



# Semilla Nueva

Tecnología • Agricultura • Comercio • Institucionalización



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## 2014 Annual Report

*Esperanza Sales presents  
her green tortilla recipe at  
**2014 National Conference**  
to over 270 attendees.*



# Semilla Nueva

## A Word from our Director:

2014 has been a breakthrough year for Semilla Nueva. We expanded to 25 communities, designed even more new technologies to help Guatemalan farmers, and grew our staff to 15. We began to realize our dream of systematic change by working with the leading organizations in Guatemala to build national strategies for more nutritious crops and soil saving conservation agriculture. We gained the support of municipal and village governments for the work being done in our communities. To make it last, we began partnerships with numerous new funders, including the US Government's InterAmerican Foundation and the Guatemalan Government. If you have been involved in the life of Semilla Nueva, I hope you read this report with pride and appreciation for all we have done together.

But this year was about more than accomplishments—it was also about purpose. Guatemala was all over the news in 2014, as thousands of unaccompanied children being caught at the US border created an international crisis. Young boys and girls, facing death, rape, and torture on the journey, were sent by their families in the hope they would have a better life. What for many is just a tragic story is the everyday reality that we work in. When we ask ourselves why we do what we do, it is not because of international recognition or success. We do what we do because the injustice of the situation we live in every day must end. We do what we do because we believe there is another way—a way for Guatemalan farmers to find a future at home and keep their families together. As you read through this report, I hope you see this purpose shine through every page and photo. Please know that we wouldn't be here without all you have done to help us.

-Curt Bowen


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Semilla Nueva is a Guatemalan Civil Association working in sustainable agriculture and food security.  
We are also legally registered as a US 501(c)3 for tax purposes, EIN 36-4671687.

Guatemala | 7a. Avenida 14-44 Zona 9 Edificio La Galeria Local #17 | Ciudad de Guatemala | 2331 0626  
USA | 3909 Camas | Boise ID 83705 | (208) 963 0163  
[info@semillanueva.org](mailto:info@semillanueva.org)



A portrait of Bill Drayton, a man with dark hair and a light beard, wearing a light blue shirt and a dark tie. He is smiling slightly and looking towards the camera. The background is a soft-focus green, suggesting foliage.

*"Social entrepreneurs are not content just to give a fish, or teach how to fish. They will not rest until they have revolutionized the fishing industry."*

**- Bill Drayton Founder  
and CEO of  
Ashoka**

# International Leadership in Social Entrepreneurship

## What is Social Entrepreneurship?

Bill Drayton, the founder of Ashoka, describes social entrepreneurs as individuals who solve society's most pressing issues by changing systems instead of working on problems within the existing system. They are creative, persistent, and envision practical solutions on a wide-scale. Semilla Nueva was founded on the philosophy of social entrepreneurship, and in the past year we are incredibly proud to have achieved some of the most prestigious international awards in the field.



For the fourth year in a row Forbes selected 30 leaders under the age of 30 in 20 different fields. Forbes describes their 30 Under 30 list as "today's greatest gathering of young game changers, movers and makers." This year our cofounder and Executive Director, Curt Bowen, was one of the 30 millennials selected in the category of Social Entrepreneurship.



In August of 2014, Curt joined a cohort of 3,000 social entrepreneurs and became an Ashoka Fellow. Ashoka is one of the most established and prestigious networks of social entrepreneurship, and Curt's fellowship is a recognition of Semilla Nueva as one of the top social entrepreneurial organizations in the world. Ashoka will support Semilla Nueva financially and through connections with world leaders who can help Semilla Nueva create a lasting impact.

## Semilla Nueva at Buckingham Palace



At the end of January in 2015, Curt also participated in the Cambridge Unilever Sustainable Living Young Entrepreneur of the Year Award in London. Curt was one of the seven finalists chosen from over five hundred applicants. Judges included leaders from MIT, Unilever, Ashoka, the World Bank, and top professionals in the field. Curt dined at Buckingham Palace with Prince Charles, John Elkington (the man who coined the term sustainability), and Paul Polman, the CEO of Unilever. Curt left the event with winnings of 10,000 Euros for Semilla Nueva's programs.



