

FOODPRINT

When will climate change affect insurance products?

Top top tips against ransomware attacks

Meet our client: The Hungarian Beekeepers' Association

The Food & Agri magazine of the GrECo Group | Summer 2023



Farming for Tomorrow
Thriving in a Climate-Challenged World



Weather affects your business!

Global climate change is increasingly resulting in volatile and unpredictable weather. Droughts, heavy rains, heat waves, fires are occurring more frequently than in the past. Unpredictable weather changes can lead to significant fluctuations in your company's turnover, so it is worth thinking about risk and insurance solutions against the effects of the elements!

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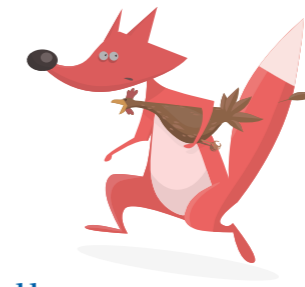
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Editorial

Agriculture serves as a crucial foundation for the food supply chain in every society, playing a pivotal role in the subsequent processing and distribution of food.

In the latest edition of GrECo's Food & Agri client magazine, FOODprint, we place our focus on a key challenge faced by this industry: the impacts of climate change. We delve into the forthcoming EU regulations, explore advancements in the insurance sector, and observe alternative risk and insurance solutions.

Efficiency and effectiveness are paramount in ensuring the success of this industry. While digitalization offers numerous advantages, it is imperative to address the potential cyber exposures that arise from relying on this technology. Additionally, the risks of employee misconduct and third-party criminal activities can significantly impact the financial stability of any Food & Agriculture enterprise.

Enjoy reading!

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Knowing and talking about climate change – new challenges in corporate reporting standards

50,000 companies will now have to comply with new rules – are you one of them?

EU policymakers reached an agreement on the Corporate Sustainability Reporting Directive (CSRD) which came into force in January this year. Sustainability reporting is now, for the first time ever, as important as financial reporting. So, what does this mean for companies in the food and agriculture sector, and what do you need to do to meet the requirements? Essentially, any company under the scope of CSRD must report on how sustainable it is, and how this affects the company's development, performance, and position. Companies that are already within the scope of NFRD are obliged to apply CSRD regulations from 1 January 2024; all other large companies from 1 January 2025; and listed SMEs (with the possibility of a waiver during the first two years) from 1 January 2026.

What new risks are we facing? A helping-hand for businesses.

As with anything related to sustainability, environmental factors are key. To help businesses the Task Force on Climate-related Financial Disclosures (TCFD) created a methodology in late 2015 to enable companies to assess their climate-related risks. In other words, risks that have a direct impact on a company's assets, and risks that are a result of the decarbonization of the company's activity (scope 1, scope 2 and scope 3), as well as the overall decarbonization of the economy on a macro level.

To help spell out more specifically what these risks may include the TCFD provided several examples of

climate-related risks and segregated them into two groups – transition risks and physical risks. Let's initially look at some physical risks which may affect your business. Physical climate-related risks are increasing rapidly as we see giant shifts in climate change. Included in the TCFD guidelines are acute risks such as the increased severity of extreme weather events, for example cyclone and floods; to chronic risks such as changes in precipitation patterns, extreme variability in weather patterns, rising mean temperatures, and rising sea levels.

The TCFD's guidance goes on to pinpoint examples of transition risks which fall into three categories – policy and legal, technology, and reputation. Firstly, let's consider policy and legal concerns which may be relevant to businesses in the food and agriculture sector. The TCFD highlights: increased pricing of GHG emissions, enhanced emission reporting obligations, mandates on and regulation of existing products and services, and exposure to litigation. Under the technology banner, according to the guidelines, your business may need to substitute existing products and services with those with lower emissions. Whilst other risks could include the unsuccessful investment in new technologies, and the cost of transitioning to lower emissions technology. Lastly, the TCFD provides examples of reputational risks: Businesses need to be aware of shifts in consumer preferences, the stigmatization of the sector, and increased stakeholder concern / negative stakeholder feedback.

Why are the TCFD's guidelines relevant to my business?

Fast forward to 2023 and many food and agricultural companies may be asking, how is this relevant to my business? These have never been concerns for my company before, so why now? The simple answer is the new Corporate Sustainability Reporting Directive is making these factors relevant to many more businesses in the sector than in previous years. The TCFD's 2021 implementation guidance stresses that processors, such as food, beverage, and fiber processors (e.g., paper), are likely to be impacted less by direct GHG emissions (Scope 1), but more by indirect GHG emissions (Scope 3) arising from their supply and distribution chains. Processors will now have to pay attention to water and waste risks and opportunities, to a similar degree as producers do. Take for example a beverage production or paper production company. They depend on access to significant water resources and, in the case of beverage production, high-quality water resources at that. The new CSRD will mean these companies have to take the risks and opportunities around waste into account when reporting on the business's sustainability, including residual materials such as paper and wood waste, wastewater, and post-processing animal byproducts.



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When will climate change affect insurance products?

Every year, we see and feel the impact of climate change on ourselves and on our immediate surroundings. Climate change isn't new news. Over the years many scientists have confirmed the impact humans are having on our environment in numerous scientific studies.

