

GIRACT

Starch *Italics*

Starch Industry Overview
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Crops and Grains

- [Pg1](#) Romania's 2012 grain production down 39% year over year
Don't look for cheaper food yet, even as grain prices drop
- [Pg2](#) Cold curbs potential for EU grain, oilseed crops
- [Pg4](#) French grain yields risk 5-6 % cut if cold snap lasts
- [Pg5](#) UkrAgroConsult cuts Ukraine's 2013 grain crop forecast
- [Pg6](#) EU grains unscathed from winter, yields to rise-crop monitor
- [Pg7](#) Wheat price tipped to ease as crops rise

Starch & Derivatives

- [Pg7](#) Enzymes turn inedible waste plant material into food and fuel
- [Pg8](#) Potato starch paper marks curious entry into market
- [Pg9](#) Government awards more than USD 4 mio to environmental projects
- [Pg10](#) Inventor makes new products from Tayto starch
- [Pg11](#) Steps suggested to prevent mite attack on tapioca
- [Pg12](#) USD 4 mio of government funding for waste minimisation
- [Pg13](#) Scientists conclude no significant metabolic difference between consuming High Fructose Corn Syrup and Sugar
- [Pg15](#) Corn and soybean prices have opposite effect on fertilizer, food company stocks
Cookies and cream biscuits cornering market share from Glucose

Company News

- [Pg16](#) Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH
- [Pg19](#) Biofutures acquires Malaysian biofuels firm
- [Pg20](#) extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels
- [Pg23](#) Ayensu starch factory resumes production

Biofuels

- [Pg24](#) TMO collaborates with Usina Santa Maria to develop ethanol plant in Brazil
- [Pg25](#) U.S. ethanol exports down, while maintaining net exporter title
- [Pg26](#) EU Environment Ministers favor biofuels industry over people and planet
- [Pg27](#) Insight: how will biofuels change land use?
- [Pg28](#) High corn prices and dropping demand are eating away at the biofuel industry
- [Pg29](#) Liquidators finalize ethanol plant sale
- [Pg30](#) Investment panel to take up 31oil, gas blocks in 2 weeks: Moily
Farmers Research Beet-Based Biofuel
- [Pg31](#) Ethanol's Enviro Benefits Keep on Growing
- [Pg32](#) Adecoagro plans to profit from sugar-to-ethanol swing

(Table of contents continued on next page)

Bioplastics

- [Pg33](#) Cardia Bioplastic's Biohybrid technology used in doggie waste bags Spanish project looks at bio packaging for fish
- [Pg34](#) Bioplastics market to increase five-fold by 2016 Trade group publishes land use data for bioplastic feedstocks
- [Pg35](#) Green Dot acquires bioplastic business
- [Pg36](#) Teijin enhances heat and impact resistance of its bioplastic

Regional Language News

China

- [Pg37](#) Early assessment of corn corn prices of corn futures corn price trend forecast
- [Pg40](#) Brazilian soybean exports, Chinese importers or steering Argentina CFT 2013 domestic corn prices around the market summary

Brazilian News

- [Pg41](#) Cuts challenge ethanol industry

Portuguese

- [Pg45](#) With 6 mio t of soybeans, MS terminates record crop harvest
- [Pg46](#) USDA report shows increase in corn planting intentions in the U.S.

Glossary

mio	'000 000
bio	'000 000 000
k	'000
lakh	'00 000
t	tons
kt	'000 tons
lpd	litres per day
klpd	kilo litres per day
tpa	tons per annum
tpd	tons per day
tph	tons per hour
tpm	tons per month
cpd	cases per day
JV	Joint Venture
M&A	Merger & Acquisition
pa	per annum
Sensex	Stock exchange index

Romania's 2012 grain production down 39% year over year

Last year's drought has severely affected Romania's agriculture causing reduced productions for all crops except sugar beet, according to data released today by the National Institute for Statistics (INS). Romania's 2012 grains production was 12.69 mio t, down by 39% year over year mainly because of reduced yields (ton/ hectare). The average yield for corn was down by 52%, wheat by 28.4%, barley by 25.8% and oat by 13.9%. Corn crops represented 50.4% of the surfaces cultivated with cereals while wheat crops counted for 36.7%.



Although last year Romania had the largest surface (2.7 mio hectares) cultivated with corn at EU level, it reported the third largest corn production after France (1.7 mio hectares) and Italy (0.98 mio hectares). Overall, Romania produced 2.17 t of corn/ hectare, considerably below the 6.15 t/ha reported at EU level.

In 2012 Romania was the fifth largest wheat producer in the EU both in terms of surface and output but reported the lowest yield, according to INS. (*Continued in next column*)

Romania's 2012 grain production down 39% year over year (Contd)

Romania had the largest surface cultivated with sunflower last year but reported the second largest production after France as the average yield was 18.1% below the EU level.

In 2012 Romania was the 7th largest potatoes producer in the EU although it had the third largest cultivated area as the yield was 63.7% below the EU average.

Overall, Romania's vegetable production in 2012 was down 17.2% year on year as both cultivated surfaces and yields decreased. (business-review.ro 30 March 2013)

Don't look for cheaper food yet, even as grain prices drop

Consumers can't yet bank on a year of cheaper food, despite predictions for bulging grain crops in the United States and other major global producers that have dragged futures prices back from last year's record highs. The forecasts, analysts say, are just that - with seeds not yet in the ground for the all-important U.S. corn crop that is used to feed cows and produce cereal products and other foods.

The next few months will be crucial in determining prices, as weather conditions will ultimately determine the size of the harvest. "There's not enough assurance here yet of lower grain prices in the long run to start marking down those food items," said Steve Meyer, president of Paragon Economics.

(*Continued on next page*)

Don't look for cheaper food yet, even as grain prices drop (Contd)

After a bruising 2012, which featured a historic U.S. drought, dryness in Eastern Europe and the third spike in global food prices in four years, farmers have dusted themselves off to start a new growing season.

Grain prices, which touched record highs late last summer, have been under pressure recently as some livestock producers have cut herd sizes due to high feed costs. Meanwhile, the acreage dedicated to key crops has increased and reserves look fatter than previously thought. The U.S. Department of Agriculture (USDA), in report issued on March 28, forecast that U.S. growers will harvest a record 14.6 bio bushels of corn and a record 3.4 bio bushels of soybeans - bumper crops that would help replenish razor-tight supplies.

The USDA also said corn inventories as of March 1 were 8% higher than traders expected, sparking the biggest weekly loss in corn prices in 21 months last week at the Chicago Board of Trade. Prices are down 25% since reaching a record high in August. Investors have been turning their backs on commodity index funds, which take long positions in a range of commodities including grains, due to higher returns offered by equity markets. The Thomson Reuters/Jefferies CRB index, which tracks a range of commodities, has fallen around 8% in the last six months while the Dow Jones Industrial Average index has risen about 10% over the same period.

(Continued in next column)

Don't look for cheaper food yet, even as grain prices drop (Contd)

USDA's planting intentions survey fulfilled expectations flagged by the United Nations Food and Agriculture Organization (FAO), whose food price index has stabilised from historically high levels. (agprofessional.com 10 April 2013)

Cold curbs potential for EU grain, oilseed crops

Freezing weather has slowed the development of winter grain and oilseed crops in key producing countries in the European Union while spring sowings are well behind normal, crop analysts said.

Persisting cold weather is increasing pressure on winter crops in northern France that already endured a difficult sowing campaign, with a growing risk that yield potential could be cut.

"The poor condition of winter cereals is due to the accumulated impact of a long, wet winter, and not just the current cold temperatures," Jean-Paul Bordes, head of research at French grains institute Arvalis, said.

"We can no longer expect to get the best yields; we've fallen off the optimal yield trend. But we can still achieve good harvest results depending on the weather to come." *(Continued on next page)*

Cold curbs potential for EU grain, oilseed crops (Contd)

Top EU cereals producer France saw its coldest March since 1987 with some northern areas experiencing lowest-ever temperatures for the time of year, according to public weather service Météo France. A continuation of the cold spell beyond mid-April could lower potential grain yields by 5 to 6%, Herve Guyomard, Scientific Director for Agriculture at French agricultural research body INRA said on Wednesday.

Weekly crop ratings issued by farm office FranceAgriMer continue to show about two-thirds of winter wheat and barley crops are in good or excellent condition. But plant development is well behind last year's pace. Crop development is on average running about 10 days behind normal, Bordes said, adding that the resumption of growth will be delicate because plants may try to catch up too fast. The cold spell was also continuing to raise concerns about losses to rapeseed, which came into winter weakened by a poor sowing season.

The impact of the late wintry weather could lead farmers to dig up more rapeseed, oilseed institute Cetiom said in a note on northeast France. "It's important to stress that we have never seen this kind of situation in which very weak plant development in the autumn was followed by slow growth resumption that is running about two weeks late," it said. *(Continued in next column)*

Cold curbs potential for EU grain, oilseed crops (Contd)

LOWER YIELDS IN GERMANY

In Germany, the second most important EU producer, the continued cold weather is starting to create concern about loss of yields in winter grains and rapeseed, while lower yields for spring grains now seem almost certain, analysts said. "Winter grains are now up to four weeks behind their normal growth levels. It is still too early to talk about major problems with winter grains because good spring and summer weather can still allow plants to catch up," one analyst said.

"Plantings of spring wheat and spring barley are now seriously behind schedule with work in parts of the country hardly started. A reduction in spring grain yields now seems inevitable," the analyst added. Continued frosts and only marginally warmer daytime temperatures are forecast up to Monday in much of Germany.

"A reduction in yields for winter grains now seems possible but I think it will involve a pullback from bumper to average yields rather than a disaster," another analyst said. Analysts in both France and Germany said delays to spring sowings raised the prospect of a shift towards later-planted crops which include maize and sunflower.

Cold, wet weather has also delayed spring plantings in Britain with only 15% of the planned area drilled by the end of March compared with a normal 50%.

(Continued on next page)

Cold curbs potential for EU grain, oilseed crops (Contd)

Spring sowings are expected to rise sharply in Britain this year after a difficult autumn planting season which led to an estimated 25% drop in winter wheat area in England and Wales, as of December 01.

Analysts said rapeseed area had been expected to be little changed but is now set to fall as farmers abandon crops. "Although the drilled area was similar to previous years, late drilling, slugs and wet soils and latterly pigeons have resulted in a high failure rate in winter oilseed rape crops, with up to 20% expected to be replaced," crop consultants ADAS said in a report this week.

Poland, the EU's fourth-largest wheat producer, has also suffered low temperatures while unseasonal snow also fell this week. "It is too early to evaluate yields," said Regis Miola of analysts ODA Polska.

Spring grain sowings are now up to four weeks behind schedule in south west Poland and one to two weeks behind schedule in the north, Miola said. (Additional reporting by Michael Hogan in Hamburg and Valerie Parent in Paris; Editing by Alison Birrane)

(uk.finance.yahoo.com 08 April 2013)

French grain yields risk 5-6 % cut if cold snap lasts

Wave of cold weather across France in the past weeks could hit grain crop yields by 5 to 6% if it lasts beyond mid-April, a leading scientist at the French National Institute for Agricultural Research (INRA) said on Wednesday. A late blast of winter weather in France and other major European grain producing countries has raised concerns that crops could be hurt and the summer's harvest delayed, buoying European grain prices in recent weeks.

"For the moment it's fine. Crops are strong and can recover," Herve Guyomard, Scientific Director for Agriculture at INRA told Reuters on the sidelines of a conference on water. Last month was the coldest March since 1987 in France, the EU's top grains producer, with average temperatures 1.5°C below the seasonal norm, meteorological office Meteo France said.

Below-average temperatures are forecast to continue in France at between 0 and 5 degrees Celsius, but should be followed by slightly milder conditions in the 10 days to April 19 with temperatures expected between 5 and 10°C, according to US national weather service forecasts.

