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Vegetable Oils – The CODEX Perspective

The Questionable Link between Saturated Fat & Heart Disease

Moringa OIL

Health Tips

Published by : Oil Technologists' Association of India (North Zone)

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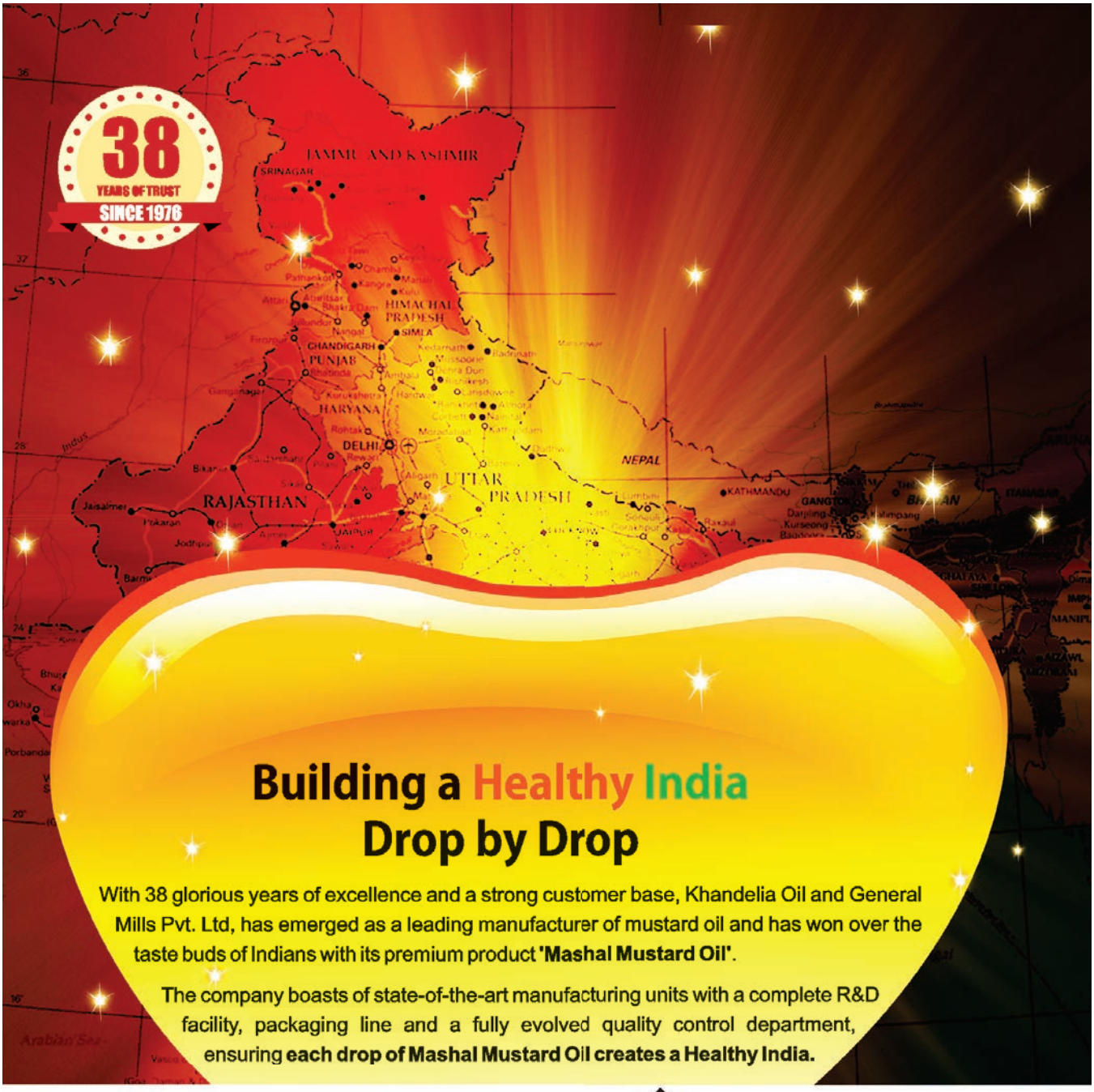

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Editor's desk

The revised duty structure has improved the margin and turned refining operation economical and cost effective. Because of revised duty structure and healthy growth in per capita edible oil consumption, the major players in the field of edible oil are planning for capacity enhancement.

But the real problem may emerge due to bumper oil seed crop worldwide. This may lead to dumping of cheap import in India. The surplus stock will suppress the local production and margin will further shrink for crushing as well as refining industries. If timely action is not taken it may have negative impact on the production of oil seeds also. It is estimated that this situation may lead to a total loss of Rs 607.89 ($10) billion in terms of trade, procurement, logistics, crushing, exports of by products, value chain , loss in employment due to under utilization of domestic manpower and under utilization of plants capacity. Government can clamp a judicious import duty on both crude and refined oil, taking into considerations the domestic supply verses price. Government can turn this crisis into opportunity by using these import duty earnings for setting up separate fund for development of oil and oil seed in India.

Increasing edible oil and oil byproduct import is a matter of great concern. According to an estimate, country will import 11.8 million tons of edible oil in 2013-14, that is 65.3% of our demand. We are not losing valuable foreign exchange but also losing opportunity to develop a sector which will has capacity to improve the condition of agriculture and to provide employment on large scale at every level.

Yours truly,

C. S. Joshi, Editor

Oil Technologists' Association of India
(North Zone)

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Department of Agriculture & Cooperation, Government of India

About CODEX

The Codex Alimentarius Commission, established by FAO and WHO in 1963 develops harmonised international food standards, guidelines and codes of practice to protect the health of the consumers and ensure fair practices in the food trade. The Commission also promotes coordination of all food standards work undertaken by international governmental and non-governmental organizations. At present 185 countries besides 52 Inter Governmental Organisations and 157 Non Governmental Organisations are Members of the Commission. India is the member since the establishment of Codex. The Codex Alimentarius, or the food code, has become the global reference point for consumers, food producers and processors, national food control agencies and the international food trade.

The Codex Alimentarius has relevance to the international food trade. The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement) both encourage the international harmonization of food standards. As such, Codex standards have become the benchmarks against which national food measures and regulations are evaluated within the legal parameters of the World Trade Organization (WTO) Agreements. The CODEX food standards, guidelines and codes of practice contribute to the safety, quality and fairness of the international food trade. Codex standards are based on the best available science assisted by independent international risk assessment bodies or ad-hoc consultations organized by FAO and WHO. The Joint FAO/ WHO Expert Committee on Food Additives (JECFA) is an independent expert scientific committee. It serves as an independent scientific committee which performs risk assessments, evaluates the safety of food additives and provides advice. The Joint FAO/WHO Meetings on Pesticide Residues (JMPR) provide independent scientific expert advice to the Commission and its specialist Committee on Pesticide Residues. The Joint FAO/WHO Meetings on Microbiological Risk Assessment (JEMRA) provides independent risk based scientific advice to the Commission & its specialist Committees on microbiological safety issues.

Codex standards cover all the main foods, whether processed, semi-processed or raw. Codex standards usually relate to product characteristics. The standards of a commodity are developed by the relevant Subsidiary Committee.

General Subject Committees such as on Food Hygiene, Food Additives, Food Contaminants, Food Labelling, Pesticides Residues, Methods of Analysis etc., have relevance for all Commodity Committees and their work applies across to all commodity standards. The standards adopted by all these General Subject Committees are also of relevance to vegetable oils. Commodity Committees have the responsibility for developing standards for specific foods or classes such as fresh fruits and vegetables, fish and fishery products, fats and oils, spices and culinary herbs etc. The Codex Committee on Fats and Oils is of relevance to vegetable oils. Terms of Reference of the Committee are "to elaborate world-wide standards of fats and oils of animal, vegetable and marine origin including margarine and olive oils". Malaysia is the host country for the Committee.

National CODEX Contact Point (NCCP)

The National Codex Contact Point (NCCP) for India, is located at Food Safety and Standards Authority of India. It coordinates and promotes Codex activities in India in association with the National Codex Committee (NCC) and facilitates India's inputs to the work of Codex through an established consultation process. The Food Authority has appointed the Shadow Committees of the NCC on subject matters corresponding to the Codex Committees to assist the NCC in the study or consideration of technical matters. The Shadow Committee on Oils and Fats assists the NCC in the study or consideration of technical matters relating to vegetable oils.

Standards related to Vegetable Oils adopted by CODEX

(1) CAC/RCP 36 – Recommended International Code of Practice for the Storage and Transport of Fats and Edible Oils in Bulk. This Code of Practice applies to the handling, storage and transport of all crude or processed edible oils and fats in bulk.

(2) Codex Standard 19 – Codex Standard for Edible Fats and Oils not covered by individual standard. This standard applies to oils and fats for human consumption not covered by the Codex Standard 210 and 33.

(3) Codex Standard 33 – Codex Standard for Olive Oils and Olive Pomace Oil. This standard applies to Olive Oils and Olive Pomace Oil for human consumption.

(4) Codex Standard 210 – Codex Standards of named Vegetable Oils. This standard applies to 24 different vegetable oils for human consumption.

(5) Codex Standard 256 – Codex Standard for Fat Spread and Blended Spreads. This standard applies to fat products, containing not less than 10% and not more than 90% fat, intended primarily to be used as spreads.

These standards are available on the Website www.codexalimentarius.org

Present Scenario

The 23rd Session of the Committee was held in Langkawi, Malaysia from 25 February – 1 March, 2013. The conclusions in the Session relating to vegetable oils are as follows:-

1. **Code of Practice for Storage and Transport of Edible Fats and Oils in Bulk :**

   The Codex Alimentarius Commissions had directed the Committee to review the list of acceptable previous cargoes, to identify the most critical substances for review by JECFA, taking into account the limitations of JECFA resources and the availability of data. It was concluded in the Session to-

   - have a standing agenda item in every Session of the CCFO to consider the review of the list of acceptable previous cargoes;
   - establish an Electronic Working Group (eWG) chaired by Malaysia with the following Terms of Reference :-

   (i) To review available data of each substance on the ability to be adequately cleaned between cargoes as required by criterion 1.

   (ii) To compile available information for each substance against criteria 2, 3 and 4.

   (iii) To identify substances that meets all the criteria and recommends them as acceptable.

   (iv) To identify and if necessary, prioritise substances to be submitted to JECFA for evaluation.

   (v) To consider proposals from Members on new substances to be added to the List provided such proposals are supported by adequate and relevant information provided by the proponent.

   (vi) To identify substances currently on the List not carried as previous cargoes and recommend to the Committee that they be removed from the List.

   - convene a physical Working Group to consider the report of the Ewg to be chaired by Malaysia;
   - retain four substances namely Calcium, Lignosulphonate Liquid, Carnauba Wax, Montan Wax and Silicon Dioxide in the list;
   - restrict the term "molasses" to those obtained from citrus, sorghum, sugar beet and sugarcane only and to forward this proposed amendments to the Commission for approval; and
   - request the eWG to review Calcium, Lignosulphonate Liquid, Carnauba Wax, Montan Wax, Silicon Dioxide and Mineral oils.

2. Proposed Draft Amendments to Parameters for Rice Bran Oil in the Standard for Named Vegetable Oils :

   Based on the document submitted by the delegation of Thailand having data submitted by some countries, the Committee agreed to amend the fatty acid composition and level of Brassicasterol and other desmethylsterols. One delegation noted that the ranges had been calculated as mean+3SD. The delegation did not question this approach but said that care should be taken that the same approach was used for other parameters. The Committee agreed to request comments from CCMAS on whether mean+3SD is appropriate to establish ranges for parameters. The Committee also noted that India would submit a discussion paper on the quality parameters for crude rice bran oil for the consideration of the Committee. The Committee agreed to advance the proposed draft amendment as amended to Step 5/8 for adoption by the Commission.

