



# Semilla Nueva

## Annual Report 2013





# Semilla Nueva

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.

## Vision

Our vision is a developing rural Guatemala, where farmers have harnessed the power of new sustainable agriculture technologies, community organization, and engagement with local government.

## Mission

Our mission is to develop locally-led farmer education programs that increase the income, rebuild the soils, and improve the food security of Guatemala's rural poor.

## Semilla Nueva would like to give special thanks to the supporters who have made 2013 possible.

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# Why Semilla Nueva?

*Raul Reyes, Semilla Nueva promotor farmer, shows off his 2012 pigeonpea harvest. Grown in the dry season with no fertilizer, no additional input costs, and little to no maintenance, Raul harvested over 20 pounds of pigeonpea to sell in local markets and eat with his family.*

**In 2005, a team of college students armed with goodwill and the best of intentions set off to Nicaragua. Their mission: to build a house for a poor Central American family.**

As the last of the nails were hammered in, they stepped back to admire their accomplishments. Neighbors walked over to ask about the house. But as many thank yous were offered, an equal amount of requests accompanied them. Could they build their family a house, give them a job, or pay their medical bills? One request particularly touched everyone's heart. A man came to work for free and at the end of the week asked for \$400 to pay for a surgery to save his mother's life. How could so little be necessary to do so much? But a deeper realization came to these 18- and 19-year-olds -- that no one could build enough houses, or provide enough free medical services to end poverty. Changes were needed to end the root causes of poverty, rather than just alleviate its symptoms.

Fast forward seven years: It's 2013 and an organization named Semilla Nueva, started by those once naïve boys, is changing the face of rural Guatemala, one farmer at a time. It's simple -- the majority of the world's poor are farmers. What they need are ways to increase their income from farming. Semilla Nueva, which means new seed, brings them simple farming changes that help them rebuild their soils, feed their families and up to double their income. Their aim is to help farmers earn enough to build their own houses and pay their own medical bills.

A perfect way to understand what Semilla Nueva does for farmers is through a local bean called pigeonpea. Semilla Nueva is currently working to introduce a new type of pigeonpea that is small enough to be grown in between the rows of farmers' traditional crops, corn and sesame. Farmers don't increase their costs, don't lose their traditional crops, and in exchange get an extra crop to eat and sell. Pigeonpea also rebuilds farmers' soils and helps farmers grow a complete protein in one of the fourth most malnourished countries in the world. It's a win-win for farmers, and an innovation which could help the over 250,000 families who grow corn in tropical Guatemala. Working on the ground, Semilla Nueva's staff have seen the impacts that these changes can make in a farmer's life.



*Maria de Los Angeles, granddaughter of Saul Gonzalez, prepping for surgery in Toronto while keeping a smile on her face.*

Saul Gonzalez is a farmer in the Guatemalan village of Conrado de la Cruz. He is the sole breadwinner for his family, and lately for many of his grandchildren as well. Despite being one of the poorest farmers Semilla Nueva works with, Saul never ceases to amaze and inspire with his contagious smile, unstoppable work ethic, and incessant willingness to try new ideas. He tried pigeonpea on a small parcel of land in 2011, and seeing the results, planted pigeonpea with all his crops in 2012. And that decision may have saved a life.

Last year, Saul learned that his nine-year-old granddaughter's brain surgery had been unsuccessful. The public hospital had tried to stop the advance of a brain tumor, but it had come back and the government doctors were

beyond their ability. A local non-profit had teamed up with a hospital in Canada to provide another surgery to Maria, but only if Saul could cover \$220 of visa applications and other costs. He asked friends and family, but no one had the money to help.

Saul didn't have the money, and again the dilemma surfaced which is so common in the developing world: a few hundred dollars for someone's life. But Saul did have something. This was the first year he'd planted a large amount of pigeonpea, and it would soon be ready to harvest. He sold the crop in advance and paid the visa.

Maria began her surgery on February 22 at the Children's Hospital in Toronto.