(brecorder.com 06 April 2013)

UkrAgroConsult cuts Ukraine's 2013 grain crop forecast

KIEV: Analyst UkrAgroConsult on Thursday cut its forecast of Ukraine's 2013 grain crop by 1.5% to 52.4 mio t due to a significant delay in spring grain sowing caused by snowfall across central, northern and western regions. "Late resumption of winter crops' vegetation and late sowing of spring crops may have a negative impact on average grain yield," UkrAgroConsult said in a statement.



In March, UkrAgroConsult expected favourable conditions of Ukrainian winter grain crops combined with excellent moisture content in soil would allow Ukraine to produce its largest harvest since gaining independence in 1991. The consultancy had said the former Soviet republic could harvest a total of 53.3 mio t of grain this year versus 42.1 mio t in 2012.

(Continued in next column)

UkrAgroConsult cuts Ukraine's 2013 grain crop forecast (Contd)

The volume of wheat harvest could reach 21.1 mio t, barley 8.3 mio t and maize 21.2 mio t, it said. Ukraine's Agriculture Ministry said this week farms in eastern and central regions, which were at risk of missing the optimal time for spring grain sowing, had resumed field work suspended two weeks ago due to snowfalls and heavy rains.

Farm Minister Mykola Prysyazhnyuk said farmers had sown a total of 701 000 hectares of spring grains as of April 2. Ukraine sowed 2.1 mio hectares for spring grains as of April 9, 2012. Agrometeorologists have recommended farmers sow all early spring grains by mid April. But they also said western and northern regions would have to wait at least ten more days to start sowing as fields were covered by snow or too wet for machinery. Analysts say farmers will prefer to sow later grains such as maize instead of barley and other early grains. "The forecast of maize acreage was raised while the estimate of early grains - spring barley, peas and millet - planted area was reduced," UkrAgro Consult said.

The consultancy forecast last month that the area under maize could fall to 4.2 mio hectares this year from 4.5 mio hectares in 2012. But the consultancy said a smaller sowing area would be compensated for by higher maize yields as soil moisture is much higher this year than last, when drought hit Ukraine. The yield could rise to 5.11 t/ hectare this year from 4.53 t in 2012. (brecorder.com 05 April 2013)

EU grains unscathed from winter, yields to rise-crop monitor

The European Union should see a rise in yields for its main cereal crops this year after plants came through winter without frost damage and with regular rain boosting soil moisture, the EU crop monitoring unit MARS said on Monday. For soft wheat, the EU's largest crop, the combined average yield for the bloc's 27 members is expected to rise to 5.65 t a hectare this year, up 4.5% from 5.41 t in 2012, MARS said in a monthly report. This would be 0.3%t above the average of the past five years.



For barley, the combined yield would reach 4.46 t a hectare, 2.3% higher than last year's 4.37 t. This would include a 2.6% rise for spring barley to 3.97 t, and a 0.8% fall to 5.24 t for winter barley.

(Continued in next column)

EU grains unscathed from winter, yields to rise-crop monitor (Contd)

For maize, planting of which is yet to start in earnest, the crop unit forecast a 16.7 % jump in the average EU yield to 6.96 t a hectare from 5.96 t. Other forecasters also expect EU grain yields and output to rise this year.

Last year's grain yields in the EU were curbed by a combination of rain in western countries and hot, dry weather further east that notably slashed maize output. Heavy rain in the UK that spoilt last summer's harvest has already hampered sowing of 2013 crops, while the return of wintry weather across Europe this month has raised concerns about crop damage, but MARS said grains were mostly in a satisfactory state.

"So far fair wintering conditions suggest good yield potentials but the impact of the continued cold spells in central Europe needs to be closely monitored," it said. The unit's simulations showed no winterkill losses due to frost should occur up to March 30, with crops in central and northern Europe still hardened against the cold, although the conditions led to delays in crop growth, MARS said.

For rapeseed, the EU's main oilseed crop, MARS projected a stable yield this year at 3.10 t a hectare.

(brecorder.com 26 March 2013)

Wheat price tipped to ease as crops rise

World wheat production should climb this year as the US recovers from drought and the Black Sea region rebounds from the dry.

The Australian Bureau of Agriculture and Resources Economics and Sciences (ABARES) forecasts that while the world indicator price was expected to fall 12% to USD 320/t this year, it was expected to remain above the average of USD 292/t for the next five years. The forecast was released at the Outlook Conference in Canberra last week.



The world coarse grains indicator price was expected to fall 11% to USD 281/t and oilseeds was expected to fall 9% to USD 550/t this year. ABARES senior economist Peter Collins said in Australia grains were not as affected by the strong dollar as other commodities. "Since it is a diet staple the high Australian dollar doesn't affect demand as much as it might affect other commodities such as livestock," Mr Collins said. *(Continued in next column)*

Wheat price tipped to ease as crops rise (Contd)

He said overall the grains forecast were favorable compared to the last decade, which was tough due to drought. "The last few years have been good even though prices have come off a little. The question is how do we meet the demand?" Mr Collins said the Black Sea region could lift demand due to having more available land and scope for yield increases. (weeklytimes now.com.au 13 March 2013)

Enzymes turn inedible waste plant material into food and fuel

Researchers have managed to turn indigestible cellulose into starch, a process that could render bios of tons of agricultural waste into food and fuel. Plants grow more than 160 bio t of cellulose—the material that makes up the walls of plant cells—every year, but only a tiny fraction of that is useful to humans in the crops we grow.



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Enzymes turn inedible waste plant material into food and fuel (Contd)

With the world's population forecast to reach 9 bio by 2050, working out how to alter cellulose glucose into something more practical could be vital for preventing starvation. Biological systems engineers from Virginia Polytechnic Institute and State University investigated ways of breaking cellulose down into more basic glucose blocks, and how to combine them back together into more complex starches. To do this, the team needed enzymes generated by genetically modified *E.coli* bacteria (the genes were taken from fungi, potatoes and other bacteria).

It first breaks cellulose down into the slightly simpler cellobiose, which another enzyme then splits into two individual glucose molecules—one on its own, the other with one phosphate molecule attached. That phosphate molecule allows the glucose to combine together into amylose, a starch powder that's edible but not digestible. It is present in many foods, is a good source of fiber, and has been shown to improve the digestive health of people who eat it regularly.

The study's coauthor, Percival Zhang, said: "Besides serving as a food source, the starch can be used in the manufacture of edible, clear films for biodegradable food packaging. It can even serve as a high-density hydrogen storage carrier that could solve problems related to hydrogen storage and distribution." (*Continued in next column*)

Enzymes turn inedible waste plant material into food and fuel (Contd)

The process renders a third of cellulose into edible starch, with the other two-thirds rendered into a useable biofuel—none of the cellulose is wasted. For every ton of grain harvested by farmers, there can be two or three times as much plant material discarded, and that "grain stover" is what was used in this research. Zhang told "Science" that it could cost roughly USD 1 mio to turn 200 kg of cellulose into 20 kg of starch, which is a lot of money for what is apparently only enough for one person across 80 days. Further research will be needed to see if the process has a commercial future. (arstechnica.com 17 April 2013)

Potato starch paper marks curious entry into market

The result is a textured product which is a curious cross between sand and silk.

Antalis marketing manager Natalie Thomas said: "It looks really rough but when you touch it, it is both smooth and grainy. It's different, it's always great when you get a new product that's got a story about it. There's nothing quite like it in the market."

The paper comes in seven colours, all named after potatoes, such as Desiree Red and Purple Majesty and four weights – 125, 135, 270 and 380 g.

(*Continued on next page*)

Potato starch paper marks curious entry into market (Contd)

It is suitable for most printing techniques and according to Antalis it is particularly impressive used in four-color and spot varnish offset printing, digital dry toner printing and lithography and letterpress. The company suggests the paper will work well with folding, scoring, laser-cutting and lamination.

Curious Matter is part of Arjowiggins Curious Collection which includes translucent and metallic papers and has been eight years in development. It went on sale last week.

Thomas said: "It has intrigued people a lot, especially the designers, they are really interested to try it."

While it is too early to say who will use the new paper, Thomas thinks it will go down well with clients who want to make a statement with lifestyle brands.

Antalis is a European distributor of paper and packaging materials with sales of more than GBP 2.8 bio in 2011, 6 700 staff and more than 230 000 print and business customers worldwide. It has 16 sites in the UK and Ireland. (printweek.com 10 April 2013)

Government awards more than USD 4 mio to environmental projects

A project that will use recycled potato starch to produce more than 17 mio compostable packaging trays annually is among the successful recipients of more than USD 4 mio in government funding. Environment Minister Amy Adams today announced funding of more than USD 4 mio to 11 innovative waste minimisation projects around New Zealand. Earthpac receives USD 2.1 mio for a project to manufacture compostable meat and vegetable trays. The trays are produced by capturing starch generated from washing potatoes.

"Currently, more than 200 mio polystyrene trays are estimated to go to landfill each year in New Zealand. As a country, we need to be thinking smarter about ways to reduce our waste," Ms Adams says. "That is why I am pleased to be able to back a project that will make a significant difference to the amount of waste going to landfill and provide a fundamental change in the way waste is managed.

"This is a project which shows Kiwi ingenuity is able to develop world-leading, practical ideas that enhance our clean, green image."

(Continued on next page)

Government awards more than USD 4 mio to environmental projects (Contd)

More than 670 t of potato starch, which is normally discharged to a wastewater plant, will be used annually to make the compostable trays. Other funding recipients include Environment Canterbury which receives USD 144 000 to carry out a feasibility study to minimise hazardous treated timber waste. The project will have a particular focus on earthquake-related building and demolition waste in Canterbury. The Project Litefoot Trust has been awarded USD 197 000 to establish a recycling programme for sports clubs around the country. So far the project has encouraged 60 clubs in the Wellington region to recycle paper, cardboard, plastics and food waste.

"Successful applicants that have been awarded funding have really thought outside the square and have been proactive in identifying ways to minimise waste going to landfill in New Zealand.

"Supporting these projects through the Waste Minimisation Fund is a practical way the Government can encourage New Zealanders to reuse, recycle, recover and decrease the amount of waste going to our landfills."

(waste-management-world.com 30 March 2013)

Inventor makes new products from Tayto starch

An innovative company that turns waste into new products is now using the starch from Tayto crisps after an agreement with the Irish manufacturer. Denre started off using coffee waste to create upcycled home and garden products but has now expanded that to include leftover potato starch and brewers' spent grain.

According to Denis Dolan of Denre, a recent agreement with Tayto will see Denre products made from starch left over from the manufacture of crisps sold at Tayto Park. A spokeswoman for the crisp manufacturer confirmed that a range of products were in development for sale in Tayto Park.

Denre is also in discussions with several international and Irish craft breweries regarding the production of exclusive branded products, such as coasters and magnets, made from brewery waste. The company has also just been shortlisted in two categories in the 2013 Green Awards, the annual recognition of innovative, eco-friendly Irish companies and individuals. The company has been nominated in the Green Entrepreneur and the Waste to Business Resource categories and the winners will be announced next month.

(Continued on next page)

Inventor makes new products from Tayto starch (Contd)

The company's newest project is the creation of a new way for gardeners to recycle plastic plant pots. Gardeners will be able to drop off the pots, which are notoriously difficult to recycle domestically, to garden centres before they are recycled into new products. Dolan is working with garden centres around the country to set up in-store recycling facilities for the pots. They will then be remade into a line of eco-friendly products including plant markers, sundials, bird feeders and house number signs.

Denre, which is based in Dundalk, Co Louth, was established by Dolan after he was made redundant from an IT job in 2009 and began using old coffee grounds to create garden fertiliser. He then began an ongoing collaboration with former Dyson product designer Dan Dicker, of the Cornwall design company A Short Walk, and began manufacturing a product range, including place mats, picture frames and clocks, all made from recycled coffee grounds, coffee cups and yogurt pots.

Denre recently struck a deal with the Garden Centre Association of Ireland, and the plant pot recycling displays will soon be introduced in more than 40 centres.