3. Discussion Paper on the Amendment of the Standard for Named Vegetable Oils: Sunflower Seed Oils :

   An eWG chaired by Argentina was established in the last Session to prepare a discussion paper on the revision on the limits of oleic and linoleic acids for the categories of sunflower seed oil covered in the CODEX STAN 210 and other related quality and composition factors (e.g. refractive index, saponification value, iodine value and relative density). Since there were gaps in the discussion paper, the Committee agreed to revise the discussion paper and project document based on the Guidelines for Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities, taking into account global variability, climate and seasonal variations and varietal differences for the consideration at the 24th Session of the CCFO. In order to ensure that data from all major producing countries will be taken into account, the Committee also agreed that a new Circular Letter requesting for the required data and information will be issued to all members to assist in the collation of data.

4. Discussion Paper on Cold Pressed Oils :

   It was agreed in the 22nd Session, to establish an eWG chaired by Iran to prepare a revised discussion paper on Cold Pressed Oils with focus on the four types of oils namely, walnut oil, pistachio oil, hempseed oil and hazelnut oil for consideration at the Session. Iran proposed to include nine types of Cold Pressed Oils, namely, walnut oil, almond oil, pistachio oil, hazelnut oil, sesame oil, sunflower oil, peanut oil, maize oil and safflower oil in the Standard for Named Vegetable Oils (CODEX STAN 210). The Committee agreed to establish an eWG, chaired by Iran to revise the discussion paper including the project document to cover walnut oil, almond oil, pistachio oil , hazelnut oil, flaxseed oil & avocado oil.

5. Discussion Paper on the Amendment of the Standard for Named Vegetable Oils: High Oleic Soybean Oil :

   It was agreed in the 22nd Session to establish an eWG chaired by United States to prepare a revised project document for new work to amend the Codex Standard for Named Vegetable Oils to include high oleic soybean oils. The delegation of the United States highlighted the actual trade and production data and fatty acid profile for high oleic soybean oil. The delegation explained the health

benefits of such oil. Several countries supported the new work proposal as it could contribute to healthier diet while several countries did not support the new work because production and international trade figures were low. The Committee agreed that the information provided was not sufficient to fulfil the requirements of the Guidelines for Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information as required by the CCFO when proposing the addition of new oils to the Standard for Named Vegetable Oils. The Committee agreed to establish an eWG to be chaired by United States to revise the discussion paper including the project document taking into account comments made by various countries and based on the Guidelines for Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information as required by the CCFO for consideration at the next Session.

6. Discussion Paper on the Amendment of the Standard for Named Vegetable Oils for the Addition of Palm Oil with High Oleic Acid OxG:

   It was agreed in the 22nd Session to establish an eWG chaired by Colombia to prepare a revised discussion paper including a project document for the new work. The delegation of Colombia explained that the new variety would contribute to healthy diet because of composition of fatty acids. Several countries supported the new work and several other countries did not support the work as the actual volume of oil produced was low and trade data was missing. The Committee noted that the revised documents lacked information on volume of production and consumption in individual countries and volume and pattern of trade between the countries. The Committee agreed to establish an eWG to be chaired by Colombia to revise the discussion paper including the project document taking into account comments made by various countries and based on the Guidelines for Application of the Criteria for the Establishment of Work Priorities Applicable to Commodities and information as required by the CCFO for consideration at the next Session.

7. Proposal to Revise the Limit for Campesterol in the Codex Standard for Olive Oils and Olive Pomace Oils:

   It was agreed in the 22nd Session that the delegation of Australia in cooperation with Argentina and the United States would revise the discussion paper for consideration at the next Session. The delegation of the Australia introduced the revised discussion paper and stated that it was addressing an impediment to trade as the current level of campesterol in the codex standard was discriminating against several growing regions forcing them to mix their high quality oil to reduce the campesterol level. The delegation proposed to increase the level for campesterol from 4% to 4.8% and to change the level of stigmasterol from < campesterol to < 1.9% to ensure that the identity of oil could be established and frauds prevented. Several delegations were of the view that the limit of 4% for campesterol was needed to detect adulteration of olive oils from other edible oils. The Committee concluded that there was no agreement to start the new work.

8. Discussion Paper on the Amendment of the Standard for Olive Oils and Olive Pomace Oils: Content of Delta-7-Stigmastenol:

   It could not be discussed because the document for this item was not distributed.

   The Twenty Fourth Session of the Committee is scheduled to be held in Malaysia from 9 to 13 February,2015.

References

Codex Alimentarius Commission

Website : www.codexalimentarius.org

Trade News

WASDE report predicts lower oilseed production :

USDA (United States Department of Agriculture) in his March 2014 report of world Agriculture supply and demand estimate has given projections for 2013/14. U. S. soybean supply and use projections for 2013/14 include higher imports and exports, reduced crush, and reduced ending stocks compared with last month's report.

Soybean exports are raised 20 million bushels to a record 1.53 billion reflecting continued strong sales and shipments through February. Soybean crush is reduced 10 million bushels to 1.69 billion reflecting weaker-than-expected domestic soybean meal use through the first quarter of the marketing year. Soybean stocks are projected at 145 million bushels, down 5 million from last month. Soybean oil stocks are reduced on lower production and increased exports. Other soybean oil changes include reduced use for biodiesel & an offsetting increase for food, feed, and other industrial use.

Soybean and soybean product prices are all projected higher this month. The season-average price range forecast for soybeans is raised 25 cents on both ends of the range to $12.20 to $13.70 per bushel. Soybean oil prices are forecast at 36 to 39 cents per pound, up 1.5 cents at the midpoint. Soybean meal prices are projected at $450 to $490 per short ton, up 25 dollars at the midpoint.

Global oilseed production for 2013/14 is projected at 504.3 million tons, down 1.7 million from last month as reduced soybean and copra production are only partly offset by increases for rapeseed, sunflower seed, and peanuts. Foreign production, projected at 407.0 million tons, accounts for all of the change. Brazil soybean production is projected at 88.5 million tons, down 1.5 million mainly reflecting hot, dry weather in the south when much of the crop was in the flowering and filling stages. Soybean production is also reduced for Paraguay due to the extended period of hot, dry weather.

China rapeseed production is estimated at 14.4 million tons, up 0.2 million based on increased area and yield indicated in recently released government statistics. Other changes include higher rapeseed production for Australia & increased peanut production for China, Uganda, & Tanzania.

Global oilseed supplies, exports, and ending stocks for 2013/14 are projected lower this month while crush is projected higher. Soybean crush is projected higher for the European Union, Paraguay, and Zambia; rapeseed & peanut crush are each raised for China. Lower soybean stocks in the United States, Brazil, & Paraguay are only partly offset by higher rapeseed stocks in China. Global oilseed stocks are projected at 84.0 million tons, down 1.9 million. Courtesy : USDA

Mother Dairy to launch Dhara edible oil in smaller packs to reclaim market

Delhi-based dairy major Mother Dairy will soon launch its edible oil brand Dhara in small, affordable packs in a bid to regain its lost ground in the edible oil market. In a first for a national edible oil maker, Mother Dairy Fruit & Vegetable will roll out 100 ml and 200 ml packs of Dhara at Rs 15 and Rs 28 each, Sanjeev Giri, business head at Dhara, said.

Dhara, one of the oldest edible oil brands in the country launched 25 years ago, has lost out to brands such as Adani's Fortune, Marico's Saffola and Ruchi Soya as its parent focused mainly on its core dairy business while rivals brought out new variants such as heart-friendly oils in attractive packages.

"We lost out somewhere," Giri said. "But the focus on the brand has been accelerated in recent times," he said.

The company plans packaging upgrades and newer variants as it looks to double Dhara sales from current Rs 800 crore a year by 2020, officials said. Till 2003, Dhara was being distributed by Gujarat Cooperative Milk Marketing Federation (GCMMF), which owns the country's largest dairy brand Amul.

That year National Dairy Development Board (NDDB), owners of Mother Dairy, terminated its contract with GCMMF and brought the edible oil brand under Mother Dairy.

A Mother Dairy official said Dhara has been on the backburner since then. "Dhara was selling well when it was with GCMMF," the person said. Giri said mini packs of Dhara will be first rolled out in rural markets, starting with the East, in a bid to convert rural consumers from loose to packaged oil. These packs will be taken to other markets in the second or third quarter of the year.

Mother Dairy plans to leverage Safal booths to retail the new Dhara packs. Traditionally strong in the East and North, it is stepping up distribution in the West and South, Giri said.

The consumer pack business in edible is estimated at Rs 23,000 crore and is characterised by wafer-thin margins to distributors. Courtesy : Economic Times

Edible Oil prices to come down

Narendra Modi will not have to worry much about cooking oil prices that are crucial in determining the food inflation numbers. From January to May, prices of crude sunflower and soybean oils have tumbled by almost 10%. And now with rupee strengthening, edible oil prices are expected to come down further from July.

But a possible El Nino effect may impact pulses production in the country and it may lead to higher imports of the

commodity. Angshu Mallik, chief operating officer at Adani Wilmar, said: "Prices of edible oil have been witnessing a downward trend since January. For instance, since January price of crude sunflower oil has come down from Rs 68-70 a kg to Rs 62-63 in May - a drop of almost 9%. Similarly, crude soybean oil prices have declined from Rs 66 a kg to Rs 60 in the same period. We have already passed this benefit to our customers."

Mallik added that if rupee continues to remain strong, then edible oil prices will not be a matter of worry for the new government. "The oil that the industry is importing now will be available in the market in early July. During that time, consumers may get an additional Rs 2 a kg relief on cooking oil." Rupee was seen at 58.37 on Monday, an 11 month high since June 2013.

India is expected to import 11 million tonne edible oil in the current oil year (November 2013 to October 2014) vis-a-vis 10.4 million tonne in the previous year. Domestic consumption is increasing at a rate of 3% to 4% annually in India.

BV Mehta, executive director, Solvent Extractors Association (SEA), said: "A strong rupee will definitely help bring down prices of imported edible oil. But rupee is volatile now. It should become stable for the consumers to get the real benefit. What we need to do now is to reduce our dependence on imported oil. We expect that the new government should focus on increasing the domestic production and the productivity of oilseeds in the country." The country imports edible oils worth Rs 60,000 crore annually. However, a strong rupee is a disincentive to exporters of castor oil and oilmeals from India.

"The oilseed industry exports products worth of Rs 25,000 crore annually. A strong rupee will bring down forex earnings," Mehta added.

Pulses are another important items that are imported by India. Unlike cooking oil, a strong rupee will not have much impact on the pulses prices in the country. KC Bhartia, director at Indian Pulses & Grains Association, said: "Earlier this year, hailstorm and untimely rains had affected rabi crops. Now there is a fear of an EL Nino effect on the kharif crop. This means that import will increase and the prices of pulses will remain firm. There is a feeling in the industry that the new government might give more emphasis on increasing production of pulses and reduce dependence on imports. But in any case, pulses prices will remain firm this year." India imports pulses from Canada, US, Australia, Myanmar and South Africa.