# Changing Systems

## The Current Reality of Agricultural Development in Guatemala



**1: Technologies:**  
*Technologies are often well intentioned but not well adapted to local conditions. Some create more problems than they solve.*



**2: Farmers often participate in programs looking for handouts and with suspicion of what organizations teach, due to numerous bad experiences with NGOs and the government.**



**3: Institutions don't work together and focus on the short-term accomplishments necessary to get external funds. Government programs are often highly inefficient and overly political.**

## Semilla Nueva's Model

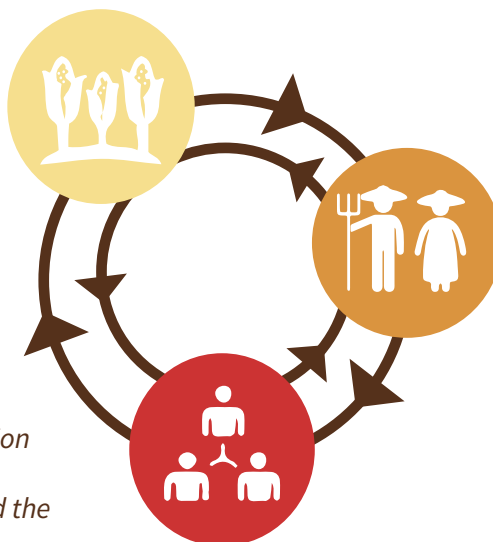
We draw on the strengths of each of these components to build a synergistic model for rural development in Guatemala.

### 1. Sustainable Agricultural Technologies

*Technologies can be highly impactful, well adapted, and desirable to small scale farmers*

### 3. Institutionalization

*By celebrating collaboration and the improvement in impact, organizations and the government can become more effective and recognized for their positive work.*



### 2. Farmer to Farmer

*Seeing the impacts of new technologies, farmers can become leaders in teaching others, refining new technologies, and engaging the government and other actors to improve their services.*



# Scaling Conservation Agriculture: Our Model in Action

Conservation Agriculture (CA) is a farming practice that minimizes field burning, reduces soil disturbance (plowing), and uses intercrops or crop rotations. Globally it is one of the most important tools to help farmers farm sustainably, and it was our first technological focus at Semilla Nueva. Our success with CA over the last four years shows the effectiveness of our model and the ambition behind our programs.

## 2010

**Idea and Training:** Semilla Nueva officially founded; team members participate in two conservation agriculture trainings at International Maize and Wheat Improvement Center (CIMMYT), with oversight from Dr. Bram Govaerts.

## 2010 - 2012

**Testing with Farmers:** Semilla Nueva begins farmer to farmer conservation agriculture tests. Corn shows drought resistance and 10% increase in profits.

## 2013

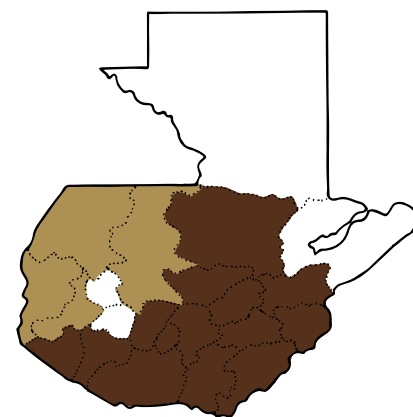
**SN Begins Experimental Farm and Collaboration with Government:** Semilla Nueva purchases experimental farm and works with CIMMYT to design Guatemala's first CA experimental platform. Meeting with director of Guatemala's Agricultural Research Institute (ICTA) results in Guatemalan government scientists and SN team traveling to visit CIMMYT's work in Mexico.

## 2014



**National Strategy Piloted:** Following the visit, the Guatemalan Minister of Agriculture makes an official request to the Mexican government and CIMMYT to guide the creation of a national Guatemalan program for CA research. CIMMYT scientists visit and work with SN and ICTA to design nine research platforms throughout Guatemala. One platform in Chimaltenango shows preliminary results of **74% increase** in farmer income through CA.

## 2015

**National Strategy Takes Root:** As a part of President Obama's signature Feed the Future plan, USAID funds CIMMYT and ICTA, with assistance from SN, to launch three year project to expand CA research and outreach to highland farmers. SN leads collaboration with ICTA to oversee CA research throughout the rest of the country with support from the Guatemalan Government and a pending Rotary Global Grant.