*Saul Gonzalez, Semilla Nueva promotor farmer and one of the most positive people we know.*

Semilla Nueva's hope and pride come from the continual repeat of this story. Farmer by farmer, surgery by surgery, home by home, we are watching as our partner farmers earn the means to care for their own lives. It is a string of stories that are just beginning.

Next year we plan to watch farmers earn over \$25,000 from selling pigeonpea. The year after, we expect six digits. And this is only one of the technologies Semilla Nueva is promoting in our 10 partner villages. As other NGOs and government agencies are starting to copy this model, this impact can only grow. More than numbers on a paper, this is what keeps us going. We are seeing these lives change in front of us. Their stories become ours. And the moral of the story is simple: with some dedication and some smarts, we can solve big problems together.

# Truly Sustainable Agriculture



780,000 families in Guatemala grow corn and beans. But a lack of knowledge about new growing techniques leaves unsustainable practices destroying soils and keeping farmers poor. Semilla Nueva is dedicated to bridging the gap between the world's poorest farmers and the best international researchers. What are some of the technologies that can make a big impact?

## Conservation Agriculture

With weather becoming more and more variable, Conservation Agriculture is a farmer's best friend. Conservation Agriculture requires farmers to not burn their fields, minimize tilling, and use crop rotations or plant in association. The impacts are healthier soils, more earthworms, lower costs, and higher yields! In the midst of 2013's droughts, our farmers' Conservation Agriculture trials showed how an average farmer could increase their income on corn by \$180, enough for a year's schooling for one of their children. Our next step is making Conservation Agriculture work with sesame, the second most important crop in our region.

## New Pigeonpea Varieties

Our pigeonpea varieties are already very successful in Guatemala, but to really make a difference we want to build a multimillion dollar export industry, linking our farmers with international markets. We spent a whole month in July exploring how pigeonpea has been used to transform the lives of nearly a million families in Eastern Africa, bringing back new seeds and new ideas. By January we've shown how new varieties can up to triple farmers yields, new harvesting techniques can cut their costs by more than half, and have connected with our first international buyer.

## Soil Testing

Most farmers in Guatemala use fertilizer, but with little guidance farmers often apply too much or not enough. In 2013 we worked with farmers to do laboratory soil testing and recommend the best doses. Farmers cut their applications rates by as much as 40% while increasing their yields. The result? Up to 25% increases in income!



*Farmer Thomas Garcia and his wife dry their pigeonpea harvest on their porch*



# What is Farmer to Farmer?

It's 2 o'clock in the afternoon. We are under a roof hiding from the sun, but Community Leader, Catarino Soles, is just getting started. "Can you control the price of fertilizer? No! Can you control the prices the buyers offer you for your crops? No! But can you control what you do on your own land with your hands? Yes! We have to focus our energies on what we can change!" There is a round of applause and one by one farmers start speaking. They talk about what they tried this year, about no longer burning their fields, about conserving and rebuilding soils—they talk about tests that went well, and tests that didn't. They talk about what they learned and what they want to try next.

## Farmer to Farmer Development

*Experiment, Analyze, Share*

If a farmer has these skills he or she can safely try a new technology on a small scale, learn if it really works, and then change the minds of their community—and we've seen it work:

### In 2013:

- 345 farmers participated in our agricultural programs.
- 71 volunteer leader farmers, or promotores, tried 115 different experiments on their land.
- Over 330 families participated in our community conferences.
- 2 representatives from each partnering community formed a Leadership Council and are now pursuing institutionalization of Farmer to Farmer with their local community and municipal governments — moving towards local funding and true sustainability.

### Our Results

According to our 2013 Community Needs Assessment, our efforts have helped hundreds of families end their most environmentally destructive practice—decreasing field burning from 68% on average in neighboring communities to 23% in our partner communities.



*Programs Director, Trinidad Recinos, works alongside farmers to measure crops and teach leadership skills..*



# Solving Malnutrition

No solution can fight malnutrition without the leadership of a country's mothers. In 2013 we involved 61 women leaders in 10 communities, 329 women experimenting with new, nutritious recipes in the kitchen and 242 women participating in community conferences. Hundreds of thousands of pounds of new food produced by the families who need it to fight malnutrition.

