



New Seed is on track to 15-20x impact in the next five years, generating \$300M in annual income and health benefits.

The Problem

1.2 billion people eat maize three times a day. Maize is cheap, filling, and a cornerstone of traditions in many Latin American and Sub-Saharan African countries, but it lacks the protein quality, iron, and zinc that women and children most need to develop healthy bodies and brains. Malnutrition is still the leading cause of child death, and the children who do survive it carry the damage into adulthood. Existing interventions like nutrition education and food fortification help, but not fast enough. At the current pace, it would take a century for Africa to reach the health outcomes seen in developed countries today (UNICEF, WHO & World Bank, 2023).

Our Solution

New Seed finds the best maize seeds that farmers want to grow, and breeds them to be more nutritious. [Several RCTs](#) confirm that our biofortified seeds produce meaningful improvements in nutrition for the people who eat them. We partner with governments and NGOs to include our seeds in subsidy and distribution programs, to make them affordable for the farmers who need them most. By breeding higher quality protein, iron, and zinc directly into the crop itself, we ensure better nutrition reaches rural families who grow their own food and are hardest to reach through conventional fortification or supplementation. An example of potential impact is available through our interactive [ex-ante impact model](#). Our dream is for biofortified grain to nourish 1 billion people by 2050.

Where we are (2025)

52,331 farmers feeding
960k people, earning
\$7.4M more in income in
Guatemala and El Salvador.

Where we're going (2031)

834k farmers feeding
19M people, earning
\$209M more in income in
Central America and East Africa.

Our goal (2036)

4.5M farmers feeding
91M people, earning
\$420M more in income in
Latin America and Sub-Saharan Africa.

Our vision (2050)

50M farmers feeding
1 billion people
worldwide.

Why Now?

We need \$38M for 2027-2029. We are trying to secure \$28M of that now to unlock some big matching opportunities. Why now?

- **Central America** is at an inflection point: Two governments are implementing and starting to pay for our subsidy. So far, governments have increased their investment in tandem with our reach and farmer impact. If we continue to grow at our proposed pace, we think we can get both Guatemala and El Salvador to continue to grow their payments and soon get the subsidies written into law.
- **We're expanding to Sub-Saharan Africa.** Starting in 2027, after four years of development, One Acre Fund will test biofortified versions of their best current seeds in Rwanda. Investing now will let us begin the multi-year process to bring those seeds to three new countries.
- **Gene editing** could open radical scale. If we can identify the right genes to edit, the world's biggest seed banks could improve the nutrition of the seeds they make available to countries and companies around the world, reaching over 1B people. We've started that research in maize, but need to expand it and begin work on wheat and rice as well.

Cost-Effectiveness Summary

† New Seed Cost-Effectiveness Summary v1.5

	2025	2026	2027	2028	2029	2030	2031
Impact Projections							
Farmers planting biofortified maize	52,331	95,399	144,047	236,987	373,169	535,713	838,036
People consuming biofortified maize	952,868	1,787,276	3,243,740	5,793,528	9,717,974	14,280,155	18,941,449
Total farmer economic impact (USD) ¹	\$7.8M	\$10.0M	\$38.4M	\$68.5M	\$109.8M	\$156.7M	\$208.6M
Total health impact (USD) ¹	\$7.8M	\$14.1M	\$25.0M	\$42.9M	\$67.3M	\$94.1M	\$110.3M
Total impact (USD)¹	\$15.6M	\$24.1M	\$63.4M	\$111.3M	\$177.0M	\$250.8M	\$318.9M
Cost Effectiveness Projections							
New Seed costs¹	\$5.7M	\$8.8M	\$10.4M	\$13.2M	\$13.8M	\$10.4M	\$10.7M
Cost per farmer household reached (USD) ¹	\$109	\$93	\$72	\$56	\$37	\$19	\$13
Cost per person consuming biofortified maize (USD) ¹	\$6.01	\$4.95	\$3.19	\$2.28	\$1.42	\$0.73	\$0.57
Benefit per New Seed dollar invested¹	2.7	2.7	6.1	8.4	12.8	24.1	29.7%

¹ Benefits include farmer income impacts and the monetary value of health impacts. Following Rethink Priorities recommendation to GiveWell, we discount future costs and benefits at 4.3% reflecting time preference and the opportunity cost of resources that could otherwise be invested elsewhere.