One such study by the IPCC (Intergovernmental Panel on Climate Change), cites that the average temperature of the earth was 1.09 degrees Celsius higher between 2011-2022, than preindustrial times, between 1850-1900. All forecasts predict, regardless of actions taken, that the earth's temperature will continue to rise until at least the middle of this century. This means that even if we take extensive action immediately to limit our impact on the environment, climate change cannot be easily stopped. What does this impact mean for the food and agriculture industry and how should insurers prepare for it?

Preparing for climate change

By the end of the 21st century, we will have to, or rather our children and grandchildren will have to, struggle with temperature increases predicted to be, on average, two degrees Celsius higher than the pre-industrial era – that's twice as high as today! At the same time, due to heat capacity and inertia, the land will also heat-up until it is approximately one and a half times hotter than the oceans and seas. As the earth's land mass is predominantly located in the northern hemisphere, this means Europe will acutely feel the rise in temperature. This is going to cause headaches for the food and agriculture industry and their insurers alike.

In addition to rising temperatures, one must not forget other factors, such as the increasing cost of fuels

for energy production and the search for greener, but more expensive, solutions to using these resources. When these are considered, the desired goal of reducing the impact of industry on the climate is thrown off balance: Some countries facing rising energy prices are questioning whether it is economically better to continue to overlook the environmental impact of generating energy from traditional, unecological sources to ensure their populations and industries are kept supplied, in lieu of using greener, more expensive solutions to minimise climate change.

Last summer, we saw the effects of climate change, with increasingly hotter summer days and nights, and extreme weather conditions. For holidaymakers, nice weather, and high temperatures are attractive. However, from the perspective of the economy and the impact on society, quite the opposite is true. Here's why: High temperatures often exceed the optimal conditions for factories' production equipment, increasing the risk of failure, leading to downtime and the need to reduce production. Offices and private homes using air conditioners put a strain on the power grid which results in increased energy consumption. Also, those industries in which it is necessary to maintain a constant temperature (e.g. cold stores, freezers etc.) incur increased operating costs.

Living things are also not indifferent to high temperatures. animals

migrate searching for better conditions, thermophilic species appear in northern countries, and plants' vegetation is reduced.

Lack of rainfall resulting in drought maybe perceived as a mere annoyance for an ordinary citizen faced with restrictions on watering home gardens or washing vehicles. However, for the food and agriculture industry it can spell disaster. Our rivers suffered greatly last summer, and they have not yet returned to average, safe levels. This is having a massive knock-on effect on the agricultural industry and our economies as a whole. Heat is not a critical phenomenon for plants unless it is long-lasting and accompanied by a lack of rainfall. Unfortunately, last summer's climatic situation caused prolonged periods of heat, accompanied by periods without rainfall causing agricultural drought, i.e., a state in which the lack of moisture in the soil threatens the vegetation of plants, spelling problems for food production and animal feed. However, it is not just these obvious effects on the agriculture industry that we need to be aware of here. Low water levels also affect the energy sector because it restricts the availability of a coolant, causing limitations in energy production. This in turn impacts agriculture because at high temperatures, the energy industry may activate measures to protect transmission lines leading, for example, to switching off the energy

supplied to a plant. This would mean, in the average production plant, that production is temporarily stopped, which would cause financial losses for the business. However, there are some businesses in the food and agriculture industry, especially those connected with livestock, where this scenario could be fatal because a constant energy supply is necessary for ventilation and supplying drinking water to the animals (e.g., poultry farming). If the operation of the plant is directly dependent on energy, and the lack of supply or a change in its parameters causes downtime or damage to the equipment, we are talking about damages that reach thousands of euros.

As if that wasn't concern enough for the industry, a heatwave is usually accompanied by an equally great wave of fires, which generates large insurance losses regardless of other causes. With very dry soil and litter, it doesn't take much to start a fire that destroys forests and crops and threatens homes and factories. Very often, such fires cannot be brought under control by local forces, and it is necessary to use the help of other regions or even neighbouring countries.

Higher temperatures also mean a greater risk and frequency of violent weather conditions. Hurricanes, hailstorms, torrential rains, and flash floods are already becoming more

and more frequent causes of damage. Their effects on private buildings can often result in irreparable damage or complete destruction.

Can we ensure against soaring temperatures and the risks they bring? However, whether risks such as lack of energy due to a heatwave can be insured or not, remains to be seen. Currently, this risk is not commonly insured, additionally, the liability of the energy supplier is limited by the occurrence of force majeure. If we consider a phenomenon that could not be prevented as such, then the heat wave and the resulting lack of water in rivers, limiting production, meets these conditions. Whilst we are talking about a risk that is not directly insurable, the solution may be index and parametric insurance. If we take specific weather conditions as a parameter, it seems possible to construct a product that meets the needs of customers. In the world, such solutions are becoming more and more common, but the question is, when will we see such solutions in our market?

