



# EXPERTISE IN POST PATENT TECHNOLOGY



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Rotam CropSciences Ltd. combines the highest technical, quality and service standards within a globalized organization that delivers added value to our customers.

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# Company Introduction

Rotam CropSciences Ltd. is a fast-growing international organization operating in Crop Protection, Turf & Ornamental, Public Health & Veterinary sectors. It has a worldwide presence with direct operations in over 60 countries.

Rotam CropSciences maintains Corporate Offices in Canada and Hong Kong with principal manufacturing base in China and operations split into 10 regions: People's Republic of China (PRC); Europe; North America; Southern Cone (Brazil/Argentina/Chile); Latin America North (Andean Region); Sub-Saharan Africa; North Africa and Middle East; Russia and CIS; Asia and West Africa.

The company has fully integrated manufacturing, research and development, registration, marketing and technical support operating on a global platform but offers local orientated solutions and service. With a Product Range that includes Herbicides, Insecticides, Fungicides, Growth Regulators, Plant Nutrients and Veterinary Chemicals.



# Company History & Evolution

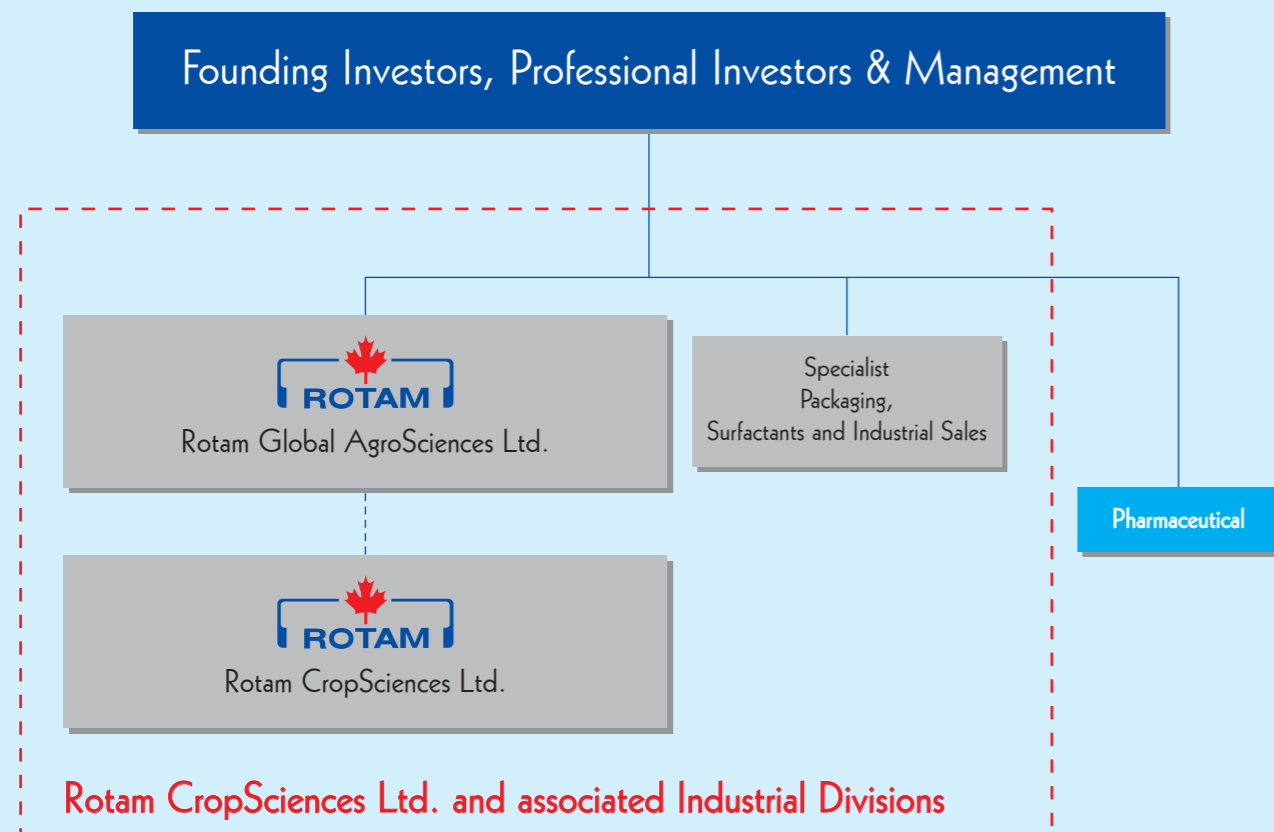
Rotam was founded in the 1950s with two key business units – Food Retail and Life Sciences. The Life Sciences remains a core business and investment focus today with Crop Protection and Veterinary consolidated under Rotam CropSciences Ltd. Other Group Companies operate in Pharmaceutical and Barrier Packaging.

