













#### Achieve an injury-free workplace



Increase revenue derived from products that create a sustainability advantage



Continue to cultivate a work environment that is ethical, supportive, and provides opportunity for professional and personal growth of employees



Minimize the overall impact of FMC operations and supply chain



Engage with the communities where we live and work to create positive change



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#### SAFETY SHARE...

At FMC, it is our goal to have safety permeate the minds and actions of every employee. To keep safety top of mind, we start every meeting with a safety share. Here's one: Be a steward of safety at work, at home and everywhere in between. When you see a potential hazard – an awkward floor mat, broken glass not wrapped before disposal, a colleague who forgot to wear goggles or gloves, or ice in a foot traffic area - take the time to make the situation safe for yourself and others.

"Last year, we made a choice to make sustainability an explicit part of our business processes. We've made great progress infusing sustainability into our strategic planning, into management decision tools and, most importantly, into our corporate culture. We thank our many stakeholders who actively collaborate with FMC. Together, we will continue to create positive change."

Tom Schneberger Global Sustainability Director FMC Corporation



# INTRODUCTION

# FORWARD LLL

# OUR FOCUS ON SUSTAINABILITY

When FMC publicly announced in 2011 that "We've Made A Choice" to actively pursue sustainability principles, we articulated our ambition to advance sustainable innovation, operations and business practices as we seek to grow and improve the quality of people's lives everywhere. This publication, FMC's second sustainability report, fulfills our pledge to transparently share our progress.

Last year, we committed to make sustainability an explicit part of our decisions. So, in 2012, we began adjusting several long-standing business processes to address sustainability consistently across our worldwide operations. As we enter 2013, we will continue to assess and adjust how we do business.

#### 2015 Goals and Beyond

This report provides our first set of measurable 2015 targets that address several areas of sustainability companywide. These targets are important milestones, guiding our work with stakeholders and communities to advance a specific and shared set of sustainability goals.

We invite you to read more about how we are making our daily decisions with a mindset focused forward on creating shared value for FMC and our global society.

#### **Shifts That Shape the Future**

As a leading specialty chemical company, FMC is in a unique position to positively impact some of the world's biggest challenges through our products, solutions and services. As an example, the combined efforts of many organizations have kept the world on track to deliver on the United Nations' Millennium Development Goal to "halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day." Yet progress stalled on a second, related goal to "halve, between 1990 and 2015, the proportion of people who suffer from hunger." 1 FMC technologies are helping reduce global hunger by improving everything from the yield of field crops, to the efficacy of animal nutrition, to the development of food ingredients and food safety.

We are actively refining our business processes and corporate culture to implement ideas that specifically address societal needs while strengthening our position as a leader in the markets we serve. To stimulate the innovation of products that create a sustainability advantage, last year FMC identified five market-shaping shifts. We challenged our businesses to focus on these areas in their ongoing innovation efforts.

Those five market shifts are described on the following page,

<sup>&</sup>lt;sup>1</sup>Fact sheet, United Nations Summit re: progress against MDG, September 20, 2012



#### MARKET SHAPING SHIFT #1:

#### **Environmental Consciousness**

There is a growing desire for increasingly safe and environmentally benign materials.



#### MARKET SHAPING SHIFT #2:

#### Scarce Resources

A growing population is increasing the demand for energy, water and other basic resources.



#### MARKET SHAPING SHIFT #3:

#### Climate Change

As efforts to cope with greenhouse gas and other emissions become more aggressive, the impact on high-intensity industries will increase.



#### MARKET SHAPING SHIFT #4:

#### Land Competition

Increased agricultural efficiency will be required to produce crops, biofuels, biotextiles and bioplastics.



#### MARKET SHAPING SHIFT #5:

#### Food & Health Expectations

A growing population will require increased food production, accessible healthcare and more nutritious foods to meet the rising expectations of an expanding middle class.

#### **ORGANIZATIONAL**

# **PROFILE**



#### FMC BUSINESS GROUPS AND PRODUCT LINES: FOCUSED ON THE RIGHT CHEMISTRY

FMC Corporation is a diversified specialty chemical company serving leading businesses globally. We maintain strong market positions in a variety of sectors that are served by our three principal business units: Agricultural Products, Specialty Chemicals and Industrial Chemicals.

At our most fundamental level, we are in the business of feeding the world, protecting health, and providing the conveniences of life. The challenges of satisfying these ever-expanding needs fuel our progress and compel us to remain focused on developing the right chemistry for these purposes.

Our chemistry solutions improve the delivery of medications; enhance foods and beverages; power batteries; protect crop yields, structures and lawns; and advance the manufacture of glass, ceramics, plastics, pulp and paper, textiles and other products. Our application of technology – guided by research and development as well as collaborative customer and supplier partnerships – delivers innovative ways to address some of the world's most critical challenges.

Our global sales in 2012 surpassed \$3.7 billion. We are listed on the New York Stock Exchange as "FMC."

2012 Revenue by Customer Location

(in millions)

#### \$1,299 **FMC Global Workforce by Region** (35%)(5,700 employees globally as of December 31, 2012) \$1,179 48% (31%) \$652 (17%)**\$619 North America** 21% Latin America 17% **FMFA** 14% Asia Pacific

#### CHIEF EXECUTIVE OFFICER



Last year, FMC proudly stated that we "made a choice" to embrace sustainability as an integral part of how we do business. While we've operated in a sustainable manner for years, we recognized the need for a coordinated and strategic approach across our company to meet the global challenges around food, energy and the environment. So we charted a focused course to integrate sustainability into the fabric of our company.

As you will see in the following pages, we've made great progress. Our employees are embracing the principles we adopted last year. We're collaborating with our customers, partners and other stakeholders to ensure we develop and produce new products that solve global challenges. And we now use new sustainability processes to guide our business decisions.

We've established and track standardized metrics in innovation, operations and business practices and have set targets that will be shared publicly in this report. For example, by 2015 we've committed to focus 50 percent of the company's R&D spending in areas that address societal needs. This and similar commitments are increasing our momentum.

FMC is actively addressing food and health expectations by increasing crop yields, advancing animal nutrition, enhancing the stability of foods and improving food safety. We're developing biological-based crop protection products from natural, renewable sources. We're expanding our global network of food laboratories to meet the rising demand for more nutritious foods, especially in rapidly developing economies, while also increasing our platform of natural materials for food, pharmaceutical and biomedical uses.

We continue to make important strides internally. I'm pleased to report that we had fewer injuries in 2012 compared to the year before. In fact, we recorded our lowest injury rate in over a decade. We also launched a Manufacturing Excellence initiative across the company in 2012 that is improving our production processes while reducing environmental impacts. And we are more efficiently and responsibly managing our procurement worldwide through master data management and global standard processes driven by technology.

Our long-term performance and the company's Vision 2015 growth goals depend on sustainability. It is the right focus and the right path forward for our collective future.

Sincerely,

President

Pierre Brondeau

Chief Executive Officer and Chairman of the Board



# A FEW WORDS TO OUR STAKEHOLDERS

**To customers:** We are committed to product innovation and developing new applications for existing products. We believe our sustainability efforts provide exciting opportunities for new, high-performance products.

**To employees:** The pursuit of sustainable practices unites FMC people around the world, accelerating our efforts and increasing our competitive advantage. Your collective efforts are appreciated.

#### To communities and interest groups:

A constructive dialogue on sustainability issues helps improve performance. One of our commitments is to increase FMC's engagement in the years to come.

#### To suppliers and business partners:

We invite you to collaborate with us in developing the best solutions that will help us grow in a sustainable manner.

**To investors:** We believe sustainability creates value for shareholders. Through our efforts to recruit top talent, introduce new products, improve efficiency, and expand operations globally, we are already seeing our sustainability efforts pay dividends.

**To our elected officials:** We depend on your leadership to manage policy in a manner that fosters innovation and continued investment.



On April 30, 2013, FMC announced a realignment of the company's portfolio around three core platforms: FMC Agricultural Solutions, FMC Health and Nutrition, and FMC Minerals. The company is also exploring the divestiture of its Peroxygens business, including select Environmental Solutions product lines and related assets. Follow the QR code to learn more about these important changes.

# FMC BUSINESS GROUPS AND PRODUCT LINES



#### **Agricultural Products**

Main product lines: herbicides, fungicides and insecticides

2012 Revenues:

\$1,764

47%

MILLION

of FMC total



#### **Specialty Chemicals**

Main product lines: lithium, microcrystalline cellulose, carrageenan, alginates, natural colorants and pectin

2012 Revenues:

\$914

24%

MILLION

of FMC total



#### **Industrial Chemicals**

Main product lines: soda ash, sodium bicarbonate, peroxygens, persulfates and silicates

2012 Revenues:

\$1,076

MULLION

29%

# 2012 ECONOMIC HIGHLIGHTS (in millions)

#### **Income Statement Data**

Revenue	\$3,748
Costs of Sales and Services	\$2,407
Research & Development	\$ 118
Adjusted After-Tax Earnings	\$ 483

#### **Payments to Providers of Capital**

Interest		\$	36
Dividends		\$	48
		\$	84

Capital Additions

\$ 225



FMC's sustainability goals are aligned with the company's Vision 2015 plan, a strategic roadmap crafted in 2010 to broaden opportunities for our customers, shareholders and employees, as well as to strengthen our position in the global marketplace. Because we recognize our continued viability and growth as a business must deliver both shareholder value and societal value, we are focused on incorporating sustainability into our innovation, operations and business practices.

In the past, FMC businesses made impressive independent strides to advance sustainability. Today, our coordinated "One FMC" approach enhances the scope and durability of our sustainability impact across the corporation.

In 2012 we established implementation teams in each business, function and region, as part of our commitment to make sustainability a real and measurable component of our business companywide. We also formed an executive steering team to prioritize efforts, approve changes to key business processes and allocate resources. And ultimately all sustainability efforts are governed by the FMC Board of Directors Sustainability Committee, which provides strategic oversight.

#### **Implementing Systems for Success**

Within our first full year of operating with this new structure, we adjusted our processes for innovating products, evaluating vendors, interacting with stakeholders and engaging with the communities where we do business. In addition, we updated our business Code of Ethics to clarify our position on human dignity practices.

The impact of these foundational adjustments has only just begun. As we enter 2013, we are becoming more efficient and more effective with our newly altered processes – which will continually be accessed and refined. And we are already evaluating the next series of processes to further integrate FMC's sustainability principles into our business equation.

#### **Setting Meaningful Targets**

As we increased engagement with internal and external stakeholders over the past year, a common theme soon emerged. We heard repeated compliments on our progress and thoughtful approach, but many sought forward-focused commitments that are tangible and measurable.

Like many global corporations, FMC faces a significant challenge in standardizing and effectively forecasting non-financial performance metrics across a global network of different operations. But now, with a sustainability infrastructure in place, movement on new business process elements, and a system for the regular collection of standard non-financial information on a common basis from business operations worldwide, we are ready to make the commitments outlined in the following pages.



View our approach, vision and organizational structure online.



#### FORWARD TO 2015



1. FMC is dedicated to achieving an injury-free workplace. Nothing is more vital to our sustainability than keeping each other safe. So our intermediate target, by 2015,

is to reduce the total recordable incident rate by at least 50 percent when compared to 2011. Measure our progress in the Fostering Safety section.



2. FMC will increase the portion of our revenue and profits derived from products and services that address societal needs. By 2015, at least 50

percent of our total R&D spend will focus on new solutions that positively impact the five market-shaping shifts identified on page 2. *Measure our progress in the Growing Innovation section*.



3. FMC is committed to efficient operations in our facilities and throughout our supply chains. While each business is managing efforts to enhance and streamline

operations, we have launched new programs to accelerate improvements, specifically in energy and waste efficiency. *Measure our progress in the Minding Our Resources section*.