Government regulator paves way for field trials of GM food crops including wheat, rice and maize

NEW DELHI : Taking a major step forward to scientifically assess 'risk' & 'safety' aspects of transgenic crops, the government's top regulator - Genetic Engineering Appraisal Committee (GEAC) - on Friday revalidated 10 varieties of GM crops including wheat, rice, maize & cotton and allowed multi-national seed companies to go for "confined field trials" of these varieties.

Companies like Monsanto, Mahyco and BASF whose applications got revalidation will, however, be able to go for field trials only after getting the state's mandatory nod.

Revalidation of these varieties was required as their "validity period" lapsed due to state government's stand of not allowing them to go for field trial. The GEAC had given its clearance in those 10 cases way back in 2011 and 2012.

The committee, which met under the chairmanship of additional secretary in the ministry of environment and forests (MoEF) Hem Pande, however, did not take decision on any new cases in its meeting on Friday. It will meet again on April 25 to take a call on the fate of 70 fresh applications.

The revalidation of 10 cases on Friday would allow the seed companies, which developed these varieties, to go for "confined field trials" (called Phase-II trial) in bigger area as compared to their tests in a very small tract of land during Phase-I. The move comes barely a month after the ministry had given its nod to "confined field trials" of over 200 transgenic varieties of GM crops which got GEAC's clearance in its 117th meeting in March last year.

Though the regulatory body had given its go ahead to those 200 varieties, the then environment minister Jayanthi Natarajan had kept this in abeyance. The ministry had then felt that the companies should not be allowed to go for field trials unless the Supreme Court takes a final view on a pending PIL on the contentious issue of GM crops.

The MoEF had, however, under the present minister M Veerappa Moily, last month allowed the GEAC to hold its 118th meeting, taking in view demands of scientist community from across the country.

Agriculture scientists from research institutions including IARI, ICAR and various Universities have been demanding "field trials" for GM crops for long, arguing that "confined field trials are essential for the evaluation of productivity performance as well as food & environmental safety assessment".

A group of prominent scientists had met under 'father of green revolution' MS Swaminathan here at National Academy of Agricultural Sciences (NASA) in February and issued a 15-point resolution in favour of GM crops.

Pitching for the field trials, the resolution said, "The non-conductance of regular field trials is a handicap as well as disincentive in harnessing the benefits of a wide array of transgenic material available with different research organizations". Anti-GM activists have, however, taken strong objection to the GEAC's decision on Friday to revalidate those 10 cases of transgenic varieties which will pave the way for their field trials.

Protesting field trials, convener of Coalition for GM Free India, Rajesh Krishnan said, "The bio-safety tests can be done in a greenhouse or glass house. The field trials are mostly for agronomic purposes. The industry wants to reduce the period of regulation and hence wants to run these things simultaneously".

He said, "It is, in fact, ridiculous to simultaneously do assessment of risks and open up the experiment for contamination, which often happens in the case of a field trial, before the risk assessment is done".

The coalition as well as Greenpeace India had also requested the ministry not to take any decision on field trials of GM crops unless the Supreme Court takes its final call on the matter. The apex court is scheduled to hear the matter on April 14.

The industry body — Association of Biotech Led Enterprises- Agriculture Group (ABLE-AG) — has, however, welcomed the GEAC's move, calling it "a progressive push to the march of GM technology in India".

"We welcome this and hope that the rest of the applications too shall be expeditiously cleared," said Ram Kaundinya, chairman of the ABLE-AG.

Courtesy : The Times of India

Court declares nutraceutical prior-approval advisory 'unlawful'

Dietary and health supplement manufacturers in India will be breathing a sigh of relief after a decision by the Bombay High Court to quash a controversial advisory by the country's food regulator concerning prior product approvals.

The Indian Drug Manufacturers Association and a private nutraceutical firm had moved the High Court last year to challenge the advisory by the Food Safety and Standards Authority of India (FSSAI) to require prior product approvals of dietary food and health supplements already licenced and existing in the market under the former Food Adulteration Act.

FSSAI move unjustified

The plaintiffs said the authority had no powers to issue the advisory, especially as the Food Safety and Standards Act has been governing manufactured food safety in India since 2006. Speaking to Food & Beverage News, RK Sanghavi of the Indian Drug Manufacturers' Association said the FSSAI had laid down new rules and regulations that were not included in the Food Safety and Standards Act.

"The advisory by the FSSAI to get product approvals for all 80 nutraceutical products and pay Rs 25,000 [US$417] per product was not justified," Sanghavi said. "We moved the High Court against FSSAI, and now the court has cancelled the advisory, terming it unlawful." TR Gopalkrishnan, secretary-general of the association, added that the advisory would have been particularly hard on small manufacturers.

"For every product to get approved by FSSAI, the nutraceutical manufacturers have to pay Rs 25,000, which is a huge amount". "Big companies can pay it but what about the small companies who want to come in the market with new product? The High Court's judgment was in our favour, and we are happy with it."

Delhi judge threatens jail

Capping a bad week for the FSSAI, the Delhi High Court slammed the authority's officials for using an export law to "extort" money from traders, and hinted that further breaches of the law would command custodial sentences.

Justice Manmohan hit out at FSSAI staff for asking food importers to pay for the no-objection certificates that Customs officials are required to have before they can release imported food items after their arrival in India.

India's Food Standards and Safety Act contains a provision to appoint authorised officers to carry out the inspection of imported foods and issue a no-objection certificate or Rejection report (RR) to the Customs department, leading either to the release or confiscation of the imported edibles. This practice of using the law to line individual profits, had created "undue hassles" and delays, Manmohan said.

The court action came following a petition by United Distributors Incorporation, which had imported a consignment of chocolates from Belgium in January. In it, the company alleged that FSSAI officers had neglected to test or clear the consignment within 24 hours, as they were required to do.

In delivering his judgement, Manmohan said: "If a policeman becomes a terrorist and extortionist, then who will have faith in him? The FSSAI is not understanding my polite way of dealing the matter. I think one officer has to be sent to jail".

"Hearing a food and health matter is not good for my health. I just cannot understand why they are are not testing the sample & releasing the same? How these things will be controlled?"

Japan finally gives green light to sales of sunflower lecithin

Cargill has obtained approval for the use of sunflower lecithin in Japan, which until now had been the only country in the world where the additive had not previously been approved for food applications.

Approval by Japan's Ministry of Health Labour and Welfare means that Cargill's Topcithin sunflower lecithin, a clean label non-GM emulsifier made from oilseeds for which GM plant varieties do not exist at a commercial level, is available to customers in Japan for the first time. It also means food companies worldwide can export products containing Topcithin sunflower lecithin for sale in the growing Japanese market.

As sunflower seeds are not among the common causes of food allergy, the ingredient is not subject to allergen labelling requirements, unlike soy-derived varieties. The approval process took three years to complete.

First introduced in 2008, Cargill's Topcithin sunflower lecithin is derived from European sunflower crops and produced in fully backwards-integrated facilities to minimise risk of cross-contamination, traceable from field to fork.

A versatile emulsifier and wetting agent, the additive is suitable for a variety of food applications, such as confectionery, particularly chocolate, bakery and convenience foods. Cargill claims Topcithin offers improved dispersibility properties compared to soy lecithin, and matches its functionality, taste and colour.

It can also replace synthetically produced emulsifiers, such as ammonium phosphatide and citric acid esters of mono and di-glycerides.

Courtesy : Food Navigator-asia.com

The Questionable Link between Saturated Fat & Heart Disease

"Saturated fat does not cause heart disease"—or so concluded a big study published in March in the journal Annals of Internal Medicine. How could this be? The very cornerstone of dietary advice for generations has been that the saturated fats in butter, cheese and red meat should be avoided because they clog our arteries. For many diet-conscious Americans, it is simply second nature to opt for chicken over sirloin, canola oil over butter.

The new study's conclusion shouldn't surprise anyone familiar with modern nutritional science, however. The fact is, there has never been solid evidence for the idea that these fats cause disease.

We only believe this to be the case because nutrition policy has been derailed over the past half-century by a mixture of personal ambition, bad science, politics and bias.

Our distrust of saturated fat can be traced back to the 1950s, to a man named Ancel Benjamin Keys, a scientist at the University of Minnesota. Dr. Keys was formidably persuasive and, through sheer force of will, rose to the top of the nutrition world—even gracing the cover of Time magazine—for relentlessly championing the idea that saturated fats raise cholesterol and, as a result, cause heart attacks.

This idea fell on receptive ears because, at the time, Americans faced a fast-growing epidemic. Heart disease, a rarity only three decades earlier, had quickly become the nation's No. 1 killer. Even President Dwight D. Eisenhower suffered a heart attack in 1955. Researchers were desperate for answers.

As the director of the largest nutrition study to date, Dr. Keys was in an excellent position to promote his idea. The "Seven Countries" study that he conducted on nearly 13,000 men in the U.S., Japan and Europe ostensibly demonstrated that heart disease wasn't the inevitable result of aging but could be linked to poor nutrition.

Critics have pointed out that Dr. Keys violated several basic scientific norms in his study. For one, he didn't choose countries randomly but instead selected only those likely to prove his beliefs, including Yugoslavia, Finland and Italy. Excluded were France, land of the famously healthy omelet eater, as well as other countries where people consumed a lot of fat yet didn't suffer from high rates of heart disease, such as Switzerland, Sweden and West Germany.

The study's star subjects—upon whom much of our current understanding of the Mediterranean diet is based—were peasants from Crete, islanders who tilled their fields well into old age and who appeared to eat very little meat or cheese.

As it turns out, Dr. Keys visited Crete during an unrepresentative period of extreme hardship after World War II. Furthermore, he made the mistake of measuring the islanders' diet partly during Lent, when they were forgoing meat and cheese. Dr. Keys therefore undercounted their consumption of saturated fat. Also, due to problems with the surveys, he ended up relying on data from just a few dozen men—far from the representative sample of 655 that he had initially selected.

These flaws weren't revealed until much later, in a 2002 paper by scientists investigating the work on Crete—but by then, the misimpression left by his erroneous data had become international dogma.

In 1961, Dr. Keys sealed saturated fat's fate by landing a position on the nutrition committee of the American Heart Association, whose dietary guidelines are considered the gold standard. Although the committee had originally been skeptical of his hypothesis, it issued, in that year, the country's first-ever guidelines targeting saturated fats. The U.S. Department of Agriculture followed in 1980.

Other studies ensued. A half-dozen large, important trials pitted a diet high in vegetable oil—usually corn or soybean, but not olive oil—against one with more animal fats. But these trials, mainly from the 1970s, also had serious methodological problems. Some didn't control for smoking, for instance, or allowed men to wander in and out of the research group over the course of the experiment. The results were unreliable at best.

But there was no turning back : Too much institutional energy and research money had already been spent trying to prove Dr. Keys's hypothesis. A bias in its favor had grown so strong that the idea just started to seem like common sense.

As Harvard nutrition professor Mark Hegsted said in 1977, after successfully persuading the U.S. Senate to recommend Dr. Keys's diet for the entire nation, the question wasn't whether Americans should change their diets, but why not? Important benefits could be expected, he argued. And the risks? "None can be identified," he said.

In fact, even back then, other scientists were warning about the diet 's potential unintended consequences. Today, we are dealing with the reality that these have come to pass.

One consequence is that in cutting back on fats, we are now eating a lot more carbohydrates—at least 25% more since the early 1970s. Consumption of saturated fat, since the early 1970s. Consumption of saturated fat, meanwhile, has dropped by 11%, according to the best available government data. Translation: Instead of meat, eggs and cheese, we're eating more pasta, grains, fruit and starchy vegetables such as potatoes.

