

Alternative meat -- transforming the food industry in a big way



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Meat is surely one of the most preferred foods for human beings. As history suggests, mankind started eating meat around 3.4 million years ago.

What makes meat so popular is the fact that it is a major source of protein and two essential nutrients -- vitamin B12 and heme iron -- which are seldom found in other foods.

People eat more meat than ever these days since demand has risen alongside a growing global population.

By 2050, the global population is expected to increase from the existing 7.7 billion to 9.7 billion while the

figure could reach nearly 11 billion at the turn of the century.

But the rising demand for meat is not fueled solely by population growth as economic development and the expanding middle-class also play a pivotal role.

This is because as people get richer, they can afford to eat more meat.

Therefore, the overall demand is expected to grow by a staggering 70 per cent in the next three decades.

Global meat production has more than tripled in the last 50 years, according to the Food and Agriculture Organization (FAO).

In 2019, around 366 million tonnes of meat was produced worldwide, FAO data shows.

To meet this considerable demand, roughly 80 billion animals are slaughtered each year.

Besides, maintaining such a large quantity of livestock has serious environmental implications on greenhouse gas emissions as well as land and water use.

Cattle farming accounts for 70 per cent of the total arable land usage worldwide and 46 per cent of all food crop production for feed.

About 60 per cent of the global



REUTERS/FILE

A staff member displays a burger with a Beyond Meat plant-based patty at VeggieWorld fair in Beijing.

and is meant to taste like regular meat.

It is a combination of a variety of ingredients like grains and legumes, which are utilised for their proteins, fibres, and starches and converted into isolates, flours and concentrates.

Aside from the protein components in grains and legumes, their fibers and starches are used to make the products more authentic.

Plant-based meat recently started to gain popularity in the western world, particularly the US. A study reveals that 40 per cent of American consumers have tried this food.

Global fast food giants KFC, Burger King, Subway, Del Taco, Qdoba and many others have started to collaborate with plant-based meat producers like Impossible Foods or Beyond Meat.

As a result, their stock prices have soared. When Beyond Meat went public in May 2019, their stock was initially selling at \$25 but eventually went up to \$120 recently.

Meanwhile, Impossible Foods was able to get an additional \$300 million in investor funding. The global market for plant-based meat is expected to be worth over \$7 billion by 2025. 2019 was a turning point for this industry as plant-based meat sales reached the \$5 billion mark with a growth rate of 18 per cent.

Slowly but surely there has been another development taking place in labs, where scientists are working to cultivate meat from animal cells, called cell-based or cultured meat.

In simple terms, stem cells are taken from the muscle of an animal and then added with nutrients, salts, pH buffers, and a growth factor before being left to multiply.

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Plant-based meat, as the name suggests, is made from plant proteins and is meant to taste like regular meat. It is a combination of a variety of ingredients like grains and legumes, which are utilised for their proteins, fibres and starches

biodiversity loss is caused by the way we produce food, according to a study.

The world loses more forest area every year and it is estimated that almost 70 per cent of the deforested areas are converted into agricultural land that are mostly used for livestock or to grow crops like soy which is used as feed.

Meat production also contributes 18 per cent of all greenhouse gas emissions.

But here's the billion-dollar question -- how do we cater to the demand for meat in an environment friendly and sustained manner?

The answer lies with if we can change the way meat is sourced and produced. This is easier said than done, however, history strongly backs us as around 12,000 years ago, our ancestors had revolutionised the way meat was sourced by introducing farming instead of hunting.

Experts recently introduced a novel idea they call 'meat substitute' or 'alternative meat' as a replacement for traditional meat.

But what does 'meat substitute' or 'alternative meat' refer to?

There are two types of meat alternatives: plant-based and cell-based, also known as lab-grown or cultured meat.

Plant-based meat, as the name suggests, is made from plant proteins

NBR goes all out to promote electronic fiscal devices

Lottery on receipts on Feb 5 to boost VAT collection

STAR BUSINESS REPORT

With the objective of encouraging customers to ask for receipts generated by electronic fiscal devices (EFD) and curb evasion of value added tax, the National Board of Revenue is going to hold the first ever lottery using the EFD generated receipts next month.

The revenue collector said it would hold the draw of receipts generated through EFDs from the first day of January to January 31 this year. The draw will take place on February 5, the NBR said in a press release.

The NBR also said the receipts on purchases from stores having EFDs will be treated as a coupon and requested shoppers to preserve the receipts.

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Sacked Bata workers want job back

OUR CORRESPONDENT, Savar

Workers of Bata Shoe Company's Dhamrai manufacturing plant yesterday formed a human chain in front of Dhamrai Press Club beside the Dhaka-Aricha highway claiming that they had been forced to resign on September 24 last year.

They also brought several allegations against the company management as well as leaders of the collective bargaining agent (CBA) of Bata.

Around 100 workers along with their family members staged the demonstration demanding reinstatement.

One worker, Mahbur Rahman, claimed that he along with around 210 workers of Bata's Dhamrai and Tongi manufacturing plants were forced to resign although they had 10 years to 24 years to go before the retirement age.

The management had cited losses for having them to leave, he said.

When they denied signing the resignation papers, the management



STAR

Workers of Bata Shoe Company's Dhamrai manufacturing plant form a human chain in front of Dhamrai Press Club by the Dhaka-Aricha highway yesterday.

and union leaders had threatened depriving them of benefits, he added.

