

# Ethical CORPORATION

## Corporate focus: **Developing a sustainable supply chain**

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Corporate focus supported by



## Introduction

## Strong environmental, economic and social standards

By Zanna McFerson

Cargill has been planning a stevia business for the past seven years with a vision to build a sustainable enterprise that supports growers and delivers a natural zero-calorie sweetener to consumers.

In building a commercial supply chain from scratch, Cargill can leverage decades of experience in many mature and developing agricultural businesses within the company. For the Truvia™ sweetener business, our team embraced the opportunity to create a responsible and sustainable supply chain that delivers on its future promises. The Truvia™ enterprise offers consumers the taste of natural “sweet” without the calories while making a responsible decision for the environment, the growers and themselves.

We are growing our stevia supply from its infancy with strong environmental, economic and social standards. Our commitment to build this responsibly from the beginning takes both time and patience – to find the right partners, develop and implement standards, understand the impact on natural resources and be a good community partner in the areas where stevia plants are grown and harvested.

We have developed comprehensive standards, and set clear performance targets and auditing processes to ensure compliance. We have specific commitments to reduce our environmental impact and uphold our pledge to be a supportive business partner whether in the research plots in Paraguay, commercial farms in Argentina or communities in China.

By 2015, we will reduce our carbon footprint by 50% from today’s baseline in an effort to be carbon neutral by 2020. We will ensure that all water used to extract stevia is returned to its original quality and reduce net water depletion by 25% by 2020. We will reduce waste by 50% across our supply chain by 2015 and be zero waste by 2020. We will support biodiversity by implementing sustainable stevia agronomy standards across the Truvia™ business footprint.

We are cultivating this supply chain with a sense of responsibility to the growers, communities, customers and consumers in ensuring sustainability for the long term. We remain open for scrutiny and transparent in our practices. We welcome partners like Ethical Corporation to join us in exploring the challenges and opportunities we face in this journey. ■



**Zanna McFerson**

Truvia enterprise business leader, and assistant vice-president, Cargill Health and Nutrition

## Comment

## An intriguing supply chain model

By Toby Webb

Sustainable supply chains are among the biggest responsible business challenges. And this is not least when combined with the on-going debate about what we eat. We want to eat healthily – and feed healthy foods to our children – and also want to be sure that food products are developed and produced in a responsible and sustainable manner.

In establishing the supply chain for its Truvia sweetener brand – made from the stevia plant, a native of South America – Cargill has got a lot of the basics right. The company has identified supplier partners who are not only able to guarantee the right quality and quantity of the raw ingredients, but also have the experience to produce the product in balance with their land.

This supplement focuses on how Cargill is working directly with a farmer cooperative in Argentina. Pooling local expertise and Cargill’s scientific know-how, better strains of stevia plants are developed, ensuring supply for Truvia and maximising income for the producers.

Additional benefits for the farming communities are also in place, with Cargill supporting local schools and other facilities. All this is, of course, good for the company too as it helps maintain a committed supplier base.

We explore all these issues, and more, in this supplement. Ethical Corporation contributing editor Mallen Baker examines the history of sugar alternatives, how stevia has been developed and the regulatory hurdles to be overcome to bring it to market. Separately, Baker also focuses on what is required for a product such as Truvia to catch on with consumers.

We sent Dom Philips to Argentina to see for himself the farming cooperative that Cargill is working with and meet the farmers who will grow the stevia plants. Many of them have switched from production of tobacco – another interesting twist to the health and wellbeing question.

Finally, we have an expert view from Charles Secrett, the former executive director of Friends of the Earth. He gives his critique of where Cargill have gone right in developing the Truvia supply chain and where there remains room for improvement.

We’re pleased to work with Cargill – which has sponsored this supplement – and tell this intriguing story. It’s a company that has had its fair share of critics in the past, but if its work establishing Truvia is anything to go by, has learned from mistakes. ■

**Toby Webb**

Publisher  
Ethical Corporation

This special supplement is written and produced by Ethical Corporation. It has been supported by Cargill. For more information about this supplement or other publishing opportunities please contact [andrew.bold@ethicalcorp.com](mailto:andrew.bold@ethicalcorp.com).