In a nutshell, as the food and agricultural industry experiences greater challenges in the face of climate change, so too does the insurance industry, and we predict these will only become more challenging as climate change progresses. The risk profile of individual activities is changing along with climate and environmental changes. In the case of agriculture

and crop insurance, we have not had to deal for a long time with the catastrophic extent of damage from the negative effects of overwintering, as in 2012. However, the warming climate, as we have seen, is causing and will continue to cause more summer damage. In the case of industry, the risk of flooding and machine breakdowns is increasing and will continue to do so. Our insurance offer should, and will need to, adapt to these changes to ensure our clients are always fully insured. Watch this space!



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Five reasons why you should be using drones to help your agri business optimize precision farming

Farming today looks incredibly different to operations twenty years ago. Gone are the days of guessing the weather patterns and crop yields. Over the years we have seen the modern farmer utilising technology to his/her advantage to provide a more efficient farming process.

Today, drones are playing a major part in modernising farming further and proving to save farmers money by increasing the efficiency of their farming methods, boosting their crop yields, improving their sustainability, reducing their risks, and providing more accurate data for their insurance companies should they ever need to make a claim.

Are you using drones in your agri business yet? If not, here are five reasons why you should be:

1. High-resolution images for precision farming

Precision farming is key nowadays and drones are proving to be a very valuable tool in helping farmers to achieve their precision farming goals. Agri businesses often need to create accurate aerial imagery of a specific area and using drones is an extremely cost-effective, fast, and unquestionable way to achieve this. A drone's high-precision GPS enables you to photograph the same area over time (hourly, daily, weekly, monthly) simply by programming the exact co-ordinates for the spot you want to study. The drone's software then splices the images together to create a highly accurate, invaluable ortho-photo. This birds-eye view will provide you with insights about subtle changes to your crop quality that you might not be able to see at ground level, as well as conditions that are often not visible to the human eye, such as pest infestations, water stress and fertilizer needs.

2. Precise spraying with drones

Drone usage is not just about taking photos and footage to forewarn farmers of changes to their crops. Many in the agricultural industry are using drones to spray crops, typically in areas where it would be difficult for machinery to do the job. Drones are used in this way to complement rather than replace traditional spraying methods whilst improving your sustainability. Their accuracy and efficiency in this capacity are phenomenal thanks to the use of sensors which can identify not just the plants you want to spray, but the specific parts to be sprayed. This precision means less money spent on spraying crops that don't need spraying, and less of an environmental impact on nature living in your fields.

3. Beyond liquid sprays: application of granular materials

A drone's use goes beyond the spraying of fertilizers and weedkillers too. Those in the know are using their spraying

drones to reseed grassland, spread granular fertiliser, feed aquatic animals such as fish and shrimp, and many more uses besides. These jobs can be done remotely and autonomously, saving you more time and money.

4. Exact damage assessments

At a time when extreme weather is causing many problems for the agricultural industry, drones have proven to be a godsend because they can be used to accurately assess the damage caused by different natural forces. The advanced sensors built into drones can estimate the extent of the damage caused by wildfires, wild animals (e.g.: wild swine and deer), storms, or other natural incidents, as well as use machine learning to estimate the number of missing or damaged crops. This means you can correctly assess the economic impact of any climate-related incidents and plan a precise replanting workflow for your crops. This data is also useful for any insurance claims you may have to make.

5. Environmental health assessment with drones

Drones are also able to help you with your sustainability footprint and reporting. You are now able to use them to not only precisely monitor how each operation is progressing in your fields, but also to assess the impact of your operations. Thus, enabling you to draw concrete conclusions and continuously refine your farming methods for a more efficient and sustainable outcome. In many situations, studies like these have revealed things farmers hadn't previously thought would affect their yields. For example, drones can be used to test the water in irrigation ponds, identifying potentially harmful bacteria or chemicals before watering the crops. They can also monitor irrigation systems for any potential leaks before it becomes an issue for crops.

Whatever the nature of your farming business, if you're not already using them, drones are undeniably one of the next steps for you to consider revolutionising your agricultural practices and management. They are timesaving, money-saving, sustainability-enhancing, and provide invaluable data for both you in your everyday farming practices, and your insurance company if you ever need to make a claim. Just don't forget to insure your drones!



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How to calculate insurance premiums for losses brought about by drought

In some parts of Europe 2022 was a record breaker - it was one of the driest, hottest years in history! However, with soaring temperatures comes dire consequences, especially for the agriculture, energy, logistics and forestry sectors.

Last year Hungary's corn yield decreased by 30%; Italy suffered massive livestock deaths; the UK, France, Spain, Germany, and Portugal all experienced huge water shortages which affected hydropower in Spain, nuclear power plants in France, agriculture in Britain, and shipping in Germany. What is more at the end

of August 2022, forest fires caused by extreme temperatures were responsible for 735,000 ha of burnt, or burning, forests in EU countries – that's 2.3 times more than the annual average between 2006 and 2021 when compared year-on-year. Seemingly, nowhere in Europe was spared some form of drought-induced

disaster. And this isn't a freak occurrence. It's not a problem that is going to go away.