(Continued in next column)

Inventor makes new products from Tayto starch (Contd)

The company also has established relationships with several Irish corporations, including Bewley's, whose Beeco range of Fairtrade coffee includes Denre's products. Denre's recycled products divert industrial waste from landfill and can be recycled up to six more times. Dolan says the Denre ethos and functional product lines are a good fit for companies seeking to meet social responsibility goals.

(waste-management-world.com 31 March 2013)

Steps suggested to prevent mite attack on tapioca

The Krishi Vigyan Kendra has asked farmers growing tapioca, the major cash crop in this region, to be cautious of red spider mite in three-month-old tapioca plants, as it would result in loss of the leaves as the mites suck the leaf juice and cause drying of the leaves.

Farmers are advised to control the problem by spraying 0.5 ml of Omaith with one litre of water over the leaves with Teepol as the sticking substance.

Mixture

They have been advised to spray the mixture twice a day and repeat it after 15 days. Farmers should act immediately as this mite could easily spread over a vast area of cultivation, resulting in heavy economic losses.

(Continued on next page)

Steps suggested to prevent mite attack on tapioca (Contd)

Training programme

The KVK has also organised a one-day free training programme on cultivation of green gram during summer season on the kendra premises on April 4.

Participants will be trained on soil testing and preparation, selecting seeds to suit the soaring mercury levels and changing climatic conditions during summer, when to apply fertilizers, weeding, crop protection techniques and production techniques using the state-of-the-art equipments and latest technology.

(thehindu.com 01 April 2013)

USD 4 mio of government funding for waste minimisation

A project to convert potato starch waste into compostable packaging has received a Government funding boost of USD 2.1 mio.

Environment Minister Amy Adams today announced more than USD 4 mio in funding for 11 waste minimisation initiatives throughout the country.

About half the funds will go to Auckland company Earthpac, which uses starch captured from washing potatoes to manufacture compostable meat and vegetable trays.

(Continued in next column)

USD 4 mio of government funding for waste minimisation (Contd)

More than 670 t of potato starch, which would normally be discharged to a wastewater plant, will be used by Earthpac every year.

The project would also make a difference to the amount of waste which ends up in landfills, with more than 200 mio polystyrene trays estimated to be dumped every year.



"As a country, we need to be thinking smarter about ways to reduce our waste," Ms Adams said.

"This is a project which shows Kiwi ingenuity is able to develop world-leading, practical ideas that enhance our clean, green image."

Among the other funding recipients is Environment Canterbury, which will receive USD 144 000 to carry out a feasibility study on minimising hazardous waste from timber treatment.

The project will focus on earthquake-related building and demolition waste in Canterbury.

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USD 4 mio of government funding for waste minimisation (Contd)

Sports clubs and marae will be encouraged to minimise their waste through two other initiatives. The Project Litefoot Trust will receive USD 197 000 to establish a recycling programme for sports clubs around the country.

So far, 60 clubs in the Wellington region have signed up to recycle paper, cardboard, plastics and food waste. Para Kore Marae Incorporated will receive USD 140 000 to implement a zero-waste programme on 20 marae in Taranaki and the northern South Island.

It plans to encourage widespread zero-waste behaviour throughout Maori communities. The funding will also go towards an awards scheme to recognise good and bad packaging. Wanaka Wastebusters will receive USD 150 000 for its nationwide awards, which aim to help households and businesses choose better packaging through raising awareness and providing information and resources.

Ms Adams said the funding recipients had all thought outside the square and proactively identified ways to minimise the amount of waste going to landfills.

(nzherald.co.nz 18 March 2013)

Scientists conclude no significant metabolic difference between consuming High Fructose Corn Syrup and Sugar

Research also Determines Consuming Caloric Sweeteners in Moderation Does Not Uniquely Increase Risk of Obesity

Shrewsbury, MS (Food News) A new article published in *Advances in Nutrition* found there is no significant metabolic difference between individuals consuming high fructose corn syrup (HFCS) or sucrose (table sugar). Furthermore, the article points out that current research shows no unique relationship between consuming HFCS and the rise of obesity rates in the United States. The article, an extensive review of available sucrose, fructose and HFCS research, also concludes there is overwhelming evidence showing HFCS is nutritionally equivalent to sugar and the human body metabolizes both equally. This opinion is in-line with the American Medical Association and the Academy of Nutrition and Dietetics, both of which concluded that HFCS is not a unique cause of obesity.

In fact, the article points out consumption rates of HFCS in the US have declined by 14% since 1999 while obesity rates have continued to climb. The article also notes that some recent randomized clinical trials have also suggested there are no adverse effects on total cholesterol, LDL cholesterol or HDL cholesterol when consuming caloric sweeteners containing fructose, such as HFCS and table sugar, in moderation. (*Continued on next page*)

Scientists conclude no significant metabolic difference between consuming High Fructose Corn Syrup and Sugar (Contd)

“These findings suggest that we must be very cautious when attributing adverse health effects of fructose, HFCS or sucrose at normal, moderate consumption levels,” said James M. Rippe, M.D., Founder and Director of the Rippe Lifestyle Institute, and Professor of Biomedical Sciences at the University of Central Florida, one of the article’s authors. “More research needs to be done, but what we do know is that consuming all foods in moderation, combined with regular physical activity, is key to maintaining a healthy body.”

The commentary was co-authored with Dr. Rippe by Theodore J. Angelopoulos, Ph.D., MPH Professor and Director, Laboratory of Applied Physiology Department of Health Professions at University of Central Florida.

Dr. Rippe presented his findings at last year’s American Society for Nutrition at Experimental Biology annual meeting in San Diego.

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Scientists conclude no significant metabolic difference between consuming High Fructose Corn Syrup and Sugar (Contd)

The symposium, “Fructose, Sucrose and High Fructose Corn Syrup: Relevant Scientific Findings and Health Implications,” also included presentations by:

- Penny Kris-Etherton, Ph.D., RD Distinguished Professor of Nutrition, The Pennsylvania State University
- John White, Ph.D., Founder and President, White Technical Research
- George Bray, M.D., Chief Division of Clinical Obesity and Metabolism, Pennington Biomedical Research Center
- Robert Lustig, M.D., Professor, Clinical Pediatrics, University of California San Francisco
- David Klurfeld, PhD., Program Leader, U.S. Department of Agriculture

HFCS was developed in the mid-1960s as a more flexible alternative to sugar and was widely embraced by the food industry. The use of HFCS grew rapidly from 1970-1999 where usage peaked. Since 1999, the use of HFCS has declined while obesity rates have continued to rise. Sucrose is still the dominant sweetener worldwide with over nine times the consumption of HFCS.

(Continued on next page)

Scientists conclude no significant metabolic difference between consuming High Fructose Corn Syrup and Sugar (Contd)

Dr. Rippe is a cardiologist and graduate of Harvard College and Harvard Medical School. His research laboratory has conducted numerous studies and published widely in the areas of nutrition and weight management. He is an advisor to the food and beverage industry and has received unrestricted educational grants from the Corn Refiners Association. He is the Founder and Director of the Rippe Lifestyle Institute, and Professor of Biomedical Sciences at the University of Central Florida.

(food-news.net 17 March 2013)

Corn and soybean prices have opposite effect on fertilizer, food company stocks

Corn (CORN) prices continue to fall as estimates of global production were only lowered slightly in the USDA's most recent WASDE report. This surprised many market participants as they seemingly expected a larger reduction in global production due to hot and dry weather in Argentina. The last 10 months have been turbulent, to say the least. In August 2012, corn prices in the US swelled to all-time highs in the face of severe drought and heat that nearly torched the US crop.

(Continued in next column)

Corn and soybean prices have opposite effect on fertilizer, food company stocks (Contd)



Following this was a return of corn prices from the stratosphere by the promise of near perfect weather in South America and a record corn crop in Argentina. The even more volatile price of soybeans moved in a similar pattern over the same period.

(seekingalpha.com 18 March 2013)

Cookies and cream biscuits cornering market share from Glucose

Glucose biscuits, once of the biggest segment in the market, is now witnessing cream biscuits and cookies cornering more market share from glucose segment as consumers are going for premium range of products.

(Continued on next page)

Cookies and cream biscuits cornering market share from Glucose (Contd)

Parle G, the iconic glucose biscuit brand (in fact, the “G” stood for glucose), and Britannia are the top players in the INR 6 500 crore glucose biscuit market. But over time, the market dynamics have changed and the glucose biscuits market has witnessed premiumisation of products and companies are launching more products in cream and cookies segment. ITC's Sunfeast has got a strong foothold in the cream biscuits segment. The perfunctory presence was at the behest of retailers in the market, who used to press for a carrier brand and glucose was the category to be in. According to data from trade sources, during April-September last year, the glucose category accounted for a 19.3% share in the biscuit market, in terms of value, while cookies had a 26.2% share and cream 22.2%. The figures for the first half of 2010-11, however, show that glucose was at 26.5% with cookies and cream at 23.8% and 16.6%.

Recently, ITC Food's CEO, Chitranjan Dar had told this paper that the glucose segment is now loss making and it has shirked. “The glucose segment is loss making. Its success or failure depends on the prices of sugar, wheat flour etc. There was a time when this segment was profitable and the old companies capitalized on this, and made it what it is. They had also spent a lot on the segment.

(Continued in next column)

Cookies and cream biscuits cornering market share from Glucose (Contd)

By the time we came into the business, we realized there is nothing to it, but as starters one can't be arrogant and say that I don't want to do this. So we still did it,” Dar had told Business Standard. Analysts too indicated the as Kaustubh Pawaskar, research analyst at Sharekhan, said,” The biscuit market is already witnessing a shift towards premium products and high margins in the cream and cookie segment is luring biggies to offer more variants in these segments. The non-glucose segment earns at least 10% higher margins,” said

Even Parle-G, has introduced several cream and cookie brands. Other players, such as Cadbury, has brought Kraft Food's Oreo to the country, and GSK, which has extended its Horlicks brand into cookies, too have added to the growth of the premium category. The UK's United Biscuits is another player with a significant presence in the high-value segment.

(business-standard.com 14 March 2013)

Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH

Emsland Group, a manufacturer of potato starch and dehydrated potato products, will acquire Mecklenburger Kartoffelveredlung GmbH, a manufacturer of dehydrated potato products. Both companies are located in Germany.

(Continued on next page)

Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH (Contd)



At the start of the new 2012/2013 financial year, Emsland-Stärke GmbH – an Emsland Group company based in Emlichheim – became the principal shareholder of Mecklenburger Kartoffelveredlung GmbH, based in Hagenow.

Bringing Mecklenburger Kartoffelveredlung into the Emsland Group makes sense on a matter of business and is a logical development, given the close and successful commercial relationship which the two companies have enjoyed for many years. This merger brings together the skills of both sides and strengthens the group as a whole.

By summer 2013, Emsland Group will have acquired all of the shares, ensuring that the investment needed at the Hagenow production site can go ahead. The main focus will be on reducing costs and introducing more automation to increase profitability and competitiveness.

(Continued in next column)

Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH (Contd)

The aim is to generate maximum value from that precious commodity – potatoes. Doing this will safeguard the future of this highly specialised production facility. We will of course be able to count on well-trained and motivated staff, and continued support and involvement from the business founders, to continue developing the factory. A reasonable proposal has been made to the existing potato suppliers, which involves exchanging the previous supply contracts with Mecklenburger Kartoffelveredlung for shares/supplier rights with Emsland Food GmbH.

Emsland Group is a global active company, whose products are sold in more than 120 countries.

At Emsland-Stärke GmbH, more than 1.5 mio t of starch potatoes are processed each year at the production sites in Emlichheim (which is also the company's head office), Wietzendorf in Lower Saxony, and Kyritz and Golßen in Brandenburg. As Germany's largest producer of potato starch and the world leader in the manufacture of refined starch products, proteins and fibres, the group is well-established in the market.