Central America is at an inflection point

We subsidize local seed companies to produce and sell biofortified maize at prices farmers can afford. As governments take over the subsidy — which is now happening in both Guatemala and El Salvador — our per-farmer cost drops and the program runs without us.

	2025	2026	2027	2028	2029	2030	2031
Farmers planting biofortified maize	52,331	95,399	142,547	226,987	317,169	434,213	563,036
People consuming biofortified maize	952,868	1,787,276	3,224,156	5,662,970	8,986,846	12,946,516	15,191,555
Increase in income per farmer (USD)	\$149	\$110	\$293	\$339	\$405	\$437	\$464
Subsidy paid for by GT government (%)	0%	90%	97%	93%	87%	100%	100%
Subsidy paid by SV government (%)	0%	0%	10%	40%	100%	100%	100%
Core Central America operating costs	\$5,706,976	\$4,126,544	\$5,247,717	\$6,965,794	\$7,510,552	\$3,554,746	\$3,407,098
Multiples of GiveWell's benchmark ²	1.4	2.9	5.9	7.5	10.6	31.1	41.3

- 1) Farmer demand is growing due to improved climate resilience and income:** In 2025, farmers increased their incomes by an average of 72% and experienced 42% less crop losses. 86% of farmers who planted our seeds in 2025 intend to plant it again in 2026. In 2026, we're launching even better seeds, with yields matching those of the best seeds in the market.
- 2) Seed companies can sustain the demand:** Biofortified seeds are finally a profitable business for seed companies; we figured out the right price points for subsidies, got them the right seeds, and strengthened our capacity to provide technical support. Our partner companies doubled sales from 3,595 bags in 2024 (enough to supply ~5,000 farmers) to 7,209 bags (~10,000 farmers) in 2025, and have produced enough seed to increase sales 150% in 2026. 17% of all seed sold in Guatemala in 2026 will be biofortified with our subsidy.
- 3) The Guatemalan government is paying for the subsidies.** Congress earmarked US\$650k for subsidies in the 2025 budget, but a typo locked the money in a court case. The Guatemalan congress fixed the typo, expanded the allocation to \$1.1M, and paid all funds to the subsidy account in July and August. Congress expanded the subsidy to \$2M in the current 2027 budget, and is drafting legislation to institutionalize the subsidy.
- 4) El Salvador piloted our subsidy program in 2025 and is implementing it in 2026.** El Salvador adopted our subsidy program within less than a year after launch, whereas it took us five years in Guatemala. The Salvadoran government independently implements the subsidy, vetting participating companies and conducting monitoring and evaluation efforts. We expect they will begin funding part of the subsidies in 2027. We reached 2,076 Salvadoran farmers in 2025 and will reach 9,000 in 2026 (compared to an initial goal of 5,000).

Where we need your help: To sustain our growth trajectory in Central America, we need to hire a Policy Director who will lead advocacy efforts to expand our subsidy programs and more technical support for seed companies as they continue to expand production and sales.

² "Following GiveWell, we discount future costs and economic benefits at 4.0%, reflecting time preference and the opportunity cost of resources that could otherwise be invested elsewhere."

We're expanding to Sub-Saharan Africa with an even more efficient model

NGOs, social enterprises, and governments already reach millions of maize farmers across Sub-Saharan Africa with seed distribution programs. We ask for their seeds, breed them to be more nutritious, and return them. This allows those partners to add a significant nutrition intervention to their existing programs.

