 252 Kcal Energy, 2gm fat, 42gm of Carbohydrates, 1gm of crude fiber, 8.20gm of proteins, 5.70gm of total mineral, 91.55% Ash, 6.13% insoluble ash and 1.59% moisture per 100gm. (Table No.1)

Table 1: Troduct content test Report of Bioscience Biotech Laboratories

Sr. No	Parameter	Unit	Observed Value
1	Energy	Kcal/100gm	252.00
2	Total Fat	Gm/100gm	02.00
3	Total Carb.	Gm/100gm	4.70
4	Crude Fiber	Gm/100gm	01.00
5	Protein	Gm/100gm	08.20
6	Total Minerals	Gm/100gm	05.70
7	Ash	%	91.55
8	Ash Insoluble	%	06.13
9	Moisture	%	01.59

Table 2: Blood Test Report of Volunteers before taking supplement

Sr. No.	Test	Result	Unit	Biological Reference Interval			
	Haemogram						
1	Hb	13.50	gm%	12.0-15.0			
2	Total Leucocytes (wbc)	6240.00	/cmm	4000-11000			
3	Erythrocyte count (rbc)	4.45	million/cmm	3.8-4.8			
4	P.C.V.	39.60	%	36-46			
5	M.C.V.	89.00	Fl	83-101			
6	М.С.Н.	30.30	Pg	27-32			
7	M.C.H.C.	34.10	g/dl	31.5-34.5			
		Differe	ntial Count				
8	Neutrophils	55.00	%	40-80			
9	Lymphocytes	40.00	%	20-40			
10	Monocytes	4.00	%	2-10			
11	Eosinophils	1.00	%	1-6			
12	Basophils	0.00	%	0-2			
13	Platelet count	249	1000/cumm	150-410			
	LFT-Liver Function Test						
14	Total Bilirubin	0.90	mg%	0.2-1.3			
15	Direct Bilirubin	0.50	mg%	0-03			
16	Indirect Bilirubin	0.40	mg/dl	0-0.8			
17	Serum S.G.O.T.	22.00	u/l	17-59			
18	Serum S.G.P.T.	34.00	u/l	21-72			
19	Alkaline phosphatase	57.00	u/l	38-125			
RFT(Renal Function Test)							
20	Blood Urea (rft)	34.00	Mg/dl	15-37			
21	Serum creatinine	0.70	Mg/dl	0.6-1.2			

Table 3: Blood Test Report of Volunteers after taking supplement

Sr. No.	Test	Result	Unit	Biological Reference Interval			
	Haemogram						
1	Hb	12.40	gm%	12.0-15.0			
2	Total Leucocytes (wbc)	9120.00	/cmm	4000-11000			
3	Erythrocyte count (rbc)	4.21	million/cmm	3.8-4.8			
4	P.C.V.	38.40	%	36-46			
5	M.C.V.	91.20	Fl	83-101			
6	M.C.H.	29.40	Pg	27-32			
7	M.C.H.C.	32.20	g/dl	31.5-34.5			
	Differential Count						
8	Neutrophils	68.00	%	40-80			
9	Lymphocytes	26.00	%	20-40			
10	Monocytes	4.00	%	2-10			
11	Eosinophils	2.00	%	1-6			
12	Basophils	0.00	%	0-2			
13	Platelet count	322	1000/cumm	150-410			
LFT-Liver Function Test							
14	Total Bilirubin	0.40	mg%	0.2-1.3			
15	Direct Bilirubin	0.20	mg%	0-03			
16	Indirect Bilirubin	0.20	mg/dl	0-0.8			
17	Serum S.G.O.T.	20.00	u/l	17-59			

18	Serum S.G.P.T.	30.00	u/l	21-72	
19	Alkaline phosphatase	50.00	u/l	38-125	
RFT(Renal Function Test)					
20	Blood Urea (rft)	26.00	Mg/dl	15-37	
21	Serum creatinine	0.80	Mg/dl	0.6-1.2	

Ultimately the final test on four voleenters for 15 dyas prove that the improvement in immune cells in blood stream, this quite helpful supplement to improve immunity.

Discussion

Probiotics are human friendly bacteria providing benefits. Probiotic are live microorganism that can be consumed through food/supplements. These include benefits for weight loss, Digestive health, Immune function & more. Probiotics are widely known for their ability to prevent diarrhea or reduce its severity. (Dr Sazawal et al. 2006) [26]. Certain probiotic may help to keep your heart healthy by lowering LDL cholesterol & BP. Probiotic may help in boost your immune system. We were also isolated the probiotic from the probiotic capsule & yalkult. L. acidophillus is a type of bacteria found in your intestine. L. acidophillus was found to be prevented in yoghurt. The isolated showed different growth parameter at different temperature oxygen & different concentration if NaoH (Kavita et al. 2016). The name gives an indication of what it produce-lactic acid. L. acidophillus has been extensively studies as probiotics evidence has shown that it may provide no. of healthy benefits.

It may help to reduce cholesterol. Fortunately studies suggested that certain probiotic can help to reduce cholesterol level & that L. acidophillus may be more effective than other type of probiotics. It may promote weight loss. The bacteria in intestine help to control food digestion & a no. of other bodily processes. Therefore, they influence your weight. It may help prevent & reduce cold & flu symptoms. It may help prevent & symptoms, Eczema symptoms. allergy acidophilluscasei- Shirota is one of the friendly bacteria that beneficial to your digestive system. Actually body depends on them without them it's much harder to digest food & absorb important nutrients. They also help to keep some more of the harmful microorganism under control. The probiotic supplements containing L. casei are used to prevent or treat diarrhea. L. casei is also useful for: Cold, Flu & reparatory infection, Earinfection, Oral health problem, such as plaque, canker sores, Rheumatoid arthritis (RA).