(Continued on next page)

Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH (Contd)

As of January 7 2013, the operational side of Mecklenburger Kartoffelveredlung's business will trade under the name of Emsland Food, Werk Hagenow. Retail business and energy management will remain under the Mecklenburger Kartoffelveredlung's banner. At its sites in Cloppenburg and Wittingen in Lower Saxony, Emsland Food GmbH already processes more than 500 kt of potatoes into high-quality potato flakes and granules. With three plants, Emsland Food GmbH will become the European market leader in the production of dehydrated potato products and will further continue to expand its market position around the world.

Integrating Mecklenburger Kartoffelveredlung into Emsland Group's organisations and structures is consistent with the company's long-term strategic direction and will allow for direct, customer-focused innovations.

As the source of such a rich variety of unique and innovative products, with the widest range of applications, it is the potato itself to be the guarantor of success for a strong market presence of the company.

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Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH (Contd)

Nonetheless, we are also looking at the future, to open up new markets. Aside from potatoes, the Emsland Group has already been processing alternative raw materials such as peas and beans for many years now. This forms the basis for the production of new starches, protein and fibre products. Natural treasures are nurtured and cherished, and processed in harmony with nature. This guiding principle is reflected in the company's motto – "using nature to create". It means that the focus on quality and sustainability starts with the cultivation of the crops and is the reason why potatoes from this region are so tasty. The very best this valuable crop has to offer makes its way into delicious potato products. Those products have been developed, improved and perfected by the potato specialists of Mecklenburger Kartoffelveredlung within more than 20 years. Food with the „Mecklenburger Küche“ label doesn't just taste delicious – it is also simple, quick and very easy to prepare.

Around 250 people are employed at the Hagenow site of production. This is where – besides the well-known Goldpüree mashed potatoes - also potato dumplings and fried potatoes are produced under the "Mecklenburger Küche" brand name, for bigger and smaller appetites. Sales of the brand are focussed around retail customers, major customers in the catering industry and private label business.

(Continued on next page)

Emsland Group to acquire dehy manufacturer Mecklenburger Kartoffelveredlung GmbH (Contd)

The skills of the potato experts and processing specialists within Emsland Group, as well as the high-quality raw materials, are the best possible foundation for future success.

(potatopro.com 01 March 2013)

Biofutures acquires Malaysian biofuels firm

Biofutures International Plc had on Friday successfully raised 32.5 mio pound sterling (1 Pound = MYR 4.68) via share placing in conjunction with its proposed acquisition of Platinum NanoChem Sdn Bhd, a Malaysian biofuels specialist.

This is to provide the enlarged group with sufficient funds to implement its expansion strategy and for working capital purposes.

"The proposed acquisition of Platinum Nanochem and the successful fund-raising represent a significant opportunity to enhance shareholder value," Biofutures chief executive officer (CEO) Joe Wong said, in a statement issued here today.

The enlarged group is poised for growth based on its established revenue generating business model and its ability to apply its Graphene production technology to a range of products targeting major markets in the near and longer term. *(Continued in next column)*

Biofutures acquires Malaysian biofuels firm (Contd)

Biofutures International will be renamed Graphene NanoChem Plc after the completion of the acquisition and the placing.

Platinum NanoChem is a global nanotechnology company whose established revenue-generating business model is to design, formulate, manufacture and market a range of IP (Intellectual Property)-backed speciality chemicals and advanced materials including Graphene from waste feedstocks.

The directors believed that the acquisition offers an opportunity to enhance shareholder value and move Biofutures from its current position and considerable exposure to volatile commodity prices into the manufacture of added-value products with higher margins within niche markets.

The enlarged group will aim to exploit the global megatrend towards sustainability through the supply of waste-based, high-performance, cost-competitive products into global markets and to focus on the opportunities afforded by Graphene-enhancement.

Graphene NanoChem will be led by Datuk Jespal Deol, a proposed CEO, who will be supported by a strong and experienced management team and staff with significant technical and business expertise, and a successful track record, in relevant industry sectors.

(Continued on next page)

Biofutures acquires Malaysian biofuels firm (Contd)

"We are delighted to be able to offer shareholders the unique opportunity to participate in our growth story as the enlarged group," Jespal, who is currently CEO of Platinum NanoChem, said.

"We have a clearly defined strategy to exploit our existing market positions and product portfolio within specialty chemicals, whilst driving our commercialisation strategy for Graphene-enhanced applications in niche markets.

"With the proven experience and expertise of the proposed management team and the funds raised to support this strategy, we look forward to the future with confidence," he said.

Biofutures International, which was incorporated in England in February 2006, is the parent company of Zurex Corp Sdn Bhd, a company incorporated in Malaysia.

Zurex owns and operates a 200 kt/ annum palm oil refinery in Lahad Datu, Sabah, and has a licence to manufacture biodiesel from palm oil.

-- Bernama

(nst.com.my 10 March 2013)

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels

Signature camelina developer acquired by GCEH in non-cash transaction, as 2011's wonder feedstock takes a step forward. In California, Global Clean Energy Holdings announced that it has acquired Sustainable Oils, a leader in Camelina genetics and production. The acquisition includes 100% ownership interest of Sustainable Oils and the ownership of the key intellectual property and operational assets. Camelina is the only non-food based crop approved by the EPA as an advanced biofuel, which includes renewable jet fuels, for RIN generation.

The deal points and impact

Global Clean Energy Holdings acquired Sustainable Oils, LLC and the related assets from Targeted Growth, Inc., a Washington based crop biotechnology company focused on developing products with enhanced yield and improved quality for the agriculture and energy industries, and the other minority owner of Sustainable Oils for 40 000 000 shares of GCEH's common stock, and a USD 1 300 000 secured promissory note. GCEH acquired Sustainable Oils subject to certain operating liabilities accrued in Sustainable Oils prior operations.

(Continued on next page)

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels (Contd)

The acquisition increases GCEH's portfolio of non-food based feedstocks to include EPA and FDA approved Camelina, a stress-tolerant oil seed that can be grown in many regions of the United States, Canada, Europe as well as many other areas around the world. The acquisition provides GCEH with all commercial rights to Sustainable Oils' extensive intellectual property portfolio, including the patents for elite varieties of Camelina, an expansive inventory of breeding stock, certified seed production and supply capacity, an existing product portfolio and product pipeline, breeding facilities, equipment and many years of know-how. Sustainable Oils generated more than USD 20 mio of revenues during the past four years from its Camelina operations, including the sale of Camelina oil for use as jet fuel.

More on Sustainable Oils

Sustainable Oils is a global leader in the technology and operations necessary for commercial production and marketing of Camelina seeds, EPA approved oil and FDA approved animal feed. Camelina is a hardy, non-food based biofuels feedstock with a history of verified yields, low input requirements and the only novel crop with USDA, EPA and FDA regulatory approvals.

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels (Contd)

More than 100 000 acres of Camelina have been grown across the United States alone, with over 20 mio acres available in North America for potential production that would not compete with food crops.

The acquisition will also create opportunities for Sustainable Oils' growers and existing business partners. The company has successfully contracted camelina production in 10 states and Canadian provinces, and has conducted testing in 40 states and provinces, as well as Australia, New Zealand, Spain Portugal, Ukraine, Italy and Saudi Arabia.

Industry reaction from Honeywell's UOP and Boeing

"We have worked with both companies and commend the acquisition of Sustainable Oils by Global Clean Energy," said Vice President of Global Business Development & Policy for Boeing Commercial Airplanes, Billy Glover. "This agreement is a positive indicator that the aviation biofuel sector is generating momentum. Sustainable Oils was instrumental in obtaining EPA's recent approval of Camelina oil under the Renewable Fuels Standard for RIN generations. As a proponent of Camelina and non-food based bioenergy sources for sustainable biofuel generation, we look forward to working with the collective team in the future."

(Continued on next page)

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels (Contd)

“Global Clean Energy and Sustainable Oils have been great to work with, having supplied Honeywell with non-food based feedstocks for the production of our renewable diesel and jet fuel,” said Jim Rekoske, Honeywell UOP’s Vice President and General Manager of Renewable Energy and Chemicals. “We look forward to continuing and expanding our relationship, and expect the combination of skills from this acquisition to rapidly lead to significant advances for sustainable biofuel feedstocks.”

More on the GCEH story.

This year in camelina

In February, the US Environmental Protection Agency issued a final rule qualifying biofuels produced from camelina oil as biomass-based diesel or advanced biofuel, as well as biofuels from energy cane which qualify as cellulosic biofuel. This final rule also qualifies renewable gasoline and renewable gasoline blendstock made from certain qualifying feedstocks as cellulosic biofuel.

“This decision adds to the growing list of biodiesel feedstocks that meet the EPA’s standards for Advanced Biofuel and gives us yet another option for producing sustainable, domestic biodiesel that displaces imported oil,” said Anne Steckel, NBB’s vice president of federal affairs. *(Continued in next column)*

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels (Contd)

“This is important for our energy security, for our economy and for addressing climate change, and we thank the EPA for conducting a thorough and fair review.”

By qualifying these new fuel pathways, this rule provides opportunities to increase the volume of advanced, low-GHG renewable fuels— such as cellulosic biofuels— under the RFS program. EPA’s comprehensive analyses show significant lifecycle GHG emission reductions from these fuel types, as compared to the baseline gasoline or diesel fuel that they replace.

Also in January, the U.S. Department of Agriculture awarded USD 5.08 mio to a team of researchers, led by Kansas State University Distinguished Professor in Grain Science and Industry, Xiuzhi “Susan” Sun, to study camelina’s potential. Her research focuses on how plant- and grain-based materials such as oils, proteins and fibers can be used to create bio-based chemicals and products like resins, adhesives, coatings that are safer, more durable and environmentally friendly than products currently in use.

In December, Neste Oil announced it will produce 4 000 t/ year of renewable jet fuel using sustainable Spanish camelina oil and used cooking oil under the EU-funded ITAKI project. *(Continued on next page)*

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels (Contd)

The three-year project received USD 13.2 mio and will feed into the 2 mio t renewable jet fuel initiative European Aviation Biofuels Flightpath.

In July, the Agricultural Research Service's National Center for Agricultural Utilization Research won a USD 7 mio USDA grant to optimize rapeseed/canola, mustard, and camelina oilseed crops for oil quality and yield using recombinant inbred lines. Remote sensing and crop modeling will enhance production strategies to incorporate these crops into existing agricultural systems across four ecoregions in the Western United States. The oils will be hydrotreated to produce diesel and jet fuel. Last April, combining the planting of a biofuels crop with a legume and a short-season oilseed crop may make an intensive and short rotation of crops economically profitable, according to research performed by plant pathologist Dan Chellemi.

During 2010, he added a legume cover crop, which would supply part of the nitrogen, into the rotation with sunflowers. Once the sunflowers were harvested, he returned with *Camelina sativa*, a deep-rooted 70-day mustard crop known for producing seeds with high oil and high protein content.

(Continued in next column)

Extreme biodiesel enters negotiations for acquisition of noteworthy oil recycling company, Promethean biofuels ((Contd)

Because camelina also is a good nutrient forager, Chellemi applied no nitrogen to the plots. Chellemi indicated that while the data is preliminary and not yet conclusive, results warrant continuing trials this season.

(biofuelsdigest.com 15 March 2013)

Ayensu starch factory resumes production

Finance Minister Seth Terkper on Tuesday said, the troubled Ayensu Starch Factory has resumed commercial production of cassava starch. The nation's starch producer is running effectively and has so far produced 35 000 t of cassava starch after a successful test production, said Mr. Terkper in his 2013 budget statement.

The factory, located at Bawjiase in the Central Region, ceased operations for the second time in December 2011 due to operational and financial challenges -- which were largely attributed to inadequate power supply to sustain production and meet supply targets.

The factory was inaugurated in February 2004 under the Presidential Special Initiative (PSI) on cassava. It was established to create a market for cassava growers, develop cassava into starch and allied products, and create job avenues for the youth. *(Continued on next page)*

Ayensu starch factory resumes production (Contd)

It was also aimed at exporting starch to the international market and adding value to cassava. In 2006, the factory stopped operations due to technical difficulties and the inability of peasant farmers engaged by the company to supply sufficient cassava to production capacity. Ayensu resumed operations in 2010. The factory, which was projected to operate at 70% of its installed capacity, has been operating at 20% since September 2006 due to the unavailability of raw materials.