4. FMC is devoted to maintaining positive, transparent community relationships and will steadily expand community engagement efforts. We depend on the

mutual trust, cooperation and respect extended between FMC and the communities in which we operate. In support of such relationships, we will track specific interactions with surrounding communities each year and increase our Global Community Engagement Index to 90 or higher by 2015. Measure our progress and see a more detailed explanation of the index in the Cultivating Community Partnerships section.

We are not resting, but increasing our focus to achieve higher standards every day. These are our key targets for 2015.

### Total Recordable Incident Rate

Read more in Fostering Safety section.

GOAL FOR 2015
≤ 3 7

R&D Spend Targeted To Impact Market Shaping Shifts Read more in Growing Innovation section.

#### Community Engagement Index Value

Read more in Cultivating Community Partnerships section. GOAL FOR 2015

≥90 OUT OF 100

Sustainability is becoming an integral part of how we do business worldwide. Throughout this report we include examples to illustrate the progress we made toward achieving the above targets. While we are proud of the strides made during 2012, we also recognize and accept the challenges to come in the weeks, months and years ahead.





We believe nothing is more important than the safety of people. And first and foremost, we are a company of people.



The safety of employees, customers, business partners and the public is one of our most important core values. We are determined to achieve an injury-free workplace. We know it will take time, effective systems, a steady focus and the total commitment of every employee to make it happen. As an intermediate target, we will work to at least halve our Total Recordable Incident Rate (TRIR) by 2015 compared to 2011. Although this goal is aggressive, particularly as FMC continues to expand worldwide, it is clear that our employees are embracing this important challenge.

#### **Safety Performance Status**

In 2011, the number of recordable injuries at FMC took a disappointing turn. We entered 2012 with a sense of urgency to assess our safety programs, refocus employee attentiveness to safety, and return to a positive trajectory of improvement.

We made significant adjustments to several safety processes in 2012 to heighten awareness, regain commitment and provide new tools that help us track and improve occupational safety.

These changes are already producing positive results. In 2012, FMC improved its TRIR by 15 percent compared to 2011 (see Safety Performance Indicators in adjacent table). This demonstrates only part of an important turning point in 2012.

FMC also saw 60 percent fewer recordable injuries in the second half of 2012 compared to the first half. Moreover, in January 2013, FMC achieved an important milestone: one full month without a single recordable injury at any of our

sites worldwide. This fact illustrates to all of us that an injury-free workplace is more than a lofty idea; it is clearly an achievable reality that we will relentlessly pursue.

#### **Safety Performance Indicators**

	2010	2011	2012
Total Recordable Incident Rate (TRIR)	.70	.74	.63
Lost Workday Case Incident Rate	.21	.33	.21
Work-Related Fatalities	0	1	0
Number of Significant Process Safety Incidents*	0	0	0

\*Defined as ACC Tier 1 & 2. For more information visit our Data Center at www.fmc.com/sustainability

#### A New Era of Safety

Our 2012 safety progress was driven by a new, coordinated campaign called "Th!nk. Safe." This program works to create a culture in which employees raise their safety consciousness in all areas of their lives – at work, at home and on the road.

The program is grounded in a "safety manifesto" (see image to left) that drives employees to be aware of their environment and alert to hazards and behaviors that may affect their own and others' safety.

#### **Reviewing Safety Measures**

FMC reviewed its safety policies, procedures and systems across all company facilities, sought input from industry peers, and applied best practices to revise corporate environmental, health and safety standards for its global operations. We also increased communications to share experiences and effective practices related to safety.

All employees now receive a weekly EHS newsletter that comes directly from the vice president of operations. This newsletter includes performance updates as well as tips and advice regarding both safety and environmental awareness.

When an incident does occur, a Learning Review is conducted with senior management after the incident investigation is completed. Facts about the incident, including root causes, contributing

# At FMC, we believe safety is a value that can only be real when it becomes a personal value, an idea reflected in our new safety name and logo. TH!NK SAFE connects every FMC employee and relates the practice of safety to manufacturing and nonmanufacturing operations.



#### A SYMBOL WITH MEANING



Bold target icon is easily recognizable.



Individual ownership as central element.



Safety is all in the head.



Broadcast waves emphasize sharing.



Easy-to-remember name. Embedded call to action.



Works in many languages.

causes and key corrective actions, are discussed and put together in a form that can be shared with all employees.

#### Sharing Best Safety Practices Globally

Every quarter our sites now participate in a global safety conference call to share safety lessons learned across the company. Site leaders discuss injuries, near misses, and other experiences that can help provide insight into measures that can be taken to prevent similar occurrences elsewhere. The ultimate goal is to learn from one another's experiences and improve our collective safety awareness and performance.

#### **Our Safety is in Our Hands**

In assessing safety throughout FMC, we noticed the most frequent incidents involved employees' hands – more than twice the amount of the next most frequent type of injury. To address this issue, we instituted new glove and blade policies in 2012, providing a list of eight glove types that are approved for different types of jobs. Since

introducing the new policies, we have reduced recordable injuries to hands by 28 percent over the previous year.



During 2012, we established a specific focus on improving safety among non-manufacturing employees. While non-manufacturing environments typically pose lower safety risks than our production sites, 22 percent of our 2012 recordable injuries occurred at non-manufacturing locations. This effort is led by FMC's executive vice president and general counsel, demonstrating shared responsibility for driving safety improvement without functional or hierarchical boundaries.

#### **Process Safety Performance**

FMC has internal definitions for process safety incidents that are useful for driving improvements in our operations. Because these definitions are specific to FMC, we have decided to begin reporting externally in accordance with the more widely known American Chemistry Council (ACC) definitions\*.

While FMC had no significant ACC process safety incidents to report in 2012, minor incidents did occur. FMC sees all process safety events, even near misses, as an opportunity to learn. By fully investigating each event and determining actions to avoid future occurrences, we will achieve our safety goals and retain the trust of the communities surrounding our facilities.

An example occurred on September 9, 2012 at our Tonawanda, New York, manufacturing plant. The plant experienced a minor process incident leading to a small chemical decomposition. Our plant operators assessed the situation and quickly followed our response protocol, which included a request for the fire department to respond. All chemicals were fully contained. However, some

<sup>\*</sup>More information about data, including definitions, can be found at www.fmc.com/sustainability/datacenter.aspx

media outlets incorrectly reported that a fire had occurred.

FMC realizes that in this age of social media and instantaneous information, it is important to communicate factual information as quickly and broadly as practical to prevent misunderstandings and unnecessary concerns. Tonawanda's incident investigation identified the need to update FMC's communication plans in addition to actions that will prevent future occurrences of this type of incident.

As a result of this important lesson learned, FMC is working to make sure we have the infrastructure to quickly engage local media to ensure our local stakeholders have accurate and timely information. We would be pleased to hear any other ideas on how FMC might communicate with our surrounding communities. Such ideas can be emailed directly to sustainability.info@fmc.com.

#### **Food Safety and Supply**

In addition to focusing on our own safety, FMC provides technologies that contribute to a safe and sustainable food supply – from increasing crop yields, to creating more nutritious products, to removing the need for refrigeration in the supply chain and protecting food from harmful bacteria.

Too many instances of sickness are caused by microbial contamination. To address this issue, FMC provides cost-effective solutions that protect the food supply. These products are highly effective and break down into environmentally benign substances, offering a sustainability advantage over other commonly used antimicrobial solutions.

In addition to protecting human health, these products help reduce the amount of food that goes to waste throughout the supply chain. Examples of FMC microbial products include the following:



Our Spectrum® program uses antimicrobial agents to fight product spoilage or decay on processed poultry. Spectrum enables processors to achieve the most stringent USDA Tier 1 standards due to its performance in reducing pathogenic bacteria such as Salmonella spp., Campylobacter and E. coli.

#### **VigorOx®**



VigorOx® 15 F&V reduces decay and spoilage, as well as pathogenic bacteria on fruits and vegetables.



Blitz™ peracetic acid for red meat provides an economical solution for reducing contamination from pathogenic bacteria, including E. coli O157:H7 and Listeria monocytogenes.

#### **Aseptic Packaging**

Global demand for a wider variety and availability of consumer beverages packaged for convenience, shelf life and portability continues to grow. To ensure freshness and safety, many beverages must be packaged aseptically to eliminate the presence and growth of mold and bacteria. FMC has engineered chemistries to respond to the demands of aseptic packaging processors worldwide.

Our engineers and scientists developed a technology that vaporizes peracetic acid (PAA) to sterilize plastic bottles and cartons in a unique and highly efficient manner. This technology combines the benefits of traditional PAA rinse systems with the latest advancements in hydrogen peroxide vapor systems, reducing energy costs and water consumption. The new technology leaves minimal residue on the filling equipment, resulting in less production downtime for cleaning and maximizing the production site's output efficiency. We believe adoption of this technology will steadily increase, particularly in rapidly developing economies.

#### **Product Safety and Stewardship**

FMC has long supported ACC's Responsible Care® program, an industry initiative to improve environmental, health, safety and security performance. Over the past two years, FMC worked with other ACC members on a strategic review of the existing Responsible Care program, which has served the chemical industry well for more than a quarter century.

This collaboration resulted in recommendations to improve Responsible Care with two new codes covering product and process safety, both of which were approved by the ACC at the end of 2012. Compliance certification for the two new codes will be phased in from 2014 to 2016.



#### Training Farmers on Responsible Product Use

FMC's focus on safety extends throughout the product lifecycle: from design through development, manufacturing, distribution, storage and end use. We provide technical and safety information as well as training at each phase to foster careful use and stewardship of our products.

Last year alone, our Agricultural Products Group (APG) trained over 2 million farmers on the responsible and effective use of our products. We deliver this training through farmer meetings, educational materials and technical programs. APG tailors such efforts to different regions of the world to focus on the stewardship issues most pertinent to each locale and to relay messaging most effectively for the given audience.

For example, in Indonesia, APG aims its safety training at the importance of backpack sprayer maintenance and calibration. The program covers the risks associated with improper maintenance, the potential economic losses from using too much or too little product necessary to control pests and the related potential of crop failures. These issues resonate with farmers.



Across our global workforce, safety is an everyday practice – at work, at home and everywhere in between. Wearing the appropriate safety gear for one's specific job function is a fundamental safety practice.

In 2013, FMC will focus training on a product stewardship challenge faced by the entire agricultural products industry – secure storage and container management. Proper and secure storage helps make products accessible only to those who need to use them for their intended purpose and helps guard against both unintended and illegal use. Proper container management training is important to ensure that after a product is used, the associated container and packaging are disposed of responsibly. Training will focus on the Asia and Latin America markets. Topics will include how to securely store agricultural products and the appropriate treatment of used packaging containers through triple rinsing as well as the responsible disposal or recycling of used packaging containers.





During the final quarter of 2012, all FMC facilities participated in the 'Finish Strong' campaign, an initiative bridging safety and community engagement. Facilities received a drawing entry for each month with zero work injuries. Winners received grants that were donated to a community cause of their choice. Our site in Lahore, Pakistan, won the grand prize, which was used for supplies, staff salaries and scholarships at three local schools.

#### **Taking Action Against Product Misuse**

We closely monitor the end use of our products and take action when required. In last year's report, we discussed the issue of East African cattle herders misusing our product, Furadan 5G® granular insecticide, to harm lions that feed on their livestock. In this particular case we concluded that our stewardship programs could not adequately reduce the risk of improper use and we stopped distribution and sales to Kenya, Uganda, Tanzania and South Africa, along with taking other precautionary measures.