YEAR	MILESTONE
1950s	Rotam's pharmaceutical business established in Taiwan
1960s	Crop protection sector is added to the Group
1991	Established the first People's Republic of China (PRC) manufacturing entity
1992	Set the corporate strategy to build the first China-based off-patent multinational crop protection company in the industry Established the first centralized Rotam laboratory in the PRC Began building International Registration Team & Structures
1993	The PRC / Taiwan pharmaceutical business forward integrated to distribution First dedicated formulation plant for crop protection products set up in the PRC Crop protection business established in Latin America
1994	Crop protection business expanding to Middle East, Egypt and North Africa Established the first crop protection business in South East Asia
1995	Established a pharmaceutical manufacturing and distribution joint venture located in Kunshan, Shanghai
1996	Specialty pharmaceutical and agrochemical packaging joint venture established in Kunshan, Shanghai
1998	Mark Lu (Executive Chairman and son of the Founder) nominated as the Entrepreneur of the Year by the leading crop protection magazine Farm Chemicals International
1999	Veterinary and crop protection business established in eastern and southern Africa First internal product approval by a multinational fruit company in Latin America
2000	Completed the 1st phase of Jiangsu Rotam Chemistry (JRC) in Kunshan, Shanghai Became BASF production and distribution hub for the PRC Expanded registration teams in China, Central America and Middle East Established the 2nd generation laboratories for product development, quality assurance, analytical research & development and delivery systems in Kunshan
2001	Signed agreements for China production and distribution hub with leading Japanese companies, Sumitomo, Nippon Soda and Nihon Nohyaku
2003	Established marketing / distribution platform in Brazil and Latin America
2004	Reorganized into nine core operating regions with dedicated business development teams Inaugurated crop protection business in Brazil Expanded regional registration and product development teams in South America Registration organization set up in the European Union (EU) Established Middle East and North African headquarters in Turkey
2005	Signed agreements for China production and distribution with Japanese company, Eisai
2006	First branded product registrations in Brazil and the USA. China R&D laboratory obtained official accreditation from regulatory authority China National Accreditation Service (CNAS).
2007	Rotam Research Laboratories (RRL) accredited with of Good Laboratory Practice (GLP) status by the German regulatory authority First branded product registrations granted in the EU Established Sub-Saharan Africa headquarters in Kenya Added West Africa to core operating regions bringing total to 10
2008	Began the EU commercial operations Commenced operation of 3rd generation laboratories for product development, process development and delivery systems in Taicang and Kunshan
2009	Consolidation of Branded and Technology driven business into Rotam CropSciences Ltd. Expansion of GLP Laboratory (RRL) capacity
2010	Expansion of Regulatory Team in EU with a Registration & Product Development Hub established in Lyon, France Field Experimental Station & Laboratory set up in Brazil Expansion of Research and Development Capacity in China with the opening of New State of the Art Laboratories for the Process Chemistry Group (PCG)