To address the lack of sufficient raw materials to feed the factory, the management of Ayensu acquired 2 000 acres of land to cultivate cassava on a large scale with the hope of processing about 22 kt t of cassava annually. Many companies operating in the West African region had expressed their preparedness to import cassava starch from within, as that would ensure enormous cost-savings for them. In 2010 attempts were made to revamp the factory. While it was successful, Ayensu could not produce up to full capacity and therefore there was no export. Another obstacle to the operations of the company is inappropriate packaging for export to the international market.

(ghanaweb.com 08 March 2013)

TMO collaborates with Usina Santa Maria to develop ethanol plant in Brazil

UK-based bio-fuel producer TMO Renewables has inked a Memorandum of Understanding (MoU) with Usina Santa Maria to develop a first commercial production plant in Brazil. Under the agreement, the joint venture will make an initial investment of USD 30 mio to build a second generation bio-ethanol plant with a production capacity of 10 mio liters.

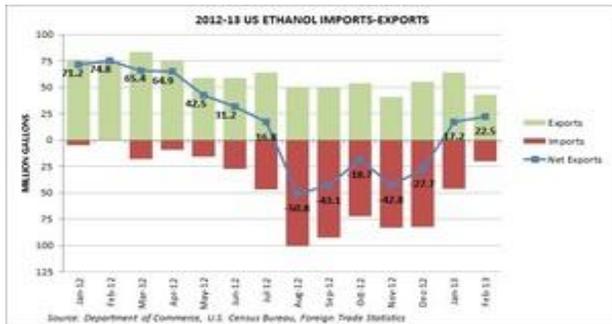
In addition, the agreement also mandates the supply of feedstock to build the pilot plant for 20 year period. Commenting on the alliance, TMO chief executive David Weaver stated that Brazil, among all the largest economical countries, has made a move to encourage flex engine cars that can run on 100% ethanol.

"Through 10 years of research and development TMO has created a market-leading process to convert waste to biofuels. We will now prove the effectiveness of our process by building the first plants of their kind to convert waste-to-ethanol at commercial volume," added Weaver.

The plant in São Paulo state will convert sugar cane waste to cellulosic bioethanol and is expected to commence operations from 2014.

(biofuelsandbiomass.energy-business-review.com 15 April 2013)

U.S. ethanol exports down, while maintaining net exporter title



U.S. ethanol exports decreased by a third from January to February, landing at a total of 42.5 mio gallons of denatured and undenatured (non-beverage) ethanol, according to the most recent government data. “U.S. monthly ethanol exports have been below this level only once in the last two years,” said Ann Lewis, research analyst for the Renewable Fuels Association, in a blog posted to the RFA website April 9.

At the same time, the U.S. remained a net exporter of ethanol, as it was the previous month. Year-to-date ethanol exports are 30% lower than they were at the same time last year. Lewis estimated the U.S. is on pace to export a total of 637 mio gallons by the end of the year. In 2012 738.7 mio gallons of U.S. ethanol was exported, a 38% decrease from the record amount exported in 2011. Exports to the European Union were “virtually non-existent” for the month of February, Lewis noted. An EU anti-dumping investigation resulted in a five-year USD 83.03/t tariff_or duty on U.S. ethanol, which officially went into effect Feb. 23.

(Continued in next column)

U.S. ethanol exports down, while maintaining net exporter title (Contd)

In all, 28.1 mio gallons of denatured ethanol for fuel use was exported in February, a 33% decrease from the month before. Canada remained the top destination, receiving 77% of the total. The remainder went to the United Arab Emirates, Peru and the Netherlands. Undenatured ethanol for fuel use also decreased, going down 32% to 13.3 mio gallons. Brazil was at the top of the list, receiving 44% of the total, followed by the Philippines and Mexico. Shipments of denatured and undenatured ethanol for non-fuel, non-beverage uses were at 1.2 mio gallons, a drop of 42%.

Ethanol imports to the U.S. were also down 57%. In all, 20 mio gallons of fuel ethanol came into the U.S. in February, the lowest amount imported since May of last year and government data showed. Nearly half of the imports came from Jamaica while the remaining amounts were from El Salvador and Brazil.

On the other hand, exports of distillers grains increased 6% from January to February, totaling up to 617 894 t. That number is on par with average monthly distillers grain exports in 2012, Lewis pointed out. China came back as the No. 1 destination, bringing in 148 256 t, or a quarter of the February export total. The remaining amounts went to Mexico, Turkey, South Korea and Vietnam.

(ethanolproducer.com 11 April 2013)

EU Environment Ministers favor biofuels industry over people and planet

In reaction to today's EU Environment Ministers' biofuels debate, Marc-Olivier Herman, Oxfam's EU Policy Advisor, said: "The Ministers' silence on the impact of biofuels on poor countries is simply shameful. Apart from a small number of countries such as Denmark, almost all EU Member States have put the interests of an unsustainable biofuels industry before those of people and the planet. We're very disappointed about the lack of leadership by Germany, France and the UK as they could tilt the balance towards a less reckless policy. The EU must stop this absurd trend of using food for fuel, and to rapidly phase out all support to land-based biofuels. European consumers are unknowingly financing hunger and environmental destruction in poor countries through the bios of euros they pay as a result of mandates, tax incentives and subsidies to biofuels."

Examples from the field

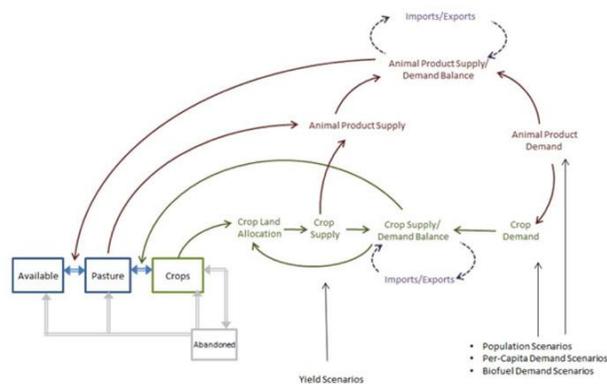
Many smallholder farmers in countries such as Brazil and Indonesia are suffering the consequences of the rapid expansion of biofuels production happening in their communities. The mass production of crops such as soy, sugarcane and palm oil means that small-scale farmers are not only getting pushed off their land, but are experiencing human rights violations, food insecurity and health problems. (*Continued in next column*)

EU Environment Ministers favor biofuels industry over people and planet (Contd)

Nilfo Wandscheer of FORMAD, a family farming association in Mato Grosso, Brazil, said: "The prospect of more biofuel crops, such as soy, being grown in our communities is worrying to us, as we will end up with no land on which to grow the crops that we need to feed ourselves and make a living." Rinting Siten of the Indigenous Peoples Alliance of the Archipelago (AMAN), Indonesia, said: "Large-scale palm oil plantations are not only threatening regional food security, but we can now no longer drink from the river, as it has been so badly polluted by agrottoxins. This is having grave consequences on people's health."(oxfam.org/en/eu/pressroom 21 March 2013)

Insight: how will biofuels change land use?

As global population rises, the increased demand for biofuels as well as meat and meat-based products will require more dedicated cropland, at the possible expense of forests and grasslands. We have developed a system-dynamics approach to such land-use-change (LUC) modelling, called BioLUC. Our analyses hint at potential problems when it comes to producing more meat and processed food that biofuels could exacerbate.



Illustrative influence diagram for each geographic region modelled in the US and the rest of the world. Primary land stocks are represented by boxes, interactions are represented by connecting arrows and input variables by unboxed text.

(Continued in next column)

Insight: how will biofuels change land use? (Contd)

Food or fuel?

Biofuels are an alternative to petroleum-based liquid transportation fuels, and have been shown to emit lower levels of greenhouse gases. However, compared to petroleum-based fuels, biofuels require more land because of the vast areas needed to grow biomass feedstocks. Cattle and other animals destined for consumption also require more pastureland. However, current LUC models are limited, and better understanding the drivers behind LUC is important for the biofuels industry and policy makers, as well as for future LUC research.

Analysing LUC issues is a challenge, especially for the many interested stakeholders who are not economic-modelling specialists. Existing models are either too complex, require difficult-to-access data or, on the contrary, are just too simplistic. Models such as BioLUC allow us to examine more easily how certain scenarios will unfold within a specific context and are intended to complement existing LUC modelling approaches by incorporating feedback loops between biofuel production and market demands. Our results indicate that meat and meat-based products might be in short supply in the future, something that would further increase their price, and that such a situation might be exacerbated by biofuel use.

(Continued on next page)

Insight: how will biofuels change land use? (Contd)

The current two-region structure of the BioLUC is a first step in the model's development. Efforts are now underway to expand BioLUC to include 19 regions around the world to perform parallel research using another common LUC modelling system, GTAP. The BioLUC model will be publicly released once it has been expanded to these 19 regions so that other researchers can run their own scenarios.

(environmentalresearchweb.org 20 March 2013)

High corn prices and dropping demand are eating away at the biofuel industry

According to a new report from the *New York Times*, the ongoing drought in the Midwest is causing the American biofuels industry to begin crumbling around the edges



(Continued in next column)

High corn prices and dropping demand are eating away at the biofuel industry (Contd)

The United States has mandated for several years that gasoline contain 10% biofuel — a requirement generally met with corn-based ethanol. It also maintained a tax credit for ethanol of 45 cents per gallon, though that was allowed to expire at the end of 2011. That led to the establishment of hundreds of ethanol plants throughout the Corn Belt, and communities which in turn heavily rely on those plants for their livelihoods. Nearly 10% of the nation's ethanol plants have stopped production over the past year, in part because the drought that has ravaged much of the nation's crops pushed commodity prices so high that ethanol has become too expensive to produce.

Nearly 10 % of the nation's ethanol plants have stopped production over the past year, in part because the drought that has ravaged much of the nation's crops pushed commodity prices so high that ethanol has become too expensive to produce. The other half of this is falling demand for gasoline — a result of both the recession and a renewed policy push for electric and hybrid vehicles and tougher fuel economy standards. Most cars can only take a fuel blend of only 10% ethanol, and most service stations are set up to only handle that amount, resulting what's referred to as the "blend wall." The Environmental Protection Agency allows for blends of up to 15%, but cars that can take that haven't caught on in the marketplace. Nor have "flex-fuel" vehicles, which can take up to 85%.*(Continued on next page)*

High corn prices and dropping demand are eating away at the biofuel industry (Contd)

That's left ethanol with a smaller amount of gasoline to be blended with, squeezing the industry: Thousands of barrels of ethanol now sit in storage because there is not enough gasoline in the market to blend it with — and blends calling for a higher percentage of ethanol have yet to catch on widely in the marketplace. [Demand for fuel] has shrunk to 8.7 mio barrels a day from 9.7 mio in 2007, said Larry Goldstein, an economist and a director of the Energy Policy Research Foundation.

Globally, the combined effect of U.S. and European biofuel policy has been a massive divergence of corn crops into biofuel production, which in turn drove up the price of corn and contributed to global food insecurity. Much of the carbon-reducing benefits of biofuels are diluted if not reversed entirely by the carbon output from the agricultural production required to produce them. Nor does the conversion of more grasslands and forest into biofuel cropland to take advantage of the higher prices help, as those environments actually sequester more carbon than cropland. Cellulosic biofuels, by relying on crops that don't double as food, could provide a solution.

(Continued in next column)

High corn prices and dropping demand are eating away at the biofuel industry (Contd)

All told, our reliance on biofuels as an answer to the challenge of climate change has been an ongoing policy and humanitarian disaster, so there's a certain irony now that the droughts and extreme weather driven by climate change are starting to eat away at the biofuel industry itself.

