



About myAgro

myAgro works to help farmers overcome poverty and food insecurity by enabling them to save up to purchase packages of high-quality seeds and fertilizer, yield-index insurance, and climate-smart agricultural training.



LETTER FROM THE CHIEF DEVELOPMENT OFFICER



Dear friends,

The fourth quarter of 2022 was a flurry of innovation and activity. As we shared in our third quarter report, we launched off-season sales of tomatoes, poultry, and moringa trees which were successfully delivered in the fourth quarter. We typically launch sales for the new season during this time period as well but in 2022, we began enrolling farmers in August. By the end of fourth quarter, we enrolled 130,000 farmers! With this great start, we are confident we will reach our goal of serving 175,000 farmers in 2023. Lastly, the fourth quarter is when we deliver our high-quality seeds and fertilizer in Tanzania. We delivered to more than 4,100 farmers, double the number of farmers served in 2021.

As you may recall, we originally expanded to Tanzania to test the use of mobile money payments in a country where adoption of this payment method was more widespread. In Tanzania, myAgro collects 100% of payments via mobile money. Now, given changes experienced in West Africa and especially Senegal in 2022, we have seen a massive and sudden increase in mobile money use there. Tanzania is no longer the only country we can test in.

In conversations with donors, we have been sharing our ongoing work to support farmer resiliency to climate shocks. In this report, you can read one myAgro farmer's personal experience with climate change on pages 4-5. Pages 6-7 present information about our climate-smart agricultural training, and on pages 8-9, we provide the results of our pilot in Senegal to reduce reliance on chemical fertilizer. Reduction in chemical fertilizer use was initially seen as a climate resilience strategy, but as our R&D Team has trialed a specific biofertilizer, it has emerged as a potential climate change mitigator.

In December, we launched our first pilot in Côte d'Ivoire. After significant desk and on-the-ground research, Côte d'Ivoire was selected as a country we are exploring for expansion. The pilot will have three phases lasting through August 2023. The pilot results will enable us to determine if we will add Côte d'Ivoire as a new country for operations. You can read more about Côte d'Ivoire on page 10.

**2023 CORE
SEASON
ENROLLMENT**
December 2022

80,000
Farmers in Mali

50,000
Farmers in Senegal

**2022
TANZANIA
DELIVERY**

>4,100
Farmers in Tanzania

ERIN B. MOORE

CHIEF DEVELOPMENT OFFICER

FARMER SPOTLIGHT: FANTA WILANE FACES THE CLIMATE CRISIS

Fanta Wilane is a Senegalese smallholder farmer, mother, and entrepreneur.

Climate change has wreaked havoc on the ecosystem Fanta relies upon. With increasingly shorter rainy seasons over the last decade, Fanta's land was drying out, continually reducing her family's access to food.



Fanta Wilane in her field.

It wasn't until about three years ago that Fanta noticed a significant shift in the weather pattern. Her family owns three hectares of land, which previously allowed them to produce enough food to sustain them from one farming season to the next. Now, Fanta and her family only have the means to cultivate one half-hectare of land, which produces one bag of groundnuts.

Alarmed by her increasingly low yields, Fanta realized that she had no choice but to take action. She learned about myAgro from her daughter, Khoudia who attended an agricultural training conducted by myAgro. During the training Khoudia heard about climate-smart agricultural practices, including microdosing fertilizer, which she shared with Fanta.

Fanta Wilane is one of the estimated **33 million smallholder farmers** in Africa navigating life on the front lines of the climate crisis. Most farmers are not aware of the root causes of climate variability—mainly due to the lack of funding dedicated to sharing reliable information—which makes it difficult for farmers to implement climate adaptation solutions. Without access to information and tools, many farmers still operate as they have for generations, experiencing lower yields and increased levels of hunger.

“It's the first time I used fertilizer because myAgro came and explained.”

Unable to grow enough food, “the problem is now financial,” Fanta highlights. As the lack of rain strips the soil of the chemical, physical, and biological properties essential for plant health, Fanta finds herself requiring more money each year to purchase food which previously, she was able to grow herself.



Fanta Wilane (left), with her daughters Dama Wilane (center) and Aissuta Wilane

However, buying that food is not easy, particularly as costs rise due to global price increases. "It's difficult to put food on the table," Fanta explains. "I don't want my children to go through what I have been through. That is why I work hard."