Market history

## Sweeteners and the wellness debate

By Mallen Baker

**For as long as there have been food brands, there have been campaigns about the quality of what's in them, and our diets in general**

British chef Jamie Oliver's campaigns, in the UK and the US, to persuade people to change what they eat have had mixed success. But such campaigns have been devastatingly effective when they target what companies get up to. We can happily condemn bad food being put forward by greedy corporations, even if we cannot quite bring ourselves to look at our own choices.

Some UK food companies were left reeling when Oliver pointed the finger at their products, accusing them as being among the worst examples of what was being pushed onto children in school dinners. Products were withdrawn, but not before companies had suffered the kind of bad publicity that would keep any chief executive awake at night.

Of course, this was just the latest incarnation. Over the last couple of decades companies such as McDonald's and Coca-Cola have often been on the back foot as changing government and consumer demands caught them off guard.

### Proactive response

Anxious to get better at avoiding such traps, the food and drink sector has been scrambling to change what goes into food. Less salt. No trans-fats. They have become more proactive and less reactive.

Some of this has been about improving the make-up of the staples of the food industry. But another huge focus has been on the emerging food categories that provide choice for consumers seeking the healthier lifestyle – based on either the addition of something, like added fibre or, with the probiotic products, “good bacteria” or the reduction of something. Less fat. Fewer additives.

And, of course, fewer calories. Over centuries, one wholly natural food – sugar – has become one of the most wildly desirable foods in history. Not only can you use it to sweeten drinks, you can cook with it to make a wide range of desserts. You can caramelize it. You can make it into a syrup. By boiling it to just the right temperature, you can use it to make a French meringue. It is versatile and delicious. Unfortunately, its over-consumption comes at a cost.

The rising levels of adult and child obesity have a number of causes. “Empty calories” and high levels of fat from junk food plus inactive lifestyles are held to be the biggest culprits.

But the consumption of sugar is also a significant part, and for many people it is one of the most visible symbols. And so people have searched for some time for an alternative that provides at least some of the benefits without the costs. Unfortunately, the benefits have usually come with new costs all of their own.

The first artificial sweetener was saccharin, which was discovered in the middle of the 19th century accidentally by Constantin Fahlberg, who spilled a chemical on his hand and later noticed it was very sweet. As the first sugar alternative, when interest in the sector began to grow it was the most important in defining the nature of sugar substitutes.

Over time, awareness developed that there might be problems with this convenient alternative. Numerous studies have linked saccharin with bladder cancer in rats, for instance. At one point the US government required it to be labelled as potentially hazardous to health – a compromise reached

*The food and drink sector has been scrambling to change what goes into food*

## The science of stevia

Stevia is a shrub native to **Paraguay** and grown in parts of **South America** and **Asia**. One particular species, *stevia rebaudiana*, is 300 times sweeter than sugar.

Steviol glycosides were first extracted from the plant in 1931 by French chemists. It was considered for use as a sweetener during the food shortages in Britain during the second world war.

The key sweetening agents are **stevia glycosides**, of which there are 10 in the stevia leaf. Only one of these, rebaudioside A, or rebiana has sweetness without bitter notes or metallic taste. This has to be extracted from the plant using a water-only process while food grade ethanol is used to further purify the extract into rebiana (in a process similar to how vanilla essence is extracted).

Rebiana has **zero calories**, does not cause tooth decay, and is safe for use by people with diabetes. It also has the benefit that, unlike some other sweeteners, it is heat-stable, meaning that it can be used in some forms of cooking.

The stevia shrub requires manual handling, and is currently grown on small scale plantations. This gives the product a higher cost. As it becomes popular this will probably change.

Rebiana needs to be mixed with a bulking agent to be able to manage its high sweetness. Cargill's stevia-based tabletop sweetener Truvia uses erythritol, a natural sugar alcohol.



Native to Paraguay, stevia can be 300 times sweeter than sugar

after the industry fiercely lobbied in the face of a proposed ban.

In the 1950s, cyclamate was introduced. But in 1969 the US banned it because of allegations of a link to cancer during laboratory tests, although it remains approved in a number of other countries, including the UK.

Next in the queue was aspartame, generally sold under the name of NutraSweet or Equal. It has been

## Cargill – from ethics to sustainability

Cargill started small, as a **family-owned** company founded at the close of the American civil war in 1865, with one grain storage warehouse. As it grew into a more diversified food company over the coming century, it held to basic “our word is our bond” style ethics.

