

# Sustainability Report 2010



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## Letter from the Director

2010 was an extraordinary year in which good market conditions combined with excellent improvements in the production of our company, as a result in 2011 we began an ambitious three-year expansion program that will strengthen our company as a national pork industry leader.

Our mission covers three key areas: leadership, commitment to the community and the environment, and the third aspect, not least important, the development of our employees. In 2010, we made sure to monitor the quality of all these aspects of performance that made us obtain for the fifth consecutive year the SRC distinction, improving our score in all indicators.

Today, we are a much safer company thanks to the implementation of the ongoing program A.L.E.R.T.A. (Logical Actions to Prevent Accidents and Occupational Hazards); the entire workforce was trained in this matter.

We also stand out as a healthy company because we received the White Flag certification by the Mexican Social Security Institute after joining their program of surveillance and control of health, VICORSAT.

We are still growing steadily. The 2010 was the best productive year in our history; this compels us to continue on the path of international competitiveness, sustainability and social inclusion.

In the following pages we describe all of the above.

Sincerely  
Victor M. Ochoa  
General Director



# This is GCM

Granjas Carroll de Mexico (GCM), today at this precise moment in time, is established as a national leader in pork production, it is a Mexican company with international performance standards, socially responsible, incorporating environmentally friendly technologies in their processes. It started operations in 1993; its aim is to offer the market the best quality meat, fulfilling this with all health and environmental standards required by national and international bodies.







Considered the most technologically advanced in the country, GCM has 16 farms installed in the valleys of Perote and Guadalupe Victoria, a region bordering the states of Veracruz and Puebla, which are continuously improving husbandry techniques. This translates into an annual production of one million 200 thousand heads, on average, **contributing with 1.3% of total pork produced in the country, getting the first place nationally while ranked 24 worldwide.**

#### Nutrition in one bite

- 70% pork fat is oleic acid, which fights cholesterol
- 21% Phosphorus: develops and maintains healthy bones and teeth, muscle tissue and cell metabolism
- 12% Zinc, which develops the immune system
- 66% Thiamin: involved in the

metabolism of carbohydrates and helps the nervous system

- 11% Potassium, helps regulate blood pressure, heart and kidney problems.



The company is composed of an equal partnership between

- **Agroindustrias Unidas de México, S.A. (AMSA)**: Mexican socially responsible company with more than 150 years of experience in the marketing of agricultural products (Soft Commodities) with divisions in cotton, coffee, cocoa and grains. It recently opened its financial division to support agricultural production.
- **Smithfield Foods**: U.S. Company recognized as a worldwide leader in production and marketing of pork, with business in France, Romania, Poland, USA and Mexico.



**To be leaders in the Mexican pork market by producing the highest quality hogs for the consumer.**

## Mission

**To keep a high commitment to the community in which we operate, the environment and business productivity.**

**To find all this by making emphasis on personal and family development encouraging our values at all times.**

## Vision

**"To be the most profitable pork company, sustainable; and recognized by the markets in which we participate by 2020."**



## Values

GCM staff behaves and acts towards each other at the workplace under the following core values

### Responsibility:

we are responsible for our decision-making and actions, so we accept the consequences.



### Respect:

we treat our colleagues, our company, our customers, suppliers, neighbors and the environment as we would like to be treated ourselves.

### Attitude:

we strongly believe that by keeping an open and positive mind, we can face any situation or challenge finding the best possible solutions.

### Discipline

we do our part, when we have to and we do it the best possible way.

### Integrity:

we do the right thing under any circumstance.

### Innovation:

we trust our intelligence, discipline and creativity, therefore our work will always find new and better ways to perform.

### Commitment:

we do our best to stand out as individuals and as employees therefore we exceed our expectations and those of our customers, both internal and external.

### Leadership:

we hope that our example will positively influence the immediate environment, in our family and our company, thereby we improve our quality of life and that well-being transcends across the country.



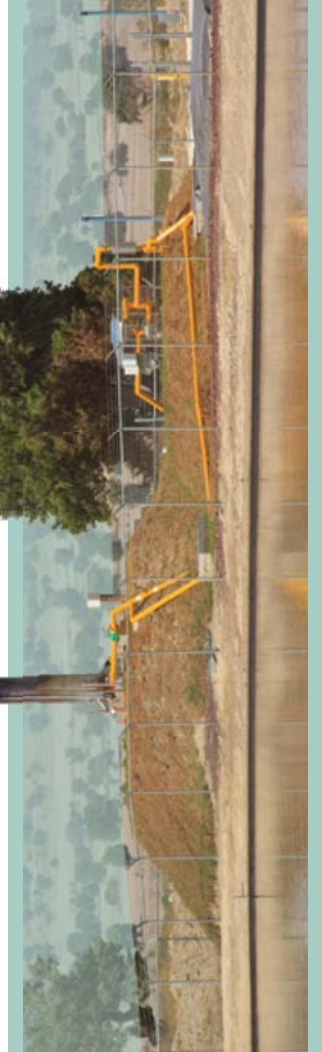
# Environmental Policy

The success of GCM in the long-term depends on the ability to continually improve our environmental performance.