So, the burning question is: how do we calculate insurance premiums to cover such risks? First, we have to understand why drought is on the rise. The simple answer is global warming due to intense human activity, especially over the last 50 years, is the cause. Greenhouse gases are currently 30% higher than during the 1950s, and agricultural deforestation has seen us lose 40% of the earth's forests. This has led to a shift in the average temperature by 1°C compared to the pre-industrial era, and thus resulted in drastic changes in the weather. We're experiencing more extreme temperatures, heat waves, higher wind speeds, more hail, and uneven distribution of rainfall

throughout the year, meaning no rain when plants need it or destructive heavy rains and floods that destroy crops and properties at other times.

Tools to quantify the severity of drought

For industries to remain properly insured, we must be able to quantify the severity of a drought. Soil moisture data ('ERA5 hourly data at single levels from 1959 to present day') provided by the European Space Agency provides the best way to quantify and visualize drought. The satellite soil moisture index provides the best parameter to insure against drought for a variety of reasons. The soil's moisture has a direct impact on crop development and the quantity and quality of food production. The data, which is

independent of parties to the insurance contract, can be verified by the farmer or food processor themselves and requires no field inspections or paperwork to indemnify the loss, resulting in a faster insurance pay-out.



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Does the food and agriculture industry really need commercial crime insurance?

How to calculate your products desirability and evaluate your commercial crime risk.

Imagine, if you will, that you are a poultry business. Your product is highly desirable: chicken is the most widely bought meat globally. Have you ever thought about how easy it is to steal poultry? It is an extremely portable product and due to the nature and volume of sales it is surprisingly straightforward to steal. A faked invoice or paying-off the warehousemen or guards on the gates of the processing plant will allow a thief to drive right up to the plant and collect their haul. From here, it is very simple for your thief to sell-on your product. People want poultry products and whilst cheap poultry may raise a few eyebrows, it is unlikely people will turn down the opportunity to buy cheaper food, particularly in the current economic climate. Selling on a stall at a food market or arranging with a retailer to buy the products is an easy route for your criminal to take, especially as the police are less likely to question the sale of chicken in these environments.

Assessing the desirability of your products

Agribusinesses deal in the most stolen goods worldwide bar cash and, as a result, the sector has seen numerous

large losses worldwide - predominantly in basic food stuffs such as milk, meat, bread, and cereals rather than finished products. Employees working together with outside groups can cause large losses incredibly quickly. So, how do you calculate the desirability of your product to a commercial criminal? It is a straightforward process of analysing how desirable, portable, and saleable your product is. If you can answer yes to these three questions when considering your product, then you are at a high risk of being a target for commercial crime.

Desirability – Do people want / need your product?

Portability – Is it easy to steal, especially in large volumes?

Saleability – Is it easy to sell and would it attract attention to the seller selling it?

Which employees are the most likely to commit a crime?

There are several ways businesses could be exposed to crime, both from within the organization because of employee infidelity and from third parties. With every employee comes a plethora of risks that a business opens

itself up to. From an addict or an employee caught in a compromising situation, to dishonest staff members who want to defraud the company for a share of the profits, there are endless possibilities of how your teams can put your company at risk and the losses incurred are not covered by your standard property damage or business interruption insurance contract. So, what should you look out for? How do you know who is likely to steal your products, or partner with criminals to rip you off?

Employees with addiction issues are a prime concern for any organisation, and not just because of their decreasing performance levels. They start out not wanting to commit fraud, but their addiction rapidly turns into a problem for the employee. Typically, they will have a drug, alcohol or gambling issue and will 'borrow' money from the company to rectify an immediate problem, always with the intention of paying the money back. However, as their addiction worsens, the problem usually spirals out of control and they start taking more and more to fix their predicament, finally realizing that they cannot repay it; then they run. Whilst not the largest losses these can reach some big figures and €1m is not uncommon, although figures in the hundreds of thousands are more likely.

Another scenario could be that a member of staff is found in a compromising situation and criminals find out and use this circumstance to blackmail them by forcing the employee to carry out some tasks to either enable them to access your business (electronically or physically), or to simply force the employee to steal directly. It can be anyone in a company, and losses can be from around €50,000 for a straightforward taking of cash from the safe, to millions of Euros because they granted access to the computer systems.

Types of commercial crime

Fraud by employees in any business sector, including food and agriculture, comes in many guises. Invoice fraud can very quickly

become costly to an organisation. A member of staff who has control of tendering or contracts might conspire with a supplier to inflate invoices. Normally they split the difference between the 'real' price and the stated price. This means that either poor quality services are supplied, or overcharged services with reasonable quality are provided. If the member of staff is allowed a level of autonomy in this area it can be hard to detect as they will often receive fake quotes to cover the fraud.

Delivery fraud is another possibility and often works hand-in-hand with either blackmail or general corruption. A gang will find a suitable member of staff who has access to warehouses or other storage facilities and find a way to get them to aid them in their plans. This can be through a simple cut of the profits (Improper Financial Gain) or through blackmail. Either way the staff member will grant them access to the facility through either forged paperwork or being there themselves to open the door. Whole lorry loads of goods can be taken in this way and losses can mount up quickly. It is only when the goods are not paid for that the loss is discovered, which can often be some time down the line. Securing against this can be difficult as the papers to release the goods will be official and unlikely to be queried at the gate.