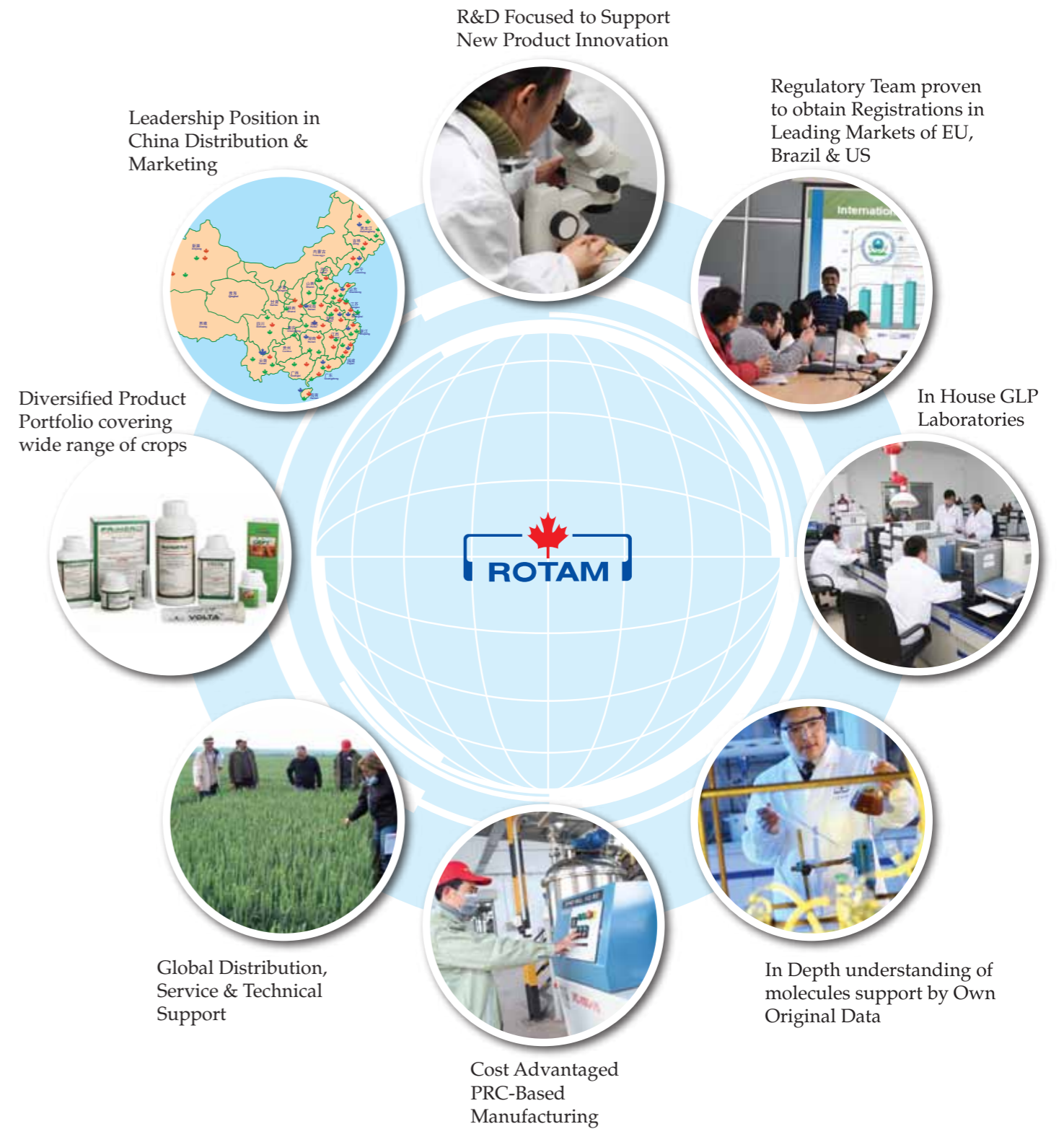
# Company Structure

The ultimate holding company of Rotam CropSciences Ltd. is Rotam Global AgroSciences Ltd. (RGA), a limited company incorporated in the Cayman Islands. RGA and its subsidiaries are a Group of entities specializing in development, global product registration, production and distribution of products that are used mainly for crop protection. The Group has an integrated product development model that employs extensive biologically related technology in testing and development of products that cause biological responses in insects, fungi and weeds to achieve targeted control.

## LifeSciences Sector Structure



# Core Strengths



We conduct research & development around all aspects of an existing active ingredient, and we firmly believe that a whole new generation of R&D starts once the original molecule product patent expires. Our success in this area includes:

- New Formulations targeted to specific crops/pests/application systems



- Extensive Laboratory and Field Trial Testing of New Products to ensure efficacy and crop safety



- New Delivery and Application Systems



- Active Isomer Selection



- Impurity Reduction and Exclusion: Phenazines, HCB



- Selection of Surfactants and inerts to enhance safety and reduce environmental impact



- New technology to improve existing products



- A focus on safe-use packaging such as water soluble films for powders and gels



- Extending labels to include new crops and applications based on sound technical benefits not marketing ploys

Laboratory based research, development and enhancement is a material component of Rotam's highly successful product development strategy. Its modern in-house laboratories meet the highest standards acceptable worldwide, including the Rotam Research Laboratory (RRL), GLP certified by the German authority Bundesinstitut für Riskikobewertung (the Federal Institute for Risk Assessment), an accreditation accepted by regulatory authorities globally. This provides Rotam with a dedicated, reliable and recognized source of laboratory results for quick and timely reports.



