

2020

ANNUAL REPORT



Semilla Nueva

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LETTER FROM OUR EXECUTIVE DIRECTOR

Dearest friends and supporters,

2020 was a year of uncertainty, trials and tribulations, but also of perseverance, new opportunities, and lessons learned for Semilla Nueva. This year provided us with the opportunity to launch a public policy program and hire a research and development team, both important steps in laying the foundation for the scale of biofortified maize. Even with COVID-19 pandemic and Hurricanes Eta and Iota, Semilla Nueva expanded sales of our biofortified seed, F3, by 37% and reached 85% of our original sales goal. Through these sales, our collaboration with farming associations, and our COVID-19 response program, 9,936 families planted our biofortified seeds in 2020—nearly double the number in 2019. These families produced over 25,000 mt of more nutritious maize, enough to fill 700 shipping containers and feed nearly 300,000 people for a full year.

Three years ago, when Semilla Nueva launched the world's first commercial high zinc, high iron, and high protein quality maize seed to be sold directly to smallholder farmers, we were frustrated by the many failed nutrition interventions before us and determined to improve the nutrition of millions. Our novel approach to addressing malnutrition begged the question: if we could make more nutritious maize seeds financially advantageous to rural farmers, would they start using them at scale? Would enough farmers grow enough nutritious maize to decrease the nutritional deficiencies of an entire country?

Three years later, we confirmed that our approach works and learned that a combination of better seeds and public policy is needed to scale it. Both are feasible but will require persistence, patience, and partnership. We would not be where we are today without the support of our valued partners, donors, and friends. Thank you for believing in our fight to improve the nutrition of millions.

Saludos,

Curt Bowen



2020 HIGHLIGHTS



Semilla Nueva sold 3,058 bags of biofortified seed!

Even with the COVID-19 pandemic preventing in-person events that are the core of our seed promotion strategy, Semilla Nueva expanded sales of our biofortified seed, F3, by 37% and reached 85% of our original sales goals.



We reached subsistence farmers who cannot afford to buy seed!

We launched a COVID-19 relief program which provided non-commercial quality seed to 1,835 subsistence farmers without the resources to buy it.



Nearly 10,000 farmers planted our more nutritious seed!

A total of 9,936 farming families planted our biofortified seed in 2020, nearly doubling the number of families reached in 2019.



We launched a public policy program!

Semilla Nueva got over a dozen articles and interviews published promoting the use of biofortified seed by the Guatemalan government. We continued conversations with government officials about expanded biofortified seed use. Encouragingly, the Guatemalan Ministry of Agriculture announced two new programs which will use biofortified seed—one for an emergency strategic reserve with 5,000,000 lbs. a year of biofortified grain and another to provide seed to farmers directly.



We hired a Research and Development team!

We hired a PhD breeder, expanded the field team, purchased all the equipment to build our own nutrition lab, and built an advisory board staffed with some of the world's leading scientists from the private sector.

FARMERS PERSIST IN A YEAR OF TRIALS AND TRIBULATIONS



2020 was a year like no other. The COVID-19 crisis had devastating consequences on the most vulnerable Guatemalans. Government-mandated curfews and travel bans prevented many from working and feeding their families. 1.2 million Guatemalans were identified in June 2020 as in need of food assistance, and the national authorities on food security and nutrition (SESAN), reported an 80% increase in cases of acute malnutrition in 2020. To make matters worse, both Hurricanes Eta and Iota hit Guatemala in November, causing catastrophic flooding and landslides, and destroying harvests. How did Semilla Nueva help farmers respond to these crises?

Our biofortified maize seeds increased productivity and improved nutrition for farming families:

Pedro, a farmer, father of ten, and primary caregiver of fifteen in Alta Verapaz, lost his secondary source of income due to COVID-19 restrictions, and with that the resources to put food on his table for fifteen.

For Pedro, and thousands of vulnerable farmers like him, our free seed distribution program helped meet that need. With our biofortified seed, these farmers produced more more-nutritious-maize, increasing their incomes by an average of 132%.