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Farmers planting biofortified maize	1,500	10,000	56,000	101,500	275,000	551,500	1.06M	1.86M	2.83M	3.82M
People consuming biofortified maize	19,584	130,558	731,128	1.3M	3.8M	8.1M	17.5M	33.8M	53.6M	74.1M
Monetary value of all modeled impacts (income + nutrition)	\$47.6k	\$304k	\$1.6M	\$3.0M	\$9.6M	\$27M	\$76M	\$172M	\$284M	\$392M
New Seed costs (SSA only)	\$2.0M	\$2.3M	\$2.4M	\$2.8M	\$3.4M	\$2.8M	\$2.8M	\$2.7M	\$2.7M	\$2.6M
SSA impact ROI ³	-98%	-87%	-33%	5%	185%	850%	2,647%	6,233%	10,438%	14,722%

- 1) Our R&D work for Central America has taught us how to make already highest-yielding, climate-resilient seeds more nutritious,** without affecting their agronomic performance, removing the yield penalty that has historically prevented farmers from adopting biofortified seeds. When we sent our Guatemala seeds to Rwanda to evaluate the taste and appearance of grain, 85% of 150 farmers said they would buy and plant them.
- 2) If our breeding works, One Acre Fund Rwanda could distribute our biofortified seeds to 1M farmers.** In 2023, they sent us the seeds they currently distribute through their programs for us to biofortify. If trials in 2027 show the improved varieties maintain their yields, OAF will begin replacing their current maize seeds with our biofortified versions.
- 3) We're exploring partnerships to expand in at least three other Sub-Saharan African countries.** We are building partnerships with NGOs, social enterprises and governments in Uganda, Ethiopia, and Tanzania.
- 4) The International Maize and Wheat Improvement Center (CIMMYT) gave us access to their ten best maize seeds for Sub-Saharan Africa,** with yields at least 10-15% higher than those currently used in most distribution programs. Getting biofortified versions of these seeds to our partners could bring extra economic benefits on top of the health impact.

Where we need your help: Help us think through our current country prioritization (we're thinking Uganda, Rwanda, Ethiopia, and Tanzania). We need to get the right Regional Director in East Africa started soon, so we get governments on board before seeds arrive in 2027.

³ Following Rethink Priorities recommendation to GiveWell, we discount future costs and benefits at 4.3% reflecting time preference and the opportunity cost of resources that could otherwise be invested elsewhere.

Gene Editing could unlock global scale

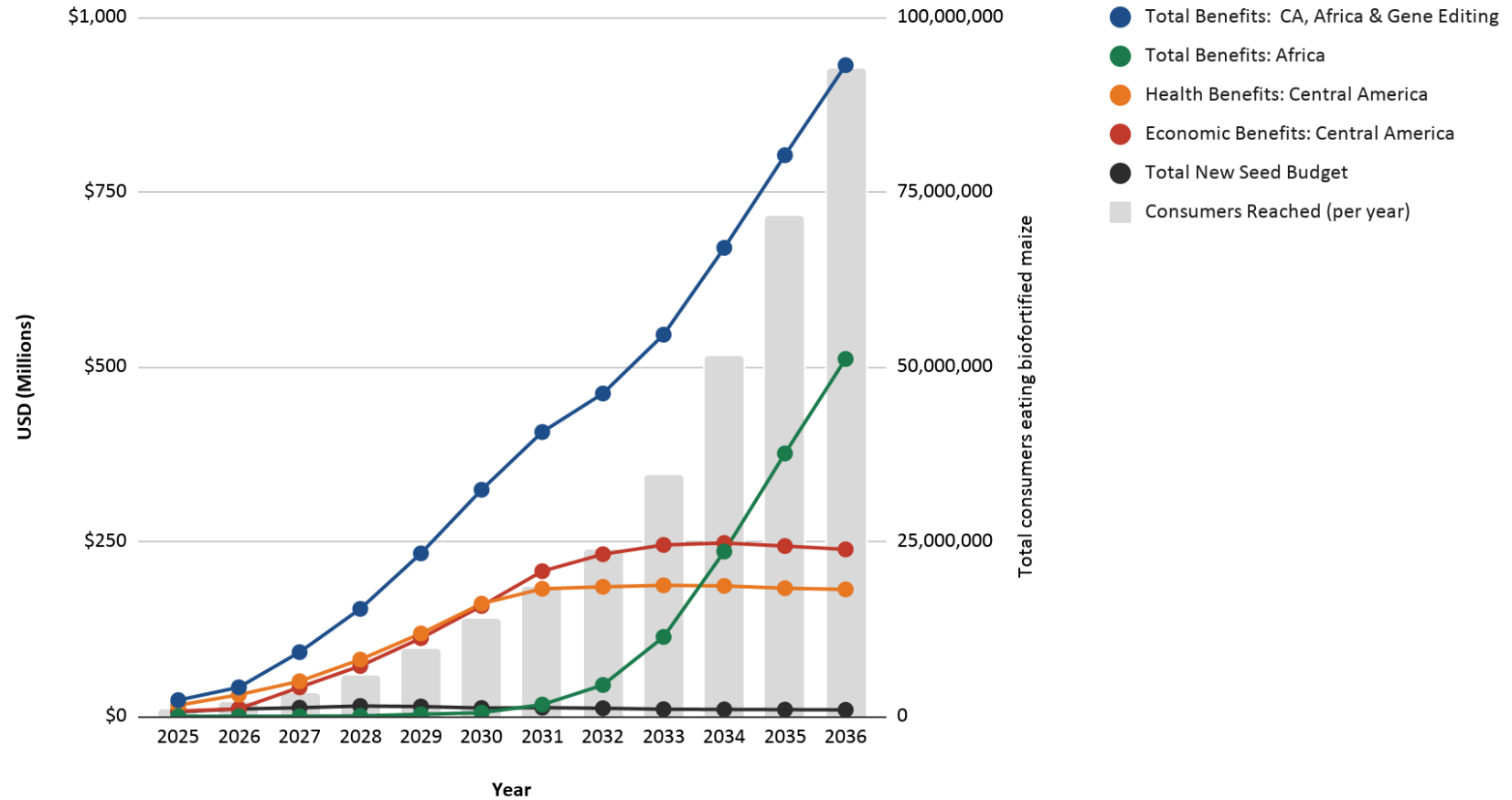
With conventional breeding, it typically takes 6 years and \$300-400k to backcross nutritional traits into a corn seed. We've been able to decrease time and costs by almost half, but gene editing could bring this down to a year and less than \$10k per seed.