Accredited GLP by German Government (BFR) Certificate

## Good Laboratory Practice (GLP)

The Principles of Good Laboratory Practice have been developed by its member countries to promote the quality and validity of test data used for determining the safety and performance of chemical products. It is a managerial concept covering the organizational processes and the conditions under which laboratory studies are planned, performed, monitored, recorded and reported. Its principles are required to be followed by facilities carrying out studies to be submitted to national authorities for the purpose of assessment of chemicals relating to the protection of man and the environment.

In 2010 Rotam Research Laboratory was the only German-certified GLP laboratory located in China solely dedicated to the crop protection market.



Advanced equipment to ensure data accuracy



Strong Analytical Team to support the GLP Lab



Professional staff to control all experiments, data collecting, monitoring and recording process

# Registration

Registration is the process through which a governmental body examines the composition of a crop protection chemical; the method of application on the target crop; storage and disposal practices. The chemical is evaluated to ensure that it will not have unreasonable adverse effects on humans, the environment and non-target species.

We have our own registration management and technical teams with wide experience from multinational R&D. Teams are located in Kunshan, China, along with regional registration and technical teams based in Latin America, EU, North America, Africa and Asia.

The diverse experience within the Group enables us to manage the strictest regulatory environments with registration programs in the most difficult of markets including USA, EU and Brazil.

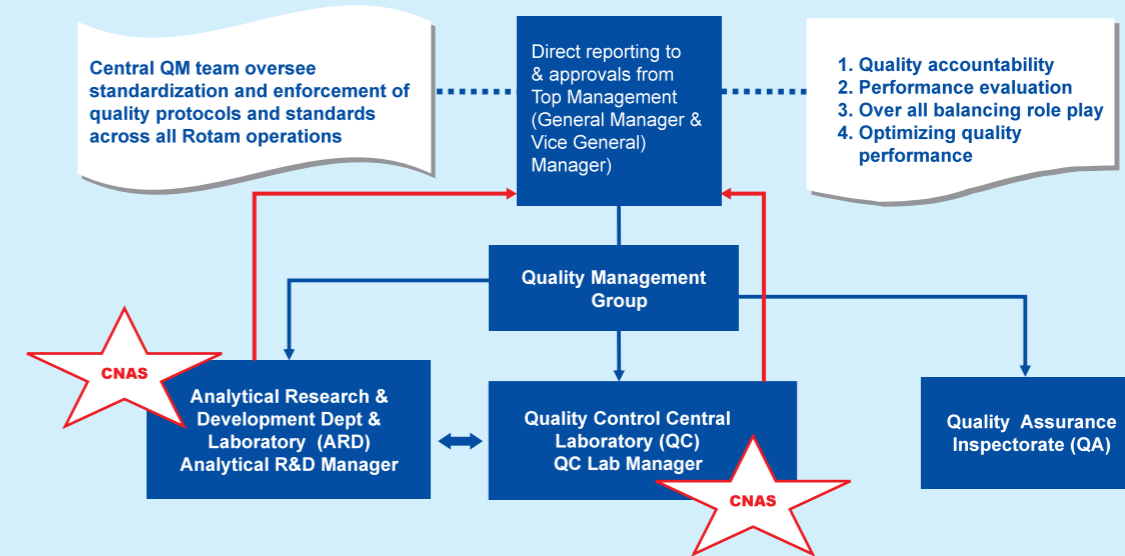


# Quality Management

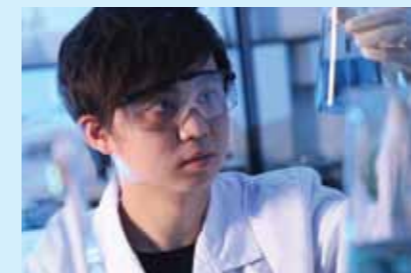
Rotam production facilities operate strict cross-contamination controls with separation of herbicides at manufacturing level and have on site ISO-certified warehousing with purpose-built structural separation. The plants operate at high environmental standards and are able to meet the most stringent criteria set by leading multinational companies.

Quality is central to the products and services that Rotam offers. The Rotam quality management organization is an integration of dedicated laboratories, inspectors and system audit with strong technical support. Reporting lines of QA are direct to GM and Vice GM. Rotam's Analytical Research Development laboratory and Central QC Laboratory have obtained official accreditation from regulatory authority China National Accreditation Service (CNAS).

