

Soy & Health

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US soy foods market to enter a more stable and mature phase

According to a Mintel report US consumers may be losing their enthusiasm for soy. Although figures show a 17% increase in sales of soy-based food and drink products between 2001 and 2002, sales slowed in 2003. The market continued to show growth between 2003 and 2004, but the increase was recorded at just 6%.

Mintel's research also shows a decline in usage with 27% reporting using soy products in 2004 vs 30% in 2002. The decline may be as a result of a change in consumer interest in the soy foods currently on the market or may suggest an overall change in attitudes towards soy.

Whilst soy food manufacturers face significant competition from non-soy products Mintel report that the category has expanded over recent years. Indeed, Mintel's Global New Products Database shows that over 435 products with soy as a key ingredient were introduced in 2004, up from 329 in 2003.

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Mintel forecasts that the US soy market will move into a more stable, mature phase, with specific segments continuing to show significant growth.

A copy of the Mintel press release can be found at <http://www.mintel.com/>.

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The UK Food with Added Phytosterols or Phytostanols (Labelling) (England) Regulations 2004 (SI 2004 No 3344) have been published and came into force on 12 January 2005.

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The Regulations implement existing EC Regulation No 608/2004 (OJ No. L97, 1.4.2004, p. 44) and require that foods and food ingredients with added phytosterols, phytosterol esters, phytostanols and/or phytostanol esters should be labelled with the words 'with added plant sterols/plant stanols' as well as other information to protect consumers against the potential consumption of excessive or inappropriate levels of these ingredients.



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Soy bread reduces prostate cancer marker

Prostate cancer is now the second leading cause of cancer death in men and affects more than 500,000 men worldwide every year. PSA (prostate specific antigen) levels are commonly used to screen for prostate cancer and monitor the disease after diagnosis.

Researchers at Australia's Monash University tested the effects of specially manufactured breads containing 50g of heat-treated soy grits or 50g of heat treated soy grits and 20g of linseed on a group on a group of 29 men diagnosed with prostate cancer who were scheduled to undergo a radical prostatectomy. The patients received four slices of either the soy-rich bread, the bread with both soy and linseed, or a normal wheat-based bread. The daily diet containing soy influenced PSA levels in the patients after just one month and resulted in a 13% drop in total PSA levels.

The study was published in the September 2004 issue of Urology (Volume 64, No 3, pp510-50).



Tofu may help repair broken bones and teeth

A tofu-based material is being developed that may help mend broken bones and damaged tissues. The idea is the brainchild of Dr Matteo Satin of Brighton University's School of Pharmacy and Biomolecular Studies who is working with experts from the University of Naples and WessexBio (a technology transfer organisation).

Many existing tissue regeneration materials are derived from animal sources but have several drawbacks including a high cost of production, the risk of transmitting disease, and the risk of rejection by the patient's immune system. The use of a vegetable-based material should avoid this problem and so the researchers have developed a biomaterial based on defatted soybean curds which actively encourages the formation of new bone growth and has a low potential for immunogenicity.

The researchers believe that the tofu-based option could offer doctors a new surgical tool. For example, dental surgeons could be able to use it as a means of helping patients with periodontal disease as it will help regeneration of the bones around weakened teeth and other dental implants. It could also be used for face reconstruction surgery and has potential for use in wound healing.

So far the new tofu-based material has only been used in the laboratory but with funding from the National Endowment for Science, Technology and the Arts (NESTA), it is hoped to test it in clinical settings. For more information visit the NESTA website at <http://www.nesta.org.uk/>.

Soy phytoestrogens may improve IVF pregnancy rate

Italian researchers have found that women undergoing in vitro fertilisation (IVF) who received 1,500mg of soy phytoestrogens per day in addition to the usual 50mg progesterone injections had dramatically higher rates of successful implantation and pregnancy than those not receiving soy phytoestrogens. The authors conclude that although the results of this study encourage the use of phytoestrogens for luteal phase support in patients undergoing IVF, more studies are necessary.

The study was published by Unfer et al in Fertility and Sterility Vol 82, Issue 6, December 2004 pp1509-1513.

The Solae
Company.

www.solae.com



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Soy and premenopausal breast density

A two year study, carried out at the Cancer Research Centre in Hawaii, on the effects of dietary soy on breast density of premenopausal women has found no differences as a result of soy consumption. The researchers randomly assigned 220 premenopausal women to either the intervention or control group with the intervention group receiving two daily servings of soy foods equivalent to 50mg of isoflavones. The researchers assessed lifetime soy intake with a questionnaire and measured breast density in screening mammograms at the beginning and end of the trial. None of mammographic outcomes differed significantly from the experimental group. The total area of the breast increased and the size of the dense areas decreased significantly over time in both groups. After 2 years the percentage density had decreased by 2.8 and 4.1% in intervention and control women respectively.