### 2015 Conservation Agriculture Research Platforms

-  Feed the Future Platforms
-  FODECYT/Rotary Global Grant Platforms





# New Farming Techniques



For a farmer with a few acres, a new farming technique can make a world of difference. Simple changes in how small farmers grow their crops can help them greatly increase their income, the nutrition of their diet, or the health of their soils. In 2014, we worked with local farmers to develop some great new techniques, which are now ready to scale!

## Rice: Creating Opportunities Out of Challenges

Just like most of the region's farms, large swaths of our experimental farm are lost every year to flooding. While our corn crops normally survive, our sesame crops are almost always wiped out. But this year our farm manager had an idea: what would happen if we planted rice? After research into the market, growing practices, and available short duration seed, we tested rice as a substitute for sesame in flood prone areas of the farm. Our pilot was a huge success, showing farmers they can earn up to \$500 per acre in areas they normally abandon. In the photo above, field technician Hugo Chinchilla stands in front of our rice field presenting preliminary results to attendees at our 2014 national conference. In response to enormous farmer interest, we'll work with 25 families in 2015 to begin farmer to farmer tests to scale the practice!

## New and Improved Pigeonpea

Pigeonpea is a nutritious bean that can be grown between rows of normal crops. In 2014, farmers grew over 40 acres of a new variety, which cooks faster, tastes better, and provides firewood and extra daily nutrients! Farmers also began using this variety as the main ingredient in an artisanal chicken feed to raise their own chickens and tap into the \$1,000 most communities spend on factory-farm chicken every week.



*This photo shows the amount of firewood, beans, mulch, and feed just **5 pigeonpea plants** produce!*



# Small Changes, Big Impacts



“People have to keep in mind you cannot change what you don’t measure. If you don’t measure anything you cannot tell if you are improving or getting worse.”

- Dr. Armando Tasistro  
Director, Mexico and Central America  
International Plant Nutrition Institute (IPNI)

## Reinventing the Tortilla

In Guatemala a meal without tortillas is said to be a meal without food. Tortillas, however, are a primary cause of malnutrition, since they have little protein and few nutrients. In response, our team created tortilla recipes using high protein corn and nutritious local plants like chaya. To promote the new tortillas, we worked with leading women in our partner communities to create their own recipes and present them in the first-ever Green Tortilla Competition with judges from Miracles in Action, Rotary International, and local universities. After all the excitement, families are finding an easy, cheap, and fun way to get necessary nutrition to their children. Did this sample pique your appetite... ahem interest? Read the whole story at <http://semillanueva.org/verdetortillas/>!

## Soil Analysis: Working Smart, Not Hard

Fertilizer is the most expensive product farmers buy for their crops. In 2014 Semilla Nueva began an official collaboration with Dr. Armando Tasistro of the International Plant Nutrition Institute. Our goal was to find ways for farmers to use fertilizer more economically—and thus decrease their costs of production and help the environment. We ran an 81 parcel trial at our experimental farm and 10 trials with partnering farmers. Results will take at least another year of testing to finalize, but preliminary results like Carlos’ have generated a lot of interest from farmers.





# Farmer to Farmer Development

**Experiment:** Families learn to experiment with a new technology on a piece of their land or in their kitchen

**Analyze:** The family critically assesses the new technology based on its economic or other impacts

**Share:** Farmers pay it forward by sharing their experience and results with their neighbors and friends

## How do we make it sustainable?

Farmer to farmer is an incredibly powerful process whereby local people take charge of their own development. One of our biggest challenges is how to root this process firmly in local communities so that the process can continue without Semilla Nueva's support. To this end, in partnership with the Inter-American Foundation and Conservation, Food and Health Foundation, Semilla Nueva has grown our network to 25 communities and began the process to institutionalize farmer to farmer development within local governments.

Each participating community has begun an agricultural committee as part of their village council, and we are working with municipal governments to provide funding to the leaders of these councils to carry on what we have started together. Our hope is to create a model in which every community has an agricultural committee with a paid coordinator, a number of volunteering members, and support from the local government to find and share groundbreaking technologies. These efforts to create local ownership will ensure lasting impacts long after we're gone.





# First National Farmer Conference

270 farmers - 8 organizations - 4 countries

On October 29th we hosted our first-ever National Farmer Conference at the Semilla Nueva Experimental and Training Center. Over 270 farmers attended, along with the Guatemalan Ministry of Agriculture (MAGA), the Institute for Agriculture Technologies (ICTA), Quetzaltenango Rotary Club, International Plant Nutrition Institute (IPNI), Universidad del Valle, Universidad Francisco Marroquin, and regional NGOs Miracles in Action, Seeds for the Future, Guatemala Hope, and Caritas-El Salvador.