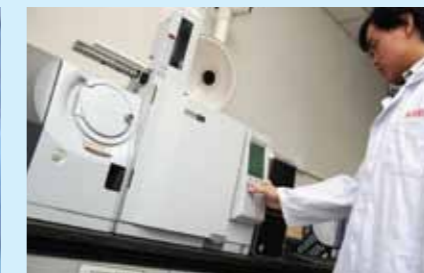
## Rotam Quality System Workflow



Rotam's quality system operates strictly within the standards of practice set forth by the Analytical Research & Development Department (ARD). The ARD serves as an internal audit, standardization and training hub within Rotam's QA system, and is supported by its CNAS approved laboratory.



Analytical Research & Development Department (ARD) serves as an internal audit, standardization and training hub for Rotam CropSciences



Advanced Equipment conducts raw material quality check



Gas Chromatography and Mass Spectrometry - precise instrument for impurities control

Rotam operates through ten regions with each regional team led by a regional director with extensive senior level experience in leading multinational companies. Rotam sells branded finished products in over 60 countries through a network of strategic partnerships with national distributors and dealers. Each regional office has logistics and finance teams along with sales, marketing and technical support.



Region	Website	Countries	E-mail
Headquarters	www.rotam.com	Hong Kong - China	contact@rotam.com
China – P.R.C.	www.rotamchina.com	China	contactcn@rotam.com
Europe	www.rotam.co.uk	UK	contactuk@rotam.com
	www.rotamfrance.com	France	contactfr@rotam.com
North America	www.rotamnorthamerica.com	USA	customerservice@rotamnoram.com
		Mexico	contactmx@rotam.com
Southern Cone (Brazil/ Argentina/Chile)	www.rotambrasil.com.br	Brazil	rotambrasil@rotam.com
	www.rotamargentina.com.ar	Argentina	contactar@rotam.com
	www.rotamchile.com	Chile	contactcl@rotam.com
Latin America North (Andean Region/Central America)		Colombia	contactco@rotam.com
		Central America/Caribe	contactcr@rotam.com
		Venezuela/Ecuador/Peru	contactvep@rotam.com
Sub-Saharan African		Kenya	contactke@rotam.com
West Africa		West Africa	contactwa@rotam.com
North Africa, Middle East		North Africa	contactna@rotam.com
		Egypt	contacteg@rotam.com
		Turkey	contacttu@rotam.com
Russia and CIS		Russia	contactru@rotam.com
Asia Pacific		Asia Pacific	contactap@rotam.com

## Leading Distributor in China

Rotam has a Leadership position amongst crop protection chemical distributors in the Chinese “International Brands” market, ahead of several large cap multinational chemical companies. Rotam distributes own brands, leading multinational company brands and some other co-branded products. Partner companies entering China through the help of Rotam distribution system often rely on Rotam manufacturing services to manage costs.

## China Marketing Activities and Product Portfolio

Disease and Pest Management by month, from early stage to post harvest treatments



Guidebook for post harvest treatment

Distribution and Marketing for Leading Multinational Company and Rotam Brands



## Strong Technical Support to Dealers, Retailers and Farmers

Field Days with Anti-Fake Training Program



Factory Visit and Seminars



Rotam CropSciences has rapidly expanding sales in the EU, having started its registration process in 2004. Rotam Europe operates from 2 Hubs: one in UK and one in France, and manages an expanding portfolio with a range of new herbicides and fungicides based around innovations on off-patent chemistry. As of 2010 Rotam has committed more than €20 million into ongoing product registrations across Europe and will continue to develop new products to provide cost-effective solutions to growers. The aim is to develop the products in the European crop protection market and, with key distribution partners, optimize business opportunities by offering a complete package of products and technical support for growers.