Once Fanta received her myAgro package, she planted corn on the same half-hectare of land where she had previously planted groundnuts. In an effort to encourage growth, Fanta said that she prepared the land well by tilling the soil thoroughly and using a generous amount of compost with small doses of fertilizer.

This season was the first time that Fanta attempted to apply myAgro's agricultural training. "It's the first time I used fertilizer because myAgro came and explained," she said. "If I knew it was going to be this good, I would have planted more! I am getting two more packages next year. It's good quality corn. Next year it will all be corn, I have more than three hectares of land."



Amadou Diouldi Sané is a myAgro agricultural agent who visited Fanta Wilane to conduct crop measurement on her field. This is part of myAgro's research activity, to see how much more yield farmers are able to produce with myAgro's support.

Due to the success of this year's harvest, Fanta has built trust in the quality of myAgro inputs. Witnessing the level of care and attention that myAgro offers its farmers has also increased Fanta's confidence in the organization. She now finds comfort in knowing that she is not alone.

"We come to check whether it's good or not. We can't just give somebody something and not follow up with them," said Amadou Diouldi Sané, myAgro Agricultural Agent.

Amadou Diouldi Sané is a myAgro agricultural agent who visited Fanta to measure her harvest. When asked what he was doing there, he said: "We come to check whether it's good or not. We can't just give somebody something and not follow up with them."

You can read this full story on myagro.org by [clicking here](#).



MYAGRO'S AGRICULTURE TRAINING SUPPORTS SMALLHOLDERS TO ADAPT TO CLIMATE CHANGE

At myAgro, farmers are our long-term partners who can help increase food security in West Africa.



myAgro Agriculture agent Marième Soda Ndiaye conducts agriculture training with farmers.

To help farmers learn best practices that will optimize their harvests and boost their income, myAgro holds monthly Agriculture trainings for farmers in their villages every month, with the exception of June and July when farmers are planting. The trainings are designed according to each season and farming needs, with a climate-smart approach.

One reason agricultural training is important is simply due to its impact: farmers see that those who attend training have a better yield than those who do not.

“myAgro trainings put the farmer at the center, focusing on their challenges and priorities to create the training materials,” says Marème Soda Ndiaye, Agricultural Agent for the Kébémér and Ngaye areas in Senegal. She adds, “I started working with myAgro in March 2022. I can say that the impact is very strong. By attending [training], they [farmers] were able to learn techniques using the latest

practices and increase their yields. At training time, they leave all their activities to attend to benefit like others.”

In 2022, myAgro started to collect data on agricultural training in terms of the number of training sessions held and the number of farmers in attendance. This data collection effort began mid-season, so we plan to share numbers in future reports for the 2023 season.

In line with myAgro's climate-smart approach, the trainings provide reliable information to farmers regarding the effects of climate change on their activities, and the best adaptive techniques. This includes, for instance, how to select the right land for planting and how to use organic material as compost. Farmers learn how to best apply fertilizer using a micro-dosing technique, and crop rotation techniques which replenish soil and increase the variety of crops planted on their land.

On the following page, we present the training sessions planned in Mali during 2023 for a more detailed picture.



Marième Soda Ndiaye (center) standing with farmers after a training.

2023 Agricultural Training Calendar: Mali

This is the calendar of agricultural training planned in Mali for 2023. Calendars exists for Senegal and Tanzania, but have the training sessions in a different order and may focus on other crops besides okra and tomatoes.

Month(s)	Topic	Description
January 2023	Land Selection and Crop Rotation	Rotating crops between the different myAgro packages (legumes and cereals) will allow the farmer to use the least amount of fertilizer.
February 2023	Planting Okra and Its Benefits	Appropriate spacing and combining organic composting and chemical fertilizer will give the highest okra yields.
March 2023	Land Preparation and Applying Organic Matter to the Soil	Use of organic matter will allow for better water retention of the soil and an increased capacity of the soil to hold nutrients, allowing for better yield results when using chemical fertilizer.
April 2023	Microdosing Fertilizer	By applying the fertilizer in small amounts close to the roots of the plant, microdosing ensures the plant can easily access it. Therefore, the amount of fertilizer that needs to be applied is less, resulting in a better ROI for the farmer.
May 2023	Maintenance of the Field After Planting	By appropriate weeding, there is less competition for soil nutrients. Crops will then benefit more from the applied fertilizer and therefore yield higher.
June/ July 2023	No trainings held, but call center makes outbound calls to providing planting assistance and responds to inbound calls from farmers to provide technical assistance.	
August/ September 2023	Top Dressing of Fertilizer	By applying the second dose of fertilizer at the right time and close to the plant roots, the farmer will get the highest return on investment.
October 2023	Harvest and post-harvest practices	With appropriate drying and storing of the harvest, farmers can preserve high-quality peanut seeds for the next season so they don't have to make this extra investment.
November 2023	Planting Tomatoes and Its Benefit	Appropriate spacing and combining organic composting and chemical fertilizer will give the highest tomato yields.
December 2023	Improved Quality of Composting	Appropriate compost mixture, regular moisturizing, and turning will lead to a higher quality composting, capable of retaining more water and nutrients in the soil for crops to benefit.