Through four training stations, our staff shared the scientific results from experimentation at the farm, while farmers shared their experiences with the same technologies at home. Armando Tasistro from IPNI gave a wonderful presentation on proper fertilizer applications methods. We finished the conference with the green tortilla competition (highlighted on the cover of this report) and a lunch prepared by women from one of our oldest partner communities, Conrado de la Cruz. At the end of the day hundreds of families asked to collaborate and try some of the new technologies on their plots at home or share them with their communities. Coming from humble beginnings with a few dozen families, we couldn't have been more proud.







# The Student Becomes the Teacher

In 2014 we took an exciting leap. We hired five of our strongest farmer leaders as field technicians, each responsible for leading experimental trials and farmer to farmer development in five communities. Despite the lack of a formal education, their relatability, drive, and local knowledge makes them more effective and trusted leaders in our communities than college educated agronomists from the cities, a testament to farmer to farmer development and the heart of our model.



**Juan Manuel**, born and raised in the community of La Montaña, was one of the first farmers to participate in Semilla Nueva's programs four years ago. After seeing changes in his soils, he led his community from some of the highest rates of field burning in the area to the lowest in the area. He was the first farmer that we contracted to become a field technician. His goal is "that every farmer who produces corn has nutritious food, more income, and a healthier soil!"



**Hugo Chinchilla** was one of the youngest farmers ever to participate in Semilla Nueva's programs, but within just a few years he and another farmer led their community to virtually eliminate field burning. Hugo is one of the farmers we always turn to for advice on our strategies, and he fits naturally within the Semilla Nueva Team. "Every person has a different strength and desire," he says. "We want to find how we can help each person achieve their goals with new techniques and reach as many communities as possible!"



**Cirilo Garcia** was always the go to farmer in his community. Whenever it was time for a new meeting, training, or farming technique, Cirilo was the organizer who brought his community together. He is very dedicated to expanding farmers' independence and local food sources. His personal goal? To learn how to create his own hybrid seed for high yields and seed independence.



**Juanito Saldaña** is a legend in the region. In the 1980's, he helped lead the *caminatas protierras*, where 16,000 landless peasants made the 200 km march from their fields to the capital city. While hundreds of thousands were dying in the Guatemalan civil war, he participated in peaceful civil resistance. The land where his home and community reside was won through his leadership and makes for one of Guatemala's most inspiring stories. Now Juanito hopes to help farmers increase their incomes and keep their kids in school rather than sending them across the border.



**Chepe Escobedo** is very intelligent, reserved, and dedicated. Living in the village of San Miguel las Pilas, he was one of the first to adopt new technologies like no-till and pigeonpea in his community. Chepe was highly involved in the social efforts of the Catholic church, and brings a wealth of knowledge about community organization with him to Semilla Nueva. His goal for his farm? "I want to find a way to get higher yields while using less fertilizer. I think we can, we just need to do the experiments and learn how."





# Leaders in Changing Malnutrition

Although hundreds of millions of dollars have been invested in nutrition programs for Guatemala, it remains the most malnourished country in the western hemisphere. In response, Semilla Nueva first works to identify the most effective solutions for malnutrition and then collaborates with partner organizations so that these solutions can reach the hundreds of thousands of children in need. In 2014 we laid the foundation for this strategy.

## Measuring Impacts

Measuring results is critical to developing high impact solutions. In 2014 we began working with local women to measure large numbers of children in each of our communities. In addition to giving us valuable information about stunting, this work has paved the way for us to launch our first effectiveness trial to scientifically verify the impact of one of our key technologies, high protein corn (QPM). The trial will be in partnership with Harvard and will be the first of its kind globally to measure enough families (nearly 1,000) to provide statistically significant information and help sway international policy!

## Effective Seeds, Effective Programs

After years of field trials and promotion, our partner farmers have come to love the taste and nutritional value of QPM. Our next goal is to identify the QPM variety best suited for their land and a seed distribution model that makes it available for even the most rural communities. In 2014, Semilla Nueva worked with the Guatemalan and Honduran governments and the international organization CIMMYT to test new QPM varieties. The results were impressive. One seed in particular had yields comparable to the most popular local varieties. In addition, a national three way study funded by HarvestPlus will compare our seed distribution model to that of the Guatemalan Ministry of Agriculture and another leading NGO. We are awaiting results of this study in order to make effective policy recommendations at the national level.



