

Soy & Health

FEBRUARY 2004

ISSUE NUMBER 1

Welcome to our new e magazine

Welcome to the new Soy & Health e-magazine, which replaces the quarterly newsletter 'Soyfoods' published by the American Soybean Association. As you will guess from the title 'Soy & Health' is focused more on the health aspects of soy, in particular the latest research information, but we also are including a few old favourites such as our 'News' and 'Diary' section and new product information. We hope you like the new format and content. Thank you for your support during this transition period. We look forward to keeping you informed about new developments in soy for many years to come.

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Nutrition and health claims - the future

The European Commission has formally adopted a proposal COM (2003) 424 final: 2003/0165 (COD) to regulate nutrition and health claims made on foods. The main thrust of the proposed legislation is to prevent unsubstantiated and misleading claims. A positive list of permitted nutrition claims is provided and a procedure for adding claims to the list is specified. Prior approval will be required for all health claims and the European Food Safety Authority will give an opinion following submission of an application. For a period of 3 years a list of well established claims will be developed based on proposals from Member States. As a transitional measure over this period, claims may continue to be used subject to national rules. In addition a number of restrictions are proposed. These will be made on the basis of (a) 'nutritional profiles' or (b) for health claims on general non-specific claims, psychological effects, slimming claims and the use of charity and professional recommendations.

Many in the food industry have concerns that the regulations will hinder the drive towards healthy eating and some of the proposed restrictions will undoubtedly outlaw certain claims. Hopefully, the cholesterol-lowering soy health claim will prevail as a 'well-established' claim but difficulties may arise if and when manufacturers wish to make new claims. A strong scientific case will have to be made if such claims are to be approved.

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Benefits of soy isoflavones obtained from modest intakes throughout the day

A study by Setchell et al (Journal of Nutrition 2003; 133: 1027-1035) at the University of Cincinnati College of Medicine looked at the pharmacokinetics of isoflavones in 10 healthy women, half of whom were postmenopausal. The women were fed increasing amounts of soy nuts providing known amounts of daidzein and genistein (from 16mg to 66mg of isoflavones) equivalent to amounts eaten by individuals who consume soy regularly. The researchers found that the pharmacokinetics of both daidzein and genistein were similar in the premenopausal and the postmenopausal women.

Analysing peak blood levels, the researchers also found that absorption occurs throughout the small intestine and that with increasing doses, the levels of daidzein and genistein declined suggesting that reduced absorption occurs with increasing doses. Setchell et al concluded that optimal blood levels of isoflavones are best obtained from modest intakes of soy consumed throughout the day rather than from a single intake of a high dose.

Biomarker research and cancer link

A study at the University of St. Andrews in Scotland has developed methods of measuring the effects of phytoestrogens in humans. One of the problems in phytoestrogen research is the absence of a 'biomarker' or reliable indicators of human exposure to particular chemicals. This research, led by Dr Margaret Ritchie, has identified and validated several suitable biomarkers of phytoestrogen exposure. Dr Ritchie has also spent the last 3 years building a database of foods which contain phytoestrogens. During the study, around 90 volunteers were used, mainly women aged between 18 and 81, but some men to prove that biomarkers were reliable regardless of gender. All the volunteers were healthy and cancer-free and kept a food diary for up to 6 months. This was returned to Dr Ritchie as well as blood, urine, and diet samples so that she could measure the phytoestrogens.

Dr Ritchie's research has been presented during 2003 at conferences in Scotland, USA, Germany and Ireland and is due to be published in a future issue of the British Journal of Nutrition. It is also being considered by the European Journal of Clinical Nutrition and the new Journal of Evidence-Based Integrative Medicine.

Soy and green tea may inhibit breast cancer

According to US researchers from the Harvard Medical School (Zhou et al, International Journal of Cancer 2003; 108 (1):8-14) a mixture of soy phytochemicals and green tea could help slow the progression of breast cancer. Investigating the individual and combined impact of soy products and different types of tea on a breast cancer model in mice the researchers found that the soy isoflavones and the soy phytochemical concentrate led to a dose-dependent inhibition of tumour growth by slowing cancer cell proliferation. The green tea showed more potent anti-breast tumour activity than the black tea. Indeed a green tea infusion of 1.5g in 100ml of water produced a 56% reduction in final tumour weight. However, green tea with soy concentrate at 0.1% of the diet further reduced final tumour weight by 72%. The researchers conclude that "dietary soy phytochemicals plus green tea may be used as a potential effective dietary remedy for inhibition progression of estrogen-dependent breast cancer."