Even seemingly healthy low-fat foods, such as yogurt, are stealth carb-delivery systems, since removing the fat often requires the addition of fillers to make up for lost texture—and these are usually carbohydrate-based.

The problem is that carbohydrates break down into glucose, which causes the body to release insulin—a hormone that is fantastically efficient at storing fat. Meanwhile, fructose, the main sugar in fruit, causes the liver to generate triglycerides and other lipids in the blood that are altogether bad news. Excessive carbohydrates lead not only to obesity but also, over time, to Type 2 diabetes and, very likely, heart disease.

The real surprise is that, according to the best science to date, people put themselves at higher risk for these conditions no matter what kind of carbohydrates they eat. Yes, even unrefined carbs. Too much whole-grain oatmeal for breakfast and whole-grain pasta for dinner, with fruit snacks in between, add up to a less healthy diet than one of eggs and bacon, followed by fish.

The reality is that fat doesn't make you fat or diabetic. Scientific investigations going back to the 1950s suggest that actually, carbs do.

The second big unintended consequence of our shift away from animal fats is that we're now consuming more vegetable oils. Butter and lard had long been staples of the American pantry until Crisco, introduced in 1911, became the first vegetable-based fat to win wide acceptance in U.S. kitchens. Then came margarines made from vegetable oil and then just plain vegetable oil in bottles.

All of these got a boost from the American Heart Association—which Procter & Gamble, the maker of Crisco oil, coincidentally helped launch as a national organization. In 1948, P&G made the AHA the beneficiary of the popular "Walking Man" radio contest, which the company sponsored. The show raised $1.7 million for the group and transformed it (according to the AHA's official history) from a small, underfunded professional society into the powerhouse that it remains today.

After the AHA advised the public to eat less saturated fat and switch to vegetable oils for a "healthy heart" in 1961, Americans changed their diets. Now these oils represent 7% to 8% of all calories in our diet, up from nearly zero in 1900, the biggest increase in consumption of any type of food over the past century.

This shift seemed like a good idea at the time, but it brought many potential health problems in its wake. In those early clinical trials, people on diets high in vegetable oil were found to suffer higher rates not only of cancer but also of gallstones. And, strikingly, they were more likely to die from violent accidents and suicides.

Alarmed by these findings, the National Institutes of Health convened researchers several times in the early 1980s to try to explain these "side effects," but they couldn't. (Experts now speculate that certain psychological problems might be related to changes in brain chemistry caused by diet, such as fatty-acid imbalances or the depletion of cholesterol.)

We've also known since the 1940s that when heated, vegetable oils create oxidation products that, in experiments on animals, lead to cirrhosis of the liver and early death. For these reasons, some midcentury chemists warned against the consumption of these oils, but their concerns were allayed by a chemical fix: Oils could be rendered more stable through a process called hydrogenation, which used a catalyst to turn them from oils into solids.

From the 1950s on, these hardened oils became the backbone of the entire food industry, used in cakes, cookies, chips, breads, frostings, fillings, and frozen and fried food. Unfortunately, hydrogenation also produced trans fats, which since the 1970s have been suspected of interfering with basic cellular functioning and were recently condemned by the Food and Drug Administration for their ability to raise our levels of "bad" LDL cholesterol .

Yet paradoxically, the drive to get rid of trans fats has led some restaurants and food manufacturers to return to using regular liquid oils—with the same long-standing oxidation problems. These dangers are especially acute in restaurant fryers, where the oils are heated to high temperatures over long periods.

The past decade of research on these oxidation products has produced a sizable body of evidence showing their dramatic inflammatory and oxidative effects, which implicates them in heart disease and other illnesses such as Alzheimer's. Other newly discovered potential toxins in vegetable oils, called monochloropropane diols and glycidol esters, are now causing concern among health authorities in Europe.

In short, the track record of vegetable oils is highly worrisome—and not remotely what Americans bargained for when they gave up butter and lard.

Cutting back on saturated fat has had especially harmful consequences for women, who, due to hormonal differences, contract heart disease later in life and in a way that is distinct from men. If anything, high total cholesterol levels in women over 50 were found early on to be

associated with longer life. This counterintuitive result was first discovered by the famous Framingham study on heart-disease risk factors in 1971 and has since been confirmed by other research.

Since women under 50 rarely get heart disease, the implication is that women of all ages have been worrying about their cholesterol levels needlessly. Yet the Framingham study's findings on women were omitted from the study's conclusions. And less than a decade later, government health officials pushed their advice about fat and cholesterol on all Americans over age 2—based exclusively on data from middle-aged men.

Sticking to these guidelines has meant ignoring growing evidence that women on diets low in saturated fat actually increase their risk of having a heart attack. The "good" HDL cholesterol drops precipitously for women on this diet (it drops for men too, but less so). The sad irony is that women have been especially rigorous about ramping up on their fruits, vegetables and grains, but they now suffer from higher obesity rates than men, and their death rates from heart disease have reached parity.

Seeing the U.S. population grow sicker and fatter while adhering to official dietary guidelines has put nutrition authorities in an awkward position. Recently, the response of many researchers has been to blame "Big Food" for bombarding Americans with sugar-laden products. No doubt these are bad for us, but it is also fair to say that the food industry has simply been responding to the dietary guidelines issued by the AHA and USDA, which have encouraged high-carbohydrate diets and until quite recently said next to nothing about the need to limit sugar.

Indeed, up until 1999, the AHA was still advising Americans to reach for "soft drinks," and in 2001, the group was still recommending snacks of "gum-drops" and "hard candies made primarily with sugar" to avoid fatty foods.

Our half-century effort to cut back on the consumption of meat, eggs and whole-fat dairy has a tragic quality. More than a billion dollars have been spent trying to prove Ancel Keys's hypothesis, but evidence of its benefits has never been produced. It is time to put the saturated-fat hypothesis to bed and to move on to test other possible culprits for our nation's health woes.

(Courtesy: The Wall Street Journal, May 6, 2014)

Important Figures :
World Soyabean, Rapeseed & Cottonseed details

S&D of Soybean Meal details, Worldwide (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	174 676.00	180 418.00	180 669.00	188 625.00	196 103.00	+7 478.00 (+3.96%)
Beginning Stocks	6 559.00	8 480.00	9 755.00	9 772.00	10 721.00	+949.00 (+9.71%)
Imports	56 908.00	57 046.00	53 779.00	58 001.00	60 808.00	+2 807.00 (+4.84%)
Exports	58 549.00	58 269.00	57 761.00	61 759.00	64 762.00	+3 003.00 (+4.86%)
Domestic Consumption	171 114.00	177 920.00	176 670.00	183 918.00	192 400.00	+8 482.00 (+4.61%)
Ending Stocks	8 480.00	9 755.00	9 772.00	10 721.00	10 470.00	-251.00 (-2.34%)
Feed Waste Dom. Cons.	169 174.00	175 974.00	174 708.00	181 843.00	190 226.00	+8 383.00 (+4.61%)
SME	171 114.00	177 920.00	176 670.00	183 918.00	192 400.00	+8 482.00 (+4.61%)
Industrial Dom. Cons.	1 354.00	1 304.00	1 304.00	1 317.00	1 362.00	+45.00 (+3.42%)
Food Use Dom. Cons.	586.00	642.00	658.00	758.00	812.00	+54.00 (+7.12%)
Crush	221 829.00	228 606.00	229 788.00	239 634.00	249 098.00	+9 464.00 (+3.95%)
Total Supply	238 143.00	245 944.00	244 203.00	256 398.00	267 632.00	+11 234.00 (+4.38%)

(Source : Agro Chart)

Production of Soybean Meal (in, 000 MT)						
Country	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
China	43 560.00	48 288.00	51 440.00	54 135.00	57 420.00	+3 285.00 (+6.07%)
USA	35 608.00	37 217.00	36 174.00	36 659.00	36 954.00	+295.00 (+0.80%)
Argentina	29 312.00	27 945.00	26 089.00	29 000.00	30 950.00	+1 950.00 (+6.72%)
Brazil	28 160.00	29 510.00	27 310.00	28 680.00	28 760.00	+80.00 (+0.28%)
European Union	9 760.00	9 674.00	10 194.00	9 845.00	10 025.00	+180.00 (+1.83%)
Total	174 684.00	180 426.00	180 669.00	188 625.00	196 103.00	+7 478.00 (+3.96%)
Total selected	146 400.00	152 634.00	151 207.00	158 319.00	164 109.00	+5 790.00 (+3.66%)
Others	28 284.00	27 792.00	29 462.00	30 306.00	31 994.00	+1 688.00 (+5.57%)

(Source : Agro Chart)

S&D of Soybean Meal, In China (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	43 560.00	48 288.00	51 440.00	54 135.00	57 420.00	+3 285.00 (+6.07%)
Imports	294.00	113.00	16.00	20.00	50.00	+30.00 (+150.00%)
Exports	472.00	966.00	1 365.00	1 200.00	1 200.00	0.00 (0.00%)
Domestic Consumption	43 382.00	47 435.00	50 091.00	52 955.00	56 270.00	+3 315.00 (+6.26%)
Feed Waste Dom. Cons.	42 382.00	46 485.00	49 141.00	51 995.00	55 270.00	+3 275.00 (+6.30%)
SME	43 382.00	47 435.00	50 091.00	52 955.00	56 270.00	+3 315.00 (+6.26%)
Industrial Dom. Cons.	1 000.00	950.00	950.00	960.00	1 000.00	+40.00 (+4.17%)
Crush	55 000.00	60 970.00	64 950.00	68 350.00	72 500.00	+4 150.00 (+6.07%)
Total Supply	43 854.00	48 401.00	51 456.00	54 155.00	57 470.00	+3 315.00 (+6.12%)

(Source : Agro Chart)

S&D of Soybean Meal, USA (in 000, MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	35 608.00	37 217.00	36 174.00	36 659.00	36 954.00	+295.00 (+0.80%)
Beginning Stocks	274.00	318.00	272.00	249.00	272.00	+23.00 (+9.24%)
Imports	163.00	196.00	222.00	286.00	150.00	-136.00 (-47.55%)
Exports	8 238.00	8 838.00	10 083.00	10 432.00	10 161.00	-271.00 (-2.60%)
Domestic Consumption	27 489.00	28 621.00	26 336.00	26 490.00	26 943.00	+453.00 (+1.71%)
Ending Stocks	318.00	272.00	249.00	272.00	272.00	0.00 (0.00%)
Feed Waste Dom. Cons.	27 489.00	28 621.00	26 336.00	26 490.00	26 943.00	+453.00 (+1.71%)
SME	27 489.00	28 621.00	26 336.00	26 490.00	26 943.00	+453.00 (+1.71%)
Crush	44 851.00	46 348.00	45 967.00	46 266.00	46 675.00	+409.00 (+0.88%)
Total Supply	36 045.00	37 731.00	36 668.00	37 194.00	37 376.00	+182.00 (+0.49%)

(Source : Agro Chart)