## Strong Technical Support and Marketing Activities in the EU market

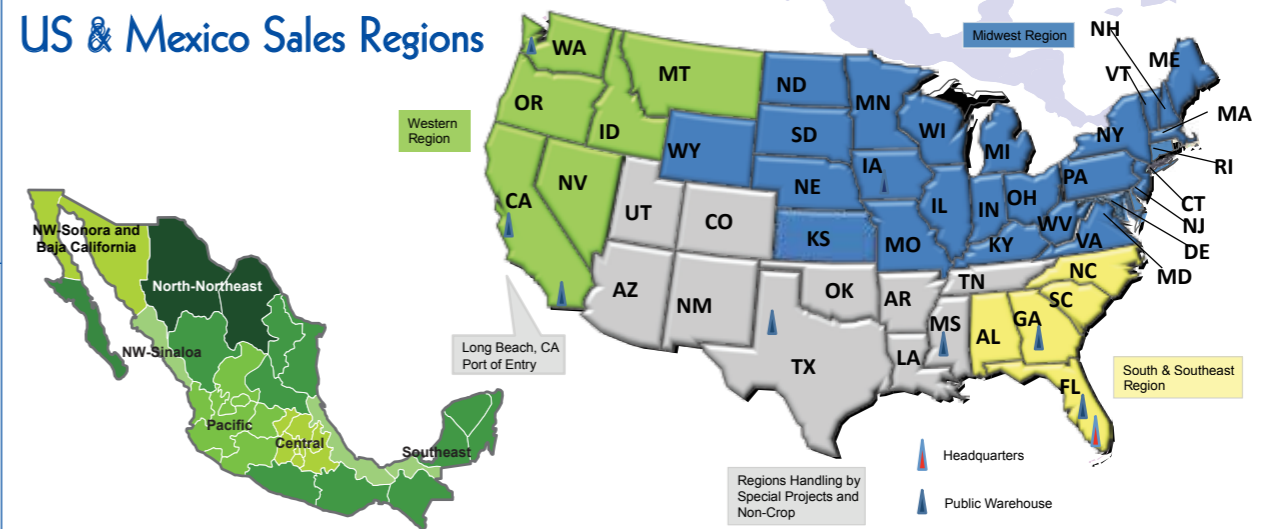


## Key Labels in EU



Rotam North America covering US, Mexico and Canada was established in 2006 with Headquarters in Miami, Florida and Mexican operations based in Guadalajara. It offers a strong portfolio of herbicides, insecticides, and fungicides including a line of sulfonylurea products, imidacloprid, abamectin, tebuconazole, and more. Rotam North America constantly strives to bring new effective chemistries to the market in both the agricultural and professional non-crop industries. Since 2006 it has developed 14 branded products in US and 25 branded products in Mexico with a strong pipeline of projects. It is committed to providing customers with high performance products at competitive prices. Rotam North America provides a solid distribution network for timely delivery, with strategically placed products in key growing areas and technical sales representatives who are well experienced in the field to meet customer needs at all levels.

## US & Mexico Sales Regions



## Marketing Activities



Exhibition in Mexico

Leaflet & Advertisement in US

## Key Labels in North America





Rotam Brazil, established in 2003, is continuously investing in local product development with 19 branded products registered as of 2010. Key crops segments are sugarcane, soybean, corn, cotton, wheat and vegetables. Since 2003 a professional marketing and distribution platform has been set up, supported by strong local technical service and product development teams. Rotam Brazil has a strong product pipeline with a further 25 products rolling out over the next 3 years, providing additional solutions and efficient tools to cater for the needs of Brazilian growers. This is further enhanced by Rotam's Research Station at a 15 Hectare site in Artur Nogueira County which generates high quality field data for keys crops like soybean, corn, sugarcane and vegetables.

## Proactive Marketing Strategies and Promotional Campaigns

Product Launching



## Extensive Technical Support Service



## Key Labels in Brazil

**SALUZI 600 FS**      **RODAZIM 500 SC**  
**SADDLER 350 SC**      **ODIN 430 SC**  
**HEXANIL 750 WG**      **BAZUKA 216 SL**

## Sales Operations & Logistics

Regional distribution and production Hubs are linked by a strong Sales Operations & Supply Chain Structure handling over 3500 SKU's with pack sizes ranging from 10 g sachets to 1000 L returnables. We supply Branded Finished Products to over 60 countries globally with local customer service teams in all Regions ensuring our Customers get Service close to Home. Safe and Efficient Delivery is our goal but we understand our products are seasonal so we ensure our service is Responsive and Flexible. Strong integration with Quality Management is fundamental to our Sales Operations; Quality Always Comes First.



## Production Facilities

Rotam combines R&D, production and packaging into a synergistic structure. We link competitive locations for production in terms of raw materials and industrial infrastructure with industry-leading manufacturing technology and quality standards (i.e. ISO, GMP).

Rotam's production facilities feed its global distribution network with value-added, specialized products which always come with dependable quality.