More complex frauds are social engineering and fake presidents, which have the same method at their core. They both rely on a level of trust either built up over time or gained by electronic means.

Social engineering can take the form of regular phone calls building-up a rapport, or targeted emails (finding out the hobbies of a member of staff and then sending them links – Spear Phishing), or even working on an out-of-work friendship which then turns into a request for help. All of these come under the social engineering banner. Once trust is established there will be a request to transfer funds, either for a legitimate

looking reason or to help the person conducting the fraud. Once the money is transferred the contact usually ceases immediately.

Similarly fake presidents can fox even the sharpest of employees. Criminals make a call seemingly from the CEO, CFO, or someone else senior in the business. It typically occurs on a Friday afternoon with a request for an urgent transfer of funds. The reason given is usually that if the transfer does not go ahead then a deal will fall through to the harm of the company. The call will seem to come from the senior member of staff but will be the criminals who have hacked your phone systems to make it seem like it is the phone number of the person they are impersonating, or used email addresses which are one letter different to the senior employee. A less sophisticated version of this is hijacking emails and changing bank details at the last minute to the fraudster's account.

Minimising losses

As we can see from the above, "non-tangible damage" (financial) losses, caused by infidelity of employees or third-party criminals, can cause quite a big gap in the balance sheet of any Food & Agriculture enterprise. To minimise your losses, these types of risks should be covered by additional commercial crime insurance policies, and employees should be educated about possible fraudsters and their tactics, so they know what to look out for and how to deal with it if they come face-to-face with a fraudster.



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Supply Chain Risk management in the Food and Agriculture Sector

Keeping flexibility and financial resilience in an ever-changing economical and geopolitical environment

Covid, the war in Ukraine, the gas crisis and more have exposed the fragility of many industries. Our food supply chain is no exception. What does the future hold for us and are we ready to successfully face new challenges? The more immediate question we have to ask ourselves is: "How can we increase flexibility and financial resilience in an ever-changing economical and geopolitical environment?" Let's take a closer look at this issue and how to better deal with it.

Sustainability in the Food Supply Chain

The Food and Agriculture Organization of the United Nations defines the food supply chain as consisting of all stakeholders who participate in the coordinated production and value-adding activities that are needed to make food products.

The food supply chain covers agricultural upstream and downstream sectors from the supply of agricultural inputs (such as seeds, fertilisers, feeds, medicines or equipment) to production, post-harvest handling, processing, transportation, marketing, distribution, and retailing.

A sustainable food supply chain

- should be profitable throughout all its stages (economic sustainability),
- has broad-based benefits for society (social sustainability),
- has a positive or neutral impact on the natural environment (environmental sustainability).

Spotlight on Supply Chain Disruption Risk Management

The recent agitation in societies caused by Covid-19, Russia's aggression in Ukraine, the gas crises, climate change, etc., have prompted governments and corporations to pay more attention to supply chain disruption risk management. This is due to its obvious negative consequences, such as loss of net profit and increased costs for restoring supplies to normal.

The complexity of the supply chain requires that risks be grouped as follows:

- **Supply Risks:** Impacts inbound supply, implying that a supply chain cannot meet the demand in terms of quantity and quality of parts and finished goods (supply disruption).

- **Demand Risks:** Impacts elements of the outbound supply chain where the extent or the fluctuation of the demand is unexpected (demand disruption).
- **Operational Risks:** Impacts elements within a supply chain, impairing its ability to supply services, parts, or finished goods within the standard requirements of time, cost, and quality. Transportation disruptions are one of the most considerable operational risks.

In order to effectively manage the risk of disruptions in the supply chain, special risk management procedures should be implemented in companies:

- Step 1: Assess the risks (suppliers, buyers, weather-related events, foreign economic instability, raw material shortages, blackouts, military actions, actions of the government, social unrest, etc.)
- Step 2: Quantify the risks (likelihood and severity, risk mapping)
- Step 3: Build a response plan to contingencies ("If X happens, then we will respond with Y.") and define roles and responsibilities in this action plan.
- Step 4: Develop a supply chain continuity plan (determine critical and major suppliers and logistics routes, qualify alternative suppliers and shipments)
- Step 5: Further monitor supply chain risks, carry out supply chain continuity plan modifications and reporting

Stay Agile in the Food Supply Chain

One of the key questions nowadays is how to stay agile in an ever-changing supplier and customer environment? In other words: How to get the right product to the right customer at the right time in the right place while continuing to be profitable, environmentally and socially compliant?

Here are some practical key points and ideas for increasing the flexibility of the food supply chains:

- Go digital wherever possible: collect, process and display in-time data
- Ensure optimum levels of visibility and transparency across the organization by providing more information to optimise operations
- Automate the less time-consuming manual processes
- Hold extra inventory
- Make shorter-term plans
- Reduce the variety of products
- Switch to new packaging - smart packaging, large multi-

serving formats, modular packaging solutions

- Buy from domestic or local suppliers where possible to increase the ability to transport goods in an efficient and cost-effective manner
- Establish and foster solid relationships with strategic suppliers.