Women who reported eating more soy during their lives had higher percentage densities than women whose diet included little soy, but this difference was only significant in Caucasians. Lower soy intake during early life and higher soy intake during adulthood predicted a greater reduction in the percentage density during study period. The researchers concluded that after 2 years of intervention there was no significant differences in mammographic densities between the groups but it appeared that soy consumption throughout life may have some effect on breast density.

The research was published by Maskarinec et al in the Journal of Nutrition 2004, Vol 134 (11), pp3089-3094.

Trans fats bad for brain as well as heart

US researchers have found that saturated fats and trans fats are not only bad for the heart but also for the brain. At the 34th meeting of the Society for Neuroscience held in San Diego last October, Mark Mattson and colleagues from the National Institute on Ageing explained how mice fed a 'fast food' diet performed significantly worse in memory function tests than those on a control diet. At the same meeting Ann-Charlotte Granholm of the Medical University of South Carolina in Charleston presented evidence to show that trans fats adversely affected a rat's learning ability.

Soy infant formula and intestinal development

Scientists at the University of Illinois suggest that genistein may inhibit intestinal cell growth. In the first of two studies researchers treated intestinal cells in culture with genistein in amounts similar to those present in soy infant formulas and found that the cells stopped proliferating. However, noting that actions seen in cell cultures may not be seen in infants, the researchers then fed piglets with either cows' milk-based formulas or formula supplemented with genistein. In this case the researchers found that the number of proliferating cells in the intestine was 50% lower in the piglets fed genistein than the piglets fed cows' milk formula. Although the authors suggest that genistein is bioactive in the neonatal intestine, they do not suggest that soy infant formulas should not be fed to babies as clinical evidence suggests that they are safe. Further research is planned.

The first study was published in the June 2004 issue of the Journal of Nutrition. The second study will be published in the February 2005 issue of Pediatric Research.

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Meat-free food website launched

The Food and Drink Federation (FDF) has launched a new meat-free food website to provide consumers with a guide to the meat-free manufacturing sector, currently estimated to be worth around £606 million in the UK. The site traces the sector's history back to Ancient Greece, through to modern day.

The website was developed by the FDF's Meat-Free Industry Group and aims to be the definitive source of information on the meat-free manufacturing sector in the UK. Visitors also have the opportunity to win a prize worth £200 by completing the online questionnaire letting the industry really know what they think about the products it makes. The website also provides links to the member company websites, FAQs and publishes articles of interest and ideas on how to enjoy meat-free versions of some of Britain's favourite meals.

Visit <http://www.meat-free.org.uk/> for further information.

Soy-based drinks and drinkable yogurts are fastest growing

According to AC Nielsen, products that support healthy diets, weight loss and active lifestyles are among the world's fastest growing food and drink products. Out of 7 categories with double-digit revenue growth last year, 5 offered perceived health or weight loss benefits and the top two growth categories were soy-based drinks (+31%) and drinkable yogurts (+19%). Consumer interest in low-carbohydrate diets was a major factor.

More information about the ACNielsen Executive News Report 'What's Hot Around the Globe: Insights on Growth in Food and Beverages 2004' can be found at <http://www.acnielsen.com>.

New method for analysing soy in meat products

A new method for determining soy protein in processed meat products has been published in the January issue of the Journal of Agricultural and Food Chemistry. Results produced by this method are statistically similar to those produced by the official ELISA (enzyme-linked immunosorbent assay) method but the method is claimed to be more reliable, simple, quicker and cheaper.

The article by Castro-Rubio et al reviews the current direct and indirect methods of analysis for soy protein in meat products outlining the limitations in each. The new method involves perfusion reversed-phase chromatography and UV detection of defatted meat. Two peaks from soy protein can be identified in the chromatogram. The method does not appear to suffer matrix interference, is specific, precise, accurate, robust and sensitive, with a detection limit down to 0.07% soy protein and a quantitation limit of up to 0.25% soy proteins. This is more sensitive than the official method and results are reproducible even when varying the analysis time and sample solution.

Florentina Castro-Rubio et al (2005). Simple and Inexpensive Method for the Reliable Determination of Additions of Soybean Proteins in Heat-Processed Meat Products: An Alternative to the AOAC Official Method. J Agric Food Chem, 2005; 53(2) pp 220 - 226.

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Better ingredients for better living

The Solae Company, an alliance between two global leaders; Dupont, known worldwide for innovative research and technology and Bunge Limited, the leading oilseed processor in North, South and Central America, was formed in April 2003.

The Solae Company is a leading researcher, manufacturer and marketer of high quality soya ingredients, including soya protein isolates and concentrates, textured vegetable proteins, specialty lecithins, and isoflavone concentrates; and serves over 3000 customers by offering more than 1000 different products, including many brands that are widely recognised in the food industry.

