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# "Agriculture extract Triglyceride has competence to control multiple health disorders improve immunisation among *Homo sapiens*"

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**Key Word :** Agriculture extract Triglyceride; control of multiple health disorders; improve immunisation; EPA; DPA; DHA; ALA; Omega 3 found in vegetable; natural majors of disease control

# ABSTRACT

**N**atural world has a potentiality to manage all leaving beings across the globe. Near about 1.5 million species of plants, animal, fungi, algae, lichen are identified and documented on Earth and increasing day by day and there are currently about 75 billion tons of living things (bio mass) on earth (as per science line / ucsb data). As estimated about 8.7 million species (6.5 million are on land & 2.2 million in oceans) are present in earth, among which 1.3 million species are involve in give or take processes.

Triglyceride encourages the function of providing energy, whereas cholesterol is needed by the human body for hormone synthesis and cellular structure which is a part of lipids is the major form of fatty acid combine with a molecule of alcohol and glycerol. It serves as the backbone of many types of lipids comes from the food we eat as well as form in the body digestion processes. In deficiency of this, several diseases are occurring in our body such as Hyperthyroidism refers to an overactive thyroid. The thyroid gland overproduces hormones, leading to sudden weight loss, increase in appetite, sweating, menstrual changes, fatigue, and sleeping problems. Apart from this low triglyceride in human body also caused due to malnutrition and results in cancer, memory loss, depression, inability to eat, and trauma. Deplete of fat, leading to low triglycerides which is caused due to use of certain kind of medicines and drugs and its side effects after use. Research finding of low triglycerides can be associated with its own range of adverse effects resulting in various health complications. Recent studies have found that, low triglyceride levels causes with old age and a high class of NYHA heart failure, decrease in resistance power & immunity to COVID - 19 in our body and also creates cardiac problem and even stroke. This emphasizes that importance of having an overall balance within the body, as high triglycerides have been known for leading the development of fatal cardiac and stroke issues as well. Low levels of triglycerides also impact other processes in the body such as the absorption of fat-soluble vitamins A, D, E, and K. These vitamins are involved in everything from the recycling of calcium to the production of beneficial blood clots.

Omega-3 fatty acids are one type of essential lipid found in fatty fish, such as tuna, salmon and halibut. Omega – 3 fatty acids such as Eicosapentaenoic acid (EPA), Docosapentaenoic acid (DPA) and Docosahexaenoic acid (DHA) precursors of certain eicosanoids that are known to reduce inflammation in the body and improve hypertriglyverdemia. In plants it is found as Alpha Linolenic Acid (ALA), horticulture such as chia seeds, brussels sprouts, algal oil, hemp seed, walnuts, flax seeds, perilla oil, kidney beans, soyabean oil, seaweed, tender soya bean, fruits, olive leaf, Kale, broccoli, navy beans, winter squash, Egg yolk, wheat germs, pumpkin seeds, Red lettuce, spinach etc.

These lipids are essential to maintaining proper brain function and may reduce inflammation in our body. Meeting our needs for essential fatty acids may also help reduce our risk of developing heart diseases, cancer and arthritis (*Source University of Maryland Medical Centre*). Again by using the essential lipids both derived from fishes & horticultural/agricultural plants will results in resistant to pandemic diseases like COVID – 19 cause by CORONA virus, aquatic air borne viruses & viruses transmitted through various vectors.

It is better to use agriculturally found Triglycerides (ALA) with natural vegetable base insulin's and fish base EPA, DPA & DHA derived Omega natural food supplements to protect our self from diseases like CORONA virus chain, Mental disorders, eye related night blindness, Overweight, skin diseases, MMR & life to child in pregnant women, children related deficiency cause low attention and hyperactivity, liver fat, depression, mental decline, asthma & allergy, bone growth related diseases, mal nutrition due to deficiency of added vitamins like A, D, E, K & B vitamin chain. Regular consumption of 0.2 – 0.5 gm omega extract rich fruits & vegetables, egg, processed meat, fish, milk derived from both animal & botanical sources and agronomical crop produce such as wheat, rice (black rice) & other cereals processed food can give us better health for bright future of our family as well as nation. The effectiveness of the natural triglycerides will depend on avoid of alcohols such as liquors and other related toxic rich commodity.

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Insulin resistance, a characteristic of diabetes, can be a outcome of having low triglyceride levels. This occurs when an increased metabolic rate can clear insulin from our system, along with triglycerides, at a faster rate. This can be a foundation of the glucose in the system to bond around longer going underutilized and pronging exposure to cells increasing their resistance to insulin. Cholesterol travels in our cells via special carriers called lipoproteins. The total cholesterol reading in a lipid profile test measures the blood cholesterol in all the lipoproteins joint.