Throughout the first century of its life, this was focused on **fair play**.

For instance, writing in 1951, the then chief executive said: “Our reputation for **integrity** has assured our customers of integrity of products and of contract ... Integrity is the back-bone of our credit which makes it possible for us to borrow many times our working capital.”

In the 1970s, a memo to employees listed five concepts on ethical business: (1) the need to **operate ethically** in all countries; (2) the need to have open discussion to resolve issues; (3) that any business obtained through unfair practices was wrong; (4) that any business must be recorded and audited; and (5) that any conduct that was immoral or unethical would lead to disciplinary action.

The company has been, for most of its history, a commodities company without a high profile brand. Over time, it would acquire businesses with their own brand and would let them pursue their own brand identity. After a period of such growth, the company began to act as a **holding company**, with a lot of diversity beneath the overall umbrella.

In the 1990s, however, the Cargill leadership decided it needed to create a much stronger identity for Cargill itself – and this became focused around an aim to become “the global leader in nourishing people”.

In 1995, Cargill adopted a set of **guiding principles** to formalise its ethical commitment in how it did business across the group.

It recently became one of the few privately owned companies to produce a **corporate responsibility report**, covering a wide range of issues such as supply chains, rural development, food safety, environmental innovation, workplace and community engagement.

linked to allergic reactions in some people, although such claims are unproven and the US Food and Drug Administration says the product has been extensively tested and shown to be safe. Pregnant women are discouraged from consuming it. However, aspartame is commonly used as a sweetener in diet drinks and manufacturers of products containing aspartame have consistently defended its safety.

## Stevia's bumpy road to regulatory approval

Stevia has been used as a sweetener in **Japan** for decades, having been introduced there in 1970. During the 1970s and 1980s it was sold freely in herbal and health food stores in the **US**.

In the late 1980s, it began to appear in the **US** as a **dietary supplement**, but the **US Food and Drug Administration** denied several attempts to market stevia as a food additive.

In 1988, events in the **US** took a bizarre turn when the publishers of the book *Cooking with Stevia* were ordered by federal agents to destroy all copies, on the grounds that they encouraged people to use stevia in ways other than those permitted. As the publishers pointed out at the time, you could legally acquire the *Anarchist Cookbook* which showed you how to make explosives and how to pursue credit card fraud. But not a stevia cookbook, which showed you how to make tapioca pudding.

In 1991, an anonymous complaint led to the **US Food and Drug Administration** categorising stevia as an unsafe food additive, and banned its use. Many people believe that the complaint originated from a large multinational with interests in the artificial sweetener business. Stevia, as a **natural product**, could not be patented by a single company. The ban seemed to fly in the face of **FDA** guidelines at the time.

The **ban was removed** in 1994 when a new act was passed that recognised the use of stevia as a dietary supplement. This still did not permit its use as a food additive, for example as a sweetener. Sceptics asked how stevia could be considered safe for consumption as a dietary supplement, but unsafe for consumption as a food additive.

In 2008, the **FDA** gave **approval for Truvia** and another product using stevia extract to achieve “generally recognised as safe” status. From this point, Truvia was able to be introduced and marketed as a natural sweetener.

In Europe, stevia is still not approved for use except in **France**, but earlier this year the **European Food Safety Authority** published a scientific opinion asserting its belief that steviol glycosides are **safe for consumption**, and setting an acceptable daily intake level. This is widely seen as opening the door for full regulatory approval during the coming year.

Finally, there came sucralose, sold as Splenda. Sucralose has a similar composition to sugar, but its chemical make-up is such that the body cannot digest it, which means it cannot absorb calories from it. It has become the biggest selling sugar substitute in the **US** market to date.



Consumers are becoming more discerning

The value of artificial sweeteners in tackling issues of obesity has been questioned by some doctors and dieticians. The **American Dietetic Association**, for instance, says: “Existing evidence does not support the claim that diets high in [sugar] by themselves have caused an increase in obesity rates.” If sugar has been only a secondary cause of obesity, replacement with non-caloric alternatives won't in itself make a difference.

