



# INNOVATING AGRICULTURE: SUSTAINABLE PEST STRATEGIES FOR A HEALTHIER PLANET

As an environmentally and socially responsible company, Tsebo Hygiene and Pest Control Solutions takes sustainability seriously, and places an emphasis on pest management. Here's how we do it ...

About 20% of global food supply is said to be contaminated by rodents, which carry affiliated pests (like lice, ticks and fleas) and can host a variety of pathogens that are harmful to humans and livestock. An **article** by the International Food Safety and Quality Network (IFSQN) goes on to say that rats consume roughly 30 grams of food a day; times this by 50 and about 10kg of food is consumed per week. Now apply this to a grain storage facility, where an infestation of thousands of rats can quickly decimate a crop that's taken a farmer an entire season to grow.

But it's not only rodents that cause damage, the United Nation's Food and Agriculture Organisation (FAO) claims that **40% of the world's crop production is lost to pests**, which includes rodents, locusts, wasps, caterpillars, worms weevils among others. While it acknowledges this as a significant problem, the organisation promotes "sustainable and ecological approaches ... to prevent and control the potential impact of pests and diseases".

As an environmentally and socially responsible company, Tsebo Hygiene and Pest Control Solutions takes sustainability seriously, and places an emphasis on pest management, rather than blanket eradication that can result in harm to humans and the environment.

"We take an Integrated Pest Management (IPM) approach, which is consolidated solution we offer from start to end. We use biological, mechanical, and technological methods that are informed by our broad understanding of IPM. We first assess the site to see that physical mechanisms are in place to deter the pests, and then build a tailored management programme from there," says Rochelle Gouws, National Sales Manager, Tsebo Hygiene and Pest Control.

"We don't eradicate, we control, so part of the responsibility of us being a pest control company is that we are accredited by the Department of Agriculture, which is of high importance as they've got clear guidelines on how to use specific pesticides or apply treatments. But, if eradication is an approach that the agricultural client has used all along, they might not be open to what we say from the offset. So, an important part of our job is to educate. We need to make them aware that there's alternative solutions. We see it as part of our commitment to the society. The message is not about eradication the message is about controlling in a sustainable way."



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## Eco-friendly pest management

IPM was developed in the 1970s in response to an increase in pesticide spraying that resulted in secondary pests and massive pest infestations once the various species became resistant to specific poisons. It quickly became obvious that blanket eradication was not only ineffective but also harmful to human and animal life, because only about 20% of those chemicals deter or repel the pests, the rest is absorbed into the land and water table.

The IPM approach is constantly changing and there is no single approach that works for all situations. Instead, Tsebo assesses each scenario and carefully considers the variables – prevention, chemical, biological, physical and crop specific approach to pest-control techniques – to apply an ongoing and evolving programme to control a variety of pests and minimise damage to crops and assets.

IPM is based on an ecological systems approach which requires a firm understanding of ecosystem functions to promote vibrant crop growth through healthy agro-ecosystems. To roll out IPM effectively, Tsebo's Pest Control Operators undergo rigorous training and accreditation.

"A major challenge in the pest control space is that we work with living organisms in a living environment, so to follow humane, environmentally compliant practices we have to first identify the right pest based on activity and establish the level of infestation in order to apply the right solution," says Gouws.

"Like humans, pests evolve to survive, and they become resilient to pest control methods, which means we need to find an alternative solution. Take ants and cockroaches. They're smart and will get saturated by a certain kind of bait, to control them we need to think like ants to apply different solutions to lure them.

"Rodents are particularly intelligent. They like to run across solid barriers, so they'll always run along a building perimeter, then suddenly, we put a base station there. For two weeks he will suss it out. Then when he finally goes into the box, it will take another week before he eats the bait. So that's the challenge. We have to always be two steps ahead."