Low-density lipoproteins (LDL) move about cholesterol from the liver to other areas of the body. LDL is referred to as the "bad" cholesterol, because some of the LDL particles enter the walls of arteries. There, they form harmful cholesterol deposits and lower down the label of triglyceride. Again excess of it also emphasises to several diseases.

Lipids or fats play an important role in maintaining our overall health. However, if we consume more lipids than your body can use as energy in a day, the remainder is stored in fat cells in our body for later use. In addition to its other roles, fat aids in the absorption and storage of certain indispensable vitamins. Getting enough of the fat-soluble vitamins helps sustain our vision, reproductive health, immune system, bone density, heart health and blood clotting, according to the *Colorado State University Extension website*. Certain types of lipids are considered essential fatty acids because our body is unable to make them and they must come from our diet and also 40 percent of the organic matter in our body, which represents approximately 15 percent of our body weight, is due to lipids. When present in food, phospholipids allow fat and water to mix, in turn allowing fats to become part of your blood and move in and out of cells and vessels.

Omega-3 fatty acids are one type of essential lipid found in fatty fish, such as tuna, salmon and halibut. Omega – 3 fatty acids (As in Table number – 3) Eicosapentaenoic acid (EPA), Docosapentaenoic acid (DPA) and Docosahexaenoic acid (DHA) precursors of certain eicosanoids that are known to reduce inflammation in the body and improve hypertriglyverdemia. In plants it is found as Alpha Linolenic Acid (ALA), horticulture such as chia seeds, brussels sprouts, algal oil, hemp

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### **DISCUSSION:**

**Table number - 1** Highlights different sources of Agriculture crop or processed product to provide us ALA in gram out of 100 grams of crop or commodity. It is found that walnuts has 51.48 grams of ALA out of 100 grams of nuts followed with walnut oil has 28.28 grams out of 100 grams, flax seeds has 47 grams ALA out of 100 grams, rape seeds oil has 26.04 grams ALA out of 100 grams & soya bean oil has 24.62 grams out of 100 grams. Other vegetables such as beans, pumpkin seeds, spinach etc. has availability of ALA and regular consuming of it we can increase our immunisation power to fight against several diseases. Apart from that, raw vegetables has insulin, vitamins and all essential nutrients which improve the enzymatic activities, secretion of hormones and strengthening of all systems of our body & mind.

### Table number – 1

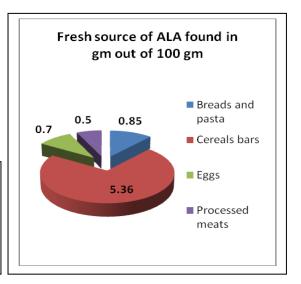
Source of ALA	ALA content	Agriculture crop or processed product source of
(100 gm/ml)	(gm)	ALA found in gm out of 100 gm.
Dry Beans, common	0.6	Dry Beans, common
Dry Chickpeas	0.1	0.6 ¬ _ <sup>0.1</sup> _ 0.7
Dry Soybeans	1.6	0.1 - Dry Soybeans
Oats germ	1.4	■ Oats germ
Rice bran	0.2	$0.8$ $1.6$ $_{0.1}$ =Rice bran
Wheat germ	0.7	0.003 0.4 0.1 =Wheat germ
Raw Avocados	0.1	0.4 0.1 Avocados, California
Raspberries raw	0.1	0.1 ■Raspberries raw
Strawberries raw	0.1	30 1.2 0.4 1.02 2.063.12 - Strawberries raw
Navy / Sprouted Beans	0.3	Navy / Sprouted
Broccoli raw	0.1	24.62 Beans Broccoli raw
Red Lettuce	0.1	51.48 Red Lettuce
Pumpkin seeds	1.02	26.04 Pumpkin seeds
Olive oil	2.06	=Olive oil
Walnuts, black	3.12	28.28 = Walnuts, black
Soybean oil	24.62	47 Soybean oil
Rapeseed oil	26.04	Rapeseed oil
Walnut oil	28.28	-Walnut oil
Flaxseeds	47	Flaxseeds
Walnuts	51.48	Walnuts, English
Flaxseed oil	30	= Flaxseed oil
Almonds	0.4	Almonds
Peanuts	0.003	=Peanuts
Spinach	0.1	Spinach
Parsley	0.4	Purslane
Dried Seaweed		= Seaweed, spirulina,
(spirulina)	0.8	dried Mustard
Mustard	0.1	

#### Agriculture crop or processed product source of ALA found in gm.

# Table number – 2

Fresh source of ALA	
(100 gm)	ALA content (gm)
Breads, noodles and	
pasta	0.85
Cereals bars	5.36
Eggs	0.7
Processed meats	0.5

**Table number – 2** highlights about fresh sources of ALA & found out of 100 grams of cereals processed bars has 5.36 grams of ALA followed with Breads, noodles & pasta that is 0.85 grams & Eggs 0.7 grams & processed meats 0.5 grams.

