

ADVERTORIAL



*World-Class  
Innovation*

# ***PERFECTING THE SCIENCE OF INSECT CONTROL***

[www.mgk.com](http://www.mgk.com)



## MGK's Ongoing Metamorphosis

by Steve Gullickson, President

“ We’re looking forward to the next chapter of MGK’s history as we partner with Sumitomo Chemical to develop products for the benefit of PMPs.”

Since opening its doors more than a century ago, MGK® has been in a constant state of metamorphosis to remain the vibrant, market-driven business it has been throughout its long and storied history. From the company’s early days as an importer of household spices to its current role as a leading supplier of advanced insect control solutions, MGK has taken its role as a world-class innovator very seriously. Like our customers, we aspire to make a positive difference in the world. With the recent announcement that our longtime partner and shareholder, Sumitomo Chemical Company (SCC), has purchased a majority interest in MGK, we find ourselves in an even stronger position to make life healthier by creating responsible products that protect people and their environments from the impact of insects. I hope you enjoy this brief overview of MGK’s history and unique corporate culture, as well as our ongoing commitment to “Perfecting the Science of Insect Control.” Whatever we have achieved during the four generations my family has managed this business – a history we share with many multi-generation pest control businesses – it would not have been possible without the support of our customers. Thank you for your business. We’re looking forward to the next chapter of MGK’s history as we partner with Sumitomo Chemical for the benefit of PMPs. Bring on the next 100 years!

## MGK THROUGH THE YEARS



**1902**  
Founded by Alexander McLaughlin.

**1910**  
MGK imports spices packed in dried pyrethrum flowers.

**1919**  
Chemist Dr. Charles Gnadinger begins investigations into pyrethrum.

**1935**  
Botanical drug, stock food and remedy businesses sold to devote more time to insecticide and spice lines.



**1938**  
Sales of Pyrocyde Dust, invented in 1935 and popular with home gardeners and commercial growers, take off.

**1908**  
John Gormley and George A.N. King become partners.

**1915**  
Imports pyrethrum powder, a natural insecticide derived from chrysanthemum flowers.



**1929**  
Dr. Gnadinger’s studies help MGK become the first company to standardize a formula for pyrethrum’s commercial use.

**1936**  
Laboratory in Japan established for import of high-quality pyrethrum flowers.



# A *Family* Tradition

MGK has partnered with the industry, supplying pest solutions and expertise, for more than 100 years.

**E**ntrepreneurial. Ethical. Creative. If you own or work for a family pest management company, you know these traits are keys to building a successful business. They're the same qualities that have made MGK a leading innovator of insect control solutions for more than a century. But like anything worth pursuing, success hasn't come easily. It's required an enormous amount of hard work and dedication by the MGK staff, as well as a bit of serendipity, as evidenced by a key turning point in the company's history, which originally made a name for itself as an importer of ground spices, leaves, barks and flowers for pharmaceutical use around the turn of the century.

## A HISTORY OF ENTREPRENEURSHIP

The year was 1919 and chemist Dr. Charles Gnadinger noticed that packages shipped to his lab containing certain dried flowers were devoid of insects, while others were teeming with cockroaches, silverfish and other common pests. Fortunately, throughout its 111-year history, MGK has been characterized by a corporate culture that rewards innovation and critical thinking.



◀The original MGK headquarters building was surrounded by what is today the University of Minnesota campus.

It's part of the Minneapolis-based company's DNA.

Speculating that the dried chrysanthemums in the shipments had insecticidal qualities, Gnadinger set out to prove his hypothesis, with the support of company founder Alexander McLaughlin, who gave the former U.S. Food and Drug Administration chemist free reign to pursue his research, a hallmark of the company to this day.

The rest, as they say is history. It wasn't long before Gnadinger and his colleagues successfully extracted pyrethrins from the chrysanthemum flower, creating an ecologically sound, natural insecticide that would forever change the face of the structural pest control industry.

After World War II, the company continued to support basic

**1942**  
Pyrethrum declared a strategic war material for malaria control; MGK produces it for Department of Defense and U.S. Navy.

**1946**  
Production of DDT dramatically impacts MGK product sales.

**1962**  
Remaining spice businesses sold.

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**1939**  
MGK exports pyrethrum insecticides to 30 countries. Kenya develops pyrethrum as commercial export with MGK as its primary buyer.

**1943**  
Pyrethrum aerosol patented. MGK continues to perfect use of Pyroicide for these products, used heavily during WWII.