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"Soy and Health 2004"

(7 - 8 October 2004 in Bruges, Belgium)

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Portfolio diet lowers cholesterol levels by 35% in 2 weeks

Research by David Jenkins' team at the University of Toronto is revealing new ways of achieving dramatic cholesterol-reducing effects through diet. A study of 25 healthy hyperlipidemic individuals, published in the November issue of the *Journal of Metabolism*, shows that a dietary plan which includes 30g of almonds, 2g of plant sterols (from enriched margarine), 15g of viscous fibre (from foods such as oats, barley, eggplant and okra), and 35g of soy protein (from foods such as tofu, soy milk and soy meat alternatives) can reduce LDL cholesterol by 35% in two weeks. The control diet was the National Cholesterol Education Program Step II diet, which is a very low saturated fat diet. This control diet lowered cholesterol by 12% while the

Portfolio eating plan reduced cholesterol by 35%.

This is the third published study on the Portfolio eating plan. The first (*Journal of Metabolism*, December 2002) looked at the combined effects of foods with heart-health-related claims, whilst the second (*JAMA*, 23 July 2003) compared the Portfolio eating plan with cholesterol-lowering drugs and found that both achieved the same LDL-lowering results. Patients on the Portfolio eating plan also lowered their c-reactive protein levels, an indicator of inflamed arteries and a risk factor for heart disease.

The researchers concluded that combining cholesterol-lowering foods in one eating plan may lower LDL-cholesterol similar to statins and so increase the potential effectiveness of dietary therapy.

Soy isoflavones and bone density

According to recent research (Chen et al 2003, *Journal of Clinical Endocrinology and Metabolism*; 88(10):4740-4747), soy isoflavones have a mild, but significant independent effect on the maintenance of hip bone mineral content (BMC) in postmenopausal women with low initial bone mass.

Two hundred and three postmenopausal Chinese women aged 48–62 were randomly assigned to 3 treatment groups with daily doses of placebo (1g starch), mid-dose (0.5g starch and 0.5g soy extracts, and 40mg isoflavones), and a high dose (1g soy extracts and approximately 80mg isoflavones). All were given calcium and vitamin D3. Bone mineral density and BMC were measured using dual energy x-ray absorptiometry at baseline and 1 year post-treatment.

The study showed that women in the high dose group had a mild, but statistically significant higher favourable change rate in BMC at the total hip and trochanter compared with the placebo and mid dose groups.

Plant food diets improve health

A recent study (Sabate et al 2003, *Am J Clin Nutrition*; 78(3 Suppl-S): 502S-507S) has suggested that diets largely based on plant foods, such as well-balanced vegetarian diets, could best prevent nutrient deficiencies as well as diet-related chronic disease. Restrictive or unbalanced vegetarian diets, however, may lead to nutritional deficiencies, particularly in situations of high metabolic demand.

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The Solae Company

Who are we?

The Solae Company is an alliance between DuPont and Bunge Limited. DuPont brings 200 years experience in innovation and has established itself with well known brands such as Lycra®, Teflon® and Kevlar® as well as materials and products for agriculture, communications, textiles and safety. Bunge expertise includes soya food, feed and industrial ingredients operations.

The combination of DuPont and Bunge results in a unique company able to market innovative high quality soya based food ingredients world-wide.

Where are we?

With about 3,000 employees world-wide manufacturing operations in four major regions and six technical centers around the world, Solae offers knowledgeable staff, customer support, and technical capabilities, combining local market insights with global expertise and experience to create solutions adapted to local taste and needs.

What is our focus?

Our goal is to incorporate great tasting life “good for you” food ingredients into the world’s everyday food menu through products such as beverages, bars, and cereals. Great taste and better nutrition are key priorities for us.

What are our products?

Our products are high quality soya ingredients. We produce them in different forms to enable their use in several end products. Our portfolio includes soya protein isolates and concentrates, textured vegetable proteins and speciality lecithins.

Strengths and Competencies?

The Solae Company brings together the strength, resources and synergies of our parent companies offering a winning combination.

Taste: our commitment to great tasting products is backed by consumer knowledge, technical expertise in developing new products and a dedicated scientific programme.

Nutrition: our goal is to help create foods for better nutrition. Thirty years of ongoing research in nutrition provides us with a solid science based knowledge.

Quality: at The Solae Company we look at quality from different angles- functionality, safety, purity, ingredients, consistency, manufacturing and many more.

Further details:

Solae Europe S.A.
2, Chemin Du Pavillon
CH-1218 Le Grand - Saconnex
Geneva, Switzerland
Tel: +44 22 717 6400
www.solae.com

International conference
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Company



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Solbar expands to China

Solbar Industries Ltd (Israel) are to build a new specialty soy protein plant in China at the Ningbo Free Trade Zone, southeast of Shanghai. The new facilities will produce Solbar's functional soy protein concentrates, textured soy concentrates and steam-textured soy proteins. The plant is forecasted to be in production by December 2004.

