

# IMPACT

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*Lest We Forget*  
We proudly support our troops



## Feature Article

### Is Genetically Modified Food Safe?



Genetically modified (GM) food is quietly filling our grocery store shelves.

The term “genetically modified food” (also known as “biotech” or “genetically engineered” food) refers to crop plants that have been modified in the laboratory to enhance desired traits, such as resistance to herbicides or improved nutritional content. Experts say this science, like any other, has no guarantees, & that consumers should understand the risks & benefits.

#### Risks include:

- Introducing allergens & toxins to food
- Accidental contamination between genetically modified & non-genetically modified foods
- Adversely changing the nutrient content of a crop
- Creation of “super” weeds & other environmental risks

#### Benefits include:

- Increased pest & disease resistance
- Drought/salinity/cold tolerance
- Increased nutritional value
- Increased food supply

It is impossible to be certain that GM food is 100% safe, but it is important to remember that non-GM foods are also not 100% safe. However, the chance that the GM crops in our food supply pose a danger to human health is extraordinarily small. There have been thousands of studies on these foods, many of them long-term & independently funded, & many mainstream science organizations have concluded that GM food is safe.

Although an estimated 60% to 70% of processed foods on U.S. grocery shelves have genetically modified ingredients<sup>1</sup>, many consumers do not realize the prevalence of these items in the marketplace. Researchers from the Food Policy Institute at Rutgers’ Cook College found that only 52% of Americans realized that GM foods are sold in grocery stores & only 26% believed that they have ever eaten GM foods<sup>1</sup>.

The controversy is growing over whether food should be labeled if it contains GM ingredients. Currently, there is no mandatory labeling of GM food or

ingredients in Canada. One reason food companies may shy away from labeling GM food is the possibility of consumer rejection. The public debate around GM food is often heated & many consumers simply do not have the knowledge to make a well informed decision. This may be the greatest challenge faced for a GM food labeling policy: how to educate & inform the public without damaging the public trust & causing alarm or fear of GM food products. Food labels must be designed to clearly convey accurate information about the product in simple language that everyone can understand. Public opinion has had some effect, as seen in Europe, where the EU has made labelling of GM food & ingredients mandatory.

GM foods have the potential to solve many of the world’s hunger & malnutrition problems, & to help protect & preserve the environment by increasing yield & reducing reliance upon chemical pesticides & herbicides. Yet there are many challenges ahead for governments, especially in the areas of safety testing, regulation, international policy & food labeling. Many people feel that genetic engineering is positive progress & that we cannot afford to ignore a technology that has such enormous potential benefits. However, we must proceed with caution to avoid causing unintended harm to human health & the environment as a result of this powerful technology.

<sup>1</sup><http://www.webmd.com/food-recipes/features/are-biotech-foods-safe-to-eat>

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# Industry Trends

## Smart Labels & Packaging Growing in Popularity



Food packaging could be a very different world in the near future.

'Smartness' in labelling & packaging is a broad term that covers a number of functionalities, depending on the item, including food, beverage & pharmaceutical products. Smart packaging attributes include the ability to respond actively to changes in product or package environment & to communicate product information, product history or condition to the user.

The current leader in smart packaging design & technology is the "Time-Temperature Indicator" (TTI). A TTI label is useful because it can tell when foods have been temperature abused. A TTI can be placed on shipping

containers or individual packages as a small self-adhesive label, & an irreversible change, like a color change, will result when the TTI experiences abusive conditions.

TTIs can also be used as freshness indicators for estimating the shelf life of perishable products. This simple, visual solution promises to tackle the perennial problem of stock rotation & poor practices in the transportation of fresh food. David Kilshaw, CEO of Insignia Technologies, explains: "Between 30% & 50% of food produced globally never reaches the consumer. To keep up with the world's ever increasing demand for food, the food sector must change the way it works now & reduce waste at every stage in the supply chain from farm to supermarket to consumer."<sup>1</sup>

These smart labels act as an instant visual alarm when something goes wrong, reducing the risk of contaminated food getting on the shelf. Since contamination can also occur after consumer purchase, smart labels can actually increase safety beyond retail stores. Risk of contamination cannot be eliminated entirely, but these labels will provide an additional

tool to allow processors & consumers to spot contamination or improper food handling – before problems arise.

The attitude toward smart packaging is positive & there is still much potential for exciting innovation to come. The global market for this technology is expected to rise from \$13.75 to \$21.41 billion by 2019<sup>2</sup> – a sign that the trend has strong importance. Currently, research is underway to expand the technology to include packaging that can detect the presence of disease-causing bacteria such as E. coli, salmonella & listeria. Similar labels suitable for the likes of cosmetic & pharmaceutical packaging are also in development.