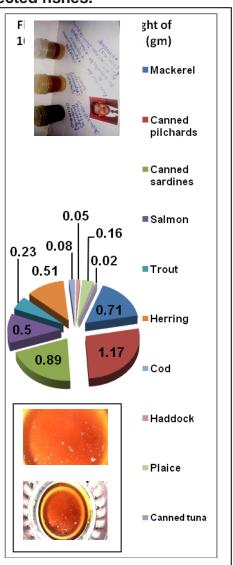


# Table number – 3

Fresh Source of Eicosapentaenoic acid (EPA), Docosa Pentaenoic Acid (DPA) and Docosa Hexaenoic acid (DHA) contents of selected fishes.

Fish of an average weight of 100 gm	EPA (gm)	DPA (gm)	DHA (gm)	Total (EPA+DPA+DHA) in gm
Mackerel	0.71	0.12	1.1	1.93
Canned pilchards	1.17	0.23	1.2	2.6
Canned				
sardines	0.89	0.1	0.68	1.67
Salmon	0.5	0.4	1.3	2.2
Trout	0.23	0.09	0.83	1.15
Herring	0.51	0.11	0.69	1.31
Cod	0.08	0.01	0.16	0.25
Haddock	0.05	0.01	0.1	0.16
Plaice	0.16	0.04	0.1	0.3
Canned				
tuna	0.02	0.02	0.14	0.18

**Table number – 3** highlighted about fats found in fishes, which plays a role in helping keep triglycerides down. Salmon, Canned pilchards, Markerel, Canned tuna, Canned sardines, Cod fishes etc. has EPA, DPA & DHA. Among all fish, Canned pilchards has high content of EPA+DPA+DHA content (2.6 grams) followed with Salmon (2.2 grams), Mackerel (1.93 grams) so on. Indian common carp fishes such as **L.rohita, C. catla, Mackrels** has also presence of essential above lipids. Common cat fishes are also under research for analysis the % of Omega component.



# Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA) contents of omega - 3 supplements-

As table number - 4 shows different components in which we can gate Omega -3 supplements and out of 100 grams of commodity we receive best supplements with standard common carps 80gm EPA, 20 gm DHA followed with krill oil 40gm EPA & 60 gm DHA, mixture of 45 % concentrate fish oil we can gate 40 gm EPA & 60 gm DHA so on.

lable Number	<u>r – 4</u>				
Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA) contents of omega - 3 supplements				Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA) contents of omega - 3 supplements EPA (gm/100 gm oil)	
Component out of 100 grams	EPA (gm/100 gm oil)	DHA (gm/100 gm oil)	EPA + DHA (gm/100 gm oil)	Cod liver oil 6% 6% Krill oil Standard fish oil	
Standard fish oil Krill oil	80 40	20 60	100 100	22% 22% Typical 45% fish oil concentrate Tuna oil	
Mixture of 45% fish oil concentrate	40	60	100	44%	
Tuna oil	10	50	60		
Cod liver oil	10	90	100		

# **CONCLUSION:**

So it is better to use agriculturally found Triglycerides (ALA) with natural vegetable base insulin's and fish base EPA, DPA & DHA derived Omega natural food supplements to protect our self from diseases like CORONA virus chain, Mental disorders, eye related night blindness, Overweight, skin diseases, MMR & life to child in pregnant women, children related deficiency cause low attention and hyperactivity, liver fat, depression, mental decline, asthma & allergy, bone growth related diseases, mal nutrition due to deficiency of added vitamins like A, D, E, K & B vitamin chain. Regular consumption of 0.2 – 0.5 gm omega extract rich fruits & vegetables, egg, processed meat, fish, milk derived from both animal & botanical sources and agronomical crop produce such as wheat, rice (black rice) & other cereals processed food can give us better health for bright future of our family as well as nation. The effectiveness of the natural triglycerides will depend on avoid of alcohols such as liquors and other related toxic rich commodity.

## **REFERENCES:**

- 1. Science line / ucsb data
- 2. Colorado State University Extension website
- 3.https://nutritiondata.self.com/facts/fats-and-oils/628/2
- 4.https://healthyeating.sfgate.com/benefits-soy-bean-oil-4163.html