**1949**  
MGK helps develop synthetic pyrethroid market.

**1966**  
MGK owns subsidiary Kenya Pyrethrum Company.

research, expanding its product line to include synthetic pyrethroids, and licensing the synergist MGK 264, which enhances the effectiveness of active ingredients. These industry contributions cemented the company's reputation as a leading supplier of pest control products.

To this day the company continues to craft innovative chemistries and delivery systems, and it works tirelessly to ensure a reliable supply of pyrethrum by investing in growing, harvesting and refining operations around the globe (see related story, page 6).

"MGK is an incredibly nimble, entrepreneurial business that isn't afraid to take risks," observed Business Director Kevin Caskey. "We take pride in developing high-performance products designed to protect the public's health and property. It's a passion we share with our customers, who look to us to provide cutting-edge products that meet specific market needs (i.e. bed bugs, mosquitoes, stored product pests, etc.), and to do so in an environmentally responsible fashion."

### A BRIGHT FUTURE

Late last year Sumitomo Chemical acquired a majority interest in MGK. Sumitomo Chemical has been a collaborative partner since the 1970s and a company stockholder since 1989. The move gives MGK "continued access to new chemistries and new technologies" and more investment for "developing ever better insect control solutions," said MGK President Steve Gullickson. "We intend to continue to invest in this business to build a better portfolio of products supported by a well-trained sales and marketing team," he explained. "The result is a business with strong backing, access to excellent technology and a very, very bright future. We expect that we will be able to bring new products to market with innovative technology for decades to come." **MGK**



## MGK AT-A-GLANCE

**Company Name:** MGK

**Year Founded:** 1902

**Headquarters Location:** Minneapolis, Minn.

**Market Segments Served:** Professional pest management, household/consumer, animal health, plant protection, public health, organic agriculture, and OTC lawn and garden

**Pest Management Product Portfolio:** NyGuard IGR (pyriproxyfen), Vendetta (abamectin), VamPyre (pyrethrins), Riptide (pyrethrins), Pyrocide (dual synergized pyrethrins), Bedlam (sumithrin, MGK 264), Onslaught (esfenvalerate), Exponent (piperonyl butoxide) and Evergreen Pyrethrum Concentrate and Dust (botanical insecticides)

**Number of Employees:** 250+

**Product Registrations:** 300+

**Countries Served:** 60

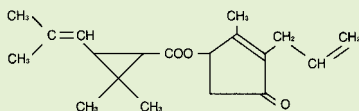
**Website:** [www.mgk.com](http://www.mgk.com)

## MGK THROUGH THE YEARS



**1970**

In-house lab begins working with synthetic pyrethroids.



**1997**

Completed 3-phase construction of manufacturing plant.



**2006**

MGK obtains controlling interest in Tanzania venture to produce pyrethrum.

**1989**

Long-time collaborative partner, Sumitomo Chemical Company, purchases 20% interest.

**2000**

First OMRI Certified brand, PyGanic, launched for organic markets.

**2012**

Sumitomo Chemical purchases majority share in company.

# Delivering the Promise

Strong ethics, agile manufacturing and a creative approach result in innovative products PMPs can trust.

Research and development is different at MGK. Scientists are not obligated to find structural pest uses for ag-inspired active ingredients like at some chemical companies. Neither do they attempt to copy existing products in the market.

MGK bridges both: It works with dozens of active ingredients – some proprietary, some readily available – and dozens of formulation technologies that the company combines to achieve specific results, said Business Director Kevin Caskey.

This flexibility lets employees “really look at a market and address emerging needs with the right product delivery and performance characteristics,” he explained.

## ENTREPRENEURIAL IN NATURE

Because it’s smaller than most competitors, MGK can respond quickly to PMPs’ needs. “Our smaller size gives us flexibility and allows for quick decision making, which is key to effectively responding to ever-changing market and customer needs,” explained R&D Director Don Sundquist. It’s easy to collaborate and solve problems with most employees working in the same building. “The less energy we have to spend dealing with bureaucracy, the more time we can spend on creating novel pest solutions,” he said.

The company’s 80,000-square-foot manufacturing facility, located in nearby Chaska, Minn., has received “significant capital investments to support a myriad of formulating technologies,” including microencapsulation, polymeric emulsion systems, baits and baits in syringes, said Sundquist.

As a manufacturer, MGK has “a much tighter grip on quality control” and can optimize products on the fly, Sundquist explained. This “gives us an edge” in delivering quality products. Everyone on the shop floor has a vested interest in seeing products are manufactured correctly.