In GCM, environmental care is a value with equal importance to production, sales, bio-security and costs.

We are committed to the well-being of our customers, employees, suppliers, shareholders and neighbors in the communities where we work and live.

GCM demands all employees and stakeholders to participate in its activities to maintain a high commitment and visible responsibility in implementing this environmental policy.



We are committed to:

- Protect and improve environmental conditions in our surroundings at all times
- Apply our technical skills to all environmental aspects of our operations to minimize our impact on the environment

The commitments listed are added to our basic obligation in compliance with current laws and regulations in the areas where we operate.



**The Federal Environmental Protection Agency (Profepa) in Veracruz certified us as a Clean Industry and we are working to be certified by Profepa Puebla.**



In the last quarter of 2010, the company began its path to another environmental certification, the international: ISO 14001

## Code of Ethics

The staff of Granjas Carroll de Mexico conduct itself under a Code of Ethics that upholds the principles and lines of business performance: **integrity, personal commitment, company loyalty and transparency in all work-related actions** regardless of hierarchical level within the organization.



**The Ethics Committee was created to monitor ethics enforcement; it regulates, monitors and evaluates the criteria and standards of professional activities in GCM.**

Art. 5.- The Committee is composed of seven members, they hold office for an equal period to the performance of their duties within Granjas Carroll de Mexico

- PRESIDENT: Position occupied by the General Director, MVZ Victor Manuel Ochoa Calderon.
- SECRETARY: The Director of Finance and Administration, CP Marco Antonio Muñoz Moreno.
- MEMBERS: Five positions will be filled by staff with an unblemished work record, full knowledge of the rules and honorable discharge of their duties. In 2010 these positions were filled by Jose Luis Romano Hernández, Anel Coéllar Sánchez, Tito Tablada Cortés, Juan Carlos de Pedro Ortega and Álvaro Bravo Pedro Zepeda.

### Reports received in 2010:

- \* Attitudes against ethics and morality
- \* Manipulation of production information
- \* Improper behavior of members of the organization during or after working hours
- \* Omissions or absence of controls in the processes or procedures



100% of the cases were handled in a period not exceeding 20 days. Reforms to internal controls for different departments were made from these complaints, as well as the creation of five administrative proceedings.

# Corporate Governance

Since the founding of Granjas Carroll de Mexico, its governance and administration have been governed under Mexican standards following their particular statutes.



Based on financial transparency practices, responsibility and high ethical values; The company meets the quality expectations of shareholders, customers, employees and other stakeholders.

We take very seriously our responsibility for business decisions and the accuracy of the information provided internally and externally. This is the only way the company can grow steadily and we can consolidate our image.

The General Assembly of Partners determines how the Board of Managers is integrated, which is in turn supported by the different committees:

1. **Nomination Committee of Executives and Compensations:** Composed of two representatives from both partners and the General Director
2. **Finance and Audit Committee:** It is composed of one representative of the Mexican partners, the Director of Finance and Administration and the General Director
3. **Committee on Environment and Social Responsibility:** It is composed of the Manager of Environment and Energy, Public Relations Manager and the General Director
4. **Purchasing Committee:** It is composed of the Director of Finance and Administration, Purchasing Manager, the Director of Feed Mill, Veterinary Services Manager, the Production Director and the General Director

The General Director, also elected by the General Assembly of Partners, is evaluated annually by the Board of Managers.



## Quality Assurance

The effort we make every day in our work has paid off. Thanks to the opportune completion of our mission by applying our values, we have passed every health and environmental examinations to which we have been subjected to, we have obtained outstanding results at all times.



Since 2007, we have been awarded the Socially Responsible Company recognition by the Mexican Center for Philanthropy (Cemefi), because we have met the established parameters. The one obtained in 2010 was got with outstanding grades.

### CORPORATE SUSTAINABILITY

- QUALITY OF LIFE IN THE COMPANY
- BUSINESS ETHICS
- COMMUNITY INVOLVEMENT
- CARE FOR THE ENVIRONMENT

**A responsible sustainable company cares to meet the needs of the present generation without compromising the needs of future generations.** In addition the environmental impact of their activities, sustainability takes into account issues ranging from employee satisfaction, quality of its products, the origin of their inputs, to the social and economic impact that it generates for the development of a country.



## Quality of life in the company

**In Granjas Carroll de Mexico we know that our most valuable asset is human capital.**

A fundamental part of our Corporate Responsibility activities is aimed at ensuring the welfare of our employees.

Besides the social security benefits, we have ongoing medical care for staff and their immediate families, the implementation of a new security program that debuted in 2010, the ongoing training available to every employee of any area in different areas of interest, scholarships for their children as well as recreational activities and promotion of sport. We believe that those who work at this company have a wide range of possibilities for career development, personal growth and family welfare.

In 2010, we invested a total of \$ 2'496, 377.97 for this area.