Contact Gary Brenner, Marketing Director, tel: +972 8 8632111, e-mail: solbar@solbar.com, <http://www.solbar.com>.

Novogen launches isoflavone research centre

Novogen Ltd has announced the launch of the Novogen Centre for Isoflavone Research (NCIR) which aims to provide information to the media and consumers who are interested in the latest available research on isoflavones. Created as a response to the growing interest in the use of isoflavones as a natural alternative in the treatment of many medical conditions, such as menopausal symptoms and Benign Prostatic Hyperplasia (enlarged prostate) in men, the centre will be a one-stop clearing house for background information on the latest in isoflavone research.

Contact NCIR +1 203 327 1188 ext 16 or visit <http://www.novogen.com>.

New appointments at ADM

ADM has appointed Graham Keen as its new Vice-President, Corporate Marketing. He joins the Corporate Affairs Department at ADM's headquarters in Decatur, Illinois and assumes responsibility for the Company's business-to-business and consumer brand advertising and marketing programmes. Other new appointments are aimed at strengthening the European Sales Team. Gerd Mueller and Anne Brown have been appointed as international sales managers for ADM's Natural Health and Nutrition division, and will be working with Dr Michelle Brown, Technical Manager Europe.

Contact ADM Natural Health and Nutrition, tel: +44 1322 443 008, e-mail: IngredientsErith@admworld.com or visit <http://www.admworld.com>.

If you wish to continue to receive Soy & Health or know of any colleagues who would like to receive it please confirm your e-mail details as soon as possible to

info@soyconference.com

1% linolenic soybean oil on test

Loders Croklaan, producer of specialty and nutritional oils and fats are refining a new 1% linolenic soybean oil for distribution to oil suppliers and food processors who have purchased it for evaluation in various products. The new soybean oil has been produced from soybeans bred, using conventional methods, from seed with a 1% linolenic acid trait. The oil needs no hydrogenation and is a promising solution for US manufacturers attempting to meet the January 2006 trans fatty acid labelling deadline.



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Cargill launches new soy isolate for beverages

Cargill is launching its new soy isolate, Prolisse 500, across Europe to meet the growing demand for soy foods and high protein products. Prolisse 500, from Cargill's Soy Protein Solutions Division is one of a number of soy ingredients launched in recent years, but the company claims its patented technology has achieved a breakthrough in flavour, creating a bland-tasting isolate that does not impart a beany soy taste. According to Cargill the product is well suited to dairy-like, juice based, energy and weight loss products. Prolisse 500 was launched in the US last year and is already used by many food and beverage manufacturers in successful products. Contact Cargill on +31 20 580 1379 for more information or visit their website <http://www.cargill.com>.

New soy drinks from Wild

The German natural flavours and colours firm, Rudolf Wild, is to launch a range of soy based drinks, following its purchase of Sojaland, earlier this year. The range, called 'Soy & Joy', will be the company's second drinks brand after 'Capri-Sun', a children's juice. It will initially be launched in Germany and Benelux countries before arriving in other European countries. The range will come in five flavours - natural, vanilla, chocolate, banana and strawberry, and passionfruit and orange and will be aimed at the health conscious consumer. E:mail info@wild.de for more information.

Tastier soy-based bread

A new improved dough formulation has been developed by the US Agricultural Research Service (ARS) with a view to eradicate the musty, beany aftertaste of some soy breads. The discovery was made during ongoing research to develop new, value added uses for corn, soybeans, wheat and other crops. Dough formulations containing five different ratios of defatted soy flour, whole and white wheat flour, different amounts of ascorbic acid, sugar, salt, milk, water and vegetable shortening were tested and analysed for taste and texture. The researchers discovered that the yeast and extra sugar and ascorbic acid significantly reduced the soybean's beany aftertaste. The researchers also found that the three ingredients used also produced loaves containing 30–40% soy flour with 112–117g of protein, compared to 65g for all wheat bread. The soy loaves are slightly more dense but the texture is claimed to be no more different than multi-grain and other specialty breads. The bread is also high in total dietary fibre and isoflavones. Visit <http://www.ars.usda.gov/is/pr/2003/031126.htm> for further information.

Soy milk and soy nuts are key ingredients in a new fragrance called 'Simply' from Clinique. The fragrance has taken five years to create. Instead of working with ingredients such as citrus and vanilla, the creators have looked for ingredients that would invoke brightness (white flowers), comfort (soy milk) and intimacy (soy nuts).

German weight-loss product now in US

Almased Multi-Protein Powder has become a best-selling weight-loss product in Germany and is now available in the US. Developed over 20 years ago, Almased is made with a patented fermentation process that combines soy, yogurt and honey. It can be mixed with water, juice or milk and consumed as a liquid smoothie or shake. Visit <http://www.almased.com> for more information.