In the communities we work in up to 79% of children have stunted growth from a lack of nutrients and protein. Semilla Nueva wants to change that, but in a different way from most organizations. Over the last 30 years, millions of dollars have been spent trying to combat malnutrition in Guatemala, but stunting has gone down by only half a percent. What makes our solutions different is that they allow farmers to keep what they already grow. This is the Semilla Nueva philosophy, find the small changes that make a big difference and empower local leaders to promote them!

Semilla Nueva has introduced three nutritious crops to rural farmers. Our Food Security & Nutrition Program educates women and their families to help them incorporate these crops into their diets, and empower them to make healthy choices.

## Quality Protein Maize

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. Average consumption of corn tortillas can provide the protein necessary to grow strong and healthy children. In 2013, we helped 2,700 families grow QPM, the equivalent nutrient impact of 2 million protein bars.

## Pigeonpea

Pigeonpea is a highly nutritious traditional bean. It can be grown between the rows of other crops without decreasing their harvests. It provides enough beans to feed the family, and the excess can be sold in local markets. In

2013, we helped nearly 1,000 families plant pigeonpea. Our food security groups are not only trying these new practices in their homes, but also using them to lead their communities to fight malnutrition with their own resources.

## Chaya

Chaya, or tree spinach, is a native tree that can grow in difficult coastal conditions, without irrigation or fertilizer. Thirty chaya leaves have more protein than an egg and double the nutrients of spinach. Farmers can plant the tree as a food fence around their home or field, providing a sustainable and easy source of rich food. In 2013, we helped plant 6,000 new chaya trees with families.



*Women from Conrado de la Cruz pose for a photo after putting on a nutrition conference that educated 50 people in their community.*

# How do we Empower the Guatemalan Ministry of Agriculture?



Rolando De Leon explains to the departmental director of the Ministry of Agriculture the challenges that farmers have been facing in his community.

To reach the 780,000 families growing corn in Guatemala, we can't work alone. Long-term change can only come from the changing the programs that are supposed to reach those families.

At Semilla Nueva we believe that truly sustainable rural development depends on strong agricultural education and research programs. In 2012, we worked with the Minister of Agriculture to offer suggestions. In 2013, we were given the green light to work directly with a team of newly hired government farmer trainers, or extensionists, on the ground.

Our first step was to bring the new extensionists to the communities where we have worked for years and give a chance for our farmer leaders to tell their stories. It was a powerful moment, as farmers asked why the government agents hadn't been in their communities, if changes were coming, and if they could count on them for help. The common request, "get into the field with us and show us new things!"

Over the course of 2013 we passed on tools to these government entities that could help them do their job more effectively and make an impact. We trained extensionists on the Farmer to Farmer methodology, new high-impact technologies we have been testing, and new recipes for womens groups using our food security crops. We learned that the biggest thing missing from the Ministry of Agriculture's budget was money for seed. With assistance from our partner Miracles in Action, we provided 4,000 chaya trees and 400 bags of pigeonpea, which helped reach an additional 4,000 families outside of the direct reach of Semilla Nueva.

In 2014 we will be proud to continue assisting the Ministry of Agriculture in our region to better serve their farmers.



Program Director Trinidad Recinos explains how to conduct and measure a side by side trial on pigeonpea to 27 government farmer trainers.



Curt Bowen, Executive Director of Semilla Nueva, presents suggestions to the Guatemalan Minister of Agriculture.

# Making Research Work for Guatemala

As we spent more and more years with Guatemalan farmers we realized we needed something fundamental. We needed the best researchers in the world to work with the scientists in Guatemala to continuously come up with life changing new ideas for farmers. In 2013, we began to make this dream a reality.

## January 2013

We welcomed to Guatemala two of the world's leading pigeonpea scientists, Said Silim and Moses Siambi of ICRISAT, whose work has enabled over a half a million African smallholder to begin growing and selling pigeonpea. In the summer, we spent a month in Africa working with ICRSIAT to learn how they did it. With their oversight, we have tested over 26 new varieties of pigeonpea, increased farmers' yields, and developed a strategy to turn pigeonpea into a major Guatemalan export.