## Scholarships

Granjas Carroll de Mexico in association with Prestadora de Servicios Profesionales y Operativos, SA de CV, and in coordination with the incumbent union of the collective employment agreement, CROM, awarded scholarships to children of workers with academic excellence in the period 2010-2011.

They are regular students of any institution in the national education system, public or private, primary, secondary and high schools, excluding only the education system for adults.



**30 scholarships were awarded to unionized employees and 10 for non-unionized employees,** financial support consisting of 600 pesos per month is paid bimonthly via bank deposit by electronic transfer and / or check issued by the Payroll department.

## Training Programs

In 2010, GCM focused on training its staff in:

- Course: The 7 Habits of Highly Effective People
- Program: A.L.E.R.T.A. (Logical Actions to Prevent Accidents and Occupational Hazards)
- Workshop: Effective Leadership
- NLP Course
- Technical training in various areas
- English Classes
- First Aid and Cardio-Pulmonary Resuscitation
- Refresher courses on accounting and taxes

Results: Over 70% of employees received training.



## Recreational and Sporting Events

As every year, we carry on the following events for employees

- **APRIL 30, CHILDREN'S DAY:** We entertained the children of the workers with a play and a funfair; 1,200 children participated.
- **MAY 10:** We gave GCM working moms a voucher, it was worth 400 pesos and could be redeemed at a department store, in addition to giving the day off.
- **SUMMER SCHOOL FOR CHILDREN:** The Department of Environment and Energy coordinated this event. The Summer School for children of employees of GCM was organized for the second consecutive year, 120 children participated, they were between 6 and 12, ecological issues were taught in a fun learning environment.
- **HIKING AT Cofre de Perote:** All workers and their families are invited to this annual hike, it was held on 6 November and 30 people participated, they got to the top of the volcano.
- **ANNUAL CHRISTMAS DINNER:** We celebrated Christmas with 2,300 attendees.





Sports activities were:

- INTERNAL SOCCER CHAMPIONSHIP: A total of 250 employees made 20 teams for a tournament that lasted 2 months.
- INTERNAL BASKETBALL CHAMPIONSHIP: Both in male and female teams, with the participation of 200 players in the tournament which lasted from October to December 2010.



- GCM Runners Club: Competing in 5 and 10 K, a group of 20 men and 5 women represented us in:
  - Race Gulf in the port of Veracruz, Veracruz
  - Race AvandRadio in Xalapa, Veracruz
  - Race 10K in Puebla, Pue.
- PARTICIPATION IN THE MUNICIPAL CHAMPIONSHIP OF THE SOCCER LEAGUE: The winner of the internal tournament participated in the Municipal League representing the company and got the first place in the competition.

## A healthy business

In GCM we look after the health of our workers and that is why in 2010, for the first time, we applied the test **VICORSAT** (Monitoring and Control in Health and Labor Risks), through this we could obtain a general diagnosis of our staff. Health aspects were evaluated,

not only physical ones but also occupational ones such as tiredness and work habits. The benefit was for the entire workforce, **1,007 employees** until August.

**We obtained the White Flag Certification because of our positive health indices.**



This program is based primarily on prevention: its objective is to measure the risk factors of the working population. It is done in combination with the federal program PREVENIMSS and we will apply it every year. **In 2011, at an event organized by the delegation of the IMSS in Perote, the white flag certification will be awarded.**

84% of workers had an optimal blood pressure, 74% had good cholesterol and triglyceride levels, and 74% is in good physical condition, while the propensity to diabetes occurred in only 2% of staff. Tobacco and alcohol consumption is minimal, while only 10% are at risk for osteoporosis.



**A.L.E.R.T.A.,  
Safety First**

**Staff safety has always been our priority.**

Although we have the institutional instruments to avoid unsafe conditions in all areas, such as signage, safe facilities and elements that comply with national and international regulations, we believe that prevention of extraordinary events is everybody's task.

Thus, in accordance with our business ethics, we implemented the program **Logical Actions to Prevent Accidents and Occupational Hazards (ALERTA)**, its function is to provide knowledge about accident and risk prevention to over a thousand workers who make up Gracías Carroll de Mexico. In 2010 we began the first stage of the workforce training, which aims to raise awareness about situations that involve risks. A second set of lectures about new issues of equal importance in this area will take place on the last quarter of 2011.

How to make sure that the appropriate preventive measures are carried out in each of the facilities and for each activity? In the first instance, through training, we rely on the responsible behavior of each employee. In addition, we make available a form to record and identify malpractices: the report of "alerts" to the Security Department. We exhort employees to have a more proactive involvement to report any anomaly. **The international consortium Smithfield recognized us as the partners with the best safety measures in August 2011, because of the performance shown in 2010 and the ALERTA program.**



# Business Operation

The heart of our business is the pig production; we use a process called "Segregated Early Weaning System". In this process there are three main phases that are developed at each specialized site that our farms have:

Site I. Farrowing (delivery units)

Site II. Nursery (piglet units)

Site III. Finishing (grow units)

In 2010, a total of 668 936 different stage pigs were housed in 72 modules that make up the farms.