Insurance - Key Element to Counteract Food Supply Chain Disruptions

Insurance is a tool that limits financial losses when a risk has become reality and has disrupted the supply chain, resulting in a loss of net profit, an increase in its mitigation costs and contractual penalties.

As a rule, standard property insurance covers business interruptions, caused by physical damage to the enterprise or physical damage to its suppliers or buyers (extended coverage). In any case, it should also contain an "on-site element", i.e. the damage should arise at the site of the party specified in the insurance contract.

In order to partially fill this gap, clients are advised to consider investing in special tailor-made solution. Combined stock-throughput and trade disruption cover the entire value chain: from the delivery of goods from suppliers, through their processing at the insured party's premises, to their delivery to buyers, including both transit and storage periods. A stock-throughput placement provides compensation for material damage to the transported or stored property.

The additional trade disruption insurance covers loss of net profit, increased expenses and contractual penalties resulting from direct damage to property and unexpected events that impacted logistics and/or happened to goods along the way (fire, lightning or explosion, natural disasters, blockage of waterways, harbours, airports, roads or railways; breakdown of a vessel; confiscation, expropriation, deprivation, embargoes; sanctions; political interference; strikes, riots

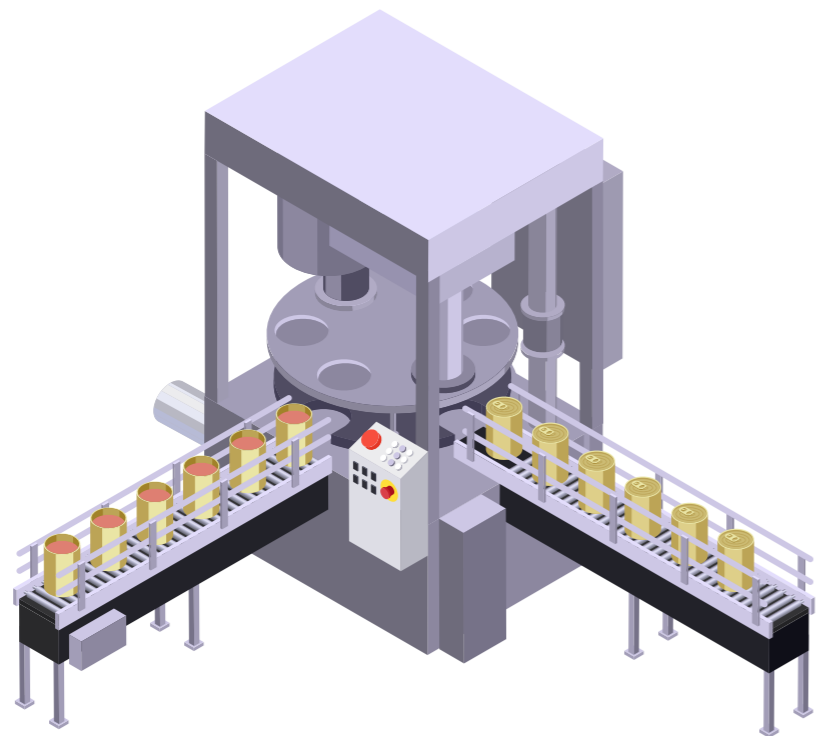
and civil commotion, terrorism border closures; or other triggers subject to the agreement of underwriters).

Parametric insurance insures a specific weather or statistical parameter, which should correlate well with the quantity or quality of the goods one buys or sells. For example, to produce a planned amount of vegetable oil, an oil-crushing plant needs seeds to be processed. The factory relies on farmers who grow such crops. In the event of a drought, there will be a shortage of harvested seeds, which, in turn, results in reduced production of vegetable oil. To mitigate and balance such losses, the oil crushing plant will be insured against soil moisture deficiency (drought index) or an area yield index. The insurance contract is triggered when the insured index reaches a certain value.



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Top top tips to mitigate the threat and protect against ransomware attacks

3.86 million USD is the global average cost of a cyberattack data breaches

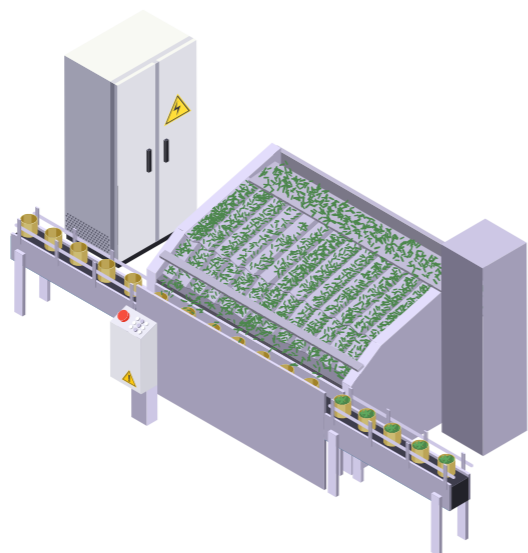
Did you hear about the JBS ransomware attack in May 2021? It was one of the largest and most high-profile cyberattacks in recent history. JBS, the world's largest meat supplier, was hit by a ransomware attack that affected its operations in North America and Australia. The attackers used a type of ransomware known as REvil, which encrypted the company's data and demanded a ransom payment in exchange for the decryption key. Luckily, JBS, who supplies meat to retailers and restaurants worldwide, quickly took steps to isolate the affected systems and shut down its servers to prevent the spread of the attack and its knock-on effect on the global food supply chain.