Of course, the people paying the price of that irony aren't the Beltway insiders who developed America's biofuels policy. They're the global poor, as well as the everyday working Americans whose communities and towns are being threatened by the loss of the plants. The plant in Cairo, Missouri had been buying 16.5 mio bushels of corn per year before it shut down. And the town of Walhalla, North Dakota is bleeding families due to the closure of its plant.

(thinkprogress.org 18 March 2013)

Liquidators finalize ethanol plant sale

The New Energy Corp. ethanol plant is officially under new ownership. Two liquidators bought the plant at a bankruptcy auction for USD 2.5 mio in January. Those companies -- Maynards Industries, based in the Detroit area, and Biditup Auctions Worldwide, which is in Los Angeles -- closed on the sale earlier this week, WSBT-TV reported Thursday.

(Continued on next page)

Liquidators finalize ethanol plant sale (Contd)

Another company, Houston-based Natural Chem Holdings, is challenging the sale on the basis that Maynards and Biditup entered the auction as separate bidders and formed a joint partnership during the proceedings.

U.S. District Court Judge Robert L. Miller Jr. said he plans to make a decision on Natural Chem's filing by Monday.

New Energy stopped operating the plant in November when the company filed for Chapter 11 bankruptcy.(southbendtribune.com 22 March 2013)

Investment panel to take up 31 oil, gas blocks in 2 weeks: Moily

Petroleum Minister M. Veerappa Moily on Sunday said the Prime Minister-headed Cabinet Committee on Investments would take up 31 oil and gas blocks stuck for clearances in 'two-weeks.'

On March 20, the Committee gave clearance for five oil and gas exploration blocks. The nodal Ministry has listed nearly 39 blocks that are stuck at different stages of exploration because of pending approvals from DRDO, Navy or Air Force.

(Continued in next column)

Investment panel to take up 31 oil, gas blocks in 2 weeks: Moily (Contd)

Global tender for ethanol

Moily said the Government was looking to float a global tender to procure ethanol for blending with auto fuel. According to the nodal Ministry, there is demand of around 100 crore litres.

Half of it has been procured domestically. For the remaining volumes, a global tender is likely to be floated. Moily, while addressing the National Editor's Conference, said the Government had decided that 5% mandatory ethanol blending with petrol should be implemented across the country, to promote conservation of energy.

"The target is set to be achieved by June 30. A Gazette notification has been issued directing oil marketing companies to implement the programme," Moily said. (thehindubusinessline.com 24 March 2013)

Farmers research beet-based biofuel

Grant gives researchers USD 5 mio to make beets into ethanol According to ABC News, a group of 12 farmers in Five Points, Calif., has been given a USD 5 mio grant from the California Energy Commission to build a demonstration plant that converts sugar beets into ethanol.

(Continued on next page)

Farmers research beet-based biofuel (Contd)

Nearly all gasoline sold in the U.S. contains ethanol, usually at about 10%. Currently about 95% of ethanol made in the US comes from corn. But the amount ethanol produced from corn is capped at 15 billion gallons, which means other sources are in high demand. Beets have more sugar than corn, which the farmers say means beets can generate twice as much ethanol per acre. The Five Points demo plant is expected to turn 250 acres of beets into 285 000 gallons of ethanol per year.

If the project is successful, the group intends to open a commercial-scale beet ethanol refinery in Mendota, Calif., that could produce 40 million gallons of ethanol every year. The refinery is planned to open in 2016 and the farmers estimate that it could put 80 beet growers back into production and create 100 long-term jobs and 150 seasonal jobs.

"This project is about rural development. It's about bringing a better tax base to this area and bringing jobs for the people," said grower John Diener, whose ranch will host the new demonstration plant.

(thedailymeal.com 24 March 2013)

Ethanol's enviro benefits keep on growing

The National Corn Growers Association (NCGA) has developed a comparison of the environmental impacts of ethanol and petroleum as transportation fuels. Using scientific data, the side-by-side comparison examines a wide array of environmental factors. Most know today that petroleum, made from oil, is not "renewable". Created over millions of years, it will take thousands of years for more oil to be developed. However, ethanol made from corn is renewable, with each new crop; a new crop of ethanol can be produced.

Here are some other key highlights of NCGA's comparison:

- Ethanol is a tiny single substance that is non-toxic. Petroleum is a mixture of hundreds of different molecules and is toxic to biological organisms.
- Corn used for ethanol in the United States is grown on approximately 5% of our nation's cropland. For perspective, ethanol production uses less than 3% of all grain crops grown over the entire world. Petroleum is mined across the entire globe and must be extracted from deep underground. In order to collect petroleum, landscape fragmentation and the generation of toxic, hazardous and potentially radioactive waste streams often occurs.

(Continued on next page)

Ethanol's enviro benefits keep on growing (Contd)



- Most corn-to-ethanol production facilities are located within 15 miles of the farms where the crop was produced. Since petroleum extraction happens across the globe wherever deposits can be found, it must be shipped to a facility where it can be refined.
- Based on the results of scientific testing, the EPA considers corn starch ethanol as producing 23% less greenhouse gas emissions compared to making and burning gasoline from petroleum. Recent evidence shows multiple ways of producing ethanol with 50% or less GHG compared to gasoline production.
- The U.S. oil and gas industry generates more solid and liquid waste than municipal, agricultural, mining and other sources combined.

NCGA says that looking at how the production of these fuels compares side-by-side, it becomes evident that ethanol is truly renewable and produced in a greener manner than its fossil fuel counterparts. Where petroleum creates reliance upon a fuel pulled from the ground and imported from abroad, ethanol improves our environment while increasing our national and energy security. (domesticfuel.com 02 April 2013)

Adecoagro plans to profit from sugar-to-ethanol swing

Adecoagro highlighted the flexibility of its cane mills to produce either sugar or ethanol as the corn-to-cotton group, which counts George Soros as a shareholder, flagged the potential for Brazilian biofuel reforms to alter profitability mix. The South American farm operator, whose top shareholder is Soros Fund Management with a 21.3% stake, said that over the course of 2012 its mills turned 51.4% of the cane crushed to sugar, and 48.6% into ethanol.

However, the mix fluctuated "depending on which commodity offered the highest returns", averaging 59.3:40.7 in favor of ethanol in the last three months of last year "as a result of anhydrous ethanol production being more profitable than sugar production during this period". The results "exhibit the company's ability to shift its production mix towards the most profitable commodity", Adecoagro said, highlighting the potential for Brazilian government measures to alter the returns available from ethanol compared with sugar.

"Ethanol prices in Brazil have been rising driven by strong consumption and tight supply, strengthened by the government's decision to increase gasoline prices by 6.6% as of January 30," the company said.

"Current relative sugar and ethanol prices are expected to increase mills' cane diversion to ethanol production this harvest season, which may mitigate the potential world sugar surplus."

(Continued on next page)

Adecoagro plans to profit from sugar-to-ethanol swing (Contd)

Commodities house Czarnikow last week revised upwards its global production surplus estimate for 2012/13 by 1.3 mio t to 9.1 mio t. Datagro this week forecast that Brazil's cane crop will rise by 8.9% in 2013/14, to 643.5 mio t - exceeding indeed crushing capacity of 599 mio t. Ethanol production will rise by 13.3% to 26.4 bio litres, twice as fast as growth in sugar output, to 40.7 mio t, the analysis group forecast. Separately, FO Licht also unveiled a 26 bio litre ethanol output figure. (sugaronline.com 25 March 2013)

Cardia Bioplastic's Biohybrid technology used in doggie waste bags

In Australia, Cardia Bioplastics and USA-based Custom Bioplastics announced the launch by Custom Bioplastics of the new "Bio-buddy dog waste bag" developed using Cardia's new and unique Biohybrid technology. The new "Bio-buddy dog waste bag" is now being manufactured and marketed into the US and online by Custom Bioplastics, an established US manufacturer of blown and cast film plastic packaging located in the Pacific Northwest. The waste bags use plant starch combined with recycled resin. The plant starch lessens the total carbon footprint of the bag along with creating a bag that is soft and silky to the touch.

(biofuelsdigest.com 21 March 2013)

Spanish project looks at bio packaging for fish

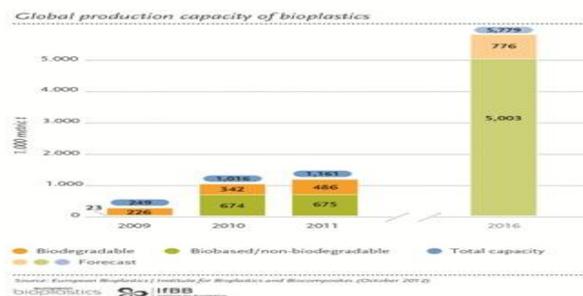
Spain's Technological Institute of Plastics (Aimplas) is taking part in a project to develop packaging for fish products out of PP and wheat starch. The Thinfish project, which includes the National Association of Fish and Seafood Canning Manufacturers (Anfac), as well as Spanish company Criimpla and Bulgaria-based Sivel, is hoping to create packaging that is recyclable, biodegradable and less than 1mm thick.

The material consists of three layers; two outer PP layers and an inner starch-based layer. Enrique Benavent, main researcher at Aimplas, says the new package will be made by a single injection step, instead of two as in the current processes. This will result in a scrap reduction, savings in energy consumption and a wide flexibility in the package design, he says.

(europeanplasticsnews.com 06 March 2013)

Bioplastics market to increase five-fold by 2016

The global bioplastics market will see a five-fold increase in production volumes by 2016, from 1.2 mio t to an anticipated 6 mio t.



According to a new market forecast from the study from the University of Hannover, Germany, partially bio-based PET will continue to lead the field; it currently accounts for approximately 40% of the global bioplastics production capacity.

Geographically, Asia is predicted to be home to 46.3% of the global bioplastic production capacity by 2016, the study found, and South America to just over 45%, driven mainly by feedstock availability. In Brazil, world number one in bio-PE production Braskem has targeted 2013 as the year to bring its bio PP facility on stream. Other factors impacting growth include robust market demand growth, relative scarcity of oil and gas and supportive government policy in most countries of the region. These regions are also less likely to have large fossil energy discoveries or feel any major supply impact of the large shale gas discoveries in North America.

(Continued in next column)

Bioplastics market to increase five-fold by 2016 (Contd)

However, several factors might conspire to hold back the potential of biorenewable materials in Asia Pacific. “Prices remain high, since application and technology development is an ongoing process,” the study said. “The low scale-up of manufacturing capacity also increase per unit costs. In addition, bioplastics’ inferior performance attributes, such as moisture absorption, low heat deflection temperature, and reduced resistance against chemical attacks, limit their application range.” Also, the poor execution of eco-labeling policies and insufficient composting facilities in Asia-Pacific countries will continue to restrict the potential applications of bioplastics going forward. For the time being, bioplastics are playing a limited role in packaging and in the plastics market overall, the study concluded.

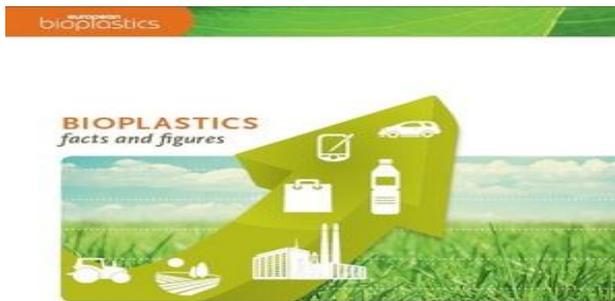
(bioplastic-innovation.com 20 March 2013)

Trade group publishes land use data for bioplastic feedstocks

European Bioplastics has published data demonstrating that less than 0.006% of global agricultural area is currently required to grow feedstock for the bioplastics industry. According to the trade organization, the finding is based on figures sourced from the Food and Agricultural Organization of the United Nations and calculations made by the University of Hannover’s Institute for Bioplastics and Biocomposites.