Smart labels can communicate data at levels that far exceed those achieved by printed text, optically-readable bar codes or graphic images. Making labels smarter & more intelligent benefits manufacturers, retailers & consumers alike & presents an exciting new – & possibly life-saving – frontier in the packaging industry.

<sup>1</sup><http://www.packagingeurope.com/Packaging-Europe-News/60663/Smart-Labels-Cut-Down-on-Waste.html>

<sup>2</sup>[http://www.heraldonline.com/2014/10/17/6430463\\_research-and-markets-active-and.html?sp=100/773/385/&rh=1](http://www.heraldonline.com/2014/10/17/6430463_research-and-markets-active-and.html?sp=100/773/385/&rh=1)

## New at Tri-Mach Group Inc.

### Ever-Kleen® Auto Tray Loading System



Tri-Mach Group Inc. has been the industry leader in developing the most sanitary & food-safe equipment since 1985. We are pleased to continue that tradition with the introduction of the **Ever-Kleen® Auto Tray Loading System**.

The Ever-Kleen® Auto Tray Loading System is comprised of the following customizable components:

- **Ever-Kleen® Tray Denester**

- **Ever-Kleen® Retract Conveyor**
- **Ever-Kleen® Transfer Conveyor with Pack-Off Tables**

The Ever-Kleen® Tray Denester is an efficient & sanitary solution for separating & depositing trays. The denester is capable of separating polystyrene & plastic trays at speeds of up to 60 trays per minute, & can be custom built for the unique needs of each production line.

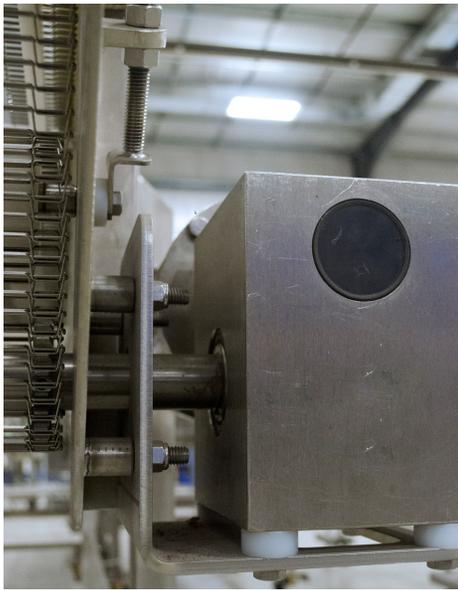
Each tray is deposited onto an Ever-Kleen® Transfer Conveyor, which runs under an Ever-Kleen® Retract Conveyor. As the tray passes underneath, the Retract Conveyor loads it with a specified product. The loaded tray is then conveyed to the integrated pack-off station for labelling & packing. When ready, the tray continues down the Transfer Conveyor, where a bump-turn system can be added to re-orient trays as required.

Built with sanitation & efficiency as top priorities, Ever-Kleen® products can be disassembled in minutes, without the use of tools, providing increased productivity & the highest level of food safety.

Interested in more information on how the Ever-Kleen® Auto Tray Loading System can improve efficiencies in your facility? **Krystal Darling (kdarling@tri-mach.com)** or **Kory Graham (kgraham@tri-mach.com)** would be pleased to speak with you in more detail on how this customizable system can work for you.

# Food Safety 101

## Stand-Offs vs Direct-Attach Components



A quality sanitary conveyor system is the sum of each of its components; design, materials, & purchased parts. With each component category there are different subtleties that can increase or decrease the ability of the system to be cleaned & inspected adequately.

All conveyor systems require purchased components, such as bearings & gear reducers, to be bolted in place using

fasteners. When selecting components for a sanitary conveyor, it is critical to ensure that all are individually rated for a wash down environment & that all fasteners used for attachment are stainless steel. The way in which the components are integrated into the construction of the conveyor is equally as important.

Working with sanitation departments & inspectors at food processing plants over the past 30 years, Tri-Mach Group Inc. has recognized that contact surfaces are a leading cause of bacteria harbourage & may present dangerous food safety issues. By simply standing these required components off of the frame of the conveyor, the contact surface is greatly reduced, & the food safety hazard is virtually eliminated.

Tri-Mach Group Inc. has taken this important principle one step further with our patented Ever-Kleen® technology. All Ever-Kleen® products are designed with components that are bolted into place using custom-machined stainless steel studs that are fully welded to the frame, minimizing contact surfaces for better sanitation. If components cannot be attached in a way that enhances sanitation, our Ever-Kleen® principles mandate that they be

removable from the frame without the use of tools. **Tri-Mach Group Inc. combines the best design practice with the best manufacturing practice to create the most sanitary conveyor system in the industry, period.**



**Photo 1:** The motor on a Tri-Mach Group wire-mesh conveyor is stood off the frame, ensuring easy sanitation.  
**Photo 2:** All parts of the conveyor, including small items like casters, receive the sanitary stand-off design treatment.