Luke Hunter, president of Panthera, the world's leading organization devoted exclusively to the conservation of wild cats and their ecosystems, recently commented on FMC's management of Furadan 5G distribution: "I have been greatly heartened by FMC's response to the 'Furadan issue' in Africa. When it became clear to FMC's assessors that it was simply impossible to prevent the misuse of Furadan 5G in remote parts of rural Africa, the company's reaction was impressive. Buying back the product and halting distribution permanently has effectively removed Furadan from the equation. Unfortunately, livestock owners across Africa will always find ways to kill lions and other carnivores, but FMC can be proud that predators will not die from Furadan poisoning. FMC's commitment to sustainability goes deeper. By supporting the Lion Guardians – former lion killers who are trained as para-biologists to help their communities avoid conflict with lions – the company is helping Panthera develop methods to improve the ability of rural people to co-exist with carnivores in the long term. So FMC's consistent support has not only removed the abuse of Furadan 5G, but also helps target the underlying reasons why people want to kill lions in the first place. As a pragmatic, conservation scientist, it

"As a pragmatic, conservation scientist, it is very gratifying for me to work with FMC on resolving complicated problems where the needs of people and wildlife collide."

Luke Hunter, PhD President, Panthera

is very gratifying for me to work with FMC on resolving complicated problems where the need of people and wildlife collide. The FMC-Panthera collaboration is a wonderful model of finding those solutions."

#### **Safety Inside and Out**

We know we must extend our focus on safety beyond the way we work and the products we produce by demonstrating safety leadership in the communities where we live and operate.

FMC employees take pride in applying their knowledge and skills to make their communities safer (read more in the Cultivating Community section). We collaborate with our neighbors on a range of projects, from producing regional safety awareness newsletters in Newark, Delaware, to discussing the importance of safe driving with high school students in Ungaran, Indonesia, and leading the sharing of safety guidance and best practices with neighboring companies in Zhangjiagang, China.

As our "Th!nk. Safe." manifesto proclaims: "We believe we all need each other to be truly safe. Each of our futures is connected and codependent. No one is safe until everyone is safe."



Luke Hunter with colleagues Joel Ziwa and Mustapha Nsubuga place a radio collar on a sedated lioness in Uganda. ©Andy Plumptre/WCS







Our focus on developing products that create a sustainability advantage will amplify our ability to create shared value for all FMC stakeholders.

FMC's 2011 Sustainability Report mapped our core capabilities to the five identified marketshaping shifts to emphasize the many ways FMC has a meaningful impact on these societal challenges. More than challenges, however, we see these shifts as clear opportunities to serve our customers' needs and drive demand for solutions FMC is uniquely capable of providing.

By focusing on these five global trends environmental consciousness, scarce resources, climate change, land competition, and food and health expectations – we have developed a common framework for our businesses to assess which products and services create a sustainability advantage. In 2011 we determined that 36 percent of our research and development investment was directed towards addressing at least one of these market trends. So we challenged ourselves to do more. By 2015, we intend to focus at least 50 percent of our R&D spend to address these societal needs.

The following pages feature specific examples of our work in these areas – from the launch of a new business division focused on products and technologies that address air, water and soil remediation challenges – to the expansion of our food product offerings that help meet the demands of the world's growing population. We believe this intentional investment focus will amplify our ability to create shared value as these trends become increasingly important to our customers, our communities and each of our businesses.

#### **Assessing Sustainability Advantages**

In 2011, we defined a "product that creates a sustainability advantage" as one that provides a measurable improvement over existing market solutions – by addressing at least one of the five identified market-shaping shifts – without retreating in performance against any of the others. We then charged each of our businesses with the responsibility to develop an assessment tool that would hold us accountable to our definition.

This mindset has quickly been adopted and has aligned our collective efforts as we evaluate new opportunities. As an example, recent scientific research provided FMC with an opportunity to turn a byproduct from our Norwegian alginate facility into a beneficial product for human health. In an analysis of fucoidan – a substance derived from brown seaweed – researchers discovered health-enhancing benefits for immune and digestive systems. Now, through a modification to our manufacturing process, we can isolate and capture fucoidan for commercial sale as a new product. FMC will launch ProtaSea™ fucoidan in the United States during 2013.

"Our sustainability assessment tool has been helpful in guiding our product development processes. As a result of explicitly considering sustainability from the outset of a project, we are finding more ways that we can impact the market shaping shifts and spending less resources on projects that are determined to be counter to these trends"

#### Jim Walter **Director of Technology Scouting for FMC Agricultural Products Group**

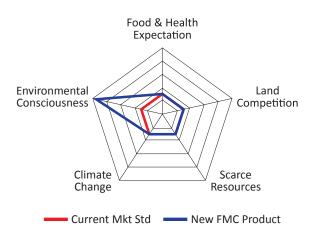
We are also making strides in another health arena, drug safety. In 2012, we launched new products for pharmaceutical customers, including Aquacoat® ARC, an innovative coating that improves patient safety by controlling the time-release dosing of drugs in the presence of alcohol. This product will provide another tool for pharmaceutical companies to get new, beneficial drugs approved.

#### **Product Innovations: From Concept to Market**

While increasing the share of R&D investments focused on the five market-shaping shifts, we have also adjusted our process to bring new products from concept to reality. By innovating based on the cited market shifts, we can identify more unique solutions that are highly valued by our customers. These criteria spur new ideas and allow clear, consistent evaluation of product potential. Most importantly, they enable richer conversations with our customers during the product development phase, as many are attempting to create offerings that answer these same market trends.

Such sustainability-driven process improvements enable us to identify and advance projects that create a sustainability advantage more quickly, while imposing a higher burden of proof on projects that are counter to our sustainability objectives. We are excited about the resulting opportunities for growth and the social impact we can effect with this focused approach. This effort will help to ensure a robust development pipeline to support the continued growth of FMC in the years beyond our Vision 2015 strategic plan.

Our Agricultural business is introducing several new biopesticides. These materials are derived from plant and/or microbial resources that are renewable and in some cases offer farmers a lower toxicity alternative. We recently introduced Nemix C, a bacterial inoculant that enhances plant growth and yield, and Fracture™, which will be introduced in North America in 2013 to control fungal diseases in grapes. These new products supplement our existing Regalia Max® fungicide, which is derived from the extract of giant rootknot.



Illustrative example of assessment chart from FMC new product development process.

#### **Focus on Environmental Solutions**

Over the years, FMC has developed several innovative technologies to directly address the environmental and remediation challenges faced by our customers. In 2012, we recognized an opportunity to combine these products into a single platform that provides environmental solutions. We started building a comprehensive portfolio of solutions for improving air and water quality and restoring land to productive use.

A good example of how this organizational change and market focus can increase FMC's impact starts with our proven Klozur® persulfate products, mentioned in last year's report. Since its launch in 2005, Klozur has helped customers to cost-effectively remediate more than 1,000 sites globally. Klozur reacts to destroy a wide range of organic contaminants in the subsurface, leaving behind environmentally benign byproducts that support further natural biodegradation. This *in situ* process often replaces the less desirable "dig-and-haul" process that relocates contaminated soil and can increase the potential for human exposure.

Klozur persulfate is an effective solution for many soil and groundwater concerns; however, with a business unit devoted to environmental solutions, we can quickly expand and build on its capabilities. We have already expanded our portfolio of soil and groundwater solutions with the acquisition of Adventus Intellectual Property, Inc. The Adventus line of products complements Klozur and enables FMC to effectively address a wider range of contaminants (such as heavy metals) and site conditions (such as large plumes of contaminated groundwater).

A global need exists for these types of technologies. To support growth outside of North America, in 2012 FMC formed a joint venture with two companies in China. Combining BCEG Environmental Remediation Co., Ltd.'s (BCEER) leading position in China's remediation market with BRISEA Group, Inc.'s capabilities for environmental technology transfer, FMC is poised to introduce a number of cost-effective soil and groundwater solutions to meet the needs of the Chinese market.

FMC also began to build robust offerings in two other target areas: air and water.

#### A FOCUS ON AIR

FMC has been supplying the air pollution market for wet scrubbing and dry sorbent applications used to remove  $SO_x$  and other air pollutants for many years. Recently, we began to focus on reducing nitrogen oxide levels ( $NO_x$ ) through the use of hydrogen peroxide technology. Although the product is still in development, in 2012 we conducted a full scale test at a coal-fired electric utility. We are focused on reaching commercialization of the technology in the near future.





#### Feeding a Growing World

Increased food production and more nutritious foods are essential as the world's population continues to grow. In fact, the United Nations has estimated that the world's agricultural output must double in the next 20 to 30 years<sup>1</sup> to meet the rising demand for food.

FMC is addressing sustainability throughout the food chain in many ways. Our agricultural products help growers increase yields by protecting crops from harvest-robbing pests and diseases. Our food ingredient products help preserve the quality of foods. And our chemistries for food processors ensure the safety of food by protecting against food-borne bacteria.

#### **Crop Protection**

Even with today's available technologies, weeds and pests destroy as much as 40 percent of the world's crops annually.<sup>2</sup> One of the best solutions for sustaining the global food supply is to help farmers increase yields on existing land and reduce their crop losses. Such solutions provide an economic benefit to the farmer while increasing overall agricultural output. At the heart of such solutions are chemistries for crop protection, where FMC plays a vital role.

In the past five years, FMC introduced 120 new agricultural products to help farmers do more with less. And we continue our work on new formulations to satisfy society's evolving needs while delivering higher levels of safety for farmers, consumers and the environment.

 $<sup>^1</sup>http://www.un.org/News/Press/docs/2009/gaef3242.doc.htm \\$ 

<sup>&</sup>lt;sup>2</sup>http://www.croplifeamerica.org/crop-protection/benefits/increase-food-production

Successful field trials in 2012 put us one step closer to offering a new fungicide – called Fracture™ – that will protect tomato, strawberry, grape and nut crops from a range of difficult-to-control plant diseases. This protective product, available in 2013, will help North American farmers deliver higher yields and improve crop quality. The technology makes use of a natural, renewable raw material derived from lupine beans and has lower toxicity than current solutions available to the market.

#### **Natural Ingredients**

A rapidly growing middle class is demanding more nutritious foods and increased convenience. To satisfy these consumer expectations, FMC is exploring ways to supply more food ingredients that are both sustainable and renewable such as carrageenan, alginate, and microcrystalline cellulose. With over 68 years of experience in the business, our expertise helps customers around the world maintain their competitive position in the market using natural ingredients. In addition to addressing consumer preferences, we help our customers use these products to increase the amount of protein in affordable foods and reduce requirements for refrigeration in the supply chain.

As part of a strategic expansion of our natural ingredients business, FMC recently made three acquisitions that enhance our natural food ingredient product portfolio:

- South Pole Biogroup Ltda., a Chilean-based natural color and specialty nutrition ingredients supplier.
- Phytone Ltd., a leading natural colors producer based in the United Kingdom.
- Pectine Italia, a leading Italian-based manufacturer of pectin, a biopolymer extracted from lemon peels that customers use to gel or thicken foods like jams or fruit juices.

Phytone's unique color technology, coupled with South Pole Biogroup's product expertise and our detailed understanding of customers' needs, has enabled FMC to become a leader in the dynamic and growing natural colors market.

Similarly, our entry into the pectin market underscores the company's commitment to broadening our portfolio of natural food ingredients. Our technical teams already work with pectin, so our knowledge, combined with the business assets of Pectine Italia, enables FMC to become an industry-leading pectin supplier.



FMC processes sustainably harvested seaweed – both farmed and naturally occurring – from several sites around the world.

#### WHAT IS CARRAGEENAN?

Carrageenan is a naturally occurring family of carbohydrates extracted from seaweed – highly valued by food companies and their customers for its unique ability to interact with proteins. Using carrageenan, manufacturers can more easily suspend solids in liquids, like cocoa in chocolate milk.

When added to the production process, carrageenan blended with MCC keeps products from separating during unrefrigerated storage. This reduces the need to keep products cold as they move from the warehouse to the display shelf to consumers' homes. In turn, this lower refrigeration requirement reduces cost and creates a smaller carbon footprint by decreasing energy consumption.