S&D of Soybean Meal, In Argentina (in ,000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	29 312.00	27 945.00	26 089.00	29 000.00	30 950.00	+1 950.00 (+6.72%)
Beginning Stocks	1 532.00	2 264.00	3 056.00	4 212.00	4 020.00	-192.00 (-4.56%)
Imports	0.00	0.00	0.00	0.00	--	
Exports	27 615.00	26 043.00	23 667.00	27 800.00	29 820.00	+2 020.00 (+7.27%)
Domestic Consumption	965.00	1 110.00	1 266.00	1 392.00	1 475.00	+83.00 (+5.96%)
Ending Stocks	2 264.00	3 056.00	4 212.00	4 020.00	3 675.00	-345.00 (-8.58%)
Feed Waste Dom. Cons.	965.00	1 110.00	1 266.00	1 392.00	1 475.00	+83.00 (+5.96%)
SME	965.00	1 110.00	1 266.00	1 392.00	1 475.00	+83.00 (+5.96%)
Crush	37 614.00	35 886.00	33 611.00	37 300.00	39 800.00	+2 500.00 (+6.70%)
Total Supply	30 844.00	30 209.00	29 145.00	33 212.00	34 970.00	+1 758.00 (+5.29%)

(Source : Agro Chart)

S&D of Soybean Meal, In Brazil (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	28 160.00	29 510.00	27 310.00	28 680.00	28 760.00	+80.00 (+0.28%)
Beginning Stocks	2 155.00	2 436.00	3 198.00	3 098.00	3 525.00	+427.00 (+13.78%)
Imports	58.00	30.00	32.00	25.00	25.00	0.00 (0.00%)
Exports	13 987.00	14 678.00	13 242.00	13 780.00	14 000.00	+220.00 (+1.60%)
Domestic Consumption	13 950.00	14 100.00	14 200.00	14 498.00	15 000.00	+502.00 (+3.46%)
Ending Stocks	2 436.00	3 198.00	3 098.00	3 525.00	3 310.00	-215.00 (-6.10%)
Feed Waste Dom. Cons.	13 950.00	14 100.00	14 200.00	14 498.00	15 000.00	+502.00 (+3.46%)
SME	13 950.00	14 100.00	14 200.00	14 498.00	15 000.00	+502.00 (+3.46%)
Crush	36 330.00	38 083.00	35 235.00	37 000.00	37 100.00	+100.00 (+0.27%)
Total Supply	30 373.00	31 976.00	30 540.00	31 803.00	32 310.00	+507.00 (+1.59%)

(Source : Agro Chart)

S&D. of Soybean Meal, in European Union (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	9 760.00	9 674.00	10 194.00	9 845.00	10 025.00	+180.00 (+1.83%)
Beginning Stocks	504.00	580.00	371.00	77.00	395.00	+318.00 (+412.99%)
Imports	21 877.00	20 872.00	16 943.00	18 700.00	19 800.00	+1 100.00 (+5.88%)
Exports	609.00	885.00	537.00	350.00	650.00	+300.00 (+85.71%)
Domestic Consumption	30 952.00	29 870.00	26 894.00	27 877.00	29 106.00	+1 229.00 (+4.41%)
Ending Stocks	580.00	371.00	77.00	395.00	464.00	+69.00 (+17.47%)
Feed Waste Dom. Cons.	30 910.00	29 828.00	26 852.00	27 835.00	29 064.00	+1 229.00 (+4.42%)
SME	30 952.00	29 870.00	26 894.00	27 877.00	29 106.00	+1 229.00 (+4.41%)
Industrial Dom. Cons.	10.00	10.00	10.00	10.00	10.00	0.00 (0.00%)
Food Use Dom. Cons.	32.00	32.00	32.00	32.00	32.00	0.00 (0.00%)
Crush	12 355.00	12 245.00	12 743.00	12 350.00	12 580.00	+230.00 (+1.86%)
Total Supply	32 141.00	31 126.00	27 508.00	28 622.00	30 220.00	+1 598.00 (+5.58%)

(Source : Agro Chart)

S&D of Rapeseed Meal, Worldwide (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	34 599.00	35 629.00	36 920.00	38 340.00	38 391.00	+51.00 (+0.13%)
Beginning Stocks	451.00	509.00	590.00	270.00	482.00	+212.00 (+78.52%)
Imports	4 973.00	5 090.00	5 194.00	5 462.00	5 398.00	-64.00 (-1.17%)
Exports	5 099.00	5 370.00	5 380.00	5 433.00	5 787.00	+354.00 (+6.52%)
Domestic Consumption	34 415.00	35 268.00	37 054.00	38 157.00	38 036.00	-121.00 (-0.32%)
Ending Stocks	509.00	590.00	270.00	482.00	448.00	-34.00 (-7.05%)
Feed Waste Dom. Cons.	33 599.00	34 461.00	36 260.00	37 337.00	37 246.00	-91.00 (-0.24%)
SME	24 486.00	25 093.00	26 364.00	27 149.00	27 063.00	-86.00 (-0.32%)
Industrial Dom. Cons.	816.00	807.00	794.00	820.00	790.00	-30.00 (-3.66%)
Crush	58 864.00	60 514.00	62 478.00	65 054.00	65 276.00	+222.00 (+0.34%)
Total Supply	40 023.00	41 228.00	42 704.00	44 072.00	44 271.00	+199.00 (+0.45%)

(Source : Agro Chart)

Production of Rapeseed Meal (in, 000 MT)						
Country	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
European Union	12 827.00	12 441.00	13 057.00	13 155.00	13 227.00	+72.00 (+0.55%)
China	8 909.00	10 122.00	10 690.00	11 049.00	10 735.00	-314.00 (-2.84%)
Canada	3 540.00	3 925.00	3 765.00	4 035.00	4 120.00	+85.00 (+2.11%)
India	3 800.00	3 363.00	3 540.00	3 720.00	3 840.00	+120.00 (+3.23%)
Japan	1 289.00	1 296.00	1 365.00	1 370.00	1 370.00	0.00 (0.00%)
Total	34 599.00	35 629.00	36 920.00	38 340.00	38 391.00	+51.00 (+0.13%)
Total selected	30 365.00	31 147.00	32 417.00	33 329.00	33 292.00	-37.00 (-0.11%)
Others	4 234.00	4 482.00	4 503.00	5 011.00	5 099.00	+88.00 (+1.76%)

(Source : Agro Chart)

S&D of Rapeseed Meal in European Union (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	12 827.00	12 441.00	13 057.00	13 155.00	13 227.00	+72.00 (+0.55%)
Beginning Stocks	75.00	115.00	141.00	89.00	140.00	+51.00 (+57.30%)
Imports	230.00	240.00	414.00	430.00	300.00	-130.00 (-30.23%)
Exports	248.00	284.00	272.00	330.00	350.00	+20.00 (+6.06%)
Domestic Consumption	12 769.00	12 371.00	13 251.00	13 204.00	13 177.00	-27.00 (-0.20%)
Ending Stocks	115.00	141.00	89.00	140.00	140.00	0.00 (0.00%)
Feed Waste Dom. Cons.	12 769.00	12 371.00	13 251.00	13 204.00	13 177.00	-27.00 (-0.20%)
SME	9 085.00	8 802.00	9 428.00	9 395.00	9 375.00	-20.00 (-0.21%)
Industrial Dom. Cons.	0.00	0.00	0.00	0.00	0.00	0.00
Crush	22 280.00	21 610.00	22 680.00	22 850.00	22 980.00	+130.00 (+0.57%)
Total Supply	13 132.00	12 796.00	13 612.00	13 674.00	13 667.00	-7.00 (-0.05%)

(Source : Agro Chart)

S&D of Rapeseed Meal in China (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	8 909.00	10 122.00	10 690.00	11 049.00	10 735.00	-314.00 (-2.84%)
Imports	1 413.00	666.00	106.00	200.00	100.00	-100.00 (-50.00%)
Exports	5.00	51.00	101.00	50.00	80.00	+30.00 (+60.00%)
Domestic Consumption	10 317.00	10 737.00	10 695.00	11 199.00	10 755.00	-444.00 (-3.96%)
Feed Waste Dom. Cons.	9 867.00	10 287.00	10 275.00	10 749.00	10 335.00	-414.00 (-3.85%)
SME	7 341.00	7 639.00	7 609.00	7 968.00	7 652.00	-316.00 (-3.97%)
Industrial Dom. Cons.	450.00	450.00	420.00	450.00	420.00	-30.00 (-6.67%)
Crush	14 170.00	16 100.00	17 000.00	17 600.00	17 100.00	-500.00 (-2.84%)
Total Supply	10 322.00	10 788.00	10 796.00	11 249.00	10 835.00	-414.00 (-3.68%)

(Source : Agro Chart)

S&D of Rapeseed Meal of Canada (in, 000 MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	3 540.00	3 925.00	3 765.00	4 035.00	4 120.00	+85.00 (+2.11%)
Beginning Stocks	207.00	207.00	255.00	50.00	193.00	+143.00 (+286.00%)
Imports	33.00	8.00	11.00	8.00	8.00	0.00 (0.00%)
Exports	2 998.00	3 310.00	3 406.00	3 300.00	3 550.00	+250.00 (+7.58%)
Domestic Consumption	575.00	575.00	575.00	600.00	626.00	+26.00 (+4.33%)
Ending Stocks	207.00	255.00	50.00	193.00	145.00	-48.00 (-24.87%)
Feed Waste Dom. Cons.	575.00	575.00	575.00	600.00	626.00	+26.00 (+4.33%)
SME	409.00	409.00	409.00	427.00	445.00	+18.00 (+4.22%)
Crush	6 310.00	6 999.00	6 717.00	7 200.00	7 350.00	+150.00 (+2.08%)
Total Supply	3 780.00	4 140.00	4 031.00	4 093.00	4 321.00	+228.00 (+5.57%)

(Source : Agro Chart)

S&D of Rapeseed Meal in India (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	3 800.00	3 363.00	3 540.00	3 720.00	3 840.00	+120.00 (+3.23%)
Beginning Stocks	22.00	26.00	21.00	30.00	30.00	0.00 (0.00%)
Exports	1 311.00	1 000.00	901.00	950.00	1 000.00	+50.00 (+5.26%)
Domestic Consumption	2 485.00	2 368.00	2 630.00	2 770.00	2 840.00	+70.00 (+2.53%)
Ending Stocks	26.00	21.00	30.00	30.00	30.00	0.00 (0.00%)
Feed Waste Dom. Cons.	2 485.00	2 368.00	2 630.00	2 770.00	2 840.00	+70.00 (+2.53%)
SME	1 768.00	1 685.00	1 871.00	1 971.00	2 021.00	+50.00 (+2.54%)
Crush	6 400.00	5 700.00	6 000.00	6 300.00	6 500.00	+200.00 (+3.17%)
Total Supply	3 822.00	3 389.00	3 561.00	3 750.00	3 870.00	+120.00 (+3.20%)

(Source : Agro Chart)

S&D of Rapeseed Meal in Japan (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	1 289.00	1 296.00	1 365.00	1 370.00	1 370.00	0.00 (0.00%)
Beginning Stocks	15.00	10.00	4.00	4.00	–	
Imports	25.00	14.00	75.00	100.00	100.00	0.00 (0.00%)
Exports	0.00	7.00	3.00	2.00	2.00	0.00 (0.00%)
Domestic Consumption	1 319.00	1 313.00	1 440.00	1 468.00	1 468.00	0.00 (0.00%)
Ending Stocks	10.00	4.00	4.00	10.00	–	
Feed Waste Dom. Cons.	1 009.00	1 010.00	1 125.00	1 158.00	1 158.00	0.00 (0.00%)
SME	938.00	934.00	1 025.00	1 044.00	1 044.00	0.00 (0.00%)
Industrial Dom. Cons.	310.00	303.00	315.00	310.00	310.00	0.00 (0.00%)
Crush	2 341.00	2 367.00	2 438.00	2 450.00	2 450.00	0.00 (0.00%)
Total Supply	1 329.00	1 320.00	1 440.00	1 470.00	1 470.00	0.00 (0.00%)