Hi-tech waste-water processing with Biological treatment facility to minimize the environmental impact



## Rotam receives benefits and innovation from Pharmaceutical crossover technology including:

- Formulation technology and delivery systems



- Active Isomer Selection and impurity removal in complex biological compounds (like Romectin™)



- Closed Environment Manufacturing; Clean Room technology preventing cross-contamination of highly active molecules



Clean Room technology preventing cross-contamination of highly active molecules

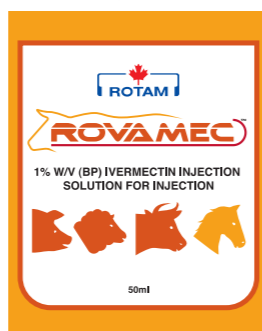


Closed Environment Manufacturing

- Fermentation technology; microbial strain enhancement and yield maximization

- Compliance with Good Manufacturing Practice (GMP) Standards

- Veterinary Product Development



## CropSciences Division



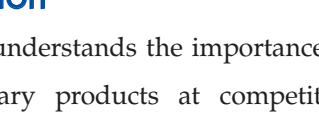
Rotam has an extensive range of products to provide all-round solutions for farmers ranging from Insecticides, Fungicides, Herbicides and Plant Growth Regulators.

Below are some of our product range which we are supplying worldwide including USA; European Union; Mexico; Brazil; Asia Pacific and etc.

## INSECTICIDES

Common Name	Product Name	Photo
	Abacus	
Abamectin	Safran	
	Acaramik	
Imidacloprid	Imaxi	
Methomyl	Kuik	


## FUNGICIDES

Common Name	Product Name	Photo
Tebuconazole	Toledo	
	Icarus	
Carbendazim	Rodazim	
Chlorothalonil	Morfus	
Metalaxyl + Copper Oxchloride	Milor-Cu	

## HERBICIDES

Common Name	Product Name	Photo
Nicosulfuron	Primero	
	Bandera	
Thifensulfuron	Volta	
Metsulfuron	Deft	
	Rometsol	

## PLANT GROWTH REGULATORS

Common Name	Product Name	Photo
Mepiquat	Roquat	



## Veterinary Division

Rotam CropSciences understands the importance of high quality Veterinary products at competitive pricing. Today's Livestock producers are faced with ever increasing demands to ensure their output is of the highest quality and safe, while remaining affordable to the consumer. Rotam's manufacturing facilities are of GMP standard, delivering consistent quality for high performance products at competitive pricing to farmers and pet owners across the world.

From our origins in developing unique Ectoparasites products for Dairy and Beef Cattle, we have now expanded our range through development of a series of affordable companion animal products (for dogs, cats, horses). These are based upon industry leading active ingredients in which Rotam has an existing global sales footprint in Crop and Non Crop Sectors and an integrated manufacturing position.

Rotam's Veterinary Division is a leader in the control of Ectoparasite's (Acaracide's) and is keen to develop new and better ways to prevent disease's spread by Ectoparasite's in Cattle, Sheep, goats, pigs and dogs; by developing new combinations and superior delivery systems.



Active Ingredient	Product Name	Photo
Deltamethrin 5% EC	Notix	
Amitraz 12.5% EC	Tifix	

# Public Health

Public Health and Structural products are an investment focus for Rotam CropSciences with good scope for growth. Research, Development and Enhancement resources are allocated to the Public Health Division to improve our living environment through the prevention and treatment of insects. Crossover technology developed originally by the pharmaceutical and crop protection business units allow Rotam to provide innovative and cost effective products to improve our daily lives in the areas of:

- Control of diseases vectors e.g. mosquitoes, flies, etc.
- Control of general crawling and flying insects e.g. cockroaches, flies, ants, weevils, lice, etc.
- Control of termites in, on or around structures
- Hygiene improvement



## A Range of Products are available built around the following active ingredients

- Imidacloprid: A termiticide for control of subterranean termites in pre and post constructions, buildings, forestry and treatment of termite colonies.



- Chlorpyrifos: A broad-spectrum insecticide for use in public health against termites in constructions, buildings, mosquitoes in bushes and stagnant water.



- Deltamethrin: An insecticide for use on indoor residual sprays against mosquitoes, cockroaches and houseflies in and around private homes and dwellings, offices, shops, hotels, restaurants, food storage premises and warehouses, factories and other commercial buildings.



The products above are registered using various brand names in different regions, please consult the Regional Offices for details on the product recommendation and use.