The company’s 17 scientists are encouraged to get outside MGK and make connections. The best ideas, observed Sundquist, come from “venturing down paths less traveled,” so employees attend events outside the industry – say, a food and beverage convention – and share what they learn with colleagues.

When applying these ideas to the pest management market, “something novel” inevitably results, said Sundquist. Entomol-

ogist Robert Suranyi has been on a number of “technology discovery expeditions.” They help fill the “idea basket,” as do the staff’s regular attendance at various industry meetings. MGK scientists don’t want to create “a new verse to the same song,” Sundquist explained. “We’re looking for a *new song*. You have to break outside your current environment to do that.”

And you need freedom to make mistakes. “To have creativity you need a lot of sovereignty” and few corporate mandates, he said. MGK employees know anyone can throw a fresh idea on the table without being criticized, no matter how crazy it sounds. This fosters creativity, which spreads to other departments. Enthusiastic, curious people, a creative culture, and sound scientific processes combine for a “free-flowing scientific adventure,” smiled Suranyi. “You never know what you’re going to discover tomorrow.”




“If you don’t have an adventurous spirit, the likelihood of delivering novel products is fairly low.” – R&D Director Don Sundquist

## INNOVATIONS AHEAD

MGK is committed to investing in new ideas and ventures. “If you don’t have an adventurous spirit, the likelihood of delivering novel products is fairly low,” said Sundquist. The company’s alliance with Sumitomo Chemical will help MGK expand its pipeline of concepts and “bring new technology in the form of active ingredients, as well as in other facets of product enhancements, to the market on an ongoing basis,” said MGK President Steve Gullickson.

Sumitomo is one of the few companies developing pesticides for non-agriculture markets. “They have scientists that go to work every day with a single objective of finding better solutions for controlling insects of concern to pest management professionals,” he says. **MGK**



# World PYRETHRUM *Steward*

MGK ensures a steady supply of the natural insecticide is there for your business while promoting economic stability and opportunity around the world.

**D**erived from chrysanthemums, pyrethrum is prized by pest management professionals for its rapid knockdown and consistent performance. Its six esters are essential for controlling a host of structural and public health pests.

What people may not know: Pyrethrum is also an agricultural crop, subject to floods, fires, drought, and even political strife. At times this has caused the supply of pyrethrum to be tight.

MGK recognized the value of pyrethrum in 1919 and has worked tirelessly and made substantial investments in production to ensure a predictable supply for the pest management industry, while creating economic opportunity for pyrethrum farmers.

## **SUPPORTING PYRETHRUM AND PEOPLE**

Because the growing conditions in which pyrethrum thrives exist in few regions in the world (Africa and Australia), MGK launched a strategic initiative to stabilize pyrethrum supplies in the early 1990s. Their strategy is to develop stable production in geographically diverse regions of the world.

The first project was to support a fledgling pyrethrum producer in Tasmania, Australia. This was a cooperative effort among the Tasmania government, the University of Tasmania and private enterprises. The University of Tasmania developed plants with synchronous-flowering, and private enterprise optimized field production and developed mechanical planting and harvesting techniques. This producer, Botanical Resourc-

## » PYRETHRUM, PYRETHRIN, PYRETHROID: WHAT'S THE DIFFERENCE?

*Pyrethrum* is the extract derived from the chrysanthemum flower. It contains six esters, or compounds, called pyrethrins.

*Pyrethrins* are naturally occurring compounds found in the chrysanthemum that attack the nervous systems of insects.

*Pyrethroids* are man-made versions of pyrethrin esters.

es Australia, today is a significant pyrethrum producer.

MGK's efforts to stabilize pyrethrum supplies extends to East Africa as well. In Tanzania, MGK has controlling ownership in a firm that is revitalizing pyrethrum growing programs and investing in extraction facilities to process the expanding supply. MGK also has supported small-holder farmers in Uganda, which has made strides to build its pyrethrum production capacity.

"In Africa, harvesting flowers gives a lot of people jobs," said Pyrethrum Business Director Brad Ward. The cash income earned from pyrethrum often goes toward school fees and supplies, medical care and better homes.

In addition to keeping supply lines open, MGK is a founding member of the Pyrethrin Joint Venture, a task force formed in the early 1980s to generate data required by the EPA.

### FIELD TO TOOL BOX

MGK imports crude pyrethrum extract and refines it using a proprietary process at its facility near Minneapolis. The final extract is used in its products for the professional pest control market, as well as used in insect control products in most every market.