So why is this relevant to you and your business? The JBS ransomware attack makes the growing threat of cybercrime and the need for organizations to take proactive steps to protect their data and systems real. If this case study isn't enough of a warning for companies to prioritize cybersecurity as a critical component of their overall risk management strategy, then these other sobering statistics might just be:

Cybercrime is up 600% due to the Covid-19 pandemic. One of the reasons for this meteoric rise in cyberattacks is the trend of 'working from home'. This new norm

has increased the average cost of a data breach for companies by \$137,000 per company.

Sadly, ransomware, malware, and data theft have become part of our everyday vocabulary, yet businesses are seriously lagging: Over 77% of organizations do not have a cyber security incident response plan. Are you one of them?



It is essential that businesses are aware of the possible cyberattack threats and disruptions facing them; and the food and agriculture industry is no different. So how do we mitigate the threat for our businesses and protect them against ransomware attacks? All is not lost, besides insurance being an ultimate tool to mitigate a loss which has already occurred, there are preventative steps every organisation should take. Here are our top tips:

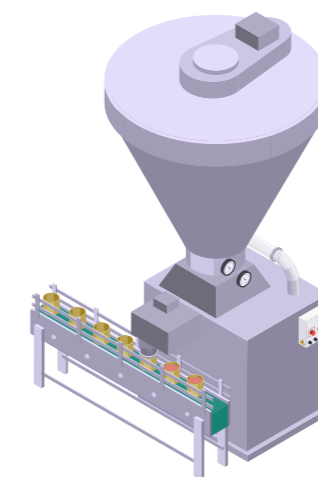
Top tips

Firstly, and perhaps the most obvious one, is to ensure your company data is regularly backed-up and that there are password protect backed-up copies offline. On average, only 5% of companies' folders are properly protected. It is essential to ensure copies of your critical data are not accessible for modification or deletion from the system where the data resides. In addition, your company should implement air gapping – the process of ensuring there are gaps when the business' computer systems are not directly or indirectly connected to the internet.

Secondly, your organisation needs to actively think about what you will do if your systems go offline. What are your critical functions? How will you operate manually if it becomes necessary? How will you implement a recovery plan and what will it look like? Your recovery plan should include maintaining and retaining multiple copies of

sensitive or proprietary data, and that your servers are in a physically separate, segmented, and secure location, such as a hard drive, storage device or cloud.

Thirdly, limit who can do what on your systems and audit them regularly. A whopping 95% of cybersecurity breaches are caused by human error, so this is not something to be overlooked. Whether you are a large company or a small one, by requiring administrator credentials to install software, you are actively limiting the number of people who can expose your systems to a cyberattack. You should routinely audit those user accounts with administrative or elevated privileges



and configure access controls with the least privilege in mind. Incredibly, 94% of malware is delivered via email; so, another simple step to reduce risks caused by your employees could be to disable all hyperlinks in received emails; to add an email banner to messages coming from outside your organisation; to regularly check that you have disabled all remote access/RDP ports; and that you are systematically monitoring remote access/RDP logs.

Forewarned is forearmed

What is more, forewarned is forearmed. Through comprehensive cyber security awareness and training you can effectively ensure your staff are forewarned about the cyber risks and vulnerabilities facing

your company, and forearm them with techniques and best practices to minimise the risks you are exposed to. For example, ensure all employees know only to use secure networks, and that when working outside the office they should not use public WiFi networks. One way of making this easier for your remote workers is to install a VPN or virtual private network. Employees need to be reminded to use strong passwords and to regularly change their passwords to network systems and accounts, adhering to the shortest acceptable timeframe for password changes. They should also be prevented from reusing passwords for multiple accounts and encouraged to use strong pass phrases wherever possible.

And finally, a basic but often disregarded step is to ensure your software and systems are up to date and that you have updated anti-virus and anti-malware software on all hosts.

With a little forethought, preparation, education, and investment in robust security measures organizations can reduce the risk of a cyberattack and minimize the impact of any incidents that do occur. You might not be able to completely prevent all cyberattacks, but you definitely can reduce their impact and make it harder for hackers to attack.



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Statistics taken from:

- <https://www.titanfile.com/blog/15-important-cybersecurity-statistics-in-2021/>
- <https://www.ic3.gov/Media/News/2022/220420-2.pdf>
- <https://www.dataprise.com/resources/blog/agriculture-cyber-attacks>

Meet our client: The OMME Hungarian Beekeepers' Association

The world of insurance is a varied and unique one. Despite similar industries, no two clients operate in the same way; no two clients face identical risks; no two clients require the same insurance policy, and as such we often find ourselves faced with unusual challenges which require bespoke solutions.