## April 2013

We opened the Semilla Nueva Experimentation and Training Center, a 6 acre research farm in the center of our region of Guatemala. Now instead of simply verifying results from farmers' fields we can conduct more controlled, scientific trials and inspire new research throughout the country. In 2013 we led the country's most complete trial on Conservation Agriculture with 21 test plots, one of the largest seed trials in the country with 40 corn varieties tested, and the biggest pigeonpea trial in Latin America with 26 varieties from US, Africa and India.



## November 2013

All of this momentum led us to our most important partnership yet, with the ICTA, the government organization in charge of research for corn farmers. After showcasing our field results and the program of our partners at CIMMYT in Mexico, the Director, Elias Raymund, decided it was time to begin a new research program dedicated to adapting Conservation Agriculture practices to all of Guatemala. As 2014 progresses, we will be working with eight government scientists to begin research in all parts of the country, with an aim to help every farming family grow their corn more profitably and sustainably.



# Partnerships and Donors of the Year

Semilla Nueva was able to reach our 2013 goals thanks to partnerships from two incredible organizations, several amazing individuals, and a whole community of support. We owe a special thank you to Rotary International, with support from clubs across four states and two countries. We also want to thank Miracles in Action for supporting five community programs and for believing scientific experimentation could become an important part of our organization.

## Rotary International



Semilla Nueva was awarded a Rotary Global Grant to double the size of our impact from 5 to 10 communities. Thank you Rotary for seeing our potential and helping us reach it.

## Miracles in Action



Miracles in Action's investment in our scientific experimentation helped establish relationships with ICTA and MAGA allowing us to reach many more communities.

## Donors of the Year



Steve Hodges and Cece Weber



Don and Cec Lojek



John and Stacy Gulley



Bill English



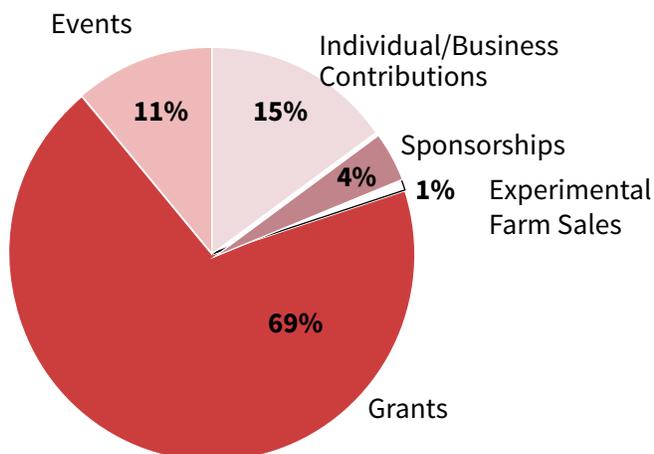
# Financial Overview

Use of Operating Funds	2010	2011	2012	2013
<b>Management &amp; Administration</b>	\$2,311	\$6,659	\$8,001	\$22,181
<b>Program Activities</b>	\$13,332	\$30,381	\$55,306	\$125,685
<b>Development</b>	\$2,133	\$4,578	\$7,331	\$26,215
<b>Total Expenses</b>	\$17,777	\$41,618	\$70,638	\$174,081

Operating Revenue	2010	2011	2012	2013
<b>Individuals</b>	\$18,448	\$19,437	\$44,185	\$27,733
<b>Events</b>	\$7,893	\$20,821	\$15,470	\$20,313
<b>Foundation Grants</b>	\$3,157	\$2,716	\$13,460	\$123,124
<b>Memberships</b>	\$2,074	\$2,290	\$4,563	\$6,824
<b>Experimental Farm Sales</b>	-	-	-	\$1,509
<b>Total Revenues and Other Support</b>	\$31,572	\$45,264	\$77,678	\$179,503

**Summary Income 2013**



**Summary Expenses 2013**