With many years of experience in product development and market research, The Solae Company offers in-depth, sophisticated insight into what consumers want and how to get to them. Today's health-minded consumers are well aware that soya protein is of equivalent quality to meat, milk and egg protein and its production requires substantially less natural resources. The demand for products that combine the benefits of soya protein with great taste and convenience is rapidly increasing.

Health benefits of soya protein

Many clinical studies and scientific research have confirmed the potential role of soya protein in heart health and cholesterol reduction, weight management, bone health, menopausal symptom relief, cancer prevention, performance nutrition, etc. In October 1999, the US Food and Drug Administration (FDA) released a statement claiming: "25 grams of soya protein per day, as part of a diet low in saturated fat and cholesterol, may reduce the risk of heart disease." The Solae Company played an active and critical role in the research leading to this conclusion. A similar claim was later acknowledged by the Joint Health Claim Initiative (JHCI) in the United Kingdom.

In April 2004, The Solae Company petitioned a further health claim to the US Food and Drug Administration, where scientific evidence indicates that the consumption of soya protein-based foods may help to reduce the risk of certain types of cancer.

Highlighting the health benefits of soya has led to an increased consumer interest in great-tasting soya products, with soya protein markets seeing double-digit growth year-on-year, and is projected to continue doing so. Products, containing Solae™ brand protein, have been launched across several European countries to fulfil consumers' increasing demand for great-tasting, convenient and "good-for-you" products, including soya-containing juices, various varieties of soya milk alternatives and yogurts, meat and meat free products and food bars.

With the launch of its Solae™ co-branding programme, the company is taking its message directly to end consumers with the aim of making a phrase "Solae inside" as much of a selling point for foods as "Intel inside" has become for computers. The company wants to convince people not only to look for the Solae™ label on foods, but also to think of it as meaning both great taste and healthy source of nutrition.

What about taste?

"Consumers buy more than \$3 billion worth of soya products per year. Until recently, soya products were found primarily in health food stores, health food sections of supermarkets or places frequented by vegetarians or people with health conditions that force them to shy away from milk or meat. Nowadays soya products are shifting towards mainstream consumers, who connect food choices not just with health but with lifestyle, fun and taste."

The Solae Company's global headquarters are located in St. Louis, Missouri, USA. The European headquarters are located in Geneva, Switzerland.



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New name for White Wave

It has been announced that the new organisation formed when US food company, Dean Foods consolidated its branded business into one organisation will be known as White Wave Foods. The newly named company will be located at Broomfield, Colorado, USA. Brands included in the new organisation are Silk soymilk, Horizon Organic, International Delight coffee creamers, Land O' Lakes creamers, Hershey Milkshakes, Marie's dips and salad dressings and TofuTown products. The name White Wave Foods will not be used on any products, but will solely represent the company and its leadership position in the food industry. The company will move to

its new premises in early summer 2005.

For more information about White Wave Foods visit <http://www.whitewave.com/>.

Almost half US consumers include vegetarian foods in diet

According to a US survey 44 % of Americans eat vegetarian foods as part of their daily diet in addition to meat. The survey of 1000 American adults was conducted by the Opinion Research Corporation on behalf of Lightlife Foods, a leading producer of refrigerated vegetarian foods. Whilst the results are encouraging for producers of vegetarian foods, the survey also found that 41% of US consumers say that they still find meatless substitutes and vegetarian products as 'too weird'.

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In general the survey found that Americans are turning away from fad diets and plan to include more natural and vegetarian foods as part of sensible diets that are tasty, convenient and nutritious. Indeed 62% said they would eat foods that are more natural in 2005. One in 4 say they are looking to eat less meat. Of these 38% want to reduce the amount of meat they eat because they were on a high protein/low carbohydrate diet and want more balance for 2005.

For more information about Lightlife Foods visit <http://www.Lightlife.com/>.

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Redwood launches new deli product

Redwood has expanded its range of Vegi-deli slices with the launch of a new Sage & Onion variety, which is marketed as suitable for sandwiches and salads. Made from wheat and soya protein using natural flavours, Sage & Onion Vegi-deli slice is the latest addition to their range that includes 'Chicken', 'Beef', 'Turkey', 'Garlic Sausage' and 'Ham' slices as well as 'Streaky Style Rashers', Redwood's alternative to bacon.



Redwood Foods have recently won several awards including The Vegan Society award for excellence and innovation in the category of 'best vegan food product' and the Vegetarian Society's 2004 award for its 'Fish-Style Fingers'. Contact: The Redwood Wholefood Co. Ltd, tel: +44 (0)1536 400557, e-mail: info@redwoodfoods.co.uk, <<http://www.redwoodfoods.co.uk/>>.