(Source : Agro Chart)

S&D of Cottonseed Meal, Worldwide (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	14 832.00	15 642.00	15 644.00	15 399.00	15 058.00	-341.00 (-2.21%)
Beginning Stocks	197.00	186.00	206.00	201.00	179.00	-22.00 (-10.95%)
Imports	488.00	421.00	435.00	419.00	433.00	+14.00 (+3.34%)
Exports	424.00	514.00	481.00	437.00	379.00	-58.00 (-13.27%)
Domestic Consumption	14 907.00	15 529.00	15 603.00	15 403.00	15 185.00	-218.00 (-1.42%)
Ending Stocks	186.00	206.00	201.00	179.00	106.00	-73.00 (-40.78%)
Feed Waste Dom. Cons.	14 689.00	15 341.00	15 413.00	15 220.00	15 025.00	-195.00 (-1.28%)
SME	12 079.00	12 583.00	12 643.00	12 481.00	12 304.00	-177.00 (-1.42%)
Industrial Dom. Cons.	218.00	188.00	190.00	183.00	160.00	-23.00 (-12.57%)
Crush	32 564.00	34 248.00	34 400.00	33 826.00	33 050.00	-776.00 (-2.29%)
Total Supply	15 517.00	16 249.00	16 285.00	16 019.00	15 670.00	-349.00 (-2.18%)

(Source : Agro Chart)

Production of Cottonseed Meal (in, 000MT)						
Country	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
China	4 206.00	4 403.00	4 672.00	4 375.00	4 120.00	-255.00 (-5.83%)
India	3 750.00	3 940.00	3 990.00	4 260.00	4 080.00	-180.00 (-4.23%)
Pakistan	1 568.00	1 690.00	1 700.00	1 700.00	1 700.00	0.00 (0.00%)
Brazil	1 350.00	1 350.00	1 030.00	1 130.00	1 179.00	+49.00 (+4.34%)
USA	1 055.00	989.00	1 020.00	816.00	898.00	+82.00 (+10.05%)
Total	14 832.00	15 642.00	15 644.00	15 399.00	15 058.00	-341.00 (-2.21%)
Total selected	11 929.00	12 372.00	12 412.00	12 281.00	11 977.00	-304.00 (-2.48%)
Others	2 903.00	3 270.00	3 232.00	3 118.00	3 081.00	-37.00 (-1.19%)

(Source : Agro Chart)

S&D. of Cottonseed Meal in China (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	4 206.00	4 403.00	4 672.00	4 375.00	4 120.00	-255.00 (-5.83%)
Imports	28.00	1.00	0.00	0.00	–	
Exports	49.00	66.00	94.00	70.00	30.00	-40.00 (-57.14%)
Domestic Consumption	4 185.00	4 338.00	4 578.00	4 305.00	4 090.00	-215.00 (-4.99%)
Feed Waste Dom. Cons.	4 005.00	4 190.00	4 428.00	4 160.00	3 970.00	-190.00 (-4.57%)
SME	3 391.00	3 515.00	3 710.00	3 488.00	3 314.00	-174.00 (-4.99%)
Industrial Dom. Cons.	180.00	148.00	150.00	145.00	120.00	-25.00 (-17.24%)
Crush	9 707.00	10 150.00	10 770.00	10 100.00	9 510.00	-590.00 (-5.84%)
Total Supply	4 234.00	4 404.00	4 672.00	4 375.00	4 120.00	-255.00 (-5.83%)

(Source : Agro Chart)

S&D. of Cottonseed Meal in India (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	3 750.00	3 940.00	3 990.00	4 260.00	4 080.00	-180.00 (-4.23%)
Exports	56.00	13.00	33.00	35.00	35.00	0.00 (0.00%)
Domestic Consumption	3 694.00	3 927.00	3 957.00	4 225.00	4 045.00	-180.00 (-4.26%)
Feed Waste Dom. Cons.	3 694.00	3 927.00	3 957.00	4 225.00	4 045.00	-180.00 (-4.26%)
SME	2 993.00	3 182.00	3 206.00	3 424.00	3 278.00	-146.00 (-4.26%)
Crush	8 000.00	8 400.00	8 500.00	9 100.00	8 700.00	-400.00 (-4.40%)
Total Supply	3 750.00	3 940.00	3 990.00	4 260.00	4 080.00	-180.00 (-4.23%)

(Source : Agro Chart)

S&D. of Cottonseed Meal in Pakistan (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	1 568.00	1 690.00	1 700.00	1 700.00	1 700.00	0.00 (0.00%)
Beginning Stocks	91.00	65.00	120.00	135.00	110.00	-25.00 (-18.52%)
Domestic Consumption	1 594.00	1 635.00	1 685.00	1 725.00	1 775.00	+50.00 (+2.90%)
Ending Stocks	65.00	120.00	135.00	110.00	35.00	-75.00 (-68.18%)
Feed Waste Dom. Cons.	1 594.00	1 635.00	1 685.00	1 725.00	1 775.00	+50.00 (+2.90%)
SME	1 292.00	1 325.00	1 365.00	1 398.00	1 438.00	+40.00 (+2.86%)
Crush	3 400.00	3 600.00	3 650.00	3 650.00	3 650.00	0.00 (0.00%)
Total Supply	1 659.00	1 755.00	1 820.00	1 835.00	1 810.00	-25.00 (-1.36%)

(Source : Agro Chart)

S&D. of Cottonseed Meal in Brazil (in, 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	1 350.00	1 350.00	1 030.00	1 130.00	1 179.00	+49.00 (+4.34%)
Beginning Stocks	12.00	12.00	12.00	7.00	7.00	0.00 (0.00%)
Imports	0.00	0.00	0.00	0.00	--	
Exports	0.00	0.00	0.00	0.00	--	
Domestic Consumption	1 350.00	1 350.00	1 035.00	1 130.00	1 179.00	+49.00 (+4.34%)
Ending Stocks	12.00	12.00	7.00	7.00	7.00	0.00 (0.00%)
Feed Waste Dom. Cons.	1 350.00	1 350.00	1 035.00	1 130.00	1 179.00	+49.00 (+4.34%)
SME	1 094.00	1 094.00	839.00	916.00	955.00	+39.00 (+4.26%)
Crush	2 750.00	2 750.00	2 100.00	2 300.00	2 400.00	+100.00 (+4.35%)
Total Supply	1 362.00	1 362.00	1 042.00	1 137.00	1 186.00	+49.00 (+4.31%)

(Source : Agro Chart)

S&D. of Cottonseed Meal in USA (in , 000MT)						
	2010/11	2011/12	2012/13	2013/14	2014/15	2014/15 +/-
Production	1 055.00	989.00	1 020.00	816.00	898.00	+82.00 (+10.05%)
Beginning Stocks	49.00	41.00	45.00	45.00	45.00	0.00 (0.00%)
Imports	0.00	0.00	0.00	0.00	1.00	1.00
Exports	84.00	94.00	102.00	93.00	93.00	0.00 (0.00%)
Domestic Consumption	979.00	891.00	918.00	723.00	806.00	+83.00 (+11.48%)
Ending Stocks	41.00	45.00	45.00	45.00	45.00	0.00 (0.00%)
Feed Waste Dom. Cons.	979.00	891.00	918.00	723.00	806.00	+83.00 (+11.48%)
SME	793.00	722.00	744.00	586.00	653.00	+67.00 (+11.43%)
Crush	2 325.00	2 177.00	2 268.00	1 814.00	1 996.00	+182.00 (+10.03%)
Total Supply	1 104.00	1 030.00	1 065.00	861.00	944.00	+83.00 (+9.64%)

(Source : Agro Chart)

Health Tips

Insect feedstock for pigs, chicken & fish production :

Protein from insects is expected to be approved by the EU for use as feed for pigs and chickens over the next six months, according to a leading expert and advisor on edible insects to the United Nations' Food & Agriculture Organisation.

If the costs of insect animal feedstock could be brought down by automated production techniques, it would become a serious alternative to products such as soy feed protein for chicken and pigs, said Professor Arnold van Huis, a tropical entomologist from Wageningen University. It could also be used as a replacement for fishmeal in aquaculture as fish stocks and fish feed becomes increasingly scarce and expensive. Speaking at the Food Vision conference in Cannes, van Huis also noted that for technical reasons, insects provided a better feedstock for fish than plant-based protein alternatives.

Van Huis suggested that the use of insects as animal feed would prove more acceptable in the western world in the short term than as a protein for human consumption. But he argued for far greater consumption of insects in the human diet across the globe as obstacles – both cost & regulatory – were overcome.

Automated production techniques

He announced that the European Commission was just about to approve the use of insects for feeding to pigs and chickens across the EU. And he added that emerging automated production techniques would bring down costs significantly.

"DG Sanco is really thinking about it and we believe that very soon it will be allowed to be fed, not to ruminants, but to pigs and sheep," said van Huis. Unpublished studies also showed that at least 50% of fishmeal could be replaced by insect meal in aquaculture, he added. But he pointed out that other legislative barriers would need to be overcome before this could happen. "Insects are also animals, so we will need a slaughterhouse for insects," he said.

Already several species of insects were being grown on waste around the world, said van Huis. "You can grow these insects on manure and end up with a high protein product," he said. "Since June 1 last year it's allowed to be used in aquaculture. That's quite important because aquaculture is growing by about 9% a year.

Looking for alternatives

Van Huis added : "Half of all our fish is more or less cultured right now so they normally use fishmeal as feed, but because of over exploitation that is getting extremely scarce and expensive so they are really looking for alternatives.

"For pigs and poultry it is not allowed yet in the EU but we expect probably within half a year that this will be allowed also."

One of the insect varieties that could be used for aquaculture is a house fly, which is already being produce don a large scale by a South African company in a product known as MagMeal, said van Huis. "The advantage is it grows in just three days," he said. "But if you really want to promote it, we have to farm it." The main obstacle to its more widespread use as a feedstock at the moment is the cost. Because production is very labour intensive, the cost works out at about euro 4.75/kg (£3.92/kg), said van Huis. "So this has to be mechanised."

The price would need to be reduced to about euro 1/kg (£0.83/kg) to be competitive, he said. "A number of companies in Europe have already sorted out how to automate the whole system, so I think it can be competitive." One idea could be to grow the insects on food waste, he added. "One third of our food, or our agricultural produce in the world, is wasted. We can grow insects on these waste streams and then end up with a high protein product."

Courtesy : Food Navigator - Asia.com

Breast microbiome more complex than previously thought : Study

The unique microbial composition of female breast tissue has given scientists new insight into the interaction between different bacteria in the human body and the effects this has on health. Researchers at the University of Western Ontario investigating female breast tissue have discovered the tissue actually contains a much wider and more unique population of bacterial microorganisms than previously thought.

Tissue samples were taken from 81 women in Canada and Ireland between the ages of 18 and 90. Ten came from women who had undergone breast reduction surgery, and were used as the control, while the other samples were from women who had either benign or cancerous tumours in the past. They found proteobacteria is the dominant phylum in healthy breast tissue but also detected traces of beneficial bacteria, such as Lactobacillus and Bifidobacteria. Traces of Proteobacteria, which metabolises

fatty tissue, are minimal elsewhere in the body, although it is predominant in human milk.