## Tsebo's Pest Control Solution

Our pest-control solution is designed to protect your livestock, property, agricultural produce, and any stored products against daily pest threats. We achieve this through integrated pest management (IPM) – an innovative approach, blending prevention, monitoring, and control strategies to deliver sustainable pest-management. This approach not only addresses current infestations, but prevents future ones, ensuring long-term protection and peace of mind.

Tsebo conducts a complete site survey to assess the prevalence of various pests as well as the potential for new infestations. Our specialised team then tailors a sustainable solution that minimises environmental damage, eradicates the current pest problem and prevents and manages future pest problems.

- **Asset protection:** We implement targeted strategies to prevent damage to vital equipment, safeguarding the tools that keep your farm running smoothly.
- **Stock integrity:** Our tailored solutions are designed to ensure that your food stores, seed stock, crops and livestock remain undamaged by problem pests, upholding the value and quality of your inventory.
- **Preserving productivity:** By mitigating the spread of communicable diseases by pests and monitoring and controlling pest activity, we help you to ensure that your farm and its employees remain productive.
- **Proactive partnerships:** We provide continual feedback on housekeeping and maintenance best practices, empowering our clients to maintain pest-free environments. We can advise on proofing and stacking to minimise the risk of infestation. Our team works closely with you to ensure that preventative measures are effectively implemented, meticulously reported, and diligently managed.
- **Budget friendly solution:** We deliver a fully comprehensive IPM solution tailored to the client's needs and budget.



## Innovating for a sustainable planet

Innovation is key to Tsebo's ability to stay two steps ahead, and is paramount to the company achieving and maintaining compliance and sustainable best practice. Innovation can take the various forms, such as using IT aiding devices to control avian pests or applying IOT to bait boxes, among other things. But the most pivotal innovation in Tsebo's arsenal lies in its use of an app to measure, monitor and ensure that all of its activities are controlled and compliant.

"What our innovation allows us to do is record how much pesticide we use and its application at a specific site. Our Pest Control Officers log the information into the app on site to assure absolute transparency. This helps us to track what chemicals we used for a particular service, and we apply this data to maintain a completely scientific approach," says Gouws.

Clients can access to the app's dashboard at any time and can use it to streamline reporting thanks to all pertinent information being tracked and stored in one easy-to-access area. The information can be used towards the farms environmental, social and governance initiatives and can proof of compliance for auditing purposes. This benefits agricultural clients who need to provide proof of health and safety and sustainable practices to their buyers.

"The app allows the most phenomenal reporting from an environmental point of view and from a compliance point of view. Everything is properly documented and easy to access, which is I think for any business that is such a huge bonus to have," says Gouws.

### Other benefits include:

- **Cost saving:** By keeping updated on regulations, clients stay on the right side of the law. The app provides access to a consistent and reliable database that helps them to avoid penalties or legal consequences in the event of an incident.
- **Increased transparency:** Companies that take care of their employee's health and safety gain positive standing in the industry thanks to their ethical conduct.
- **Easier tracking and reporting:** It's easy to identify and fix issues. The audit and inspection app highlights gaps at a glance. It can also be used to centralise reporting conduct remote audits and quickly determine if a specific location needs tools of training to improve performance.
- **Better visibility and insights:** from trend reports and graphs to monitoring logs, the app aids communication and helps to underline pest-control efforts. Results are displayed on a dashboard to provide transparency to all levels of management, resulting in faster corrective action.

According to the FAO, the sustainable management of pests plays an important role in ensuring food security through and nutrition, by "promoting food quality and safety, supporting farmers' livelihoods, protecting the environment and biodiversity, and facilitating safe trade and economic growth."

As the world becomes increasingly aware of the importance of sustainable farming practices and more suppliers insist on responsibly farmed meat, poultry and produce, Tsebo helps agri-businesses to stay two steps ahead of their competition by providing compliant, traceable solutions to all pest problems.



**ROCHELLE GOUWS**

National Sales Manager, Tsebo Hygiene & Pest Control



**ENVIRONMENTALLY  
FRIENDLY PRODUCTS**