The process was completed up till the isolation and characterization of bacteria. Further it was halted as we were not able to proceed with its lyophilization to add in our product. In future the isolated bacteria will be lyophilized and probiotic containing supplement will be developed. Sprouts have ability to improve digestive process, boost the metabolism, increases enzymatic activity throughout the body, prevent anemia, aid in weight loss, lower cholesterol, reduces blood pressure, prevent neural immune system, and increases usable energy reserve. It's improving digestion. It contains number of enzymes, which help to boost various metabolic processes and chemical reactions within the body. Sprouts are a great way to clean up constipation as well as diarrhea and can even prevent colorectal cancer. It also Boost Metabolism, Prevent Anemia, Weight loss. These are one of those foods that are very high in nutrients and very low in calories (Table 1). Marton et al. (2010) [19] showed that the sprouts contain many such materials (Sulphoraphane, sulphoraphene, isothiocyanates, glucosinolates, enzeymes, antioxidants, vitamins). They proved to be effective in the

prevention of cancer or in therapy against cancer. It's improve heart health, Sprout great source of omega 3 fatty acid, Omega 3 fatty acid are also anti-inflammatory in nature, so they reduces the stress on your cardiovascular system as well. Its vitamin C content alone makes it powerful stimulant for the WBC in the body to fight of infection and disease. Vitamin A has number of antioxidant properties that makes a great source of immune system strength. It also prevents Cancer and Reduces. Paula *et al.* (2015) [23] reported that the Amaranth sprouts are an edible food with good nutritional qualities and potential biological activities of their proteins sprouts showed protein content similar to the seeds on a dry basis (16%) and a high fiber amaranth sprouts are a nutritive value of food with potential health promoting properties.

Nutrition is required to maintain a healthy body and strong immunity to fight against various diseases and for a safe survival. The essesntial and non essesntial components if compared to the standard product, we provide a good range of nutrients (minerals, vitamins, secondary metabolites etc.). Zinc involved in various processes such as gene expression, enzyme reaction, immune functions, protein synthesis, growth development etc. Because of its role in immune function it is added in some nasal sprays, and other natural cold treatments. Magnesium, it helps keeps the blood pressure normal, bone strong and the rhythm steady. Manganese is a coenzyme involved in various metabolic activities. It is also included in the formation of connective tissues, adsorption of calcium. proper functioning of the thyroid glad, sex hormone, regulation of blood sugar level and proper metabolism of fats and carbohydrates. Phosphorous, is mainly involved in formation of bones and teeth. It is involved in various metabolic pathways, also needed to make proteins, its maintenance and repair of cells and tissues. It also helps to make ATP. It is also involved in kidney fuction, muscle contraction nerve signaling etc. Potassium, it is required fpr cell signaling, nerve function, muscle contraction etc. Body requires iron to make hemoglobin and myoglobin. Selenium plays major role in body metabolism and thyroid function. It helps to reduce oxidative stress by maintaining free radical numbers. It also help to reduce the DNA damage. Calcium is require to build and maintain strong bones and healthy communication between brain and other part of the body. It also plays a role in muscle contraction, blood clotting, a cofactor for many enzyme etc. (Fig C)

Vitamin C, it is an antioxidant and a cofactor. It supports various cellular function both innate and adaptive immunity and also promotes the oxidant scavenging activity of the skin thus protects against environmental oxidative stress. Vitamin A again plays a role in innate and adaptive immunity. It promotes the function of neutrophils, macrophages and natural killer cells and also plays role in the developments of both T and B cells. Its deficiency diminishes antibody mediated responses by Th2 cells. Vitamin D receptor is expressed on immune cells (B cell, T cell and APCs). Vitamin D deficiency is associated with increased autoimmunity. It promotes calcium hemostasis and bone health. It also enhances absorption of calcim in small intestine. Vitamin E, it has anti oxidant property and show effective results against ageing. Platelets hyperaggregation which leads

atherosclerosis may also be preventes by Vit E. Vitamin K it is required to produce prothombine which is important in blood clotting and bone metabolism. Vitamin B12 is needed for nerve tissue health, brain function and for the production of RBCs. Its deficiency can lead to neurological difficulties and anemia.

Conclusion and Future Scope

A good proportion of nutrition (fat, fiber, carbohydrates), Minerals (P, Mg, Mn, Se) and Vitamins (thiamin, riboflavin, vit k) is achieved when compared to nutritional value of standard food product (ProteineX). (fig E and Fig F). From this study we can conclude that it is possible to find right combination of organic food product, medicinal plants and probiotics as food supplement. In day to day busy and stress life most of the population are getting inadequate vitamin, mineral and other plant active compounds. We have found the best way to recover this issue by providing the supplement which can solve the problems. Providing good proportion of nutrition from organic materials (our natural habitat) composing our daily need have been advantage replacing the inorganic supplement in market which have many disadvantages

Depending on the results obtained from lab testing of volunteers, it will be concluded that whether the supplement immune boosts or not. As there is increase in unhealthy lifestyle nearly one out of four adults of the population falls sick. For this reason this supplement is developed which will resolve the above health issues. Uptill now the intake of supplement was limited only upto milk or water, but we are trying to use our supplement directly in the bread flour. We are also trying to design the supplement in a way that can be used in baby food. On the basis of odor and taste are prepared supplement remained uncontaminated since 5-2 2019 to 23-3-2019. To increase its shelf life upto 5 to 6 month without using any preservative is under process.

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