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Trade group publishes land use data for bioplastic feedstocks (Contd)



According to information released by European Bioplastics, approximately 1.2 mio t of bioplastic production capacity was online in 2011. "This translates to approximately 300 000 hectares of land use to grow feedstock for bioplastics," said the organization in a statement. "In relation to the global agricultural area of 5 bio hectares, bioplastics make use of only 0.006%. Metaphorically speaking, this ratio correlates to the size of an average cherry tomato placed next to the Eiffel Tower."

As such, the organization said it is clear that bioplastic production does not create competition for land used to cultivate food and feed products. By 2016, the organization predicts bioplastic production will grow to require approximately 1.1 mio hectares of feedstock production, which equates to 0.022% of global agricultural area.

On the same day the data was released, European Bioplastics published a new brochure, titled "Bioplastics: Facts and Figures."

(Continued in next column)

Trade group publishes land use data for bioplastic feedstocks (Contd)

The brochure includes updated statistics on the bioplastic sector. According to the document, bioplastic production is set to increase 500% by 2016. The industry's growth is expected to help drive evolution of Europe's bioeconomy sector. In the brochure, European Bioplastics stresses that production capacities are growing fastest in areas outside of Europe, and that the European Union needs to implement favorable policies to help attract investment in the sector.

(biomassmagazine.com 08 April 2013)

Green Dot acquires bioplastic business

Cottonwood, Kan.-based Green Dot Holdings LLC has acquired the bioplastics division of Atchison, Kan.-based MGP Ingredients Inc. The acquisition includes a manufacturing facility located in Onaga, Kan., certain assets at the company's research and development facility in Atchison, and three lines of bioplastic materials currently sold by MGP under the Terratek brand name.

The acquisition increases Green Dot's product offerings. The Terratek line of products includes wood-based bioplastics, starch composites and biodegradable starch-based resins. In addition to its elastomers and the Terratek line, Green Dot can also develop customized client formations using starch, wood and other biomass materials. According to the company, its state-of-the-art compounding lab can quickly develop and test formulas for specific formulations.

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Green Dot acquires bioplastic business (Contd)

According to Green Dot CEO Mark Remmert, additional acquisitions could be in his company's future. "We do have an ambition and desire to continue to grow the company," Remmert said. Green Dot is also investigating the use of alternative feedstocks for manufacturing its bioplastics. "We hope to start two projects this year that would take us down a path of using other starches, for example, to replace the corn and wheat starches that we use today," he continued. (biomassmagazine.com 02 April 2013)

Teijin enhances heat and impact resistance of its bioplastic

PLANEXT is an eco-friendly bio-polycarbonate made with bio-content based on isosorbide from corn-starch and other plants. In addition to excellent moldability and durability, it is superior to oil-derived polycarbonates in terms of surface hardness (pencil hardness rank: H), weather and chemical resistance, and light transmission of 92%. With its newly enhanced heat and impact resistance, PLANEXT is now an ideal material for a much wider range of applications than ever before.

Teijin Limited has developed technology to significantly enhance the heat and impact resistance of PLANEXT, the company's high-performance bioplastic.

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Teijin enhances heat and impact resistance of its bioplastic

The technology modifies the molecular design of PLANEXT to achieve greatly improved heat resistance with a glass-transition temperature of 120° C, as well as superior resistance to impact. In addition, a separate proprietary flame-retardant technology enables PLANEXT to achieve top-level flame retardancy of UL94V-0 at 1.6 mm.

Teijin will develop markets for PLANEXT as a strategic bio and next-generation transparent material with new applications in the electronics, architecture and exterior fields, starting with the Japanese market. Annual production capacity at the company's Matsuyama Factory in Ehime Prefecture, Japan is expected to expand to 3 kt within a few years.

(rdmag.com 03 April 2013)

These are the news derived from regional publications, translated using online tools, hence the medium quality of translation.

China

Early assessment of corn corn prices of corn futures corn price trend forecast

Heilongjiang prices due to a substantial increase in selling grain stabilized at the bottom of this stage is also with the price of corn left early downward spiral began rebound on the occasion. Result, Heilongjiang corn prices fall into the bottom of the trigger national market acquisition, resulting in rapid decline of the late corn market food stocks formed on corn prices bottoming and have some upside momentum.

In view of the the northeast heavy volume Shou Liang in March, the current progress of the northeast Shou Liang has been catching up in previous years. According to the National Grain and Oils Information Center monitoring, ended March 13, the Heilongjiang farmers sales progress 70% and 70% in the same period last year flat.

Heilongjiang Shou Liang progress has to catch up with the trend of the last year, poor quality corn Shou Liang peak will come to an end, Heilongjiang corn trend has been turned up. Jilin corn sales remained slow the progress of the sale of only 50%, well below the level of the same period last year 63%, Jilin starving for sale on estimates of up to 10.32 mio t.

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Early assessment of corn corn prices of corn futures corn price trend forecast (Contd)

Jilin corn on the amount to the price is expected to have a certain impact, but compared with the Heilongjiang concentration of low-quality corn on the amount of pull down prices, Jilin corn on the amount of price suppression or will be limited. Combined with the temporary storage acquisition of Jilin carried the northeast corn market will be weak overall stability of the main, but the late slowly rising probability is too large.

Heilongjiang spring floods serious adverse or delay spring

According to the Heilongjiang Flood Control and Drought Relief Headquarters said, since the winter of 2012, Heilongjiang average precipitation of 53.2 mm, 109% more than normal years, is a history since 1961. As of early March, Heilongjiang around are still covered with snow, deep snow. Maximum snow depth in early March, the province's average of 27.5 cm, the first one since 1961.

According to meteorological department analysis, pre Heilongjiang Province last much water, soil moisture in most areas of normal ones. Expected over the next 10 days, the average temperature of Harbin, minus 7-5°C, 7-9°C lower than the calendar year, it is estimated that the temperature is still low in April, by a "spring short neck" and warmer nights impact is expected this year in Heilongjiang spring push back from 10 days to two weeks or so. *(Continued on next page)*

Early assessment of corn corn prices of corn futures corn price trend forecast (Contd)

According to industry analysts pointed out, more than in Heilongjiang, Inner Mongolia and northeast common. Spring work is delayed, the crop time to market will be postponed accordingly, when faced with an increased risk of early frost in autumn and the chance of cuts will also increase accordingly. In view of last year maize producing areas suffered the invasion of insect infestation wind damage, a whole new corn quality deviations, decline in quality starving market supply, the recent planting delay the possibility of further worsens the already short supply of high-quality grain resources supply market time window was forced to pull up, the price of corn to form a long-term boost efficiency.

U.S. corn prices higher, the formation of a boost to the domestic corn prices

According to the U.S. Department of Agriculture supply and demand report in March, the U.S. corn ending stocks for 2012/2013 to 16.1 mio t the previous month and forecast data without making adjustments. But from the breakdown point of view, given the high prices caused by foreign importers retreat deterred, the recent slowdown in the U.S. corn export sales of U.S. corn exports dropped significantly to 1.905 mio t.

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Early assessment of corn corn prices of corn futures corn price trend forecast (Contd)

According to the report, the year 2012/2013 in the U.S. corn imports increased by 63.5 mio t. This adjustment and market forecast is basically the same, and forage consumption increase is contrary to the market forecast, ring up 2.54 mio t of feed consumption increases not only to make up for the shrinking export data and also covers import data growth. As the report was released before the market forecast of U.S. corn ending stocks will be a certain degree of increase of the bad corn market, but negative expectations did not materialize, due to the year 2012/2013 ending stocks of U.S. corn ultimately remain unchanged, the bad is expected to fall into slightly bullish, March USDA report the slightly bullish U.S. corn market.

Combined U.S. corn exports to pick up signs, until the week of March 25, the U.S. corn weekly export inspections of 17.225 mio bushels, U.S. corn export volume has remained at about 15 mio bushels from the beginning of March, a change in the pre- downturn in export disadvantaged. Overwhelmed exports are raised in South America, Brazil Port blocking a certain relationship between the short-term boost factors. At the same time and the market came to a sign of rising demand for ethanol production.

(Continued in next page)

Early assessment of corn corn prices of corn futures corn price trend forecast (Contd)

(According to sources, the the ethanol energy company will restore its several factories, it is expected that U.S. corn prices rose window will be opened. The recent U.S. corn rally to have a certain role in boosting domestic corn prices.

Commodity	Attribute	Country	2012/2013 (Feb)	2012/2013 (Mar)	Month Change
Corn	Beginning Stocks (1000 MT)	United States	25,122	25,122	0
	Production (1000 MT)	United States	273,832	273,832	0
	MY Imports (1000 MT)	United States	2,540	3,175	635
	MY Exports (1000 MT)	United States	22,861	20,956	-1,905
	Feed and Residual (1000 MT)	United States	113,035	115,575	2,540
	FSI Consumption (1000 MT)	United States	149,536	149,536	0
	Ending Stocks (1000 MT)	United States	16,062	16,062	0

The producing areas of corn prices fell sharply, deep processing enterprises of raw materials costs have fallen dramatically, significant reduction in loss of corn starch, alcohol, and other deep-processing enterprises, the majority of firms into the black, but in fact end demand has not improved.

During the Spring Festival, around the starch enterprises to stop production and an increase in maintenance, starch industry operating rate dropped to about 55%. Production and business inventories, reduce the supply of continuing losses, coupled with starch enterprises, processing enterprises raise prices strong. As of March 15 week, starch production enterprises producing areas of corn prices continued to fall, lower raw material costs, corn starch prices were slightly lower in some areas have dropped RMB 20-50/t. *(Continued in next column)*

Early assessment of corn corn prices of corn futures corn price trend forecast (Contd)

Corn prices continue to fall to promote the supporting role of the cost of alcohol prices is weakening, the market pessimism continue to increase. At the same time demand has not improved, and the majority of enterprises to maintain a large inventory, and sales difficulties. Coupled downstream liquor industry demand is low, slow the progress of the enterprise "replenishment", the market expects the recent part of the high stock companies may continue to cut alcohol prices, the overall trend of the market price of alcohol will show a weak situation.

Dalian corn futures market by the northeast producing corn price impact, the bottom of the support at this stage has begun to force. The same time, taking into account the the terminal deep processing and fodder demand in a weak condition, to some extent, the price of corn play an inhibitory effect. Therefore, it is expected that the late corn fell space is limited, but also lack the sharp rise in kinetic energy, the shock upstream probability is too large.

(nfinv.com 12 April 2013)

Brazilian soybean exports, Chinese importers or steering Argentina

Agricultural exports, Brazil, recently due to poor infrastructure, transport systems face tension ranking soybean export has been greatly affected. U.S., Bloomberg reported on March 26 that the Chinese importers may turn to Argentina to guarantee the import of soybean.

Brazil's largest soybean exporter Yilaixiefu (Erai Scheffer) 212 freighter soybean timely loading of the busiest ports in Brazil to stay for a full 54 days. The main cause of the problem is behind the highway infrastructure, limited railway transport capacity and throughput of the port. The same time, the legislature is not reasonable to limit the working hours of truck drivers, and oil prices as well as excessive rainfall, these make the problem worse.

A Chinese Shandong soybean importer in the past two months, ten freight on time only twice. The company may cancel the import orders of about 200 mio t of Brazilian soybean exporters, which accounted for roughly 5% of the export volume in the quarter, expected throughout Brazil turned to Argentina to seek cooperation.

(feedtrade.com.cn 27 March 2013)

CFT 2013 domestic corn prices around the market summary

Port area corn prices

Bayuquan port of acquisition is less than 15% moisture corn mainstream price RMB 2 300 - 2 310/t 14.5% high bulk density corn price RMB 2 320/t, trimming RMB 2 340 - 2 360/t, port stocks. Guangdong northeast harbor water is less than 15% of high-quality corn mainstream transaction price RMB 2 440 - 2 450/t, northern trimmed RMB 2 340 - 2 360/t to Port theoretical cost/t.

Jinzhou the port acquisition corn mainstream price RMB 2 290/t, trimming price RMB 2 340- 2 350/t for Huanghuai area

Hebei Hengshui area for local traders to sell corn on the car price RMB 2 280/t, the water for about 14% of net grain. Hebei Baoding local collection point acquisition price of RMB 2 260/t corn to 14% moisture.