*Research Coordinator Lisa Eash measures height of young girl in Willywood as part of 2014's preliminary study.*



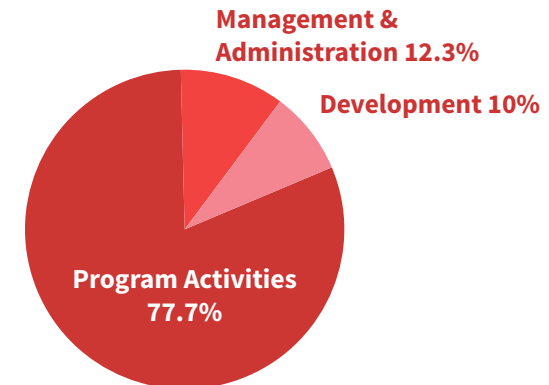
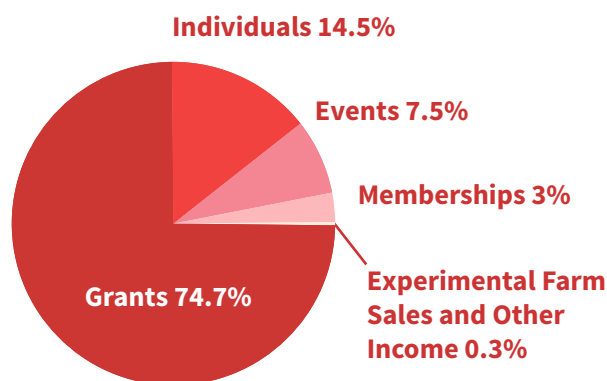
## What exactly is QPM?

Quality Protein Maize is a non-GMO corn variety that has been bred to be a complete protein with 90% of the protein of milk. Studies have proven that given average consumption of corn in tortillas by Guatemala's children, simply changing from regular corn to QPM can provide the protein necessary for normal growth.

# Financial Overview

Use of Operating Funds	2011	2012	2013	2014
Management & Administration	\$6,659	\$8,001	\$22,181	\$21,669
Program Activities	\$30,381	\$55,306	\$125,685	\$137,378
Development	\$4,578	\$7,331	\$26,215	\$17,756
<b>Total Expenses</b>	<b>\$41,618</b>	<b>\$70,638</b>	<b>\$174,081</b>	<b>\$176,803</b>

Operating Revenue	2011	2012	2013	2014
Individuals	\$19,437	\$44,185	\$27,733	\$43,919
Events	\$20,821	\$15,470	\$20,313	\$22,771
Grants	\$2,716	\$13,460	\$123,124	\$225,830
Memberships	\$2,290	\$4,563	\$6,824	\$8,846
Experimental Farm Sales	-	-	\$1,509	\$1,012
<b>Total Revenues and Other Support</b>	<b>\$45,264</b>	<b>\$77,678</b>	<b>\$179,503</b>	<b>\$302,377</b>



## Partnerships and Donors of the Year

*2014 was a year full of growth and change for Semilla Nueva, only made possible by our incredible partners and donors. Here we would like to recognize our top supporters.*

### Partner Organizations

Inter-American Foundation  
Rotary International  
Miracles In Action  
Conservation Food and Health  
Harvest Plus LAC

SENACYT Guatemala  
International Foundation  
Guatemala Hope  
Presbyterian Hunger Program  
Trinity Episcopal Church

Ashoka  
Guido and Elizabeth Binda  
Foundation  
Blue Oak Foundation  
Unilever

### Individual Donors

Steve Hodges and Cece Weber  
Bill English  
John and Stacey Gulley  
John and Jan Wilczynski  
Jerry Brady  
Andy Gunther and Kristin Brady  
Christopher Privon

Don and Mary Reiman  
Juan Hompart  
Donna Jacobs  
Constance Eash  
Don and Cecelia Lojek  
Lynn and David DeVaney  
Kathleen and Ben Simko

Laurie and Stan Zuckerman  
Thierry and Jeanne Chouard  
Dan Scott  
Kevin and Pamel Storms  
Mike Sieler and Cory Brestler  
Mike and Beth Markley  
Charles, Prince of Wales