- 1) **Countries are beginning to consider some gene edits not GMOs.** Multiple countries in Africa, Japan, the EU and others declared that crops that are edited with genes from the same species (i.e. cis-editing) do not count as GMO and do not require extra regulation.
- 2) **One partner can do the editing and provides most of the seeds the world uses.** Over half of all maize produced in Africa comes from seeds from one seed bank, CIMMYT. Their laboratory in Mexico has led early research on gene-edited maize, and they recently acquired access to IP so they can launch gene-edited seeds globally.
- 3) **We launched the largest research program on gene editing for biofortification.** In 2025, our pilot with the University of Wisconsin tested 12 genes and found two showed increases in protein quality. With these results, we worked with CIMMYT to launch the world's biggest gene editing program for nutrition in maize, focusing on zinc, iron, and protein quality.
- 4) **The seed banks that supply the majority of the world's rice, wheat, and maize seeds have all pledged to make their seeds biofortified if it's feasible; with gene editing it can be.** In 2014, the CGIAR (Consultative Group on International Agricultural Research) system signed a pledge to breed all of their seeds to be nutritious. For the most part, they haven't been able to follow up on this goal due to costs. They have already expressed to us that a gene editing solution would allow them to meet their pledge and begin launching more nutritious seeds worldwide.
- 5) **We want to expand to rice and wheat.** Given the speed of progress and potential of our maize gene editing program, we want to expand to rice and wheat as well, and pull in other companies and seed banks that develop seed genetics used in our target countries.

Where we need your help: We're working through two questions and would value funder input:

- (1) Should we raise significantly more funds and expand gene editing research to other staple crops beyond maize?
- (2) How much should we invest in accelerating farmer uptake and regulatory approval for gene editing, versus riding the pace at which both are already happening naturally?

Cost-Effectiveness: Annual Benefits vs. Budget, 2025–2036 (Discounted)



Changelog:

[Case for Support v1.5.1](#) - Updated Guatemala subsidy payments from government given full 2026 payments and 2027 budget

[Case for Support v1.4](#) - Updated tables to v1.5 CEA data and footnotes on discounting

[Case for Support v1.2](#) - Updated tables to v1.4 CEA data, updated section on government funding.

[Case for Support v1.1](#) - Updated expected date to receive government funding from June to July.