### Obesity questions

Writing in his newsletter, **US** doctor, and nutrition expert, **John McDougall** expands on this theme. “Other components of the diet such as fats, oils, meats, and dairy products are the major health burdens, not sugar. Think about the last time you saw an obese person standing in line at the counter of your favourite fast food restaurant. Did he/she order a diet soda? Of course! ... The soda is the penance for the real sin – the supersized meal, washed down by the diet soda.”

The right way to satisfy our innate desire for sugars is to get them from whole foods, he says. “From starches, vegetables and fruits.”

McDougall goes on to say that stevia – the first plant-based sweetener – with its natural base and safety record “may be the best choice” when you use a sugar substitute.

Even if the recommendation is slightly grudging, it is perhaps a good indicator that the arrival of stevia into the mix is changing the terms of the debate.

That is probably a good thing, since many people who appreciate a kick of the white stuff will think that McDougall's prescription sounds too much like a hairshirt diet. ■

*The arrival of stevia into the mix is changing the terms of the sweetener debate*



Truvia supply chain

## Sweet and sustainable

By Dom Phillips

**Cargill is working with a farming cooperative in Argentina to establish a sustainable supply of stevia for its Truvia brand of sweetener**

Juan Houchur sits in a camp chair on the balcony of one of the outhouses on his 25-hectare farm and smiles. Behind him, on a sloping field, 2.5 hectares of small, green stevia plants flutter in a light breeze, planted on gently curving terraces. “For me, it is really good,” he says. “It is a new alternative that could be better than tobacco.”

Like many of the farmers in the rural Misiones region of northern Argentina, Houchur is pinning his hopes on the stevia plant – a natural sweetener that he will soon be harvesting in bulk for the first time.

This is the culmination of a four-year partnership between American food multinational Cargill and the local Co-operative Tabacalera de Misiones (CTM) – a farmers’ cooperative – to commercialise stevia production. Early in 2011, about 500 tonnes of the crop will be harvested commercially for the first time.

“This investment is in excess of \$10m,” says Elizabeth Fay, corporate affairs lead for Cargill’s natural sweetener brand Truvia. Money has been spent on plant breeding and propagation, agricultural training and infrastructure.

For 12 years, Houchur, one of 7,000 members of the co-op, has been farming mostly tobacco, as have many of the farmers in the Misiones district. His battered clothes and the small concrete house he and his family live in suggests that he is not a rich man.

Beside him, Juan Bentos, a leading CTM member, explains how the curved terraces help avoid water waste. “You have to preserve water,” he says. With 50 hectares of his own, Bentos has also moved into stevia production. “It’s very important,” he says. “The expectation is really high.”

Cargill, too, has high hopes for stevia. Currently Truvia is made from stevia largely sourced from China, and already has a retail value of \$45m – 9.1% of sales in the US sugar-substitute category. Truvia accounts for 58% of stevia-based tabletop sweetener sales and is used in brands including Coca-Cola’s Sprite Green and Hansen’s Natural Lo-Cal juices.

Here in Argentina, Cargill has been working with CTM to create a completely natural supply chain for stevia – using small farmers such as Houchur and Bentos in the Misiones area. Cargill projects that within three years South America will account for more than half of its stevia supply. Houchur may have a small farm, but it is becoming part of a much bigger business.

### Natural source

“We had been looking all over the globe to find the optimum areas for stevia,” says Zanna McFerson, Truvia enterprise business leader, and assistant vice-president, Cargill Health and Nutrition. McFerson has just flown down from the company’s Minnesota base to monitor progress in Argentina along with Mark Brooks, the brand’s product line director, and a team of Cargill executives.

“We found a really well-organised cooperative and phenomenal expertise. There was a really good fit. There was never any doubt in my mind that this was the right place,” she says.

CTM has been cultivating stevia, which grows naturally all over this border region of Argentina, Paraguay and Brazil, since 1992. But the organisation lacked the investment and expertise to bring it to market.

*Truvia already has a retail value of \$45m – 9.1% of sales in the US sugar-substitute category*

“We grew various varieties and we decided to create a sweetener brand,” explains Jorge Nestor, president of CTM. “We couldn’t do it alone. In Cargill, we found the best way to reach an international market.”

Now the first major harvest is looming. “In the future, this could be the principal activity,” Nestor says. “And we are prepared for it.”