With 20 pounds of our biofortified F3 seed, Víctor, a 38-year-old farmer, father of four, and minister at Nazareno del Caserío Invasa Church in Alta Verapaz, produced double what his traditional seed produced: an extra \$400 USD of more nutritious maize, a significant sum in a community where most survive off \$1 USD a day. Having caught a glimpse of the impact of biofortified seed, Víctor plans to continue producing F3 with the intention of making enough to stay in Alta Verapaz, build a home for his family, put his four young children through school, and provide them with the nutrients that they need to lead healthy lives.

Roberto, another recipient of our seed distribution program and primary provider for a household of ten, like thousands of Guatemalans, migrated to the United States in 2002 to provide his family with the resources to make ends meet. “I want my children to study to become professionals. I have a son who had to go to the other side (the U.S.) because we don't have the money to pay for his schooling,” explains Roberto. This year, he harvested 3,100 additional pounds of maize per hectare than his traditional seed. Those 3,100 extra pounds represent an additional \$496 USD, enough to make a substantial difference in his family's nutrition and his children's education.

2020 painted a harrowing picture of what the future could hold if policies are not implemented to protect Guatemala's already fragile food system—and reaffirmed the urgency of Semilla Nueva's mission. Together, we can ensure that thousands of farmers like Pedro, Víctor, and Roberto can afford to stay in Guatemala and provide their children with the nutrition and education they need to reach their full potential.



PUBLIC POLICY



The pandemic taught us that we needed to move much more quickly and aggressively for scale—and that we did not have the luxury of not working with the country’s biggest players. So in 2020, our strategic public policy effort hit the ground running, launching an awareness campaign that included eight radio interviews, two TV interviews, and articles in four Guatemalan newspapers. The team also continued meetings with influential organizations and key decision makers.

In September 2020, the Guatemalan Minister of Agriculture, announced that a new national grain reserve will be created and purchase five million pounds of maize and beans per year—all of which will be biofortified—to distribute in the event of emergencies or poverty reduction programs. Semilla Nueva was involved in several consulting initiatives and assisted in designing the primary proposals spearheaded by the World Food Programme. Further, the Guatemalan Ministry of Agriculture signed an agreement with the Institute of Agricultural Sciences and Technologies to produce and distribute both biofortified and conventional seeds for three years.

These government programs are expected to reach 20,000 Guatemalans in 2021. More importantly, they lay the foundation for public policies and partnerships that will use biofortified maize to decrease Guatemala’s most pressing nutritional deficiencies.

RESEARCH & DEVELOPMENT

To scale our impact to reach 100,000 farming families in Guatemala, who will grow enough nutritious corn to improve the nutrition of the entire country, we need to develop higher yielding seeds with the same great levels of nutrition as our current F3 seed. To do this, we need to develop thousands of new experimental seeds each year and test each one for nutrition. This would normally cost thousands of dollars and take months to receive results from already established laboratories. So, instead, in 2020, Semilla Nueva laid the groundwork to launch a new F5 seed and nutrition lab, as well as to hire a Research and Development team and recruit a board of advisors.

With the expanded team, technical advisers, and lab equipment, Semilla Nueva will be able to test our new breeding strategy in 2021. We have integrated several approaches to develop new seeds with much higher yields, improve grain size in our high protein quality seeds and explore developing seeds for the higher segment of the market with lower protein quality but much better grain appearance.



IMPACT

Over the past two and a half years, Semilla Nueva’s biggest limitation to measure our impact was that we lacked a representative, non-biased list of farmers to study. In April 2020, in response to the pandemic, Semilla Nueva launched our promoter program. Ten temporary local workers were hired to promote F3 in numerous participating agrodealers where our seed is sold throughout Guatemala-- and recorded contact information for all farmers who purchased seed. In two months, they captured information from 631 farmers at 13 agrodealers, where 19% of seed was sold. Over the course of September to December, these lists of farmers were used for every major marketing research and impact evaluation program. Response rates varied between 20-50% depending on the geographic location and month of the call. These new lists allow us to have a representative sample to examine the impacts of our seed on food security, nutrition, income, as well as farmer preferences to more effectively market our seed.

Key Indicator	2018	2019	2020
Number of farmers who planted our biofortified seed.	4,082	5,439	9,936
Percent of zinc deficiency reduced (averaged across key populations)	52%	92%	67%
Percent of iron deficiency reduced (averaged across key populations)	41.5%	72.8%	53%
Number of nutritious tortillas produced in Guatemala	254,232,858	624,406,976	901,658,200

SCALE AND SUSTAINABILITY

247,053 people in Guatemala ate our more nutritious tortillas in 2020.