University PhD student Camilla Urbaniak explained: "The presence of proteobacteria may reflect the fact that breast tissue produces high concentrations of fatty acids." "The fact that beneficial bacteria were also present makes us wonder whether their presence might be protective for both mother and child. Breast milk is one of the initial sources of gastrointestinal (GI) bacteria for newborns, and their GI microbiota are different if they are formula fed."

The internal battle again disease

Studies of the microbiome in other parts of the body, and particularly the gastrointestinal tract, have shown that certain changes in bacterial populations can lead to a variety of illnesses, from inflammatory bowel disease to diabetes, obesity, cancer and even neurological conditions.

In the samples taken from women with benign or cancerous tumours, the predominant bacteria were Escherichia and Bacillus, which are known to propagate mutagenic and carcinogenic activity in the gut and bladder. However other pathogens such as Pseudomonas and Streptococcus agalactiae were found in healthy tissue with no adverse side effects.

Urbaniak said: "It is possible that the breast microbiome contributes to maintenance of healthy breast tissue by stimulating resident immune cells, but the type of bacteria and their metabolic activity, such as the ability to degrade carcinogens, may also contribute.

"Future studies will examine how this breast microbiome is established, why no infections accompany colonisation, despite the fact that some of these bacteria cause infections elsewhere in the body, what impact these organisms have on the host, and whether external factors such as diet, antibiotics, and illness affect this bacterial community, and what consequences that has for women and their offspring."

Courtesy: Nutra ingredients .com

Oligomers in cocoa may prevent obesity and reduce diabetes risk – mice study :

Researchers believe a class of compounds found in cocoa known as oligomers may prevent weight gain and reduce diabetes risk, but the lead author says it is too soon to draw a link with dark chocolate. The study by Neilson et al. published in the Journal of Agricultural and Food Chemistry found that mice fed a high fat diet supplemented with a cocoa extract or cocoa fractions (monomers, oligomers or polymers) gained less weight and had greater insulin resistance than a high fat diet control group.

"Oligomeric procyanidins appear to possess the greatest antiobesity and antidiabetic bioactivities of the flavanols in cocoa, particularly at the low doses employed for the present study," found the researchers.

Sensationalist headlines

Neilson told ConfectioneryNews that almost all national press reports had sensationalised the findings and were too hasty to draw a link with dark chocolate, giving the public the irresponsible idea that they can load up on chocolate. "The important thing to note is that we studied cocoa. We have no data to indicate what the effect of chocolate would be, since the sugar and fat and added calories pose a real problem in terms of obesity and diabetes."

He emphasized that the research showed that compounds in cocoa may be effective for preventing weight gain and reducing diabetes risk rather than treating obesity and diabetes. "We are not trying to show that people should go out and eat more chocolate. We think that cocoa in other forms (nibs, low calorie cocoa products) would be the best way to get these compounds while minimizing added sugar, fat, and calories."

Method

For the 12 week trial, 54 male mice were split into six groups – a low fat diet only, a high fat diet only or high fat diets with either a cocoa extract or fractions of monomers, oligomers or polymers.

Groups supplemented with the cocoa extract or cocoa fractions were given doses of 25 mg/kg body weight per day. This equates to around 2.03 mg/kg of cocoa flavanols for humans. Based on our calculations, this would represent 154 mg of cocoa flavanols for a 76 kg human per day.

Apples and oranges

According to the US Department of Agriculture (USDA), there is a mean of 24.2 mg of catechins and 84.4 mg of epicatechin in a 100 g dark chocolate bar, while milk chocolate has just 4.16 mg of catechins and of 10.88 epicatechin per 100 g. Neilson said that it would be a stretch to extend the research to claim that dark chocolate could exert the same effects as cocoa until more research was done, particularly in humans.

"A few servings would indeed have a good amount of the compounds we identified as being potent, but our results don't specifically address that. So, dark chocolate is a good source of these compounds but comparing the nutritional effects of cocoa and chocolate is like comparing apples and oranges. Similar but totally different."

Study findings

The mice were weighed weekly throughout the study and the researchers also conducted glucose and insulin tolerance tests to determine the effect on type-2 diabetes. The researchers found that the mice fed a high fat diet and supplemented with cocoa oligomers gained a statistically similar amount of weight to the non-supplemented low fat diet group and far less than the high fat diet control group.

The oligomer-rich fraction was also the most effective in glucose tolerance and insulin resistance, which suggested possible type-2 diabetes.

Courtesy: Confectionary news.com

Fat-busting seaweed: Scientists identify fat-blocking seaweed alginates:

Alginates isolated from certain types of seaweed may have potential in weight loss supplements and foods, according to new research. The study, published in Food Chemistry, shows that alginate from sea kelp can suppress the digestion of fat in the gut – opening up 'exciting possibilities' for making everyday foods healthier.

Led by Professor Jeff Pearson of Newcastle University, and backed by the BBSRC, the team identified the chemical properties of alginates which prevent fat from being digested by our bodies, noting that if we can reduce the amount digested, we reduce also the amount absorbed.

Their findings were then used to produce a 'league table' of the most effective seaweeds – with the scientists suggesting that the use of certain seaweeds in everyday foods could prevent help to the absorption of fat from our diets."What we have shown is that the seaweeds with a high level of guluronate stop the body breaking down and absorbing fat," explained co-author Dr Matthew Wilcox, also of Newcastle University.

"As they are already used in the food industry in small amounts, we are looking at increasing their levels in foods which could reduce the amount of fat that we get which could help in weight management."Indeed, the team suggested that it could reduce the amount of fat available for absorption in the body by around 75%.

"We have already added alginate to bread and initial taste tests have been extremely encouraging," added Pearson. "Now the next step is to carry out clinical trials to find out how effective they are when eaten as part of a normal diet."

The team are already in talks with several major food companies with a view to producing alginate-supplemented products, revealing that while more testing is needed the first products could be on supermarket shelves next year.

Study details

The team used bread as a vehicle for the delivery of the alginate a further during trial – finding that even a small amount reduced people's fat intake by a third, while a four-fold increase in the alginate led to 75% of fat being blocked. The research team was also able to identify which types of alginate are most effective. Pearson and colleagues also tested to see which seaweeds contained the right alginates in the highest levels, revealing that those most effective at preventing the digestion of fat are:

1. Tangle or Cuvie, Laminarea hyperborea a brown sea kelp G= 0.49
2. Bladderwrack, Lessonia nigrescens, the giant grey weed, is a kelp species G = 0.45
3. Bull kelp, Durvillea potatororum a brown algae G= 0.35

"The data presented here suggests that if the alginate is released in the small intestinal phase, this may have an inhibitory effect on the activity of pancreatic lipase," said the New castle research team. Adding that further work is now needed to assess if the alginate bread is able to block fat digestion a model gut, before then recruiting volunteers to study whether the effects they have modelled in the lab can be reproduced in real people, and whether such foods are truly acceptable in a normal diet.

Courtesy: Food Chemistry

Moringa Oil

Moringa, native to parts of Africa and Asia, is the sole genus in the flowering plant family Moringaceae. The name is derived from the Tamil word Murungai. It contains 13 species from tropical and subtropical climates that range in size from tiny herbs to massive trees.

The most widely cultivated species is Moringa oleifera, a multipurpose tree native to the foothills of the Himalayas in northwestern India and cultivated throughout the tropics. M. stenopetala, an African species, is also widely grown, but to a much lesser extent than M. oleifera.

Moringa oil comes from the seeds of the moringa oleifera tree, the most common species of the genus moringa in the flowering plant family moringaceae. The seeds of the moringa tree are pressed to produce pale-yellow non-drying oil. Moringa seed oil is clear and odorless. The oil is known as "ben oil" or "behen oil" because it has a high concentration of behenic acid, a fatty acid. Due to antioxidants that act as natural preservatives, it is stable oil, resistant to rancidity, giving it a reported shelf life of five years. It is a nutrient dense, high in palmitoleic, oleic and linoleic acids, moisturizing fatty acids and vitamins A and C. Extracted from the large seeds of the Moringa oleifera tree, Moringa oil is among the most exotic and highly sought out of all the world's many oils. Many health and beauty experts consider Moringa oil the primary secret behind the healthy and radiant skin seen in Asia and Africa. Thanks to the numerous antioxidants in it, the oil does not become rancid for several years after it is produced.

The hexane-extracted oil content of Moringa oleifera seeds ranged from 38.00 to 42.00%. Results of physical and chemical parameters of the extracted oil were as follows: iodine value, 68.00-71.80; refractive index (40 degrees C), 1.4590-1.4625; density (24 degrees C), 0.9036-0.9080 mg/ml; saponification value, 180.60-190.50; unsaponifiable matter, 0.70-1.10%; and color (1 in. cell), 0.95-1.10 R + 20.00-35.30 Y. Tocopherols (alpha, gamma, & delta) in the oil were up to 123.50-161.30, 84.07-104.00, and 41.00-56.00 mg/kg, respectively.

The oil was found to contain high levels of oleic acid (up to 78.59%) followed by palmitic, stearic, behenic, and arachidic acid up to levels of 7.00, 7.50, 5.99, and 4.21%, respectively. The induction period (Rancimat, 20 L/h, 120 degrees C) of the crude oil was 9.99 h and reduced to 8.63 h after degumming. Specific extinctions at 232 and 270 nm were 1.70 and 0.31, respectively.

Use in Cosmetics :

In ancient Rome, Greece and Egypt it was used in making perfume and to protect the skin. The oil is still used for effleurage to extract flower fragrance and is used for hair oils because it absorbs and retains scents.

In Egypt it was used to make medicinal ointments to protect the skin from the desert environment. A daily skin treatment for wrinkles and sun damage combined gum of frankincense and ground Cyprus grass mixed with fermented plant juice. Venerated oil, vases of moringa oil were found inside ancient tombs.

Moringa oil is found in numerous cosmetics due to moisturizing, cleansing and emollient properties. It's used in shampoos and conditioners and other hair care products, lotions, body oils, lip balms, anti-aging and wrinkle creams, face creams, soaps and body wash, perfume and deodorants. It's used for aromatherapy and massage oils because it blends well with essential oils and is good carrier oil.

Moringa oil absorbs easily into the skin, improving the appearance and radiance of skin. It has skin healthy nutrients like vitamin A, which helps build collagen in the skin, vitamin C to help reduce fine lines and wrinkles, and the healing and anti-inflammatory benefits of vitamin E. Moringa oil is a popular natural supplement to increase the health and strength of the hair and scalp. It can be massaged into the hair and scalp and allowed to remain there for several minutes, delivering rejuvenating vitamins and minerals to the follicles of the hair and tissue of the scalp. Regular massage with this oil can help reduce split ends and dandruff.

- It softens dry skin and maintains moisture in the skin.
- It is good for conditioning dry, chapped lips.
- It's beneficial to treat rough, dry skin conditions like dermatitis, eczema, and psoriasis.
- It rejuvenates dull, tired and aging skin.
- Antioxidants and nutrients help fight free radical damage that can cause skin tissue damage and lead to the formation of wrinkles.
- Moringa oil helps improve the appearance of wrinkles and prevents sagging of facial muscles.
- Plant hormones called cytokinins, which help promote cell growth & delay damage and destruction of skin tissues.
- Vitamin C stabilizes collagen and helps reduce fine lines and repair damaged skin cells.
- Moringa oil has antiseptic and anti-inflammatory properties and has been used to treat and heal minor skin abrasions; minor cuts and scrapes, bruises, burns, insect bites, rashes, and sunburn and skin infections.
- Moringa oil helps clear blackheads and pimples. When used regularly helps prevent the reoccurrence of blemishes.
- Helps minimize dark spots from acne and hyperpigmentation.