Extracted from sustainably harvested seaweed, carrageenan has been a safe, healthy part of our diet for hundreds of years. FMC continues to produce the same types of seaweed extracts that were used centuries ago for "Irish Moss Pudding."

To support our customers' continued growth, we must do more than provide new product offerings. We need to ensure that we have the capacity to produce enough of our traditional high-demand products to meet the world's growing needs.

We recently expanded our microcrystalline cellulose (MCC) production capacity in Newark. Delaware, and Cork, Ireland. Additionally, a new \$100 million MCC plant in Thailand, scheduled to be completed by late 2014, will enable us to supply growing demand in rapidly developing Asian economies. With a scarce supply of dairy products in this area of the world, consumers need non-dairy protein beverages, and our MCC gives these products an attractive mouth feel, texture and stability.

FMC works alongside our customers to better serve local markets through 11 food laboratories in strategic locations around the world. Within the past two years, FMC opened new food labs in Singapore, Chile, India and Russia to support the growing demand in rapidly developing economies. This diversity of research locations enables us to provide customers with unique chemistries and customized solutions that align with local consumer demand, while adding value to the innovation process through the exchange of ideas and outcomes between the labs.

#### A Growing Focus on Innovation That **Advances Sustainability**

As we increase our investments in R&D focused on products that create a sustainability advantage, we are also broadening our collaboration with customers who have like-minded goals. These combined forces of focused research and shared intent will produce new avenues of market success and more sustainable outcomes.

#### FMC PUTS NATURAL INGREDIENTS TO WORK

**NATURAL SOURCE** 

**PRODUCT & APPLICATION** 

**SEAWEED** 

#### CARRAGEENAN & ALGINATE

- Suspension properties
- Modifies textureIce crystal control
- Cold soluble
- Cold setting gel
- Heat stable gelation

#### WOOD PULP



#### CELLULOSE GEL

- Suspension properties
- Imparts thickening
- Creamy mouthfeel

#### CITRUS PEEL



#### **PECTIN**

- Protein protection
- Provides mouthfeel
- Suspension properties

#### FRUIT/VEGETABLES/HERBS







#### **NATURAL COLORS**

- Complete hue range from vellow to orange to red to purple to green
- Sourced from safe and healthy fruits, vegetables and herbs







At FMC, we are focused on developing our greatest resource: our employees. Every day and in many ways, our people bring value to our business.

When FMC made a choice to move sustainability to the forefront of our corporate consciousness, we knew we could only deliver on this long-term promise with the shared commitment of our greatest resource: our employees. This year, we established an organizational structure to enable our employees to turn our sustainability strategy into focused action.

Though much progress has been made, we recognize the potential to do much more. We continue to embed sustainability into employees' everyday roles and provide ongoing development opportunities for FMC's current and future leaders.

#### **A Structured Approach**

Our goal is to fully integrate sustainability into our business operations.

In 2012 we designed a structure (shown in the graphic) that provides overall guidance, priority setting and access to resources, while allowing core teams in each business and functional area to engage in detailed discussions that create value for FMC and its stakeholders.

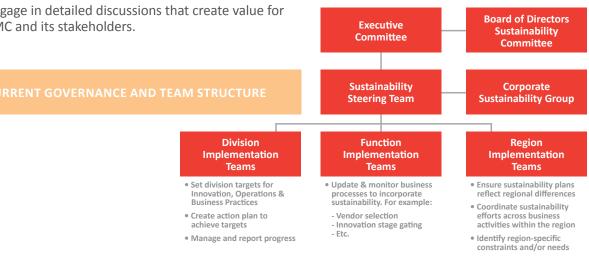
This organizational design promotes teams working in parallel to ensure (1) our sustainability principles are advanced by each of our business strategies and (2) our core business processes are adjusted to explicitly build in sustainability considerations.

Early in 2012 we transitioned from a single Sustainability Council with one or two members from each business to a cross-functional implementation team model embedded in each business, function and region. We also formed a Sustainability Steering Team that includes the president of each FMC business group and leaders of most corporate functions. Their common focus is to reach alignment on approach, ensure sufficient progress and coordinate efforts across the enterprise.

To initiate this broader coordinated approach, our Global Sustainability organization met with managers worldwide to discuss FMC sustainability, listen to their ideas and questions, and prepare them to conduct similar conversations with their respective teams. Throughout the first year of their efforts, our implementation teams continually shared resources and knowledge at regular meetings. We also used newsletters and our intranet to share information between groups. This cross-pollination of experiences and ideas is proving beneficial and we continue to assess opportunities and identify risks.

#### **Measuring Employee Engagement**

With multiple communication tools in place, in late 2012 we conducted FMC's first internal sustainability survey to assess the level of employee engagement and establish a baseline for measuring our progress. It also identified specific areas where additional focus might improve workforce involvement.



The survey results revealed a high level of engagement for a relatively new enterprise-level initiative. In particular, the survey showed a high level of employee confidence regarding:

- The sustainability commitment of FMC's leaders;
- Alignment of our sustainability plan with the FMC Vision 2015 strategy; and
- The strength of the company's sustainability efforts as a solid foundation for continued success beyond 2015.

Survey results also highlighted several areas where we can continue to improve. These include continuing to increase collaboration with our customers and suppliers on sustainability efforts and expanding the number of employees who are using our newly established intranet resources. To measure our progress from the established 2012 baseline, we plan to conduct our second survey in 2013.

It's still early in our journey, but we already see increased understanding and leadership in sustainability across the organization.

#### Sustainability Supports Recruitment

Our sustainability approach helps us engage with employees even before they join the FMC team. Throughout our recruiting process, potential and new employees are expressing significant interest in sustainability. Having a clearly articulated program in place helps prospective employees quickly understand and appreciate our program.

#### **Broadening Expertise and Diversity**

We believe the most critical learning happens on the job and we work to create an environment in which everyone has opportunities to learn, grow and apply their skills.

If we expect to generate world-class ideas and challenge each other's assumptions, FMC knows that we must strive to reflect the diversity of our human family. To support greater diversity in our workforce, FMC created a range of new ways to attract the best and brightest to join us. Over the course of 2012, we added more than 400 positions in 24 countries to fill a broad array of roles. We seek to attract people who bring diversity of thinking and experience.

Just as we track our market and financial performance, each FMC business closely monitors its recruitment progress, including diversity, and our Executive Committee reviews progress on a quarterly basis.

FMC relies heavily on skilled professionals throughout our company who are drawn from the fields of science, technology, engineering and mathematics (STEM), yet – like similar companies around the world – we face the challenge of competing for a smaller pool of qualified STEM talent. To reverse this trend, we are partnering with schools and universities to actively promote these courses of study (read more in the Cultivating Community section, page 36).

#### WOMEN IN MANAGEMENT

(as of December 31)

2011	2012	
21.9%	22.4%	Percentage of Women Employed at FMC
18.6%	19.2%	Women in Senior Management*
26.5%	26.1%	Women in Professional Roles*

<sup>\*</sup> Exempt Workforce

#### STEM INTERNSHIPS FOSTER CAREERS

In 2011, The U.S. President's Council on Jobs and Competitiveness partnered with the National Association of Manufacturers and challenged businesses to increase their STEM internships. FMC was one of over 50 companies pledging to meet the challenge and we more than tripled our STEM internships in 2012, with 25 intern placements. Globally, we placed 51 interns in our businesses in 2012. Our employees enjoy working with STEM interns each summer and we value the chance to foster life-changing career paths for each individual.



Janice Milheim, plant manager at a FMC facility in Newark, Delaware, inspects offline equipment with James Tiggs, a member of her team.

Once employees join our team, they have access to on-the-job training opportunities. In addition to position-specific training, FMC offers a variety of development and leadership programs that nurture employees through different stages of their career, including those described here.

- Pathways to Leadership: One of our most popular courses, expanded from the United States into Europe in 2012, this two-day workshop teaches frontline managers and those who lead project teams how to improve their leadership and team member development. The program includes postsession follow-up on participant progress and focuses on coaching for performance, conducting effective meetings, distinguishing leadership from management, and using teams for problem solving.
- Institute for Management Studies (IMS):
   FMC partners with IMS to provide leadership education and professional development training for employees. Seminars focus on topics such as employee engagement, accountability, leading through change, time management and many others.
- Leadership Boot Camp: Nominated employees attend six full days of Boot Camp sessions to develop their personal leadership styles, practice interpersonal skills, and learn how to effectively lead teams at FMC. This program is now in its fifth year. Additional training is held annually for program attendees.
- FMC Academia: Our Latin America region started this program to align its formal and informal learning opportunities with the

company's growth strategy and changing needs. Development focuses on several knowledge areas to improve leadership, business competencies, quality of life, safety and the environment.

Additionally, in 2012 FMC added a new role focused on growth and succession planning. The newly appointed Global Talent Management director is responsible for ensuring a pipeline of talent throughout the corporation, and for placing an emphasis on learning and development opportunities that grow employees at all levels of their careers.

#### **Voluntary Turnover Rate**

(Voluntary Resignations, Divided by Average Total Number of Employees)

	2011	2012
Globally	4.6%	4.8%
Non-exempt	5.9%	5.7%
Hourly	1.5%	2.1%
Exempt	5.9%	5.8%

#### **Operating With Dignity**

Our focus on people extends beyond FMC employees to encompass the many people around the world who directly and indirectly touch our business. As we continue to grow globally, we recognize the potential risks of operating in multiple regions with differing laws and business practices.

Regardless of location, FMC is committed to working in a way that respects human dignity. During 2012, we clarified our commitment in this area by updating our Code of Ethics and Business Conduct to unambiguously state our expectations related to human dignity. While our businesses have consistently maintained high standards in this area, we saw this policy update as an important reaffirmation of our ethical principles and practices, especially as our business grows worldwide.

We published the revised *Code of Ethics* in late 2012 and are requiring all employees to be retrained and recertified under the new code in 2013. The most recent recertification took place in 2011. Every new FMC employee receives ethics compliance training, followed by recertification at least every three years to ensure strict adherence to our Code of Ethics. FMC employees completed more than 3,600 hours of compliance training in 2012, including courses taught by the FMC Law Department.

#### CODE OF ETHICS AND BUSINESS CONDUCT

We adhere to the ethical standards set forth in our Code of Ethics and Business Conduct. This code summarizes the legal and ethical principles we follow at FMC. Our Corporate Responsibility Committee, comprised of Executive Committee members, manages overall compliance with applicable laws and FMC policies, and reports to the Audit Committee of the FMC Board of Directors.



Follow the QR code to learn more.

Additional training on *civil treatment*, *respect* and inclusion, and discrimination prevention was conducted by FMC human resources managers in 2012. Civil treatment (courses for both employees and managers) are being completed at all U.S. and Canadian sites and will continue globally in 2013.

FMC maintains a zero-tolerance policy for unethical behavior.

#### **Mindful Supply Chains**

In addition to our own policy, we took steps this year to reduce the potential for human dignity concerns in our supply chain. FMC expects our external partners to uphold similar policies to ensure ethical operations within their businesses. More detail on our recently published Supplier **Code of Conduct** and our new vendor selection and management process can be found in the Minding our Resources section of this report.

#### **Labor Agreements Based on Respect**

Treating employees with respect is more than a policy; it's at the heart of how we build positive, constructive, effective teams around the world. Independent of the size of a site or its primary line of business, a strong relationship among those responsible for its operations drives benefits for all involved.

Currently, 32 percent of all FMC employees are covered by collective bargaining agreements. Managing union relationships can pose challenges for any organization, and FMC is no different. However, for each of these sites, we make every effort to reach agreements that are mutually beneficial. We focus on collaborating to find solutions for everyday interactions as well as contract renegotiations. We strongly believe in this cooperative approach, as these recent examples demonstrate:

- Tonawanda, New York: We signed a four-year contract in 2011 that balances both employee and company priorities. Indicative of this balance, we reached an agreement ahead of schedule.
- Green River, Wyoming: We reached a five-year agreement in 2010. During the negotiations, both sides stayed mindful of the overall partnership and common interests by opening each meeting with the FMC tradition of Safety Shares. After completing the agreement, FMC management and the union acknowledged that the process helped strengthen communication.