The relationship GrECo Hungary entered into four years ago with the Hungarian Beekeeper's Association (called: OMME) has proved to be no different. Zsolt Varga, Hungarian Practice Leader for Food & Agri caught up with Péter Bross, President of OMME, to discuss their latest policy and why it is unique to them.

VARGA: Please can you tell us a little bit about the OMME Hungarian Beekeepers' Association?

BROSS: The OMME is a professional beekeepers association. We have over 14,000 members, consisting of local SMEs and private entrepreneurs producing honey. We represent and support our members in many ways from providing advice and best practices to guide and help participate in projects financed by the EU and the Agricultural Ministry of Hungary, such as buying new equipment and medicines for the bees, and fostering mutual marketing campaigns.

As an association our situation is unique because we represent so many private individuals who in theory should have their own individual insurance policies. But we wanted to offer our members another insurance option, insuring their risks as a collective.

VARGA: What sort of insurance needs do you have?

BROSS: Initially we required only a liability insurance scheme for our members. As a professional beekeeper organisation,

we felt it was important to provide appropriate assistance to both the injured party and the beekeeper in the event of damage to the beekeeper's business. We are also working to improve the relationship between the public and beekeepers, and insurance plays an important role in that.

More recently we have invested in a property insurance scheme, which will be launched this year. We took this decision partly because of our positive experience with GrECo and partly in response to the increasing number of cases of damage experienced by beekeepers. Our weather is becoming more and more volatile, with more frequent periods of severe drought and floods caused by sudden and heavy rainfall. In 2022, several apiaries suffered major losses that could have been mitigated with the correct insurance in place. Our latest insurance policy cannot be privately bought from any insurer in Hungary. It's unique in Hungary, and indeed in Europe as a whole, because it insures all of our members en masse against risks brought about by climate change and also against the bees being killed by the ever-increasing use of pesticides or other such chemicals.

VARGA: Was there any resistance from your members or from the General Assembly to providing insurance?

Bross: Our General Assembly, which is elected by the member organisations, voted on whether this new insurance was needed. I must be honest, there was a

certain level of distrust initially. The feeling was, if our members' risks were insured collectively, there would be more claims against the policy. There was doubt as to whether the insurance company would keep paying out under such circumstances. Would they seek objections to any claims? To test the waters and provide some proof to those who doubted the scheme, we only introduced liability insurance in the first year. In our opinion it worked brilliantly, and we had a 'successful' year.

After that, we had two very strong arguments for introducing property insurance as well. Firstly, natural disasters are becoming more prevalent, meaning it is likely we will see more and more cases of damage to apiaries. Secondly, we had another insurance programme under our belt that had been working well for several years. These two things convinced everyone and there was overwhelming support for the introduction of property insurance too.

VARGA: Is it costly for your members?

BROSS: Quite the opposite. The financial burden for our members is low. With the two insurance programmes, it only costs each beekeeper on average 10 Euros per year.

VARGA: So how does the insurance policy work? How do you prove whose bees did what?

BROSS: That's the tricky part. As with all insurance claims, each one is unique, and this is particularly true in the beekeeping sector because it is a very specialised type of livestock. It is extremely difficult to determine

whose bees caused the damage, because, for example the bees do not have any unique markings and can't be restricted to property boundaries.

When we do experience an incident, the beekeepers report it to our central office and our county advisory network helps with the submission of claims. This then gets passed on to the experts at GrECo who liaise with the insurance company and follow each claim through to the end. It's a remarkably smooth process.

VARGA: Can you provide us with some examples of incidents that your members have faced?

BROSS: Unfortunately, there have been many. In terms of liability cases, last year a hiker was attacked by bees. She was stung several times and broke her glasses while fleeing. Our liability insurance didn't just cover the injuries, but also the damage to her personal property.

Another memorable case was a bee attack on an ostrich farm, which resulted in the death of several birds. It was an interesting case because they are exotic animals worth a princely sum. Despite this, the insurance company still settled the claim. The following year, the problem happened again. However, thanks to successful mediation, the damages were settled amicably for both parties.

And, in terms of property claims, we have already experienced claims for damaged property due to gale force winds. But it's not just the weather causing issues for beekeepers. On New Year's Eve, revellers broke into an apiary and destroyed several hives.

Naturally, a police report was filed, and within 30 days, the insurance company paid for the damage.

VARGA: Is there anything else you'd like to add?

BROSS: Successful claims such as these have really opened the Association's eyes to the need for insurance for our members, where previously it had been strongly felt none was needed. We think, we have found solutions to the most common beekeeping damages. We are thrilled such a unique insurance programme could be established in Hungary and we hope that we can serve as a good example for beekeeping organisations in neighbouring countries, and anyone else in need of out of the ordinary insurance policies.



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The logo for GrECo, featuring the company name in a white, cursive script font on a blue square background.

GrECo®



Cyber threats in Food & Agriculture

The industry has adopted the use of smart technology such as automated farming techniques or automated high-bay warehouses. Although technology creates efficiency in services, it also significantly increases the risk in case of a cyber crime or IT related business interruption. A cyber insurance completes an organisation's cyber security risk management.

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