Moringa oil can also be found in hand lotions, lip balm, and other products that target dry and flaking skin, and is a popular ingredient in blended massage oils. It is pleasant to the touch, warms well, is not sticky, and combines well with other oils and fragrances.

Laugh Out Loud

All the physicists are playing hide and seek. Einstein is the 'den' and stands against the wall with his eyes closed and counts till 100 to enable all the physicists to run and hide. At the count of 100 Einstein turns around and finds Newton standing there.

He screams, "Newton, you are out!" Newton says, "No, I 'm not!"

Einstein says, "Yes, you are. I can see you here in front of me".

Newton says, "I'm not out. Pascal is."

Einstein is a bit confused and starts to scratch his head & beard.

Newton says "Here, Let me explain"

He draws a square one meter by one meter on the floor and stands in the middle of it and says,

"Newton per meter square is a Pascal, so it's Pascal who's out not me"

A woman at a gas station noticed a spaceship landing in front of her. An alien stepped out of the spaceship and started to pump gas into it. The woman noticed the letters 'U.F.O.' printed on the side of the ship. She turned to the alien and asked 'Does U.F.O. stand for Unidentified Flying Object?'

The alien answered, 'No, it stands for Unleaded Fuel Only!'

An astronaut in space was asked by a reporter, "How do you feel?"

"How would you feel," the astronaut replied, "if you were stuck here, on top of 20,000 parts each one supplied by the lowest bidder?"

President Dubya was awakened one night by an urgent call from the Pentagon. "Mr. President," said the four-star general, barely able to contain himself, "there's good news & bad news."

"Oh, no," muttered the President, "Well, let me have the bad news first."

"The bad news, sir, is that we've been invaded by creatures from another planet."

"Gosh, and the good news?"

"The good news, sir, is that they eat reporters and pee oil."

Buying E-beg.com

A poor, downtrodden beggar stands on the street, not having much luck. Exasperated and hungry he decides to make a sign, and hastily scrawls the word "Beg" on a piece of cardboard.

Hardly anyone pays him and his new sign any mind. A few passers-by drop him a couple of pennies.

Suddenly, he gets an idea. He picks up his sign and to the word "Beg," he adds ".com."

From around the corner, two venture capitalists appear, tripping over themselves to be the first to hand him a quarter of a million dollars. Pleased with his new-found wealth, the beggar decides to go one better. Flipping his cardboard sign over, he writes "e-Beg." Immediately, Jerry Yang & Bill Gates pull up in limousines & ask to buy him out.

An astronomer is on an expedition to Africa to observe a total eclipse of the sun, which will only be observable there, when he's captured by cannibals. The eclipse is due the next day around noon. To gain his freedom he plans to pose as a god & threaten to extinguish the sun if he's not released, but the timing has to be just right. So, in the few words of the cannibals' tongue that he knows, he asks his guard what time they plan to kill him.

The guard answers, "Tradition has it that captives are to be killed when the sun reaches the highest point in the sky on the day after their capture so that they may be cooked and ready to be served for the evening meal".

"Great", the astronomer replies.

The guard continues, "But because everyone's so excited about it, in your case we're going to wait until after the eclipse."

Sherlock Holmes and Dr. Watson go on a camping trip. After a good dinner and bottle of wine, they retire for the night and go to sleep. Some hours later, Holmes wakes up and nudges his faithful friend.

"Watson, look up at the sky and tell me what you see."

"I see millions and millions of stars, Holmes," replies Watson.

"And what do you deduce from that?"

Watson ponders for a minute.

"Well, astronomically, it tells me that there are millions of galaxies and potentially billions of planets. ASTROLOGICALLY , I observe that Saturn is in Leo. Horologically, I deduce that the time is approximately a quarter past three. Meteorologically, I suspect that we will have a beautiful day tomorrow. Theologically, I can see that God is all powerful, & that we are a small and insignificant part of the universe. What does it tell you, Holmes?"

Holmes is silent for a moment. "Watson, you idiot!" he says. "Someone has stolen our tent!"

Bill Gates in Heaven

When Bill Gates died, he went up to Heaven, where Saint Peter showed him to his house; a beautiful 20 room house, with grounds and a tennis court. Bill Gates was pleased, and spent many months enjoying the amenities of Heaven.

One day, he was enjoying one of Heaven's many fine parks, when he ran into a man dressed in a fine tailored suit.

"That is a nice suit, my friend," said Gates. "Where did you get it?"

"Actually," the man replied, "I was given a hundred of these when I got here. I've been treated really well. I got a mansion on a hill overlooking a beautiful hill, with a huge five-hundred acre estate, a golf course, and three Rolls Royces."

"Were you a pope, or a doctor healing the sick?" asked Gates.

"No," said his new friend, "Actually, I was the captain of the Titanic."

Hearing this made Gates so angry that he immediately stormed off to find St. Peter.

Cornering Peter, he told him about the man he had just met, saying, "How could you give me a paltry new house, while you're showering new cars, a mansion, and fine suits on the Captain of the Titanic? I invented the Windows Vista operating system! Why does he deserve better?!"

"True," Peter replied, "But the Titanic only crashed once."

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Jojoba Oil

EXTRAORDINARY USES

EXTRAORDINARY USES

Jojoba oil is a botanical extract of the seed of the jojoba tree (Simmondsia chinenis). Technically it is not actually an oil, but rather what is called a wax ester. Because out of all of the compounds in nature, this wax ester is the most similar to human skin oil (sebum). It is theorized that applying jojoba to the skin can "trick" the skin into thinking it is producing enough oil, thus balancing oil production. The bottom line for acne-prone people is that jojoba oil is non-comedogenic so you can use it without fear.

The benefits of using Jajoba oil are :

1) Provides all day moisturization – jojoba oil doesn't evaporate like water based moisturizers can.
2) It is theorized, but not yet proven, that because jojoba oil is so similar to human skin oil, it can "trick" the skin into thinking it has produced enough oil and thus balance oil production.
3) Very stable – jojoba oil does not become rancid or lose antioxidants even after long periods of storage.
4) Spreads well and absorbs well.

Jojoba oil and its uses

1) **Moisturizer –** After dispensing any facial moisturizer onto your palm, try adding 5-6 drops of jojoba oil to make it into a super-moisturizer. Flakiness will subside and the moisturizer will have an improved feel on your skin.
2) **Make-up remover –** Since jojoba oil is not an eye irritant, nor allergenic, you can use it to remove eye makeup. It also easily removes foundation, blush, and lipstick.
3) **Lip balm –** Apply a few drops onto your finger and apply to your lips for an extra-light alternative to lip balm. Lots of lip balms tend to contain comedogenic (clogs pores) ingredients, so jojoba oil is a nice alternative. As a side note, if you need major help with dry lips, pure petroleum jelly (Vaseline) or Aquafor (petroleum jelly + mineral oil, ceresin, and lanolin alcohol) are non-comedogenic and work very well.
4) **Hair conditioner –** You can mix a few drops of jojoba oil into your current conditioner or use jojoba oil on its own in the shower. You can also add it to damp hair before drying. Also, you can add it to dry hair to promote shine. Jojoba oil also moisturizes the scalp, helping prevent dandruff.
5) **Shave prep -** For men, put 8-10 drops or more of jojoba oil on your beard area beneath your shaving cream (lather from your cleanser or other non-comedogenic shaving cream) for a more comfortable shave. This helps prevent razor burn and leaves your skin feeling nice and soft. Massage oil – Jojoba oil is perhaps the best massage oil on earth. A little goes a long way and for people with body acne is a welcome non-comedogenic option. Note: The skin irritation which sometimes comes with massage may still promote breakouts.

(Rita Singh, Manager - Technical Support
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Member's PAGE

Walnut Oil

EXTRAORDINARY USES

EXTRAORDINARY USES

Walnuts and their oils are excellent sources of omega-3 fatty acids. Most of the research on the health benefits of walnuts has focused on consumption of the nut itself, although interest in walnut oil has grown over the last decade. The health benefits of walnuts and walnut oil are similar if the oil is unrefined, fresh and uncooked. However, the serving size of walnut oil is less than the amount of walnuts needed to get the same nutritional benefit. Walnuts are rich in phytonutrients and are an excellent source of selenium, phosphorous, magnesium, zinc, iron, and calcium. Walnuts and/or walnut oil provide hefty levels of Vitamins B-1, B-2, and B-3, coupled with Vitamin-E and niacin.

Unrefined walnut oil is made from nuts that are dried and then cold-pressed. Good quality walnut oil is topaz in colour with a rich nutty taste. Walnut oil has a limited shelf life, about 6-12 months. Once opened, all nut oils should be kept in a cool place out of the light or refrigerated to prevent them from becoming rancid. Several medical studies have conducted research that indicates that walnut oil offers a rich source for antioxidants, specifically ellagic acid. This antioxidant has been found to detoxify several substances linked to the development of certain cancers. In addition, ellagic acid also helps to obstruct these cancer cells from replicating themselves.

The benefits of using walnut oil are :

1) **Improves blood circulation :** Walnut oil contains high levels of monounsaturated oils such as omega 9 which help to keep your arteries supple. The flexibility of the arteries promotes the flow of blood free of any hardening leading to hyper tension and heart disease.

2) **Lowers heart disease risk :** The cardio-protective benefits of walnut oil come primarily from the high concentration of alpha-linolenic acid (ALA), which is an omega-3 fatty acid that ultimately is converted to eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA) A Yale University study in 2009 found that consumption of walnuts in daily basis may improve the health of blood vessels, thereby decreasing the risk of heart disease.

3) **Cuts inflammation :** Walnut oil has also high levels of polyunsaturated oils like omega3 and omega 6 which help to reduce inflammation and helps prevent diseases like arthritis.

4) **Maintains hormone levels :** Walnuts are rich in phytonutrients and are an excellent source of selenium, phosphorous, magnesium, zinc, iron, and calcium that are helpful in stabilizing body hormones.

5) **Fighting wrinkles :** Walnut oil is great for fighting wrinkles. It has a greasy texture but its regular application can actually help the fine lines and wrinkles to disappear with time.

6) **Remedy for infection :** We all experience those horrible fungal infections that leave us feeling helpless. Walnut oil is your answer to those infections. It helps fight fungal infections really well.

7) **Helps treat psoriasis :** We all dread facing the persistent skin problem called psoriasis. Walnut oil beautifully helps you to cure it. You may either apply it topically or simply add it to your bath.

8) **Great antioxidant :** Walnut oil is a very good antioxidant and helps fight aging really well. It is extremely good for your skin.

9) **Helps fight hair loss :** No one likes seeing innumerable hairs falling each time he/she combs. Hair loss can be stressful. Walnut oil has often helped people fight hair loss with the help of Omega-3 fatty acids that prevent cell damage.

10) **Fights dandruff :** Walnut oil can be great for fighting dandruff as well. It helps keep the scalp clean by removing all the dirt from it. Apply it regularly to get maximum benefits. It prevents the scalp from getting flaky, hence preventing dandruff.

11) **Promotes hair growth :** Walnut oil promotes hair growth as it is high on potassium. Potassium is essential because it helps the regeneration of cells and hence accelerates hair growth.

12) **Cuts belly fat :** Walnut oil helps cut belly fat. It can be easily consumed by substituting other oil with walnut oil. Adding walnut oil to your salads can make you feel full and it also helps the body fight its craving for fats.

(Sneha Mishra, Senior Manager-Lab Operations
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