- Salta and Catamarca, Argentina: Challenging economic conditions in Argentina have prompted difficult discussions between FMC management and the labor union. Cooperation has been key as we have successfully negotiated an agreement in this past year. We continue to monitor the situation and look forward to maintaining a constructive relationship with the labor union.
- **Girvan, Scotland:** We experienced a three-day work stoppage. The company recognizes the right of our union members to undertake this action. Through continued good faith discussions, we were able to reach a solution. There were no material effects on the union relationship or business performance.

FMC has both union-represented manufacturing sites and union-free manufacturing sites. Where we have union represented employees, we enter into good faith bargaining to reach agreements that fairly represent the interests of all parties. Where we have union-free sites, we work hard to maintain open communications and trust between the parties, making third party representation unnecessary.

By focusing on people – how we define responsibilities, engage employees, provide development opportunities, and interact with partners and suppliers who contribute to FMC – we know we've made the right choice for the longterm sustainability of the company.

There are plenty of improvements yet to make. But there are also plenty of people we commend for all that has been achieved. Through such efforts, we are becoming a more focused and effective FMC, developing and attracting the future leaders of our business while expanding opportunities for for customers, employees and other stakeholders around the globe.

#### "CHOOSE WELL. LIVE WELL." **ENCOURAGES GOOD HEALTH**

Our employees represent our greatest resource, so we focus on both their safety and health. In 2013, FMC will initiate a comprehensive employee wellness program, "Choose Well. Live Well." By helping employees identify their own health risks, prevent longer term illnesses and maintain their current health, we hope to improve lives and lower healthcare costs for participants and the company. Initially, the program will focus on education, awareness and lifestyle changes. Employees, spouses and domestic partners will be able to participate in a free biometric wellness screening and complete a health assessment. Resources available to participants will include support for managing health issues such as high blood pressure and elevated cholesterol levels and making wise health choices such as a commitment to stop smoking. FMC offers financial incentives for participation in certain programs.

Because healthcare considerations vary by country, the program will roll out first across our businesses in the United States. We are currently evaluating opportunities to implement similar programs in other regions. Improving one's health is a long-term goal, so it won't happen overnight, but we will continue to add program features that offer the best incentives for employees to "Choose Well, Live Well,"





Amruta Antala (applications technician) and Mike Cammarata (research scientist) work on developing new applications in our Natural Colors Innovation Lab in Ewing, New Jersey.

# RESOURCES

#### FOCUSED ON EFFICIENCY

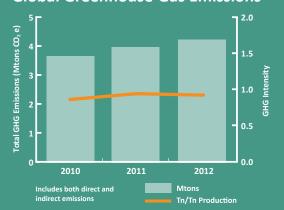
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During 2012, FMC focused on a standard waste intensity measurement across all sites. This effort resulted in a 29 percent decrease in total waste produced per ton, driven primarily by efforts to reduce the volume of waste sent to landfills.

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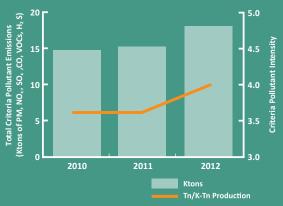
FMC reduced energy intensity by an additional 4 percent during 2012. The company's newly established Energy Management Center of Excellence has begun its work to systematically identify efficiency opportunities across our manufacturing network.

#### Global Greenhouse Gas Emissions

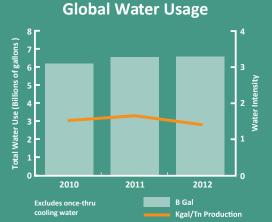


Greenhouse gas intensity remained essentially flat in 2012. The resources employed to assess energy management will also have a positive impact on greenhouse gas intensity.

#### **Global Criteria Pollutant Emissions**



The intensity of criteria emissions increased by 8 percent in 2012 primarily due to abnormal disruptions in production at our lithium operation in Argentina.



FMC improved its water efficiency by nearly 8 percent in 2012.

Data presented on this page include FMC owned and operated manufacturing locations globally.

Our Agricultural Products business uses contract manufacturers to produce the majority of its active ingredients. The impact of these manufacturers is not represented in the numbers provided in this report. FMC is in the process of collecting comparable information for our primary active ingredient manufacturers. As our program evolves, we will provide the information collected and any identified opportunities for improvement.



Visit our website to access data illustrated in the above graphs as well as calculation methodology.



We work hard to minimize the environmental impact of FMC operations and that of our supply chain.



During 2012, the use of standardized key performance indicators (KPIs) across the enterprise helped our operations better understand the patterns of their resource utilization and waste generation. We are proud of our employees' efforts to improve FMC's waste, water and energy intensity by 29 percent, 8 percent, and 4 percent respectively year over year. Yet, we believe we can continue to identify opportunities for resource and waste efficiency through the coordinated efforts outlined in this section. While the intensity of criteria emissions increased in 2012, this was driven primarily by suboptimal operating rates at our lithium operation in Argentina. We expect this intensity to improve over the course of 2013.

FMC made a choice to incorporate sustainability into every aspect of our business, knowing that environmental consciousness, one of the marketshaping shifts we've identified, will increasingly influence demand for our products, just as another market-shaping shift, scarce resources, will continue to impact cost volatility for our manufacturing operations. We are implementing processes to systematically assess these issues and define improvement plans that create increased efficiency and reduced risk throughout our operations and supply chain.

#### **Sustainable Procurement Practices**

FMC built a reputation as a responsible and reliable supplier of quality products because we carefully and systematically manage risks that might impact our integrity in the marketplace. We believe our customers' valuable brands deserve our full measure of protection and we take steps to provide that protection not only in our manufacturing but also in procurement.

In early 2011, FMC formed a global procurement organization to oversee the sourcing of goods, materials and services across the company. This group reviewed best practices in procurement and vendor relationships to revise our own procurement procedures and assure that our program is best in class. One result of these efforts was the 2012 launch of eProcure. This program standardizes processes globally through a suite of online systems designed to efficiently and responsibly manage procurement worldwide.

These improved procurement systems help us analyze data in numerous ways and in real time. They also allow FMC to make informed and consistent procurement decisions that create costand risk-reduction opportunities.

FMC has long chosen to work with suppliers who share in our commitment to ethical and sustainable business practices, but in 2012 we formalized that commitment by implementing a new supplier selection and management process that explicitly incorporates both minimum standards and preferred practices to support our sustainability principles. To explain our minimum standards clearly to existing and potential suppliers, we published FMC's first Supplier Code of Conduct, which sets forth FMC's expectations regarding legal compliance, environmental, health, safety, ethical, human dignity and fair labor practice issues. Suppliers also have a responsibility to take reasonable measures to ensure that their vendors and sub-contractors are acting in harmony with these same priorities.

Members of FMC's volunteer group 'Greenadelphia' participate in a local tree planting. The group works to integrate sustainable practices at FMC's corporate headquarters in Philadelphia, Pennsylvania.



In tandem with our Supplier Code of Conduct, our new vendor management process evaluates supply chain partners using screening criteria that help us foster relationships with suppliers whose sustainability approach aligns closely with ours. In 2012, FMC began evaluating new suppliers using this vendor selection and management process. We continue to expand this program as we enter 2013 by soliciting comparable information from significant suppliers already approved by FMC when this new process was defined. As we enter 2013, more than 10 percent of significant suppliers have been evaluated using this new process.

FMC encourages its suppliers to collaborate with us on ideas for reducing resource requirements, improving safety, and minimizing environmental impact wherever possible in the value chain.

#### **Sustainable Manufacturing Practices**

Within FMC-owned operations, we focused our 2012 efforts on energy, waste, water and greenhouse gas intensity. As we continue to expand our manufacturing operations, we will need to use more resources to make products that support growing populations and their rising demand. A key element of our sustainability program is managing our own impact by discovering less intensive and more cost-effective ways of producing our products.

In addition to our usual efforts to manage a competitive cost structure by targeting annual efficiency improvements, FMC has several major initiatives underway to ensure we are using current best practices across our sites. We expect such efforts to produce near-term efficiency wins while identifying longer-term improvement potential across the company.

The first of these efforts is a Manufacturing Excellence program, launched in 2012, with focused projects at three of our manufacturing locations. We expect these projects to increase plant productivity and deliver resource efficiency benefits.

Additionally, FMC recently created an Energy Management Center of Excellence (EMCOE). This team is comprised of representatives from the procurement, manufacturing, engineering and sustainability groups and is championed by senior leaders in operations, technology, procurement and sustainability. With the help of external resources added to its combined professional

experience of 129 years, this team will become a central repository of best practices in energy management.

The EMCOE has begun a multi-year process to assess FMC manufacturing sites worldwide and identify opportunities to increase plant energy efficiency. In 2013, the team will conduct its first comprehensive plant energy assessments associated with this new program. These initial assessments will lead to energy improvement plans for our two pilot locations, with the long-term goal of improving energy efficiency across FMC's global manufacturing network.

While energy represents FMC's largest potential area of impact, we've also begun to assess current waste management activities at our sites to determine whether a similar cross-group effort can accelerate expected sustainability gains.

#### **Taking Energy Further**

Along with identifying efficiency opportunities, each of our sites continues to define operation-specific projects that decrease our environmental impact, including the following:

 Our Green River, Wyoming, facility expanded the throughput of its mine water product in support of a local utility that increased its needs for SO<sub>3</sub> abatement. FMC mine water is being used by the utility as an alternative to mixing refined soda ash with water for use in its SO, scrubber. Using this alternative allows the utility to use less fresh water. As mine water requires less processing than other soda ash products, FMC was also able to improve our average energy efficiency per ton produced while avoiding an estimated 25,000 tons of greenhouse gas emissions each year. [Natural soda ash production already produces significantly less greenhouse gases than alternative synthetic production processes. See **FMC's 2011 Sustainability Report** for details.]



Follow the QR code to learn more.

 Our peroxygens plants in Tonawanda, New York, and Rheinfelden, Germany, utilize clean, renewable hydroelectric power generated by nearby facilities for use within our operations.
 FMC estimates that these power sources reduce our indirect emissions of greenhouse gases by 25,200 tons of CO<sub>2</sub>e annually.

## INNOVATIONS IN SOLUTION MINING

At our Green River, Wyoming, site, FMC dry mines approximately 4.5 million tons of trona ore from 1,600 feet underground. We also solution mine the equivalent of 2 million tons of additional trona using secondary recovery techniques in old dry mines, employing innovative mining methods to maintain the long-term sustainability of this mineral resource.

Over the last several decades, we have led the industry in pioneering dry, long wall and solution mining techniques. We continue to pursue mining methods that are safer, more energy efficient and better for the environment. To maintain our industry leadership, we are investing \$13 million in a pilot project using directional drilling techniques for technologically advanced solution mining. Initial research shows this patent-pending process improves sustainability by reducing process greenhouse gas emissions by over 25 percent, and has the potential to salvage billions of additional tons of trona that might otherwise be left behind.

#### **Conscientious Expansion**

In July 2012, FMC announced plans to invest more than \$100 million in an advanced microcrystalline cellulose (MCC) manufacturing facility in Rayong, Thailand. During project planning, FMC worked with the Thai government to study the impact of the future operation on the environment, community and local economy. A portion of the study included an extensive life cycle assessment.

The new plant will increase FMC's global capacity to produce food-grade MCC by 35 percent. This increased production will be done using best practices that minimize waste generation and greenhouse gases per ton. The new, state-of-the-art facility will bring jobs and spending to the local economy while strengthening FMC's ability to efficiently serve pharmaceutical and food customers. The plant is scheduled to open in late 2014.