### Painstaking research

Work began at CTM’s substantial research centre, set on gently sloping fields among the pine trees a short drive from the co-op’s main headquarters. Here, in a climate-controlled micro-lab, workers in masks and white coats painstakingly separate seeds to send to Cargill’s research centre in the US. There the company works on isolating the varieties that have the best “taste profiles” that carry the highest volume of active ingredients and have the best resistance to weather and disease.

At the lab, tiny plant cuttings are grown in controlled conditions. The best quality mother plants undergo accelerated growth in a micro-propagation centre. “We are propagating the best plants to get seed, some of which will be given to farmers,” explains Juan Bernad, Truvia South American business manager.

Others, like Juan Houchur, received seedlings free of charge from Cargill. CTM has two agricultural technicians who visit farmers like him to provide advice and training.

Lab manager Andrea Schendelbek opens the door to a giant greenhouse full of tiny plants. “All the plants from the lab come here,” she says. Plants are cross-bred again and again to produce the best varieties. Behind the greenhouse are fields of the green plants. Cargill executives say they are deeply impressed with the rate of progress and production.

CTM’s stevia farming manager Guillermo Anderson says there are currently 100,000 plants in the fields. By February next year, he expects to have more than 2m plants. “This is about getting a consistent variety that keeps on improving,” McFerson says. “And one day,” adds Brooks, “it will be in a little packet.”

A little packet, maybe, but full of a natural product. This is the aim – and it makes good business sense. In South America, Cargill has been subject to scrutiny. In 2006 Greenpeace activists blocked its controversial soy operation at Santarém in the Brazilian Amazon state of Pará.

But the company has reacted to the criticism. After a 2006 Greenpeace report on the level of deforestation caused in the Amazon by soy farming, Cargill and other companies froze soy trade with producers suspected of illegal deforestation. Only 0.25% of Amazon deforestation is now caused by soy production, according to Brazilian government figures.

“The moratorium shows that production and conservation can go hand-in-hand,” Paulo Adario,



Careful tending produces the best plants

Greenpeace Brazil’s Amazon campaign director, told Ethical Corporation. The balance between development and conservation is vital in the Amazon – which is home to more than 20 million people, among Brazil’s poorest.

### Sustainable practices

As a large private company, Cargill has in the past also been accused of unnecessary secrecy. There now appears to be movement across the board to make changes. Elizabeth Fay says the company has been engaged in sustainable agricultural practices for many years but that there is now a move towards more openness.

“As a company, we recognise there are many opportunities to improve our communication and transparency on our efforts in these areas,” she says.

The Brazilian Amazon is a wild frontier region that frequently ignores federal government directives. Here in rural Argentina, a greater control over production is more feasible. With stevia, Cargill set out to create a sustainable supply chain from scratch.

*Cargill has been working with CTM to create a completely natural supply chain for stevia*



It's a team effort to develop the best crop

*Cargill looked at how companies such as outdoor clothing maker Patagonia had tried to embed sustainability from day one*

"We had to think about what is meant by that," Brooks says. "We spent a year reading the literature, understanding our current impact. We set ourselves some targets. Statements of intent were worked out, and we worked on what our water imprint is. We had to go to a micro-level and build it back up. Then invite outside people to come in and critique."

Chemical engineer Deborah Ross, sustainability manager for Truvia, who comes from the Cargill Technology Development Centre, did an extensive life-cycle analysis of the process. The company looked hard at what standards existed on corporate responsibility reporting. "The certification community has established common ground on 80-90% of what it means to be sustainable," Fay says. And full details of the Truvia supply chain will be on the project's new website.

#### **Traceable supply chains**

CTM already has education and health programmes. "They are very good as partners. They already have Global GAP standards in place for citrus production. We are partnering to develop and implement sustainable agricultural practices for stevia. It's not being put upon them, it's being done together," McFerson says.

CTM say the stevia it produces will have a tracking system that means it can be traced back to the lots it was grown on and the farmer who grew it. Traceability like this is a core development for companies trying to do sustainable business in South America.

Cargill looked at how companies such as outdoor clothing maker Patagonia had tried to embed sustainability from day one. Patagonia has created a reputation for sustainable business practices. It has a section on its website called the Footprint Chronicles – which details successes and, equally importantly, failures in its drive to create a sustainable supply chain from South America. Patagonia is now teaching green supply lessons to US retailing giant Wal-Mart.