**We have a feed mill that processed 372 627 metric tons last year.** This is how we can directly monitor the healthy nutrition of our animals. The balance of ingredients is set according to the role and stages of life: nutritional requirements are different for pregnant sows, lactating sows and boars, or between early weaned piglets, growing piglets, growing pigs and finishing pigs. Therefore we produce 13 different types of feed, to which vitamins (A, B, C and D) and minerals (calcium, phosphorus and sodium) are added to ensure optimal development.



A strict biosecurity scheme ensures the protection of animal health. This is an internal regulation, which is followed to the letter by each and every one of those who integrate GCM, it is essential to respect this scheme in order to maintain the quality of our final product.

**800 tons of grain a day, processed into pellets, is needed to meet the feed needs of our herd**



# Sales Report

We reached record numbers last year. We started 2011 with the same momentum, and also with many expectations because we are growing and we are constantly improving our processes.

Over a period of 12 months we achieved to sell our total production **1 million 147 thousand 287 pigs for national consumption**, surpassing the estimated budget by 21 075 animals. This translates into 133 millions 790 thousand 495 kilograms of meat put on the market, this number exceeds that of 2009 by 14 million 433 thousand 564 kilograms.



2010, the most productive year for GCM

Pork Consumption per capita in Mexico is 14 kilograms per year

Source: SAGARPA



Our main customers are in the states of Chiapas, Guanajuato, Guerrero, Hidalgo, Morelos, Oaxaca, Puebla, Tabasco, Tlaxcala and Veracruz, but especially the Federal District and Mexico State, with 86.74% of total sales. Our fleet, consisting of 28 transport units, made 6,852 shipments and **traveled 3 million 653 thousand 673 kilometers**.

Comparison:

	2009	2010
Supreme	92.9%	94.2%
Tender	3%	1.6%
Cocktail	4.1%	4.2%



The average weight of sold pigs was 116.61 kilograms, higher than the average weight in 2009, whose average was 114.28

## Interest Groups



### Internal

**Workers:** 1,050 employees, our families and the union  
**Owners:** Agroindustrias Unidas de Mexico and Smithfield Foods  
**Clients:** TIF slaughter houses and butcher shops that prepare the meat

The company's growth parallels the personal growth achieved by every employee who enters the ranks of this company. Meanwhile, the quality of our products determines the preference of our customers, establishing from this moment a business relationship with a high sense of mutual responsibility. Aware of the above, the partners, AMSA and Smithfield Foods bet all decisions on the highest standards, this leads to the complete achievement of our mission.

The Win-Win philosophy is key to the success for GCM

Although livestock is the reason why the company exists, the great chain of command which is linked to compose our production cycle (such as agro industry and other derivative services such as shipping) is of vital importance. That is why the human factor plays a major role in the organization and is divided as follows:

### External

**Surrounding communities:** Residents of communities in the region where we operate  
**Organizations:** Organized groups of civil society  
**Suppliers:** Regional and national companies, and large international companies  
**Government:** National, state and municipal

#### Private Associations:

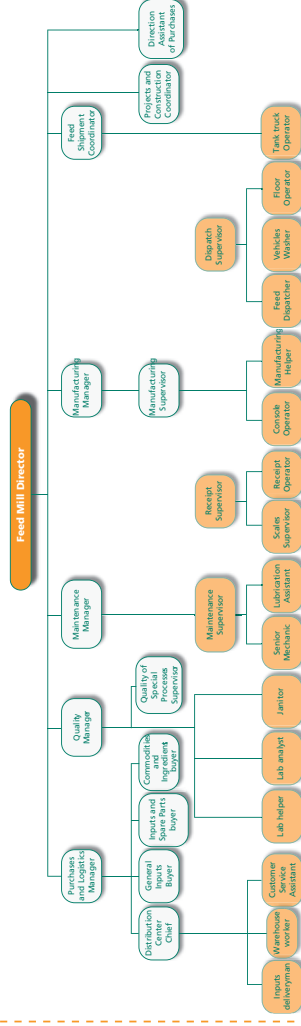
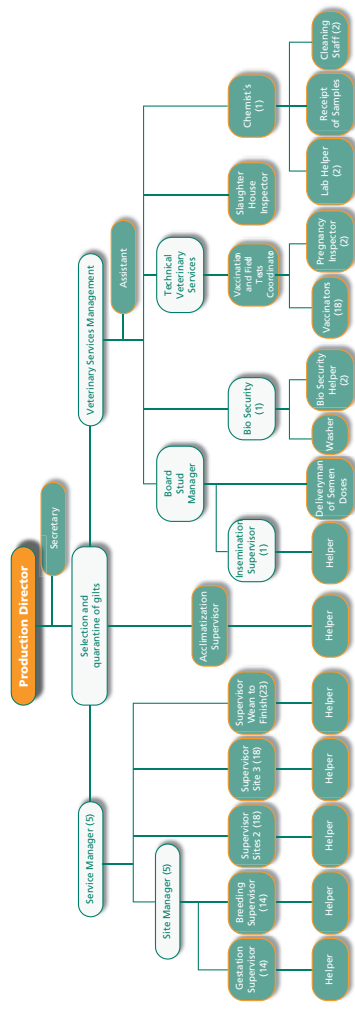
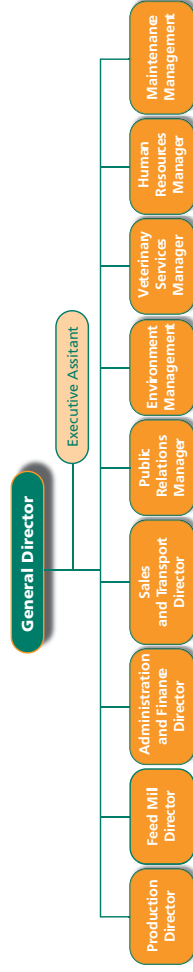
- **AMEPA** (Mexican Association of Food Producers AC),
- **CNA** (National Agricultural Council),
- **Canacintra Puebla and Xalapa** (National Chamber of Transformation Industries),
- **AIEVAC** (Industrialists Association of the State of Veracruz),
- **Puebla Association of Pork Producers AC,**
- **Veracruz Pig Farmers Livestock Agency AC,**
- **National Organism of Swine Certification and Verification AC,**
- **Mexican Hog Farmers Confederation AC,**
- **Fomexporc** (Promoting Consumption of Pork),
- **Conafab** (National Council of Feed Manufacturers and Animal Nutrition AC)
- **Camexa** (German-Mexican Chamber of Commerce and Industry AC)