MYAGRO ENTERS AN INNOVATIVE PARTNERSHIP TO FIND ALTERNATIVES TO CHEMICAL FERTILIZER

myAgro recently partnered with the Institut Sénégalais de Recherche Agricole/Centre National de Recherche Agronomique (ISRA/CNRA) to find viable alternatives to chemical fertilizers that we can include in our packages. This is an important focus for myAgro, especially because fertilizer prices have increased **250%** over the past year in the areas we work.

ISRA/CNRA is one of the most prominent agricultural research centers in West Africa, and leads research and development that contributes to food security and poverty reduction in Senegal. This partnership will enable us to apply cutting-edge research in practical ways that benefit farmers and make them more climate resilient.



Jorre Vleminckx, myAgro Chief Innovation Officer (left), and myAgro Regional Agriculture Manager, Nathalie Diagne (center), talk with an ISRA/CNRA representative at the research station in Bambey.

Partnership trials kicked off with a field visit led by Jorre Vleminckx, Chief Innovation Officer at myAgro, and Nathalie Diagne, Regional Agriculture Manager at myAgro, who held the position of Director of ISRA/CNRA from 2017 to 2021.

“The main goal of these trials is to test ways to decrease reliance on chemical fertilizers for myAgro farmers, making them more resilient in light of the current fertilizer market crisis. These testing trials align perfectly with myAgro’s goal to continuously help



farmers be more climate resilient. We remain convinced that this collaboration, which is beginning to bear fruit, will allow us to better contribute to the improvement of the income of small producers,” says Nathalie Diagne.

The trials, which will span three years, will test fertilizer use for products like groundnuts, millet, and niebe (commonly known as black-eyed peas). In the first year, the research center will plant, treat, and harvest the products, determining the amount of fertilizer needed and best planting practices to maximize crop growth. In the second year, myAgro will enroll around 500 farmers in a pilot to test the products and assess implementation. In the final year, we will verify the results of the pilot using metrics such as time of plant maturity, vulnerability to disease, yield, and other factors that impact harvest. All of this will equip us to determine which products will make up the packages that we offer to farmers.

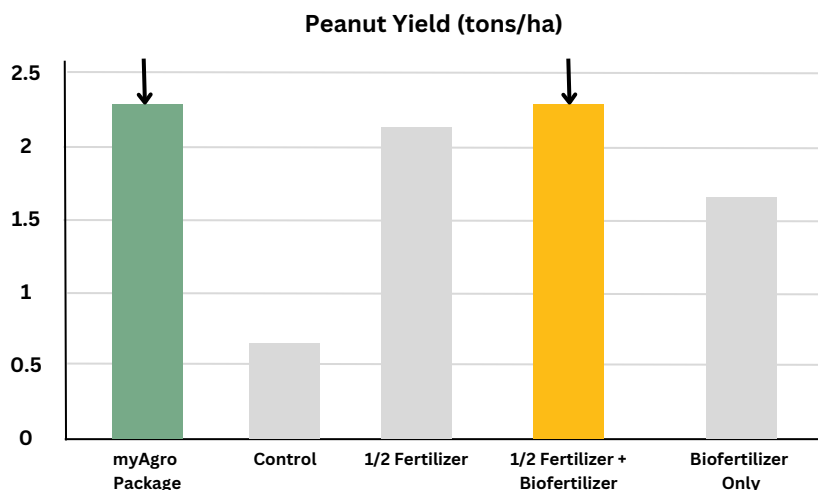
Through this partnership, we tested a biofertilizer made up of mycorrhizal fungi. It expands the biomass of root systems, adding organic mass to soils and

Continued on next page.