#### **Efficiency in Logistics**

There are thousands of shipments per year associated with inbound raw materials for our facilities or outbound FMC products destined for our customers. Given the high cost associated with transportation, it has always made business sense to create efficiencies at every opportunity—and those efficiencies typically have a positive environmental impact, too. Examples follow on the next page.

We understand that being mindful of our local environment is important. Here, wild antelope graze near our site in Green River, Wyoming.



# HELPING CUSTOMERS CONSERVE

Sustainability goes beyond how we make our own products. By working together with our customers, we cultivate a more sustainable supply chain and help diminish our collective impact on the environment.

Take, for instance, seaweed-derived carrageenan. FMC offers an online Carbon Footprint Calculator for customers to compare the environmental impact of carrageenan against products with similar thickening functions: gelatin, xantham gum or starch. This web-based tool calculates each raw material's water consumption, fuel and energy use, agricultural requirements, and pesticide and fertilizer use. Carrageenan often emerges as the best choice.



Scan QR code for more information.



FMC's Girvan, Scotland, plant site implemented a new employee suggestion program that led to removal of residual cable wire from an old integration project. After Girvan's team stripped down the cable and sold the metal for scrap, FMC donated the profits to several local charities, including the Ayrshire Coastal Path Association (pictured) and the South Ayrshire Autistic Society.

#### **Fueling Lithium Production**

FMC's Lithium division is at the forefront of developing lithium-ion battery technologies for a new generation of electric vehicles, among many other applications. FMC's contributions begin high in the Andes Mountains, home to nearly two-thirds of the world's lithium resources. Our lithium production facility currently uses natural gas for energy, which is transported by truck to our site in Argentina. Such trucking of fuel poses a challenge on steep mountain roads that are vulnerable to mudslides and high winds. These factors led FMC to focus on finding a safer, more reliable way to get fuel to the site.

After analyzing options, we are now in the process of receiving permits to construct and utilize a pipeline to deliver natural gas to the facility. Construction of this \$23 million project is targeted to begin in 2013. Once completed, the 145 kilometer pipeline will minimize human contact with fuel, eliminate thousands of truck/trailer trips, deliver a much-needed energy source to nearby communities, and support future social and economic development. This project reduces safety risks, increases the reliability of the fuel supply and reduces the need for backup energy from fuel oil.

#### **Expanding Sustainable Packaging**

Sustainable logistics involve more than transportation. How we package our products also offers opportunities to reduce resource consumption and waste.

#### **Moving More with Less**

Our Industrial Chemicals Group continues to find opportunities to create shared value by optimizing logistics in delivering products to our customers. One tool to maximize efficiency is through use of bulk shipments via truck and railcar, which account for 75 percent of ICG's total volume. We reuse these bulk containers throughout their productive life and ultimately refurbish or recycle the containers' materials.

In 2012, FMC was awarded the Union Pacific Railroad's highest customer safety honor, the Pinnacle Award, recognizing our safe and responsible shipping of sodium hydroxide. As partners, Union Pacific and FMC are working together to drive efficiency.

 $95 \to 115$ 

Over the last five years, the average number of railcars in FMC soda ash shipments from our Green River site has increased, positively impacting our fuel economy.



1.3 million tons CO<sub>2</sub>e of GHG emissions avoided annually; roughly equivalent to the electricity use of more than 175,000 homes for an entire year.\*

55%→80%

Between 2008 and 2012, the percentage of FMC soda ash rail car fleet with expanded product capacity has increased – enabling us to reduce the number of shipments required for product transport.

Nearly 30,000 tons CO<sub>2</sub>e of GHG emissions avoided annually; roughly equivalent to taking more than 5,000 passenger vehicles off the road for a year.\*

#### FMC ON THE RAILS

FMC uses rail to ship 87% of its products from Green River, Wyoming. Over the last five years, efficiency improvements have allowed us to move more product in less trips, decreasing the fuel use and GHG associated with our shipments.

PACKAGING WASTE

Both bulk rail and truck transport produce zero packaging waste.

#### FMC ON THE ROAD

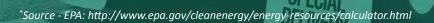
Bayport, Texas, is home to our main manufacturing facility for high-purity hydrogen peroxide, which is trucked to customers. Over the last five years, we have boosted trucking efficiency by using new trucks and retrofitting our existing fleet.



9600 GALLONS Diesel saved over the past year by improving truck design and increasing product concentration.

#### TIRE EFFICIENCY

New tire technology has been added to a number of our trucks, making them lighter and decreasing rolling resistance. This change is part of our continued focus on fuel efficiency.





#### Green Jug Juggernaut

During 2012, FMC Brazil expanded its sustainable packaging line for agricultural products. Derived from sugar cane and other renewable resources, FMC's "Green Family" of containers is growing:

- The breakthrough Green Jug drum is manufactured in a way that generates 40 percent less greenhouse gases than traditional packaging.
- The stackable JoinJug offers a space-saving option for warehouses, eliminating the use of traditional packaging materials and reducing the number of fuel-burning truck miles.

Development of the Green Family is just the beginning of a larger process to identify FMC locations where the use of bio-plastic packaging makes sense for our customers and their supply chain requirements. To that end, we continue to invite customers to suggest new ideas for packaging and shipping.



#### **Responsible Remediation**

FMC's approach to remediation focuses on returning our formerly used sites to productive new uses. In the past decade, we have restored eight brownfield sites to beneficial reuses, including sports complexes, hospitals, retail developments, car dealerships, community centers and light industrial parks. In many cases, there is more than one type of redevelopment use on a single former property. Over the last three years, we have spent approximately \$90 million on remediation of historic sites.

# ENVIRONMENTAL REMEDIATION LIABILITIES

At the end of 2012, the U.S. government's National Priorities List included FMC as a potentially responsible party (PRP) at 29 sites where our potential liability has not yet been settled. In addition, we received notice from the U.S. Environmental Protection Agency or other regulatory agencies that we may be a PRP, or PRP equivalent, at other sites, including 38 sites where we have determined it is reasonably possible we have environmental liability.

In each remediation situation, we start with shared goals in mind, doing whatever we can to take all stakeholders' concerns into consideration. Each project requires a unique plan and an understanding of the community it affects, so we engage with public advisory groups, community partners and citizen task forces to facilitate conversations about each community's needs. By collaborating on remediation plans, FMC aims to replenish resources, spur economic growth, protect the vitality of our business and the environment, and strengthen our community relationships.

FMC's ongoing remediation projects are at various stages of completion. FMC made progress on multiple projects and reached several milestones in 2012. A few examples are described here:

- The remediated site of FMC's former research center near Princeton, New Jersey, now serves as Princeton HealthCare System's state-of-theart medical center, which opened in June 2012.
- FMC worked with the city government, regulatory agencies and local leaders in Nitro,
   West Virginia, to successfully repurpose an old municipal landfill site into a community access boat ramp that now attracts visitors to the area.
   FMC handled the majority of the cleanup work, earning the 2012 Environmental Excellence
   Award from the West Virginia Department of Environmental Protection for our dedication to long-term stewardship of the site.

- In Pocatello, Idaho, we received approval from the U.S. Environmental Protection Agency to remediate the site of this former FMC plant.
   We are engaging with local stakeholders as we proceed with remediation efforts.
- In Front Royal, Virginia, FMC worked with a community advisory team to devise a sustainable cleanup plan for multiple contaminants. Two decades of planning and remediation culminated in the 2012 groundbreaking for the final phase: a multimillion dollar groundwater treatment system. The 440-acre site, now owned by the Front Royal Warren County Economic Development Authority, will support commercial redevelopment as well as wildlife habitats.
- In San Jose, California, 6,256 sports fans attended the October 21, 2012, groundbreaking for a Major League Soccer stadium, setting a Guinness World Record for the largest groundbreaking ceremony ever. FMC helped remediate and redevelop the site, once home to a former FMC division that manufactured and tested defense equipment.



A wildlife conservation area, part of the AVTEX Fibers Superfund Site in Front Royal, Virginia, where FMC is in final stages of remediation of the site.



New Princeton HealthCare Systems facility built on former FMC Chemical Research and Development Center in Princeton, New Jersey.





 ${\sf A}_{\sf round}$  the globe, FMC employees are making the choice to make a difference in the communities where they live and work.

One of FMC's core principles is to improve the quality of life in the communities where we live and operate. Last year, we formalized this commitment by establishing a goal to increase engagement with our neighbors around the world to create positive change.

In 2012, we defined a way to measure our engagement efforts in order to track and advance our progress. Our "Community Engagement Index" quantifies our involvement in four categories at our major sites. We selected these categories of engagement based on FMC's unique role as a chemistry company, our related areas of expertise and our desire to maintain a trusted relationship with our local communities.

The four categories are:

#### 1. Safety

The best way for FMC to demonstrate its commitment to safety is to be a leader in the communities where we operate. We provide community training on specific safety topics, participate in local emergency response organizations and support other activities that foster community safety.

#### 2. **Operational Transparency**

FMC is proud of its business operations. Whether an office location, research and development facility or manufacturing site, we share how we operate with the surrounding community. Our outreach programs include community advisory panels, open houses, community newsletters and other opportunities to demonstrate transparency and openness with our neighbors.

#### 3. Community Leadership

FMC encourages employees to apply their leadership skills in roles that benefit the community as well as FMC. Employees participate in local Chambers of Commerce, assist in the development of local governance, serve on charitable and non-profit boards and other roles that strengthen our communities.

#### 4. Community Partnership

We believe both the community and FMC benefit from a "participatory approach" to philanthropy. Around the globe, employees donate their time and talent to valued community philanthropic organizations. In many cases, FMC provides matching funds for employee participation and personal donations.

To begin raising our Community Engagement Index, we challenged all FMC sites to get involved in these four partnership categories every year. Each quarter, our sites report on their progress in these areas. Ultimately, the Index calculates an average score, or value, for community engagement, which serves as a useful performance and planning tool.

We used this tool to assess our level of community engagement in 2011, and calculated a Community Engagement Index value of 64 out of 100. In 2012, the index grew to a score of 76. Our 2015 target is to increase the index value to more than 90. If the index were to reach 100, it would indicate that all sites engaged with their communities in all four categories during the reporting year.



With operational transparency in mind, our site in Suzhou, China, hosted its first open house event in 2012. The facility invited representatives from adjacent plants, local government officials, and leaders of environment and safety agencies to tour the site and learn how we manage health and safety risks.

In addition to strengthening our community partnerships through employee volunteer efforts, FMC invested \$1.64 million in our communities worldwide over the course of 2012. Although important, we realize that financial donations alone can only go so far. To maximize our impact, we are developing a strategy to further align our community engagement efforts with our philanthropic investments and assessing the best way to allocate our charitable spending across the globe.

In 2012, we continued to focus these contributions in areas where we believe we can make a meaningful, lasting difference:

- Science and education;
- Health and human services;
- Environment and conservation; and
- Arts and culture.

These four areas are detailed in FMC's 2011 Sustainability Report, which can be downloaded at www.fmc.com/sustainability.

#### **Our Program in Action**

### Supporting Science, Technology, Engineering & Math (STEM)

For the second consecutive year, FMC sponsored and participated in Drexel University's Academy of Natural Sciences event, Science Career Days, near our corporate headquarters. Nearly 1,200 students and their teachers attended this year's event, where students had the opportunity to meet FMC scientists who led a variety of fun, interactive activities. The presentations were designed to bring science to life for students and inspire them to pursue careers in chemistry, biology, agriculture, technology and engineering. To help foster daily inspiration for students back in the classroom, FMC provided teachers with useful math and science resources.

FMC also assists teachers through mini-grant programs at our Newark, Delaware, and Rockland, Maine, sites. The grants, which average \$400 each, fund special projects that build students' interest in STEM fields of study. Since the programs' inception, FMC has funded approximately \$40,000 in projects.