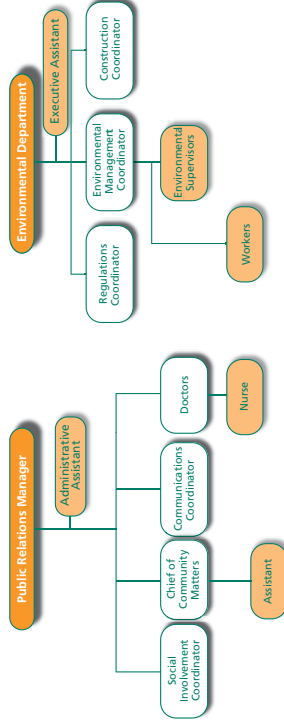
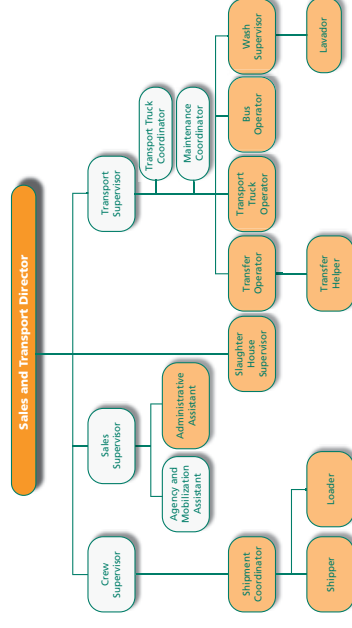
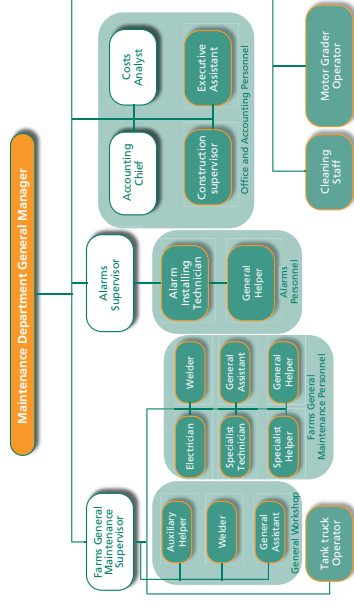
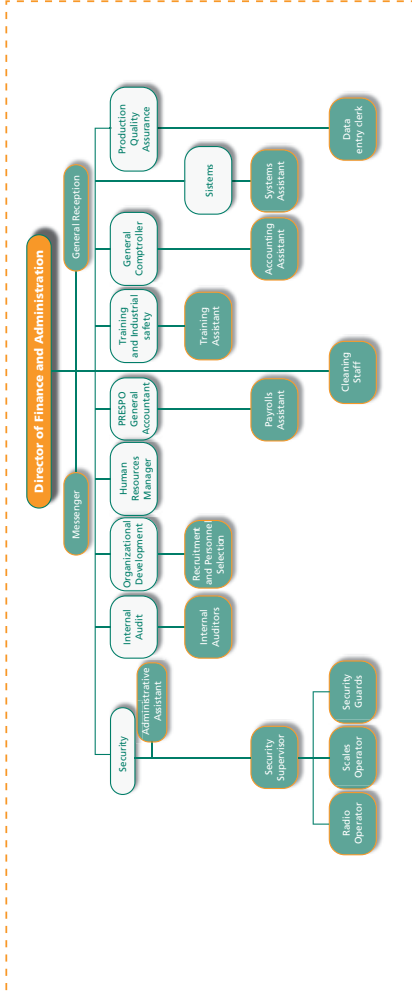