"Neither of those businesses has ever claimed to have reached perfection, or that they have in any sense 'arrived' at full sustainability," says Elizabeth Fay. "The lesson of brands like Patagonia is the journey they are on – where sustainability is a guiding principle not a destination."

Troy Rhonemus is Truvia business process manager and is working on stevia's supply chain. "Most of what I do [elsewhere] is about cost reduction," he says. "Here it is about sustainability."

## Stevia supply chain commitments for Truvia

- We will reduce our carbon footprint by **50%** in 2015 from a 2010 baseline to become carbon neutral by 2020.
- We will ensure all processed water is returned to the same quality for which it was taken and reduce net depletion by **25%** by 2020.
- We will reduce waste by **50%** across the supply chain in 2015 in efforts to become zero waste by 2020.
- We will not grow stevia on conservation or protected land and will support biodiversity by implementing and auditing against sustainable agricultural practices to protect and conserve natural resources.
- We will set clear minimum and progressive criteria to ensure that the conditions for the production and trade of stevia are economically fair and environmentally responsible.
- We will guarantee a price is paid to farmers to cover production cost based on quality and the implementation of sustainable agricultural practices to protect and conserve natural resources.
- We will provide support to producers to invest in education, healthcare, farm improvements, technical assistance to increase yield and quality to increase income.
- We will actively participate in long-term partnerships and engage as a team to improve the communities where stevia is grown and processed.
- We will implement Sedex (Supplier Ethical Data Exchange) self-assessment audits throughout the supply chain, validate findings with an independent auditor, and share information with our customers.

## Building resistance

In a baseball cap and shorts, his toes poking out of his battered brown sneakers, 15-year-old Gómez Fernando is tending his father's farm. Here, an early crop of stevia was planted last year as one of the trials. "It went well, it was easy to grow," Fernando says. "We got a lot of leaves. My father was happy."

But the crop, one of many trial batches grown by CTM farmers, was not perfect. Mark Brooks points out a yellowing of the leaves on some of the big, bushy plants, and the tiny holes left by insects.

Pesticides are not encouraged and used infrequently, so both CTM and Cargill have to work out first what is an acceptable level of bug and fungus damage, and second how to improve the plant's resistance to threats like these. "We are trying to minimise risk," says Guillermo Andersson. "We are making varieties with resistance to drought and to illness."



Pest resistant strains are paramount

Limiting water use and erosion – with the use of curved terraces, for example – is one part of that. "Developing technology that reduces water use is important. It's all about getting down to the fundamental science of extraction," Rhonemus says.

Another is in recycling waste produced in the process. "A big part of the carbon footprint is using that in a positive way," Rhonemus says. "We are working hard to use it on the farm level, either for feed, doing a lot of work working out what the value of that is. It's a supply-chain issue. And it's a lot of biomass."

CTM already produces cattle feed from the biomass left over from its citrus production: one option might be to combine the two. The feed could be shipped elsewhere within the Cargill world network. "We have the capability to recycle any product," Rhonemus says.

## Community projects

Nearby, school number 255 sits in rolling hills, up a dirt track, surrounded by fields of tobacco plants in the Colony Caa-Guazú district. The headteacher, Patricia Brollo, is in ebullient mood as executives from Cargill don white coats with the company logo and a CTM sticker to give this small, one-storey concrete building a much-needed paint job. "This is the best help I've had to date," she beams.

All the students are children of farmers, Brollo says. "This is a humble community, very collaborative. Everybody here belongs to the cooperative."

In a small field at the back of the school, Mark Brooks and Juan Bernad fix up primitive seesaws. At the front, primary age children hand out sandwiches and cakes. A corporate film crew, flown in from the US, is on hand to record this more visible example of the kind of corporate social responsibility Cargill is planning for the region.

Afterwards, Brollo hands out a "diploma" to everyone involved in the painting, signed by each of the students.

But there is still much to be done by the cooperative elsewhere. A warehouse will be built at CTM's headquarters. Troy Rhonemus's biomass recycling system has yet to be decided. Some farmers, such as Juan Houchur, say they could be harvesting as early as December this year. And there is a palpable optimism and sense of purpose in the air.