The company had a policy of replacing a retiree with a family member but the management and

union leaders were instead recruiting new workers in exchange of bribes, said another worker, Kamal Hossen, who claimed to have 13 years to go.

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GLOBAL BUSINESS

Brexit deal's rules of origin spark trade confusion

AFP, London

Many British businesses are swiftly discovering that they must now pay duties on exports bound for the European Union, despite the breakthrough Brexit free trade deal clinched over Christmas.

The development, which has already helped spark sliding freight traffic to Ireland, is part of trade disruption that has become increasingly evident this year after Britain's Brexit divorce was finalised on December 31.

Trade has also been badly hampered by new Covid-19 border restrictions, with the roll-out of testing for lorry drivers as Britain races to curb a rampant variant of the deadly virus.

At the heart of the Brexit deal, which came into force on January 1, is the so-called "rules of origin" condition applied to all goods crossing the border.

The rules of origin, a key aspect of all major trade deals, can rapidly turn into a costly headache for businesses.

Under the Brexit provision, any good will be subject to a customs levy if it arrives in Britain from abroad and is then exported back into the European Union.

For example, if a British clothing retailer imports Chinese-made textiles, then it would then have to pay a customs charge if it re-exports the items into a member nation of the EU's single market and customs union. Put simply, the rules therefore determine whether an export is considered British or not.

"It is clear that many UK businesses exporting to the EU are going to be hit by tariffs," said Michelle Dale, senior manager at the Manchester office of chartered

accountants UHY Hacker Young.

"Businesses have also been completely blindsided by the 'rule of origin' part of the deal, which leaves them at a major competitive disadvantage when selling in the EU.

"Unfortunately, not enough was done to prepare them for this. It takes years to build an effective supply chain -- and using non-EU suppliers is often the best option both in terms of cost and quality."

The Brexit agreement, which was sealed four and a half years after Britons voted to leave the European Union, grants zero

customs duties if at least roughly 50 percent of an exported product is made in the UK.

That applies to the majority of UK exports -- but certainly not all of them.

And the provision is all the more important because the EU accounts for more than half of Britain's trade.

The London-based Institute of Government think tank argues however that the complexity of supply chains means that proof of origin can be difficult for businesses to ascertain -- and hard for authorities to assess.

A raft of British retailers are reportedly

rushing to assess the impact of critical deliveries to EU nations, including London's top-end department store Fortnum and Mason.

Collapsed UK high-street department store Debenhams has already shut its online website in Ireland due to uncertainty over post-Brexit trade rules.

"At least 50 of our members face potential tariffs for re-exporting goods to the EU," said William Bain, trade policy adviser at the British Retail Consortium industry organisation.

"We are working with members on short-term options and are seeking dialogue with the (UK) government and the EU on longer-term solutions to mitigate the effects of new tariffs," he added.

High-street retail giant Marks & Spencer warned Friday that the trade deal would "significantly impact" business in the Czech Republic, Ireland and France.

The deal however removes tariffs for Britain's largely foreign-owned carmaking industry, which avoids customs duties for cars manufactured with components made abroad. Nissan has welcomed the agreement but has not yet indicated what will happen to the Japanese carmaker's largest plant in Europe which is based in Sunderland, northeast England. It had previously warned that a no-deal departure would threaten the factory's future.

Prime Minister Boris Johnson's Conservative government has yet to comment on the precise impact of the rules of origin on the business community.

"We continue to work closely with businesses to help them to adapt to any new trading requirements," a government spokesman told AFP.



REUTERS/FILE

Spanish national policemen guard the border between Spain and Gibraltar, on the first day of work following the end of the transition period and the post-Brexit deal, in La Linea de la Concepcion, Spain.

India retail king Biyani sees quick OK of Future's \$3.4b deal

REUTERS, New Delhi

India's Future Group expects swift regulatory approval of its \$3.4 billion deal to sell its retail assets, its chief executive said, even as its warring business partner Amazon.com Inc intensifies efforts to block the deal.

Future and Amazon are at loggerheads over the Indian group's August deal with Reliance Industries Ltd. The US giant alleges the deal breached some of its pre-existing contracts with Future.

A New Delhi court in December dismissed Future's request to restrain Amazon's repeated attempts to get authorities to stall the deal. But the judge left the fate of the transaction with the regulators.

"The court has already given their view that every institution can take a view" on the sale, Future Group founder and CEO Kishore Biyani told Reuters in an interview. "So there is no reason why things should be delayed."

Amazon declined to comment on Biyani's remarks. Reliance did not respond to a request for comment.

The Securities and Exchange Board of India (SEBI), the market regulator that has been reviewing the deal for months, did not respond to a request for comment.

SEBI and India's stock exchanges could still reject or take more time in approving the deal, which is critical for the survival of Future Retail, whose more than 1,700 outlets were hit hard by the COVID-19 pandemic.

Future Retail has warned that failure to close the deal could lead to the company's liquidation and job losses for more than 29,000 employees. "We have restored businesses to a certain extent, but there are challenges," said Biyani, dubbed India's retail king for transforming the country's retailing in recent decades.

The outcome of the dispute embroiling Future, Reliance and Amazon is seen shaping India's retail landscape, especially in deciding who will have an upper hand in the groceries market expected to be worth around \$740 billion a year by 2024.