**GCM staff of volunteers, composed of some of our stakeholders, participates in activities to preserve the ecological environment and rural development that concern us as a Socially Responsible Company.**

## How are made up?

The company consists of interdependent areas according to their different objectives. Our organization chart, until the end of 2010, worked as follows:







# Community Involvement

In 2010, we created a foundation that allows us to institutionalize, specialize and expand the programs we performed for the benefit of the inhabitants of the communities.

Through the GCM Foundation we have started alliances with companies and institutions to increase the number of actions to benefit education, health, sports, recreation, culture, community development and environmental care.

In 2010, we invested a total of \$ 6'442, 730.43 for this area.





The actions have begun to materialize in specific projects, planned in accordance with our participatory rural development projects and the work we have been developing for years.

#### COMMUNITY INVOLVEMENT

- RURAL DEVELOPMENT
- HEALTH
- ENVIRONMENTAL CARE
- EDUCATION



## Participatory rural development, a new stage

Community development requires a great effort and enthusiastic cooperation of the parties. As part of the programs to improve the quality of life around us, a focus on the surrounding communities was projected under a proven methodology.

We conducted a study in communities of Veracruz and Puebla, those where the backwardness and poverty

are persist. This participatory rural appraisal, conducted for five months in 2010, marked a turning point in the cyclical history of our company: applying other community involvement mechanisms based on individual needs.



**At GCM we seek to strengthen the capacities of producers and promote the full participation of the community.**

Applying a long term action plan, we intend to include other communities, giving feedback to the model and seeking to establish **permanent projects** that meet business goals for its participants.

We detected that the main causes that lead to stagnation in productive and social levels are middlemen, pests and crop diseases, droughts and the lack of equipment.

Field research allowed us to know the needs of each area, their strengths and weaknesses. At each place we talked with members of the cooperatives, civil authorities and community representatives, this was how we could design a specific action plan for each group and each village.



These workshops, lectures, courses and anything else that provides tools for the agricultural worker, the goat producer, housewives and even children can develop their skills and implement the lessons learned in his daily life in order **to contribute to productivity growth, economic and social development of their regions.**

**The self-sustainable development is the key to start improving quality of life levels**



# Community Development Report

## Participatory Rural Development

- Development of Rural Appraisal by studying communities
- Training for the production of organic fertilizers
- Training in backyard vegetable gardens
- Beekeeping Workshop

## Donations

- Donation of organic fertilizer (cerdaza)
- Donation of native seed
- Donation of 2 pumps for communities of Veracruz and Puebla

## Farming by Contract



## Support to government institutions

- Donation of vests to the Municipal Traffic Delegation
- Donation in kind to the Delegation of the Federal Preventive Police (PFP)
- Repair Service of a garbage truck
- Donation of road signs

## In-kind support for fiestas Creation and maintenance of community roads

## Donation to 'Jugueton'



#### Christmas Posada in Frijol Colorado, municipality of Perote (Veracruz)

- Donation of pantry staples
- Donation of toys, piñatas and candy

#### Campaign “Winter in the Valley, Summer in the Heart”

- Donation of blankets, winter clothes and sweets
- Donations in kind to Food Bank MANA

#### Support for construction projects

- Urban infrastructure for public events
- Sidewalks and paving of road sections

#### Support and consulting for craft productive projects



Campaign to raise awareness about the importance of food donations on an ongoing basis among the patients who are receiving medical treatment from the State Center for Cancer (CECAN) located in Xalapa, Veracruz (Contribution to the program “Donate a can”).

#### Pig Donation Agreement

- Donation of meat and other inputs to retirement home Sayago in Xalapa and Grandma’s House in Puebla

In-kind support for the project in the community El Paisano, municipality of Las Vigas, Veracruz

Donations in kind to those affected by Hurricane Karl in Veracruz coasts, municipality of Paso de Ovejas



## Health Care

The Company provides free medical consultations in the Health Houses installed in 14 communities in the states of Puebla and Veracruz with its medical staff, consisting of two doctors and a nurse. They developed the following actions:

### PROGRAMS:

#### Campaign on Early Detection of Cervical Cancer (D.O.C.)

126 tests of hybrids were administered

- Donation of 2,500 vaginal mirrors to the Sanitary Jurisdiction Number V of the State of Veracruz
- Referring patients to the Medical Center for Cancer (CECAN)
- Payment of travel expenses to 45 treated patients

The Hybrid Detection Technique was introduced



### Getting Medicaments donations

Donations of medicaments through by laboratories such as Pfizer, Bayer, DIF and State secretariats of Health of Veracruz and Puebla.