"Refining provides us a unique strength," said Ward. For example, these advanced capabilities supported the development of organic-certified pyrethrum products for use in certified organic crop production (PyGanic®) and food processing plants (Evergreen® Pyrethrum Concentrate and Dust).

"We're committed to being the leading supplier of pyrethrum products to the pest management industry," said Business Director Kevin Caskey. "By providing a consistent, stable supply of this essential natural resource to markets throughout the world, we're providing a valuable service to the pest management industry and that's something we take great pride in as a company." **MGK**

## FROM FLOWER TO POWER

Here's a quick look at how pyrethrum moves from the field into the products you trust.

**Growing/Picking.** A perennial flower (*Tanacetum cinerariaefolium*) prefers well-drained, volcanic soils and temperate climates.

**Drying.** Flower heads are dried to preserve the pyrethrins. Whether tended by hand or mechanically, drying the flower after harvest is a critical step in the process of managing pyrethrum.

**Extracting.** Flowers are ground into a powder, which is mixed with diluent to draw out the pyrethrins molecules. Next, the diluent is distilled off, leaving a dark viscous material called pyrethrum crude extract.

**Shipping.** Pyrethrum crude extract is shipped to MGK's refinery near Minneapolis. MGK also imports refined extract from some of its suppliers.

**Refining.** MGK's proprietary process removes plant waxes, resins and color bodies, and creates a standardized concentration of extract that is low in odor, won't stain, and can be combined with synergists, emulsifiers and solvents to make pest control formulations.

**Formulating.** MGK's refined extract is sold in bulk to customers and sent to its formulating operation for use in its own professional pest control products.



# Pushing Performance

A passion for science led MGK to craft its own line of branded pest solutions targeting PMP needs.

**H**igh-quality ingredients like refined pyrethrum and actives from Sumitomo are a hallmark of MGK, and for most of the company's history it provided these materials in bulk.

But a decade ago MGK realized its "technology was underutilized," said Business Director Kevin Caskey. No one was "as passionate about our chemistry as we were." With extensive input from pest management professionals, the company developed a line of branded solutions that addressed needs not met by existing products. The professional pest control market hasn't been the same since.

## MEETING MARKET NEEDS

NyGuard® Insect Growth Regulator debuted in 2003. A year later, MGK unveiled three products, including "our first big hit," Riptide® Waterbased Pyrethrin ULV, recalled Caskey.

Riptide was launched just as the backyard mosquito misting market was emerging. With multiple active ingredients, the unique formulation quickly knocks down mosquitoes without harming landscape plants. "We had the right product for a new and growing market," said Caskey. It became and remains one of MGK's best sellers.

Similarly, MGK was one of the first companies to help PMPs fight the emerging bed bug problem. In 2006, MGK introduced Bedlam® Aerosol Insecticide, "just as bed bugs were becoming a major problem," said Caskey. And when bed bug

resistance became evident a few years later, MGK again quickly responded with the launch of Bedlam® Plus. This innovative product features a dual mode of action that kills pyrethroid-resistant bed bugs.

Unlike larger competitors, the company's smaller size and nimble nature let it respond early to market needs, Caskey said, bringing products to market in a timely manner.

MGK has more product opportunities than it can launch in any given year, observed Caskey. Its goal isn't to crank out the SKUs, but provide PMPs with distinctly superior products that address specific pest or market needs.

## A GROUND-EYE VIEW

As MGK's product line has grown, so has its sales and marketing team to provide industry support and build relationships. Today, the group's 15 professionals spend most of their time in the field learning PMPs' business and pest challenges.

This "worm's-eye view" – essential in a constantly changing industry – helps MGK solve issues beyond pest control, like making products easier to transport, mix and apply, Caskey explained.

A "rapid flow of market intelligence" between departments helps MGK scientists create new technologies that address end users' needs, said R&D Director Don Sundquist.

PMPs are invited to get more involved: MGK is forming an "extreme users group" of professionals who like to trial cutting-edge technologies and who are candid about their product needs and experience, said Caskey.

Going forward, MGK will continue to invest for growth, add people to support the company's branded products business, and remain committed to understanding the nuances of the marketplace, he added. **MGK**

## HERE TO SERVE YOU

Our professionals are dedicated to understanding the business and pest challenges you face. Please reach out to us: We're honored to serve you.

[WWW.MGKPRO.COM](http://WWW.MGKPRO.COM)