In Lahore, Pakistan, the FMC plant is encouraging students in need at local schools by presenting them with monthly scholarships to support their educational progress. FMC Lahore launched this program in 1996 and has given 2,500 scholarships to young people in the community through

# FMC INTERNSHIPS AND SCHOLARSHIPS

All students need support from parents, teachers, friends, and the broader community. FMC is committed to supporting the world's future innovators through dedicated internship and scholarship programs.



An FMC STEM scholar (center) who is pursuing a BSc in Food Engineering at the Istanbul Technical University.



FMC BioPolymer scholarship recipients at the School of Food Science & Technology at Jiangnan University in Wuxi, China.



FMC has partnered with Rutgers University in developing the Crop Protection Farm Internship. Pictured is an FMC summer intern at the Philip E. Marucci Center for Blueberry and Cranberry Research and Extension in Chatsworth, New Jersey.



An FMC Lahore, Pakistan, scholarship recipient.

December 2012. FMC awards the scholarships on a merit basis for students in grades 6 through 12, with an emphasis on science education. In addition to supporting and encouraging bright students, the initiative has improved literacy rates among boys and girls throughout the community, regardless of whether they pursue higher education.

In 2012 FMC funded nearly \$17,000 in STEM scholarships in five countries. We continue to expand our support in this area, as we believe we can directly impact the future of our industry by exposing students to the exciting career opportunities available in science-based companies like FMC.

#### **Improving Lives Through Health** and Human Services

In the Philippines, working with the Rise Above Foundation, FMC has assisted hundreds of children over the last two years. In 2011, the program sponsored free dental examinations for school children living near our operations. In 2012, we expanded this successful effort to two nearby islands. With funding from FMC, volunteer dentists treated more than 640 patients during a three-day trip to seaweed-farming islands north of Bohol, Philippines. This program improves the health of seaweed farmers, who are important links in our supply chain, and helps enhance the quality of life for their families and members of surrounding communities.



The FMC Manila (Philippines) Sustainability Team delivered much-needed water tanks to the ITAAS Elementary School to help with critical sanitary and water supply needs for the school's 5,500 students.



In 2012, FMC Argentina sponsored a Junior Achievement program for 127 students interested in starting small businesses. The program is aimed at promoting school attendance and decreasing high school dropout rates.

To support a wide range of programs devoted to health and human services, FMC and its employees proudly continue their long-standing partnership with the United Way. Nine of our U.S. sites held fundraising campaigns this year, all of which had high participation rates, including 100 percent employee participation at our Charlotte, North Carolina, and Middleport, New York, sites.

"FMC has stepped up in a big way at a time when the community needed it most."

> Jill Michal, President and CEO, **United Way of Greater Philadelphia** and Southern New Jersey



FMC provides emergency relief assistance to the Red Cross to support communities devastated by natural disasters. In 2012, FMC donated \$75,000 to assist the victims of Hurricane Sandy in the eastern United States. In addition to an FMC contribution, our employees in Manila collected in-kind donations - including food, water and clothing – to aid victims of Typhoon Pablo in the southern Philippines.

#### **Conserving Our Environment**

FMC supports community programs and projects that mirror our focus on raising environmental consciousness to protect and preserve natural resources. Efforts exist across our global operations, but one example in the Philippines stands out.

Our FMC site in Cebu finds new uses for existing resources through a collaborative bottle recycling program. Working with Marriott Cebu City, FMC employees collect used plastic bottles from the hotel and repurpose them, along with bottles collected from our site location, for local seaweed harvesting efforts. The recycled water bottles are used as floats for seaweed systems that grow near the surface.

Using these bottles reduces the use of polystyrene floats, which are non-recyclable, have a shorter usage life and can potentially break up, introducing smaller pieces of polystyrene into the water. The bottle collection and reuse effort decreases waste and reduces operating costs while putting otherwise waste-generating bottles to productive use. After this second use, all bottles are disposed of properly.

The Bottle-to-Floaters Program is a partnership between FMC and Marriott Cebu City. The two groups collect plastic bottles for the Indo-Pacific Sourcing Center, a local FMC BioPolymer seaweed producer. In Carcar, Cebu, the plastic bottles find a new purpose as floaters suspending seaweed seedling cultivation lines.

# SUSTAINABLE SEAWEED FARMING

For over 40 years, FMC's BioPolymer Division has demonstrated a commitment to advancing seaweed cultivation practices around the globe. We took a leadership role in establishing standards for both product consistency and the welfare of our workforce and our suppliers. We also developed a training program that covers the latest farming techniques, provides safety and health education, and offers guidelines for environmentally sustainable practices. FMC is currently in the process of reaching out to stakeholders in an effort to evolve a shared set of principles related to the further advancement of sustainable seaweed farming.

#### **Listening Leads to Collaboration**

A key element of FMC's sustainability approach is to increase engagement with all stakeholders, particularly on social, environmental and economic issues connected to the five market-shaping shifts (see page 2). In 2012, we established several efforts to gather feedback and initiate dialogue with both internal and external groups. These efforts included:



- Incorporating sustainability into existing internal and external communications channels;
- Facilitating discussions with external stakeholders to gain feedback regarding our 2011 Sustainability Report and FMC's overall sustainability program; and
- Developing a strategic engagement plan that will increase interaction with external stakeholders to advance issues that are high priority for them and FMC.

#### A Focus on External Stakeholder Needs

As a company that maintains strong customer and community relationships, FMC has a positive track record of communicating with external stakeholders; however in our 2011 report we made a commitment to continue to increase engagement with external stakeholders. One of the first steps we took was to talk with stakeholders about our sustainability strategy.

During 2012, we discussed our program with customers, distributors, suppliers, community advisory panels, educational institutions, regulators, NGOs, industry groups, and investors. Each interaction is helping us calibrate and enhance the practical effectiveness of our program.

We increased proactive engagement in 2012 with interested parties on broader sustainability topics. We identified external stakeholders whose priority issues are also important to FMC and we initiated positive, collaborative discussions with some of these stakeholders.

Our initial research and discussions with NGOs and environmental organizations, for example, helped us focus our engagement strategy in three key areas where FMC can have significant impact: sustainable food supply, sustainable energy supply and meaningful community partnerships.

As we develop our own sustainability program, we are working to advance thought leadership. Examples of this include our active participation on the Advisory Council for the Sustainability Accounting Standards Board and the Corporate Advisory Board for the Initiative for Global Environmental Leadership at the University of Pennsylvania's Wharton School of Business.

#### ADDRESSING STAKEHOLDER FFFDBACK

After publishing our first Sustainability Report in 2011, we engaged an independent firm to conduct a series of interviews with a diverse set of stakeholders to gather unbiased feedback on both our reporting efforts and our approach. Our key audiences challenged us to be more specific about our sustainability goals and set firm metrics. We have taken this constructive feedback into account as we developed this 2012 Sustainability Report. We will continue to draw on this input as our program continues to develop.

"IGEL is honored to have FMC as a new member to Wharton's Initiative for Global Environmental Leadership. FMC's thought leadership in formulating sustainable solutions to a number of world challenges is a tremendous value to IGEL and to the Wharton School at Penn. FMC's role as a corporate board member provides a resource to our undergraduate and MBA students as they are seeking mentors and role models for career choices in the environmental management space."

Joanne Spigonardo, Associate Director, **Initiative for Global Environmental Leadership** (IGEL), The Wharton School, **University of Pennsylvania** 







#### **Awards and Recognition**

FMC's business groups around the world earned recognition in 2012 for their efforts in environmental stewardship, social responsibility and overall work environment. Here is a partial list of awards:

- FMC Brazil made the list of "Most Sustainable Companies According to the Media," based on a collective ranking by eight major Brazilian media outlets. The recognition highlights our transparent communications and consistent sustainability efforts.
- FMC was honored with an award from the Ministry of the Environment and Sustainable Production of Salta, Argentina, for our support of local school and nutrition programs.
- Our operation in Cebu, Philippines earned an award from the Department of Environment and Natural Resources for implementing clean technology, energy efficiency measures and water conservation programs in 2011 and 2012.
- FMC's Alkali Chemical operation was recognized by the Industrial Minerals Association of North America (IMA-NA) as the safest large company member of the organization (those with more than 700,000 exposure hours per year). The recognition is part of a joint program initiated in 2004 between the Mine Health and Safety Administrations (MSHA) and IMA-NA to recognize excellence in safety performance for facilities located within the United States.
- Our team in Brazil also received "Best Project in Corporate Social Responsibility" from ANDEF, the Brazilian agrochemical industry association. The award-winning *Plantando o 7* theater show, created by FMC, teaches children seven simple habits to stay safe and responsible. To date, the show has reached more than 90,000 people.
- Our plant in Suzhou, China, earned the distinction of being one of the 100 Top Chinese AgChem Companies by the China Crop Protection Industry Association for continuous customer and product innovations.
- The *Philadelphia Inquirer* named FMC a Top Workplace for the fourth consecutive year.
- FMC's first sustainability report won the 2012 International Visual Communications Association's Clarion Award for Best Printed Corporate Communication and received additional recognition for content and communications effectiveness.

#### INDUSTRY PARTNERSHIPS

FMC is actively involved in leading industry groups that drive change in market standards. Some examples include:

- As a leading supplier of soda ash for glass manufacturers, we participate on the Glass Packaging Institute's Board of Directors. Our support efforts include promoting increased glass recycling rates to further reduce the impact of discarded glass packaging.
- FMC is a founding member of the American Chemistry Council's (ACC)
   Lithium Battery Materials Panel, where we advocate for the proper use and recycling of lithium batteries – a crucial resource that powers cell phones, electric vehicles and pacemakers.
- FMC also played a key role in updating ACC's Responsible Care program (see Fostering Safety on page 11 for more details).
- We participated and provided financial support to a sustainability training and certification program that launched in December 2012 in cooperation with the American Institute of Chemical Engineers (AIChE). FMC employees helped design the program alongside academic leaders, industry participants and sustainability consultants.



A team of more than 260 FMC employees and their families participated in the Philadelphia Light the Night Walk® to benefit the Leukemia & Lymphoma Society, raising more than \$70,000 to further its mission of supporting patients and finding cures for blood cancer. FMC CEO Pierre Brondeau served as the corporate walk chair for the event.

We followed the Global Reporting Initiative (GRI) G3.1 Sustainability Reporting Guidelines in preparing this report and had it GRI-checked to an Application Level B. The disclosures and performance data in this report address FMC's globally owned and managed facilities and assets for the fiscal year 2012, unless otherwise noted, and do not address joint ventures or other business partnerships. FMC will continue to report our sustainability performance objectives, goals and progress annually. We welcome your questions, comments and feedback. For more information about FMC or this report, please contact Tom Schneberger (sustainability.info@fmc.com).

#### **Our Materiality Process**

In this report, we discuss the sustainability issues we believe to be of most interest to our stakeholders that are also relevant to FMC's long-term business objectives. We selected report content by evaluating the potential impacts and opportunities associated with current and emerging sustainability issues, trends and developments and our ability to influence these issues within the context of our business. We also relied on global voluntary reporting and industry standards including the GRI G3.1.

To further refine the process of selecting content, we consulted GRI's general list of issues and CERES 21st century roadmap and grouped issues into categories typical of the sustainability impacts that are germane to chemical companies, agricultural companies and mining companies. High priority issues were determined by using a five-test analysis that rated each issue based on its significance to stakeholder groups and cumulative business impact on FMC.