### Generating alliances and strengthening the value chain

We worked with Pfizer Laboratories using the mobile unit, this led to the early detection of chronic-degenerative diseases in 12 communities of Puebla and Veracruz, benefiting 2 500 people

A total of 11,735 medical consultations in 2010

- Medical consultations in Veracruz: 6,679
- Medical consultations in Puebla: 5,056
  - Quality of medical service
  - Maintenance and Rehabilitation of Nursing Homes
  - Health training for the staff

### Cataract Operations

50 people benefited from surgery, intraocular lens and travel expenses, in coordination with the Club de Leones Costa de Oro and the Regional Hospital of Veracruz

### Dental Health Campaign: Zero Caries

It was applied in elementary schools in the following communities: Xaltepec, Orilla del Monte, Frijol Colorado and Guadalupe Victoria, Ver. 750 children had the benefit of fluoride application, awareness talks and toothbrushes

### Nutrition Talks "Let food be thy medicine"

We advice 160 attendees on healthy eating habits with the help of a student from the Nutrition School, she is part of the GCM volunteering.



### Exercise in communities program

From the second semester of the year, physical fitness is being taught in two communities in Veracruz, Zalayeta and Xaltepec. It has benefited 85 people after a complete medical evaluation

### Campaign for Hearing Aids

we sponsored medical evaluations in combination with state and municipal DIF systems, benefiting the general public with 100 hearing aids

## Support for Education

In education, we have honored our SRC distinction by performing the following actions:



### Support in kind and cash for schools

- Construction materials for building a classroom to benefit children with motor disabilities
- Support for transportation for school trips
- Support for meals
- Donation of books
- Donation of paint for murals
- Donation of pigs for school parties
- Rehabilitation of schools (classrooms, sports fields, restrooms, fences, sidewalks)

GCM gives students from the following institutions the opportunity to do these activities: Social Service, professional practices, graduate and master's thesis

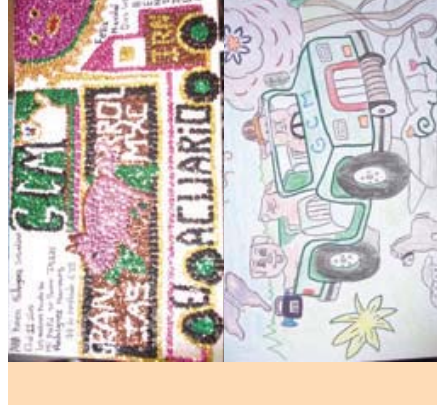
- Benemérita Universidad Autónoma de Puebla
- Instituto Tecnológico de Teziutlán
- Universidad Veracruzana
- Instituto Tecnológico Superior de Xalapa
- Universidad de Xalapa
- Instituto Tecnológico de Tepeaca
- Universidad de Tecamachalco
- Instituto Tecnológico de Libres
- Universidad Veracruzana
- Instituto Tecnológico Superior de Perote
- Centro de Bachillerato Tecnológico Agropecuario
- Bachilleres General Manuel Rincón

### Inter sectors alliances in education

- UNCADER
- CBTa 86
- UV
- INECOL

Drawing competition with children of workers in GCM

Different Supports for the House of Culture







## Environmental Care

The environment in which Granjas Carroll de Mexico operates is a priority, so that the projects implemented in 2010 were:

### Donation of trees (endemic species)

### Support for national parks: Cofre de Perote and Pico de Orizaba

- Donation of maize seed (19 Rangers)
- Donation of computer equipment and furniture
- Support for working equipment



### Recycling Campaign (PET) in schools

### Making ecological stoves Workshop

- Donation of ecological stoves



### Agreement INECOL-GCM

- Study and preservation of the endemic squirrel in Valle de Perote

# Care for the Environment

In 2010, \$ 47765, 894.00 was allocated for actions related to environmental care, the largest historic budget allocated to this area.

## Continuous Improvement Actions

- Construction of evaporation lagoons at sites: 17-3A, 17-3D and 15-1
- Construction of recycling lines from the site 15-1 to 15-3D, 15-3F, 15-3H and 15-3G



Thanks to our philosophy of sustainable growth and commitment to environment care, in 2009 we became the first pork company in the country to obtain the Clean Industry Certification awarded by the Veracruz Profepa Delegation.

GCM joined the National Environmental Audit Program in 2005 in order to obtain the certification; this program is administered by the Federal Environmental Protection Agency. The facilities we had at that time were: eight farms in the state of Veracruz (1, 2, 3, 4, 5, 10, 11 and 13) and five in the state of Puebla (6, 7, 8, 9 and 12).

After four years of being audited and having demonstrated compliance with action plans which included corrective and preventive measures suggested by the environmental authority, in 2009 we obtained the Profepa certification for the farms located in Veracruz, while for the ones located in Puebla we are in the final stage of compliance with the federal standards.