The 901,658,200 tortillas produced with our more nutritious maize closed Guatemala's national zinc gap by 1.2%.

In 2020, we established commercial proof of concept, laying the foundation for the scale of biofortified maize. Nearly 10,000 farming families planted our seeds and over 250,000 Guatemalans ate our nutrient-rich maize.

What happens if Semilla Nueva continues to grow? In Guatemala, farmers plant 850,000 hectares of maize annually. Should 130,000 of those hectares be planted with biofortified maize, it would reduce the zinc deficiency of 9.1 million people and eliminate zinc deficiency for 1.4 million. If only 15% of Guatemala's current land planted with maize becomes biofortified, it would reduce the zinc deficiency of the Guatemalan population by nearly half.



FINANCIALS

REVENUE

by source

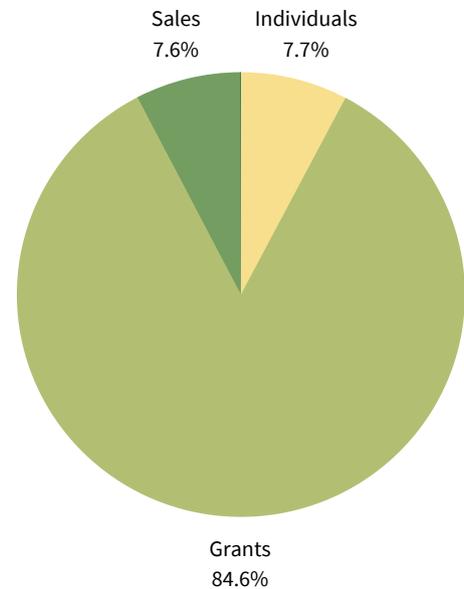
Grants 1,386,722

Individuals 126,620

Sales 123,974

Other 1,146

TOTAL 1,638,462



OPERATING EXPENSES

by program

Production 316,594

Sales 309,318

Marketing 58,352

Research & Development 250,318

Collaborations 38,065

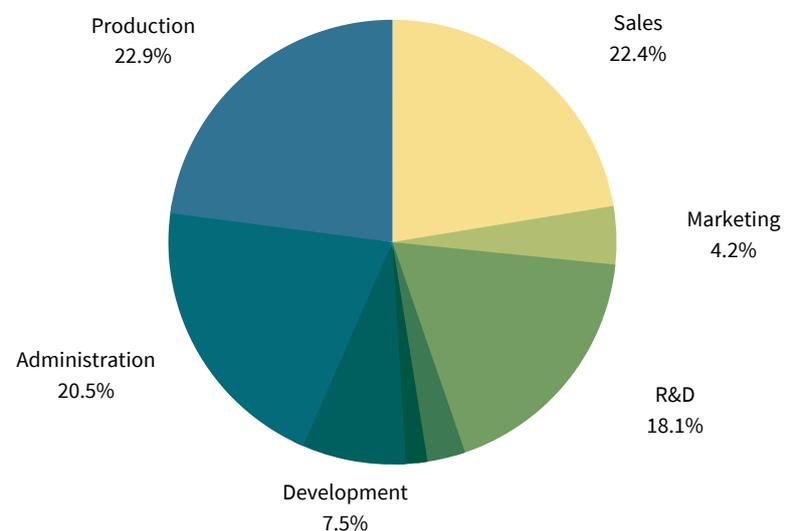
Monitoring & Evaluation 21,370

Development 103,532

Administration 283,838

(-) End of Year Intercompany Adjustments (30,715)

TOTAL 1,350,672



ACKNOWLEDGEMENTS

FOUNDATIONS

Boise SW Rotary Foundation
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Cartier Philanthropy
Conservation, Food, and Health Foundation
Expo 2020
Harbourton Foundation
Inter-American Foundation
International Foundation
Light a Single Candle Foundation
Miracles in Action
Mulago Foundation
Partnering for Innovation - Fintrac
Popoyan
Swiss Re Foundation
USAID - Feed the Future
Vitol Foundation

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Alan Stanek
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1,000 to 4,999

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Jan and John Chavez-Wilczynski
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Mike Sieler
Michael Summers
Jake Weisenthal

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