Hebei Tangshan area, local food point sale price of RMB 2 200/t corn moisture content of about 16% of the net grain, converted into a standard water corn price of RMB 2 240/t, the recent weakness stability of the price. Hebei Handan area local traders to sell low-moisture corn site price of RMB 2 320/t, the net grain of 14% moisture, low-moisture corn offer strong.

(Continued in next page)

CFT 2013 domestic corn prices around the market summary (Contd)

Xingtai local traders to sell corn bulk grain price RMB 2 270/t, net grain moisture content of about 16%. Hebei Cangzhou local Liangmao enterprise to sell 15% of water, Xinhua State Reserve acquisition of RMB 2 280/t. Traders acquisition of high-quality corn of RMB 2 200/t, slightly different counties.

Zhangjiakou, Hebei local traders buy corn price of RMB 2 240/t, moisture content less than 15%, low-moisture corn prices remain strong. Henan Xinxiang local corn prices in RMB 2 260 /t, the price is the price of the traders buy the grassroots require moisture below 15%.

Anyang, Henan local traders buy corn prices for RMB 2 270/t, 15% moisture. Shandong Weifang a large local second corn deep-processing enterprises purchase price of RMB 2 410/t, 14% moisture. Liaocheng a granary corn acquisitions standard corn prices for RMB 2 320/t, moisture 15% deduction.

Deep-processing enterprises in Shandong Dezhou corn into the factory price of RMB 2 280-2 320/t, about 14% moisture.

(.feedtrade.com.cn 02 April 2013)

Brazilian News**Cuts challenge ethanol industry**

The economics of ethanol, fuel produced from corn or wheat, have changed immensely. Ethanol was selling for 58 cents/ litre at the end of December, compared to 76 cents at the end of December 2001. Meanwhile, the price of wheat has increased USD 51/t. Back in 2002, ethanol - a renewable fuel made from corn, wheat or other plant residue - was going to be the next big thing, as governments touted the biofuel as one of the keys to reducing our greenhouse gas emissions and carbon footprint.

"Ethanol production is expected to diversify the economy, contribute to the health of our environment and provide by-products to support an expanded cattle feedlot industry," then-finance minister Harry Van Mulligen said in the 2004-05 budgets, referring to the NDP government's 2002 Greenprint for Ethanol Production in Saskatchewan.

Just over 10 years later, federal and provincial governments are reducing subsidies and phasing them out over the next couple of years. Manitoba and Alberta have reduced their subsidies from 15 cents to 10 cents per litre and announced the phasing out of their programs by 2014-15 and 2015-16, respectively. The feds have reduced their subsidy to six cents a litre, and plan gradual reductions to zero by 2016-17.

(Continued in next page)

Cuts challenge ethanol industry (Contd)

In Wednesday's budget, Finance Minister Ken Krawetz announced the province would follow suit, reducing its subsidy to 10 cents a litre from 15 cents, with the view to eventually phasing out the program. So what happened? First of all, ethanol content in gasoline is fixed at 7.5%, the ethanol industry is up and running, with five plants operating producing 235 mio litres/ year, with surplus capacity exported outside the province. "The objectives of the program had been largely met," said a recent Saskatchewan government review.

Secondly, nobody figured that the price of ethanol feedstock - wheat - would virtually double in price, while ethanol prices would tank, especially when compared with skyrocketing gasoline prices. The resulting cost-price squeeze is making the economics of ethanol production marginal at best. Now facing a further reduction in subsidies and eventual elimination in a few years, ethanol producers are taking a long, hard look at their operations.

(Continued on next column)

Cuts challenge ethanol industry (Contd)

The USD 8-mio decrease in the Ethanol Fuel Tax Rebate from USD 24 mio to USD 16 mio annually barely rated a mention in the budget speech. "The ethanol industry is a very stable industry as far as production (is concerned) right now," Krawetz said the day after the budget was released.

"We're actually using a subsidy to produce ethanol that is being exported. We're reducing the subsidy from 15 to 10 cents (per litre). That's going to mean mios of dollar less in subsidies," Krawetz said, referring to the USD 140 mio in total subsidies paid out to the end of March.

Krawetz added there would be "continued negotiations" with the industry "as to how quickly the phase out occurs," but admitted the phase-out would probably negatively impact the industry. "Like any industry, you provide subsidies to get the industry up and rolling. But we're not going to continue to subsidize an industry that is already on a sound footing."

While the announcement of the phase-out came in the budget, the handwriting was on the wall when the province undertook a 10-year review of the program last year following a MNP study in 2009. A committee of senior government officials looked at goals of the Greenprint for Ethanol Production in Saskatchewan and determined that the program had largely met its objective.

(Continued in next page)

Cuts challenge ethanol industry (Contd)

"While some economic objectives have fallen somewhat short of the original target, it appears that some targets may have been overly optimistic or unrealistic and therefore unlikely to be met."

For example, the Green-print set out an economic output target of USD 346 mio/ year from about 400 mio litres of production. "If one considers that the 285 mio litres of actual production generates USD 232 mio of annual impact on GDP," the program achieved most of its economic target."However, market demand or competitiveness may be the challenge."

If measured solely by increased ethanol production, the program was a runaway success. From 12 mio litres a year from one plant (Pound-Maker at Lanigan), the five ethanol plants (three small producers, Pound-Maker at 15 mio litres, NorAmera at Weyburn and North West Terminal at Unity at 25 mio litres each, and two large plants, Husky Energy's plant at Lloydminster at 130 mio litres and Terra Grain Fuels at 150 mio litres), have a production capacity of 345 mio litres per year.

The industry also achieved its target of creating 450 jobs, with ethanol plants employing 134 directly and 356 jobs indirectly for a total of 490 jobs, as of 2009. And the Greenprint's investment target of USD 272 mio was more than achieved with a total of USD 441 mio in investment to date.

(Continued on next column)

Cuts challenge ethanol industry (Contd)

Ethanol's environmental benefits are estimated to be 321.86 kt of CO₂ - equivalent to taking more than 63 200 cars off the road annually - at a cost of USD 74/t.

In fact, the Greenprint was probably too successful by generating far more ethanol than the province consumes. "Saskatchewan has successfully created ethanol production capacity that exceeds in-province consumption rates," the study said. In 2011, production was 285 mio litres, of which 62.9 mio litres were exported.

"By design, operating incentives like the one in Saskatchewan are meant to attract investment to build production facilities," said Scott Thurlow, president of the Canadian Renewable Fuels Association. We have seen the success of such incentives across our country. Today, Canada's ethanol industry has numerous commercial plants producing around 1.6 bio litres of ethanol a year.

And Thurlow suggested that subsidies for ethanol production were never meant to be permanent. "Generally speaking, programs, such as the incentive in Saskatchewan, are intended to follow a prescribed timeline. In terms of our ethanol industry, when such programs expire, the ethanol projects continue to have other streams of income - including next generation biofuels which can create cellulosic ethanol, as well as many other value added agricultural and bio-based products."

(Continued in next page)

Cuts challenge ethanol industry (Contd)

Thurlow added that the phasing out of subsidies in no way signals the decline or even the demise of the ethanol industry. "In Canada, our ethanol industry is hard at work and well positioned. Ethanol is an excellent fuel, a strong octane enhancer and less expensive than gasoline, lowering gas prices for consumers at the pump.

"Working with local farmers, our domestic ethanol industry is an important part of Canadian economy and - given the numerous and proven benefits of its use as a transportation fuel - it will continue to be."

But the real problem for ethanol producers is price - both the price of feedstock and price of ethanol.

Owen Mitchell, vice-president of capital markets for Just Energy, which owns Terra Grain Fuels, said ethanol was selling for 58 cents/ litre at the end of December, compared with 76 cents at the end of December 2011, while wheat was selling at USD 258/t in December 2012 versus USD 207 in December 2011.

"The stark reality of the situation is that the entire industry is struggling very badly," Mitchell said. "At current ethanol prices and current wheat prices, it's very difficult for the company to service its own debt, much less make any money. So, it's in a bind."

(Continued on next column)

Cuts challenge ethanol industry (Contd)

Removing part or the entire subsidy will make the already tough economics of ethanol production even tougher, Mitchell added. "The subsidy doesn't drive the business, but to the extent that the subsidy is five cents less than it was before, it is going further damage the financial condition (of the industry), which is precarious anyways."

Mitchell said Terra Grain Fuels Belle Plaine plant employs 45 people and buys considerable amounts of grain from local producers. "All those people are the ones who are going to suffer if this business is made uneconomic."

Mitchell agreed that "industries shouldn't necessarily run on subsidies, but the subsidy was there. Given that now times are tougher than they've been at any time in the past for the plant, it's a difficult time for the subsidy to be reduced."

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Portuguese

With 6 mio t of soybeans, MS terminates record crop harvest

Higher productivity rates were recorded in the central and northern counties of the state, which had an average of 55.5 bags per hectare.

With an average of 48 bags per hectare, Mato Grosso do Sul ended the soybean harvest corresponding to the 2012/2013 harvest. Even with negative climatic factors in the southern region of the state, producing 6 mio t of grain provided a record harvest, an increase in volume of 20.4% from last harvest.

The Association of Soy Producers (Aprosoja MS) and the Federation of Agriculture and Livestock of MS System (Famasul) conducted a survey of the current crop through the Geographic Information System Agribusiness MS (SIGA-MS) and the numbers reported in this second, 1st. Higher productivity rates were recorded in the central and northern counties of the state, which had an average of 55.5 bags per hectare. According to data from SIGA-MS, the harvest represented an increase of 11% in the total area allocated to soybeans in the previous cycle, from 1.8 mio hectares to 2.1 mio.

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With 6 mio t of soybeans, MS terminates record crop harvest (Contd)

Compared to the 2009/2010 harvest, it appears that Campo Grande, Ashland and Ponta Pora are municipalities that increased its area of production of oilseeds. The state capital had increased by 62% in the area, rising from 13 000 hectares to 21 000 hectares, 47 100 hectares Naviraí designed and added 30% of the area, reaching 61 100 hectares, while Ponta Pora passed the 139 9000 hectares to 176 700 hectares, an increase of 26%.

A cumulative average rainfall between October 2012 and February 2013 stood at 697.9 mio, which desfavoreceu grain yield since the index must for the cultivation of soybeans is 1200. The largest concentration of rainfall occurred north of MS, which was recorded 1 100 mio, while the Bonito region, south of the state, with average was below 500 mio. FOLLOW MS Project analyzes conducted by collecting data from crop on 448 properties of the main producing areas of the state, totaling 411 547 hectares, representing 21.2% of the soybean area cultivated in MS. In addition to the records of rainfall and productivity to technical considerations took into account the date of planting, crop cycle, infestation by weeds, pests and diseases, cropping systems, soil texture, availability of storage units and varieties used. The planting of winter maize followed the evolution of the soybean harvest and the estimated FOLLOW-MS is that the whole area for the grain has already been planted.

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USDA report shows increase in corn planting intentions in the U.S.

However, the area to be planted with soybeans in American territory must be smaller crop in 2013/2014.

It was released on Thursday, the 28th, the planting intentions report by the Department of Agriculture (USDA). The area to be planted with soybeans in American territory must be smaller crop in 2013/2014. The area of maize should increase or soybeans, the area should have a slight reduction of 31.24 mio hectares sown crop in 2012/2013 to 31.2 mio hectares. For corn, the USDA is projecting a small increase in area. In the season 2012/2013, the area sown was 39.33 mio hectares, while the next crop to be 39.37 mio hectares.

For corn, the USDA is projecting a small increase in area.

It was also announced the quarterly stocks report, with the position until the last day first. In soybeans, the volume stood at 27.19 mio t, 27% less than the same period last year. The corn stocks totaled 137.16 mio, a decrease of 10% compared to the same period in 2012.

(agricultura.ruralbr.com 28 March 2013)