Soy & Health 2004

CLINICAL EVIDENCE • DIETETIC APPLICATIONS

THURSDAY & FRIDAY, 7– 8 OCTOBER 2004
VENUE “OUD SINT JAN”, BRUGES, BELGIUM

Hundreds of delegates from over 30 countries attended the international conferences “Soy & Health - Clinical Evidence - Dietetic Applications”, held in Brussels (October 2000) and London (May 2002).

The latest scientific information on the possible health benefits of soy were presented.

Both conferences provided insight into the current avenues of research into soy, and provided advice for the food industry on producing tasty and healthy foods as well as practical tips for health care professionals and nutritionists on ways to include soy in the diet.

Soyfoods, soybean ingredients and supplements are more popular than ever. Today, most food and supplement companies offer a broad range of soy products. Their success is largely due to the increased knowledge of the health benefits offered by soy.

The third international conference “Soy & Health 2004 - Clinical Evidence - Dietetic Applications” provides medical doctors, dietitians, nutritionists, nurses and other health care professionals with an up-to-date overview of the most recent findings about the health effects of soyfoods and soybean constituents. The conference will especially focus on clinical studies and practical information on how to incorporate soy into the diet.

Scientific programme

Soy and heart disease
Soy and osteoporosis
Soy and cognitive function
Soy and obesity
Health implications of soy lecithin,
oil, and phytosterols

Hormonal effects of soy
Soy and menopause
Soy and cancer
Soy and hypertension
Labelling & health claims in Europe
How to integrate soy in your daily diet

Call for Poster Abstracts

Researchers are invited to submit abstracts for poster presentation. Deadline for submitting abstracts is August 15, 2004. Abstracts must be limited to 300 words.

Contact info@soyconference.com or visit <http://www.soyconference.com>





February 29– March 5

VII World Soybean Research Conference and IV International Soybean Processing and Utilization Conference (ISPUC IV), Iguassu Falls, Brazil. Contact Brazilian Agricultural Research Corporation, Embrapa, Brazil, tel: +55 43 33716366, fax: +5543 33716102, e-mail: cmscnpsso.embrapa.br, website: <<http://www.cnpso.embrapa.br/soy>>.

March 4–7

Natural Products Expo West 2004, Anaheim Convention Center, Anaheim, California. Contact New Hope Communications, 1401 Pearl Street, Boulder, CO 80302, tel: +1 303 939 8440, fax: +1 303 440 8884, website: <<http://www.naturalproductexpo.com>>.

March 14–17

FoodexMeatex 2004, National Exhibition Centre, Birmingham, UK. Contact tel: 0870 429 4630, website: <<http://www.foodexmeatex.co.uk>>.

March 20

5th Congrès de Nutrition et Santé/5th Congres voor Nutrition & Fytotherapie, Brussels, Belgium (including opening address by Dr Mark Messina (US) on Hormonal Effects of Soy Isoflavones), e-mail: info@nutriphyto.be, website: <<http://www.nutriphyto.be>>.

April 3

Congres voor Nutrition & Fytotherapie, Amsterdam, The Netherlands (including opening address by Dr Paola Albertazzi (UK) on Soy as an Alternative to HRT), e-mail: info@nutrifyto.org, website: <<http://www.nutrifyto.org>>.

May 9–11

9th Annual AOCs Conference and Practical Short Course on Soyfoods: Ingredients, Preparation and Utilization (9 May), Cincinnati, USA. website: <http://www.aocs.org/meetings>.

May 11–13

Vitafoods International (and conference sponsored by Leatherhead Food Research Association), PALEXPO, Geneva, Switzerland. Contact IIR Exhibitions Ltd, website: <<http://www.vitafoods.eu.com>>.

May 25–27

Food Ingredients Central and Eastern Europe, Berlin, Germany. Contact FiCEE, e-mail: ahofman@cmpinformation.com, website: <<http://www.fi-events.com>>.

June 15–17

Natural Products Expo Europe Conference and Exhibition, Amsterdam, The Netherlands. Contact Katharine Tooby, tel: +44 20 8232 1600 x225, e-mail: Katharine.Tooby@pentoneurope.com, website: <<http://www.expoeurope.com>>.

September 25-26

Nutrition and Health Show, Olympia Exhibition Centre, London, UK. Contact +44 (0)208 4556570, email: info@nutritionandhealthshow.co.uk, website: <<http://www.nutritionandhealthshow.co.uk>>.

October 7–8

3rd International Conference on Soy & Health 2004 - Clinical Evidence; Dietetic Applications, Bruges, Belgium. Contact info@soyconference.com or visit <<http://www.soyconference.com>>.

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