Outside the school, another farmer, Andrade Blas, sits in the sun. He has been farming for 26 years and has 35 hectares, mostly citrus. He is one of 300 farmers CTM has recruited into this first harvest. The co-op aims to have 2,500 growing the new stevia within three years.

Like many farmers in the region, Blas talks highly of the co-op. "It is always there at your service, it is a different type of producer," he says. "I have been growing stevia since 1992. But now it is a new plant, it looks better. I am confident in this plant." ■

## Market trends

## An opportunity for Truvia?

By Mallen Baker

**As an all natural product, Truvia is well placed for further success in the sweetener market**

Until recently, sugar substitutes were a flat-to-declining market segment. Concerns over taste, limited range of uses and potential health impacts from artificial sweeteners had apparently set a ceiling on the number of consumers ready to make the switch.

However, in the past couple of years the sector has grown again, and this growth has largely coincided with the US Food and Drug Administration's approval of stevia-based products. The Truvia brand is a big part of that growth, accounting for more than half of all the stevia-based increase.

How big a potential does a product like Truvia sweetener have to attract new customers into the sugar substitute market? Truvia is certainly targeting these customers, with its recent advertising campaign telling stories of everyday people tempted by their favourite sugary snacks – such as doughnuts or chocolate – and discovering Truvia as the guilt-free “natural” choice.

If real inroads could be made into the sugar market, it would imply massive growth, particularly in the US where consumers' use of sugar is double the global average, according to Datamonitor. Although US consumers have tended to concentrate more on cutting fat from their diet than sugar, the focus is increasingly sharpening.

### Intake guidelines

The US Department of Agriculture has just released its dietary guidelines which, for the first time, include a recommended maximum intake of added sugar. These are 100 calories per day for women and 150 for men, compared with 355 calories per day currently consumed by the average American via sugar.

This move comes on the back of the heightened profile of obesity brought about by the first lady Michelle Obama's initiative, and a big debate around the impact of high fructose corn syrup.

In the UK, there is less initial resistance



A natural product with big potential

to focusing on sugar. The Datamonitor report finds that 37% of UK consumers say that they pay attention to the amount of sugar that they eat or drink.

### Time for change?

David Jago, Mintel's director of innovation and insight, urges caution in believing that there will be a big shift. “The fight is really for market share within the sugar substitute market,” he says. “There are no indications at the moment of a big shift of customers who currently use sugar to switch to stevia products.”

Jago does believe, however, that the time is right for products such as Truvia, based on the experience in the US. He says: “The natural labelling was there right from the start, and they have hit the market at a time when US consumers are questioning what

*There has been a trend towards more natural products as consumers turn away from highly processed foods*

they eat to a greater degree than any other time in history.”

The “natural” label is important. There has been a steady trend towards the rise of more natural products as consumers increasingly turn away from highly processed foods, or foods containing chemical additives.

Jago believes this isn't just the growth of a niche, but that it is a longer-term trend that sees mainstream food suppliers building the need for simpler, more natural, profiles into their range.

Since Truvia can be incorporated into products as a sweetener while still enabling

that product to be all-natural, it has great potential as an ingredient in a wide range of foods. It is already used in a number of low calorie drinks and frozen desserts.

Is there any danger in being seen as a “natural” product? Does it bring a challenge that Cargill would need to overcome for Truvia to meet its full potential? Perhaps only that some consumers intuitively believe that such features come as part of a trade-off. The more natural something is, the more its taste is compromised.

That may be a counter-intuitive perception when you consider that sugar is itself a natural product. But it may well be one that needs to be addressed in the marketing battle ahead.

### Market reshaper?

Cargill's dream would be that popular perception sees Truvia as having the zero calorie benefits of a non-sugar sweetener while avoiding the downside of the artificial sweeteners – the health concerns and the lower quality taste.

If that dream should come true, could Truvia completely reshape the sugar substitute market – wiping out aspartame and saccharine altogether? It's not impossible, although there are a lot of barriers. For instance, the big companies that currently sell reduced calorie soft drinks will be unwilling to mess with the existing taste profile of their products which customers have come to know. You only have to mutter the words “new Coke” to understand how badly that can go wrong.