Phytosterol-enriched cooking oil

Researchers at Brandeis University, Massachusetts, USA have been developing a frying oil with added phytosterols with the aim of helping food manufacturers make healthier snack foods etc.

Phytosterols are extracted from plants such as soybeans and can help lower cholesterol, when consumed as part of a healthy diet. The researchers have developed a method of extending the sterols' cholesterol-reducing benefits to oil used for fried processed foods. The sterols are heated and cooled so that they recrystallise in a form compatible with fried foods. Volunteers who tested the products couldn't tell the difference between the test and the control. For more information visit: <<http://www.brandeis.edu/>>.

Bontex for instant soups and ready meals

Solbar's steam-textured soy proteins, Bontex, are designed for instant soups and ready meals and made from non-GMO IP soybeans, containing natural levels of soy isoflavones. With a bland flavour and aroma profile Bontex is exceptionally bland and good for absorbing natural flavours during cooking. Bontex can be hydrated 1:4 in hot water and 1:3 in cold water, with very rapid hydration time. Contact: Gary Brenner, Solbar Industries Ltd, tel: +972 (8) 8632111, e-mail: solbar@solbar.com or visit <<http://www.solbar.com/>>.

Fermented soy milk extract launched as scalp conditioner

Japanese company, Kojitto is marketing 2 hair care products formulated with fermented soybean milk extract (derived from the tofu- making process). The extract is said to perform a similar function to that of female hormones in softening the skin. Other ingredients include Chinese quince and konbu seaweed extracts.

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1–2 March

SoyFoods Summit (Take Your Product Development and Marketing Strategies to the Next Level), Miami, Florida, USA. Contact: IQPC, tel: +1 212 885 2719 or visit <http://www.iqpc.com/>.

1–3 March 2005

Food Ingredients Asia, Shanghai Everbright Convention & Exhibition Centre, China. Contact CMP, website: <http://asiachina2005.fi-events.com/>.

6–11 March 2005

Practical Short Course on Snack Food Processing, Texas A&M University, USA. Contact: Dr Mian Riaz, tel: +1 979/845 2774, e-mail: mnriaz@tamu.edu, or visit <http://www.tamu.edu/extrusion/scsnackfood.htm>.

13–16 March 2005

IFE05, London, UK. Contact Fresh RM on +44 (0)20 7886 3100 or register online at <http://www.ife.co.uk/>.

17–19 March 2005

Food Ingredients China, Shanghai Everbright Convention & Exhibition Centre, China. Contact CFAA, tel: +86 10 6839 6330, fax: +86 10 6839 6422, e-mail: cfaa@a-1.net.cn.

2 April 2005

3rd Conference on Nutrition and Phytotherapy, Amsterdam, The Netherlands. Website: <http://www.nutrifyto.org/>.

24 April 2005

6th Conference on Nutrition and Phytotherapy, Heysel, Brussels, Belgium. Website: <http://www.nutriphyto.be/>.

26–28 April 2005

IFIA Japan 2005 & Healthy Foods Expo, Tokyo, Japan. Contact Kathy Gianetti, EJ Krause & Associates, e-mail: gianetti@ejkrause.com.

1 May 2005

Practical Short Course on Soyfoods, Ingredients, Preparation and Utilisation, Salt Lake City, Utah, USA., e-mail: membrane@membraneworld.com, website: <http://www.membraneworld.com/>.

10–12 May 2005

Vitafoods International, Geneva, Switzerland. Contact IIR Exhibitions, tel: +44 20 7915 5132, website: <http://www.vitafoods.co.uk/>.

13–14 June 2005

Practical Short Course - Speciality and Functional Oils: Consumer Perceptions, Market Trends and Health, Ghent, Belgium, tel: +32 (0)51 31 12 74, fax: +32 (0)51 31 56 75, e-mail: flipids@pro.tiscali.be, website: <http://membraneworld.com/flipids.htm>.

15–16 June 2005

Natural Products Expo Europe, Amsterdam, The Netherlands. Contact Katherine Tooby, New Hope Natural Media, tel: +44 20 8232 1600 x225, e-mail: ktooby@newhope.com, website: <http://www.expoeurope.com/>.

27 August–2 September

7th Annual Practical Short Course, Texturized Vegetable Protein & Other Soy Products, Texas A&M University, Contact: Mian Riaz at mnriaz@tamu.edu, website: <http://foodprotein.tamu.edu/extrusion/index.html>.

24–25 September

2nd Nutrition and Health Show, London. Website: <http://www.nutritionandhealthshow.co.uk/>.

29 September–2 October

Childhood Obesity: New Insights and Consequences, Vienna, Austria. Contact: European Childhood Obesity Group, tel: +43 1 588 04 0, e-mail: congress@mondial.at, website for accompanying exhibition: <http://www.maw.co.at/>.

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