"myAgro Enters an Innovative Partnership to Find Alternatives to Chemical Fertilizer" continued

providing plants greater access to nutrients and water in the soil. Using biofertilizers can support farmers in reducing reliance on chemical fertilizers while sequestering additional carbon to soils. Initial farmer trials in Senegal showed that replacing half of the chemical planting fertilizer (DAP) with this biofertilizer led to equal levels of food production compared to a full application of DAP on peanut farms. See the chart below.

This innovation is a potential climate mitigation strategy because soil is the paramount carbon sink, with 80% of carbon in terrestrial ecosystems stored in our soils. Mycorrhizal fungi, having a symbiotic relationship with the plant roots, are a key regulator of this process. Studies have shown that 50-70% of carbon bound in the soil is from tree roots and their associated mycorrhizal fungi.



However, the presence of these fungi in soil is at risk due to fires, deforestation, and depletion of organic matter in the soil. The mycorrhizal fungi in these trial biofertilizers can potentially replenish mycorrhizal networks in the soil and support farm systems in a new way. While this effect is still a key research topic, some research has shown that adding mycorrhizal fungi to crops could increase soil carbon by up to 15%.

Farmer Spotlight: Aminata Doumbia



Aminata Doumbia is a mother of 7 children and a third-year farmer with myAgro in the Mali village of Garalo. Aminata purchased a 1/4-package of maize and believes her harvest was successful this year.

"This season's harvest has exceeded my expectations," she says. "I had 3 bags last year on the same hectare of the farm, but this year it increased to 5."

Aminata believes the harvest will support her other activities, such as peanut butter sales. "I'll sell the maize bags and use the money for my peanut butter petty trading," she declares.

She participated in most of myAgro's training and believes it helped her agricultural skills. "I learned how to control the weeds growing on my farm and also how to sow more specifically and the importance of fertilizer," she says.

Aminata was also pleased with the support calls she received from the myAgro call center because they assisted her in determining when to sow. She shares, "The calls from the call center gave me instructions on when to plant so that I could have a good yield; I followed them, and I saw the results in my harvest this year."

COUNTRY EXPANSION UPDATE: CÔTE D'IVOIRE

myAgro launched its New Country Expansion (NCE) department in February 2022, with the goal of designing a process that enables myAgro to prioritize, select, test, and validate new countries to expand into. The department will help the organization meet its North Star of serving 1 million farmers by 2026.

During the new country review period, myAgro prioritized countries in West Africa, conducting desk-based research on six countries including Burkina-Faso, Côte d'Ivoire, Ghana, Niger, Nigeria, and Sierra Leone. Our team evaluated five key metrics to identify the most promising markets for myAgro's expansion efforts:

- Demand: the number of growing seasons, available agricultural land, current crop yield, and total fertilizer consumption.
- Demographics: the total population, female population, rural population, and percentage of people living below the national poverty line.
- Political Environment: political stability, cost of starting a business, and corruption perceptions.
- Digital Infrastructure: mobile network coverage, percentage of the population with a mobile phone, and mobile money usage.
- Economy: GDP per capita, GDP per capita growth, and average annual growth of key crops.

Through this process, the NCE team identified Nigeria, Côte d'Ivoire, and Ghana as the most promising countries to expand into. We then conducted in-country research—also known as ground truthing—to verify findings.

Once the field research was concluded, Côte d'Ivoire, was selected for a pilot.

Côte d'Ivoire Pilot Underway

We are thrilled to announce that Côte d'Ivoire has been selected by our New Country Expansion team as the country where we will launch a one-year pilot. The pilot will provide additional indication as to whether or not myAgro will scale up expansion efforts in Côte d'Ivoire.

Our extensive desk and field research assessed several countries across indicators such as mobile money penetration, government support, and agricultural characteristics. Côte d'Ivoire was the top choice. Because the country has multiple growing seasons, our pilot will take place in three phases. The current phase launched in December 2022 and will last through the end of March 2023. We will seek to have 200 farmers enrolled and at least 100 farmers receiving inputs. Phase 2 will focus on increasing customer density, and Phase 3 on geographic expansion. Throughout all phases of the pilot, we will seek to have 80% of payments made via mobile money and 60% of farmers enrolled being female. We will sell packages of maize, peanut, gumbo, and chili.



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