## Supplier Spotlight

### Beckhoff Automation

Beckhoff Automation, established in 1980, design & manufacture automation systems based on PC Control technology in different performance categories, from single components up to powerful system solutions. Through co-operation with partners, Beckhoff is represented in more than 60 countries.

"Listening to your customers & understanding them is critically important," says Managing Director Hans Beckhoff. "As an industrial equipment manufacturer, it is also our duty to keep an eye on general technology trends & understand them, and, of course, to use a good amount of creative thinking in the process. 'Total customer orientation' by itself is not enough. It is the mix of potential customer benefits & new

technologies that leads to fresh ideas & innovations that generate evolutionary & sometimes even revolutionary progress."

All of this works only in close cooperation with machine manufacturers & end users. Tri-Mach Group Inc. is pleased to work with Beckhoff Automation to produce intelligent automation solutions. Based on our customer's unique needs, we provide products that can be used as separate components or integrated into

a complete & seamless control system. Working alongside Beckhoff Automation ensures that Tri-Mach Group Inc. will maintain its position as an industry leader as more companies trend toward PC based technology.

<sup>1</sup>[http://www.pc-control.net/pdf/042013/interview/pcc\\_0413\\_interview\\_epdf](http://www.pc-control.net/pdf/042013/interview/pcc_0413_interview_epdf)

# BECKHOFF

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## A Message from Our President

When I first heard of the recent events in Ottawa & St-Jean-sur-Richelieu, I was forced to relive watching my son board a bus four years ago, first travelling to CFB Trenton, & then onto the war in Afghanistan. It was one of my darkest days – but it was quickly followed with feelings of pride, victory, & resilience, both for my son & my county. In the past few weeks, Canadians everywhere have been experiencing these same emotions. Our members of Parliament were back at work the day after Ottawa's events, & our nation's War Memorial was opened once again to the public.

As Canadians, we will not let any person or group with ill intentions cause us to cower in fear. We will not waiver – we never have, & we never will. Remembrance Day comes tomorrow, & I hope every Canadian pauses at 11 o'clock to reflect on those who have paid the ultimate price for our freedom. I have personally had the privilege to touch our War Memorial & tour our nation's Parliament buildings, & I hope that all Canadians get the same privilege sometime in their life. It is truly breathtaking.

This message is for our brave men & women in uniform. Thank you for your sacrifices, & Godspeed.

*Michael Hahn*

# Focused on Food Safety Through Innovation and Quality Equipment Manufacturing

Tri-Mach Group Inc. is a multi-trade, turn-key solution provider specializing in millwrighting, stainless steel fabrication, custom machining, equipment installations & relocations, process piping & electrical services.

We are most noted for our revolutionary Ever-Kleen® Conveyor handling systems; a registered design which offers maximum protection in food safety.

Through innovative & quality manufacturing, we have become an industry leader in the food, beverage & pharmaceutical industries. Our reputation is the key to our success. We are committed to personal service, top-quality craftsmanship & food safety. Our professional, experienced management & tradespeople are passionate about what we do.

Each Tri-Mach Group Inc. employee exemplifies Best-In-Class service. They are all trained to be HACCP compliant & have received Food Safety & GMP training through The Guelph Food Technology Centre.

## Socialize With Us!

Stay up-to-date with the latest in news and insider information from Tri-Mach Group.

### Stay in touch:

- Facebook ([facebook.com/trimachgroup](http://facebook.com/trimachgroup))
- Twitter (@TriMachGroup)
- Youtube ([youtube.com/trimachgroup](http://youtube.com/trimachgroup))
- Google+ (+TriMachGroupInc)
- LinkedIn



## Our Mission is to Create an **IMPACT**

### Integrity

Carry out all tasks with complete dedication to excellence and food safety.

### Motivation

Encourage our people to explore new practices and technology to foster innovation and maintain a competitive edge.

### Professionalism

Uphold the highest standards of quality in everything we do.

### Attitude

Maintain a positive approach demonstrating respect and fairness towards our associates, clients, the community and environment.

### Commitment

Dedicated to delivering maximum value and responsive service to our clients.

### Teamwork

Work in partnership with our customers to achieve the highest level of success.

## Career Opportunities

We are currently seeking enthusiastic individuals to fill the following positions:

- **Manual Machinist**
- **Licensed Millwrights**
- **2nd - 3rd Year Millwright Apprentice**
- **TIG Welder / Metal Fabricator**
- **Brake & Shear Operator**
- **Sales Account Manager - GTA North**

Visit: [www.tri-mach.com/careers](http://www.tri-mach.com/careers) to learn more about these opportunities!