But in the meantime, there is a fair wind behind Truvia and every likelihood that when European approval is achieved, it will become a mainstream phenomenon in that market as well. ■

NGO comment

## A promising start

By Charles Secrett

**Cargill's Truvia sustainability programme is a welcome development**

Too many companies are still blasé about the urgent need to put their business onto a strong sustainability footing. That means continuously improving environmental, financial and social standards, under a good governance regime.

So, when a giant multinational publicly promises to conduct its business with high levels of integrity, reduce its environmental impact, treat people with dignity and respect, and invest in the communities where it operates, one has to say: "Well done. Good first step. Now show me the evidence."

And, to my surprise, that's what Cargill is doing, as it builds from scratch a new sustainable supply chain for its natural sweetener, Truvia.

When I and others went to an advisory meeting with Cargill staff a couple of months ago to hear about its Truvia sustainability plans, I was expecting the familiar corporate-speak of fine-sounding eco-principles, green slogans and opaque project aims blanketing an attempt to lure our endorsement. I mean, come on – it's Cargill, the global behemoth of agri-commodities and *bête noire* of campaigners the world over. But, I was mistaken.

OK, it's still early days, and there's a way to go (see below). But, the Truvia sustainability chain should turn out to be a model for others to copy. The environmental commitments on carbon and waste reduction, water depletion and biodiversity are impressive.

But it wasn't the targets that convinced me (targets can always be made stronger) so much as the rigorous field analysis that preceded them. That is the measure of a company that wants to build a sustainable business that supports farmers, protects nature and delivers a decent product.

For example, Cargill's life-cycle analysis included working out the product footprint from planting to the final ingredient formulation; assessing the impact on growing and first stage processing communities to ensure they gained a fair income, fair working conditions and a protected environment; measuring the "embedded energy" in the supply chain; assessing the waste outputs, water usage and



Assessment of impact on growing communities a crucial first step

impact of packaging; and enhancing the social integrity of the farming and processing communities in China and Argentina where the host plant stevia is grown.

These are good first moves. But they can be improved. The global supply chain obviously has significant energy and carbon costs in transportation – the company should be moving to clean and green fuels in all modes. Cargill should be reducing and if possible eliminating pesticides, herbicides and artificial fertilisers – not just ensuring their safe storage and use.

### Improvements to make

There seems to be a lack of data on soil quality and the effect of these synthetics – this should be rectified. If stevia production is elevated to a whole-farm, closed-cycle system, involving co-cropping and other

### *Cargill's Truvia business has made a good start to get things right all along the supply chain*

diversifications, then there should be opportunities to further cut fossil energy and resource waste, and minimise/replace expensive synthetic chemicals with natural alternatives.

More needs to be done on developing a rigorous species and habitat conservation and re-establishment programme. Deciding not to chop down primary forest is a start. Restoring degraded land is the next step. Again, there seem to be greater possibilities to reduce packaging along the supply chain – pallets, supersacks, bags, boxes, tarps and plastic containers – and boost recycled products. Here, Cargill could learn a thing

or two from other best practice companies.

Finally, the water data and planning we've seen are still in an early phase. Given the proposed scale of production, a broader watershed management plan should be drawn up and implemented (something likely to be a necessity in a climate changed world).

Since there is no ready-made certification programme that can endorse this whole life-cycle approach, I would encourage the Truvia business to establish a sustainability advisory board of independent experts, drawn from non-governmental organisations, academia and business. This can be a critical friend and report annually on measurement, systems and progress. The reports should be made public, and neither Truvia nor Cargill should have any input over their findings. This will complement and build on the brand's existing commitments to implementing Supplier Ethical Data Exchange (Sedex) audits throughout the supply chain, as well as applying sustainable agricultural standards at farm level.

Cargill's Truvia business has made a good start to get things right – environmentally, socially and financially – all along the supply chain. The company has set up rigorous improvement programmes and gone public on ambitious aims. There are plenty of campaigning NGOs, community groups and journalists who will ensure there is no back-sliding.

This is a product development programme of which Cargill can be proud and from which others can learn. ■



Charles Secrett is a founder of the Robertsbridge Group and was executive director of Friends of the Earth (England, Wales and Northern Ireland) for 10 years.

**This supplement was published by  
Ethical Corporation in December 2010.**



**7-9 Fashion St, London E1 6PX UK**

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