Our immediate goal is to obtain the Clean Industry certification for the farms located in Puebla. We are also looking forward to ratifying the certification obtained in 2009 for Veracruz and incorporating our more recent farms (15, 16 and 17) and the Maintenance Workshop into the Environmental Audit Program in order to obtain the same certification.





## Environmental Campaign

Granjas Carroll joined environmental actions led by the Veracruz State DIF on September 6, 2007. From this date we started a permanent campaign of collecting and storing paper and batteries in the company, the Department of Environment is in charge of the program. In this context the following actions were implemented in 2010:

- Boxes donated by DIF were placed at strategic points within the company, these serve the purpose of collecting paper. Paper is shipped to the facilities of International Paper every three months, this company deals with its recycling. The batteries are delivered at the offices of the System for Family Integral Development in the state of Veracruz, which sends them to a company that specializes in safe disposal of this waste to avoid environmental damage.

Within the environmental management system, we also contemplate the control of electronic waste that might be produced in the company. In 2010 we participated in the "Reciclón", this program allowed the collection of obsolete electronic equipment in order to proceed to its destruction by sending it to the specialized company REMSA. Remove the rest of the paragraph from where it says "This year 2011. ..."

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**We participate in environmental studies such as the registration of meteorological variables and the wind measurement for wind energy generation, in coordination with academic institutions dedicated to do world-class research:**

- Universidad Veracruzana
- UNAM
- Instituto de Investigaciones Eléctricas

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## Conservation Areas

Our **nursery** covers 2,500 m<sup>2</sup> in a private conservation area of 28 hectares on a piece of land adjacent to one of our farms, it kept its pace of growth and **22 sites in Puebla and Veracruz** were reforested with the plants grown in it. We also allocated a percentage of the trees of the six species we grow (white cedar, stone pine, montezumae pine, spreading-leaved pine, willow tree and Chinese elm) for donations to surrounding regions.



Number of new plants (born in 2010) 25,466 plants:

22,438 Stone Pine

3,000 Spreading-leaved pine

**117.79 hectares reforested in 2010**

GCM Sites	129,569 plants
Donations to lands belonging to cooperatives and municipalities	9,650 plants
Event: World Environment Day	800 plants

**TOTAL: 140, 019 plants planted**

**Plants on sites**

**TOTAL: 129,569**

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Environment Care



## We joined the UN Initiative

The participation of GCM staff of volunteers in reforestation campaigns in our region of interest to celebrate the World Environment Day, established on June 5th by the United Nations, has become an important tradition in our company.

In 2010, about 100 people (including suppliers, employees, customers and GCM partners) focused on planting 800 plants of the species white cedar and stone pine, in the area near the San Carlos Fortress, which is a historical symbol of the city of Perote.



## Sustainable Productive Process

### The treatment lagoons

The system of wastewater treatment of our facilities consists of four stages.

**The first stage** takes place inside the farm, where pig excreta passes through the slotted floor (slats) and falls into the "pit" or "flooded pit", built of masonry, this deposit is 0.30 m deep, that is the same width and length of the pens where the pigs live. Sewage water is kept here to disintegrate excreta and facilitate bacteria to digest organic matter, and also to facilitate its transport to the next stage of treatment.



**The second stage** is carried out in a **primary lagoon** or an **anaerobic digester**, which is a square shaped structure dug into the ground and it is coated with a high density polyethylene membrane, it is 1.52 mm width; the top is also coated with a membrane, so it forms a closed container or tank completely waterproof.



The discharge pipes of the “pits” are connected to the digester, its task is to facilitate the natural fermentation or degradation of organic matter, which occurs in the absence of oxygen. The growth and proliferation of methanogenic anaerobic bacteria transform the waste, the final product is a combustible gas called biogas, natural gas, marsh gas or methane (CH<sub>4</sub>). As a result there is also a small amount of carbon dioxide (CO<sub>2</sub>), an effluent enriched in nutrients bio available to plants, and organic stabilized matter. The water is kept in the digester from 35 to 40 days.

**The third stage** takes place in a **secondary or recycling lagoon** where the treated wastewater is stored. When these lagoons are built, a layer of compacted clay material (0.60 m thick) is essential to prevent water from infiltrating into the ground. From this lagoon the treated water is pumped back into the buildings to flood the “pits” again. Since it is exposed to the environment, the secondary lagoon allows the evaporation of a small amount of water.



**The fourth stage** takes place in **the evaporation lagoon**; it has a much larger area and less depth. Its main function is to facilitate the excess water in the system to evaporate back to the atmosphere.

## Collecting of Methane

Another vital aspect of our production system is the collecting of the methane produced by our pigs through the aforementioned system of digesters. Once organic waste is converted into liquids and gases, once they are separated, the next step is to burn the biogas to avoid polluting emissions into the atmosphere.

Our goal is to use the methane as a power source that supplies all our farms. We have a pilot project; two sites are already being illuminated from the gas produced.



## We are a social ecological company

We donate a useful sub product to groups of producers in the communities, organic fertilizer, it is obtained by having completed the process of treating organic waste in the lagoons of our farms.