#### Stakeholder Engagement

FMC engages with numerous stakeholders as a regular business practice. Examples of our engagement efforts are presented throughout this report. As part of the reporting process, we received input from customers, distributors, employees, NGOs, industry associations, suppliers, business partners, investors, government officials and the general public. This feedback was aggregated as a part of our materiality assessment to determine the content of this report. Based on our assessment, we determined the following

# ABOUT THIS REPORT

categories to be material and have addressed each of these in this report: sustainability business strategy, safety, innovation in products and services, green chemistry and products, serving emerging markets, financial performance, environmental impacts and resource efficiency, product safety, talent management, labor relations and community relations.

#### **Relevant Sustainability Issues**

Our materiality test includes five categories of impact. They are:

#### **Financial Impacts/Risks**

Issues posing a potential financial impact or risk in the short, medium or long-term



#### **Legal/Regulatory/Policy Drivers**

Issues being shaped by emerging or evolving government policy and regulation



#### **Peer-Based Norms**

Issues our industry peers tend to report on and recognize as important business drivers



## Stakeholder Concerns and Societal Trends

Issues of high importance to stakeholders, including communities, NGOs and the general public, and/or issues that reflect social and consumer trends



#### Opportunity For Innovation

Areas of potential for innovative solutions to benefit the environment, customers and other stakeholders; demonstrate sector leadership; and create competitive advantage

## **GRI INDEX**

Standard Disclosures	Page or Information Link
1. Strategy and Analysis	
<b>1.1</b> CEO's statement.	2012 Sustainability Report p. 4
<b>1.2</b> Key impacts, risks and opportunities.	2012 Sustainability Report pp. 1-3, 6-7; 2012 Annual Report (Form 10-K) pp. 11-12
2. Organizational Profile	
<b>2.1</b> Name of the organization.	FMC Corporation
<b>2.2</b> Primary brands, products, and/or services.	2012 Sustainability Report pp. 3-5; 2012 Annual Report (Form 10-K) p. 1
<b>2.3</b> Operational structure of the organization.	2012 Sustainability Report pp. 3, 5; 2012 Annual Report (Form 10-K) pp. 1-10
<b>2.4</b> Location of organization's headquarters.	Philadelphia PA, USA
<b>2.5</b> Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	2012 Sustainability Report p. 3; 2012 Annual Report (Form 10-K) pp. 1-10
<b>2.6</b> Nature of ownership and legal form.	2012 Annual Report (Form 10-K) p. 1
<b>2.7</b> Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	2012 Sustainability Report pp. 3, 5; 2012 Annual Report (Form 10-K) pp. 1-10
<b>2.8</b> Scale of the reporting organization.	2012 Sustainability Report pp. 3, 5; 2012 Annual Report (Form 10-K) pp. 1-10
<b>2.9</b> Significant changes during the reporting period.	2012 Annual Report (Form 10-K) pp. 1-10, 45
<b>2.10</b> Awards received in the reporting period.	2012 Sustainability Report p. 40
3. Report Parameters	
<b>3.1–3.3</b> Reporting parameters.	2012 Sustainability Report, Appendix p. 1
3.4 Contact point.	2012 Sustainability Report, Appendix p. 1
<b>3.5</b> Process for defining report content.	2012 Sustainability Report, Appendix p. 1
<b>3.6</b> Boundary of the report.	2012 Sustainability Report, Appendix p. 1
<b>3.7</b> Limitations on the scope or boundary of the report.	2012 Sustainability Report, Appendix p. 1
<b>3.8</b> Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	2012 Sustainability Report, Appendix p. 1
<b>3.9</b> Data measurement techniques and the bases of calculations.	2012 Sustainability Report, Appendix p. 1 (www.fmc.com/sustainability/datacenter.aspx)
<b>3.12</b> Standard report disclosures.	2012 Sustainability Report, Appendix p. 1
<b>3.13</b> External assurance policy and practice.	We are not seeking external assurance of our Sustainability Report at this time, but do plan to in the future.
4. Governance, Commitments, And Engagement	
<b>4.1</b> Governance structure of the organization.	FMC.com: Committee Composition (http://phx.corporate-ir.net/phoenix. zhtml?c=117919&p=irol-govcommcomp)
<b>4.2</b> Indicate whether the Chair of the highest governance body is also an executive officer.	FMC.com: Leadership Team (http://phx.corporate-ir.net/phoenix. zhtml?c=117919&p=irol-govmanage)
<b>4.3</b> Number of members of the highest governance body that are independent and/or non-executive members.	FMC.com: Board of Directors (http://phx.corporate-ir.net/phoenix. zhtml?c=117919&p=irol-govboard)
<b>4.4</b> Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	2013 Proxy Materials (https://materials.proxyvote.com/Approved/302491/20130226/NPS_156850.PDF); FMC.com: Shareholder Services (http://phx.corporate-ir.net/phoenix.zhtml?c=117919&p=proxy)

Standard Disclosures	Page or Information Link
<b>4.5</b> Linkage between compensation for members of the highest governance body, senior managers, and executives and the organization's performance.	2013 Proxy Materials (https://materials.proxyvote.com/Approved/302491/20130226/NPS_156850.PDF
<b>4.6</b> Processes in place for the highest governance body to ensure conflicts of interest are avoided.	2013 Proxy Materials (https://materials.proxyvote.com/Approved/302491/20130226/NPS_156850.PDF
<b>4.7</b> Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees.	2013 Proxy Materials (https://materials.proxyvote.com/Approved/302491/20130226/NPS_156850.PDF
<b>4.8</b> Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental and social performance and the status of their implementation.	FMC Code of Ethics and Business Conduct (http://ph/corporate-ir.net/phoenix.zhtml?c=117919&p=irolgovConduct)
<b>4.9</b> Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance.	Charter of the Audit Committee of the Board Directors (http://phx.corporate-ir.net/phoenix. zhtml?c=117919&p=irol-governance); 2013 Proxy Materials (https://materials.proxyvote.com/Approved/302491/20130226/NPS_156850.PDF)
<b>4.10</b> Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	2013 Proxy Materials (https://materials.proxyvote.com/Approved/302491/20130226/NPS_156850.PDF
<b>4.11</b> Explanation of whether and how the precautionary approach or principle is addressed by the organization.	2012 Sustainability Report pp. 1-2, 6-7
<b>4.12</b> Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or endorses.	American Chemistry Council Responsible Care Management System; Multiple ISO certifications at manufacturing locations globally
<b>4.13</b> Memberships in associations (such as industry associations) and/or national/international advocacy organizations.	2012 Sustainability Report p. 40
<b>4.14–4.17</b> Stakeholder engagement	2012 Sustainability Report pp. 5-6, 38-39
Management Approach And Performance Indicators	
Disclosure on Management Approach (Economic)	2012 Sustainability Report p. 6; 2012 Annual Report and Form 10-K
EC1 Direct economic value generated and distributed.	2012 Sustainability Report pp. 5, 36
<b>EC2</b> Financial implications and other risks and opportunities for the organization's activities due to climate change.	2012 Annual Report (Form 10-K) pp. 27-28; 2012 Sustainability Report pp. 26-31
EC9 Understanding and describing significant indirect economic impacts	2012 Annual Report (Form 10-K) pp. 10-12
Disclosure on Management Approach (Environment)	2012 Sustainability Report p. 26-31; 2012 Annual Report (Form 10-K) p. 27
EN3 Direct energy consumption by primary energy source.	2012 Sustainability Report p. 26 (www.fmc.com/sustainability/datacenter.aspx)
EN4 Indirect energy consumption by primary source.	2012 Sustainability Report p. 26 (www.fmc.com/sustainability/datacenter.aspx)
<b>EN6</b> Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	2012 Sustainability Report p. 28
EN8 Total water withdrawal by source.	2012 Sustainability Report p. 26 (www.fmc.com/sustainability/datacenter.aspx)
EN16 Total direct and indirect greenhouse gas emissions	2012 Sustainability Report p. 26 (www.fmc.com/sustainability/datacenter.aspx)
	, , , , , , , , , , , , , , , , , , , ,
by weight.  EN18 Initiatives to reduce greenhouse gas emissions and	2012 Sustainability Report p. 31
by weight.  EN18 Initiatives to reduce greenhouse gas emissions and reductions acheived.  EN20 NOx, SOx, and other significant air emissions by type	
by weight.  EN18 Initiatives to reduce greenhouse gas emissions and reductions acheived.  EN20 NOx, SOx, and other significant air emissions by type and weight.  EN22 Total weight of waste by type and disposal method.	2012 Sustainability Report p. 31 2012 Sustainability Report p. 26
by weight.  EN18 Initiatives to reduce greenhouse gas emissions and reductions acheived.  EN20 NOx, SOx, and other significant air emissions by type and weight.	2012 Sustainability Report p. 31  2012 Sustainability Report p. 26 (www.fmc.com/sustainability/datacenter.aspx)  2012 Sustainability Report p. 26

Standard Disclosures	Page or Information Link
Disclosure on Management Approach (Labor Practices and Decent Work)	2012 Sustainability Report pp. 20-25
LA1 Total workforce by region and employment type.	2012 Sustainability Report p. 3
<b>LA2</b> Total number and rate of new employee hires and employee turnover by age group, gender, and region.	2012 Sustainability Report p. 23
<b>LA3</b> Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	FMC.com: Careers-Benefits (http://www.fmc.com/careers/Benefits.aspx)
<b>LA4</b> Percentage of employees covered by collective bargaining agreements.	2012 Sustainability Report pp. 24-25
LA7 Rates of injury, lost days, and work-related fatalities.	2012 Sustainability Report p. 9
<b>LA8</b> Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	2012 Sustainability Report p. 25; FMC.com: Careers-Benefits (http://www.fmc.com/careers/ Benefits.aspx)
<b>LA11</b> Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	2012 Sustainability Report p. 22-23; FMC.com: Career-Benefits (http://www.fmc.com/careers/ Benefits.aspx)
LA12 Percentage of employees receiving regular performance and career development reviews, by gender	Online GRI Content Index: (www.fmc.com/ sustainability/gri_index.aspx)
<b>LA13</b> Composition of governance bodies and breakdown of employees by indicators of diversity.	2012 Sustainability Report p. 22; FMC.com: Leadership Team (http://phx.corporate-ir.net/ phoenix.zhtml?c=117919&p=irol-govmanage)
Disclosure on Management Approach (Human Rights)	2012 Sustainability Report pp. 24, 27-28
<b>HR2</b> Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.	2012 Sustainability Report pp. 27-28
<b>HR3</b> Total hours of employee training on policies and procedures concerning aspects of human rights.	2012 Sustainability Report p. 24; The most recent training took place in 2011 and 97 percent of employees completed this training. <u>All</u> employees will be required to re-train on the updated Code (see report text for more information) in 2013.
Disclosure on Management Approach (Society)	2012 Sustainability Report pp. 24, 35-36
<b>SO1</b> Percentage of operations with implemented local community engagement, impact assessments, and development programs.	We work to engage the local community at all of our sites around the world (see 2012 Sustainability Report pp. 35-40 for examples).
<b>SO2</b> Percentage and total number of business units analyzed for risks related to corruption.	Under FMC's rigorous anti-corruption risk assessment program, one hundred percent of FMC business units are analyzed for risk related to corruption.
<b>SO3</b> Percentage of employees trained in organization's anticorruption policies and procedures.	All FMC employees located throughout the world receive basic training for legal compliance and ethical behavior, including anti-corruption training. Those management and non-management employees who are in commercial positions and those who have contact with government officials receive additional, more focused anti-corruption training.
Disclosure on Management Approach (Product Responsibility)	2012 Sustainability Report pp. 11-13; Online GRI Content Index (www.fmc.com/sustainability/gri_index.aspx)
<b>PR1</b> Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	2012 Sustainability Report pp. 11-13; Online GRI Content Index (www.fmc.com/sustainability/gri_index.aspx)
<b>PR5</b> Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	Online GRI Content Index (www.fmc.com/ sustainability/gri_index.aspx)

The following indicators are partially reported: EC1, EN3, EN4, EN20, LA1, LA2, LA7, and LA13. All other indicators are fully reported.



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