

Orange-fleshed Sweetpotato on the School Feeding Program in Osun State, Nigeria

Starting in January 2015, orange-fleshed sweetpotato (OFSP) was included on the menu once a week at 8 schools in 8 Local Government Areas (LGAs) of Osun State, Nigeria. In September 2015, the number of schools was increased to 17, and by December 2016, the total increased to 186 schools in 24 out of 31 LGAs. Local farmers supplied over 10 tons of OFSP weekly to feed 41,426 pupils, about 16% of the State's 254,000 students in primary classes 1 through 4. State agencies such as the Osun Youth Empowerment Scheme (O-YES) are encouraging youth to take up sweetpotato production and marketing to serve all of the State's schools.

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Fig. 1 Food vendors with OFSP at AUD Elementary school, Osun state Nigeria (credit V. Atakos)



What is the problem?

School feeding programs, which provide children with a nutritious meal daily, can be an effective means to increase school attendance resulting in improved education, health and nutrition of pupils. When these programs source foods from local farmers, so-called homegrown school feeding (HGSF), they also support local agricultural economies. The African Union's Comprehensive Africa Agricultural Development Programme (CAADP) and the United Nations' Committee on World Food Security have endorsed HGSF for these multiple benefits. However, sustainable management of HGSF programs is quite challenging, with only a few surviving and thriving for many years following

establishment. O-MEALS, the HGSF program in Osun State, Nigeria, has been operating since 2004, so presented a potential established institutional market for nutritious, delicious OFSP as an affordable menu item. However, OFSP was not well known in Osun State, and not found on farms, in markets or in diets there.



What did we want to achieve?

We are interested in including nutritious, affordable, locally-produced OFSP on the menu in schools throughout Nigeria, starting in Osun State. This would provide students with nutritious meals and with the knowledge to stimulate demand for OFSP and improve nutrition security in their homes. The HGSF institutional market



Implementing partners:

- Partnership for Child Development (PCD) in Nigeria and Ghana
- Osun Elementary State School Feeding and Health Program (O-MEALS)
- National Root Crops Research Institute (NRCRI)
- Osun State Agricultural Development Programme (OSADEP)
- Osun State Youth Empowerment Scheme (O-YES)



Fig. 2 Vine multiplier Ademola Adepoju in his labeled plot near Oshogbo, Osun State (credit E. Carey)

would present a reliable market entry-point for risk-averse farmers who could then explore other markets. We wanted to include OFSP on the O-MEALS menu, and to establish a system of producers and support services capable of reliably supplying all schools in the state, and of expanding to other markets in Osun State and beyond.



Where did we work?

In Nigeria, we worked in Osun State, where the O-MEALS HGSP program was established in 2004. The program feeds balanced meals daily to roughly 254,000 children in classes 1 through 4 in 1,375 schools. More than 3,000 vendors prepare and serve meals (Fig. 1), procuring supplies with funds deposited by the O-MEALS program into their bank accounts. An expanding network of OFSP producers (Fig. 2), throughout the state, served by extension and research services, supplies OFSP at pre-negotiated prices to school caterers through locally managed market networks.



How did we make it happen?

Our efforts began with visits to the O-MEALS program and state extension services starting in 2011, and achieved fruition under two projects: Jumpstarting Orange-fleshed Sweetpotato in West Africa through Diversified Markets, and Sweetpotato for Health and Wealth in Nigeria in September 2014. At that time, a visit by a delegation of CIP and partners to the office of the Deputy Governor of Osun State, Nigeria resulted in endorsement for the “carrot potato” and its inclusion on the menu. An easy to prepare sweetpotato pottage recipe (peeled OFSP root, cut into chunks, cooked with palm oil, pepper and onion, and served with fish) was developed in consultation with the O-MEALS and Partnership for Child Development staff (Fig. 3). Community sensitization meetings were conducted to discuss the benefits of OFSP and to present the recipe to the stakeholders. Having already introduced OFSP to producers, and established a production base in Osun State, we started piloting OFSP pottage in the school menu in January 2015 at 8 schools in Osun State. Since then, the number of producers and food vendors, supported by partners, has expanded the program to cover 186 schools serving over 41,000 meals per week.



What have we achieved so far?

- A suitable OFSP variety, **Mother's Delight** was released by the Nigerian National Program in 2012 and producers and vine multipliers were identified in Osun State in 2013 and 2014.
- Number of root producers increased from 6 in January 2015 to 83 in December 2016 and the caterers (100% women) increased from 55 to 776.
- Using OFSP was profitable for producers (213% return on investment), and for caterers who made more per serving sweetpotato than the O-MEALS-approved rice and yam meals (OFSP 105.6%, yam 59.8%, and rice 36.7%).
- Revenue received by root producers increased from 78,643 Naira (\$219 USD)/week to 766,689 (\$2,133) Naira/week.
- Initial reluctance by some students to eat the unfamiliar OFSP meal was overcome through development of a catchy song extolling the virtues of nutritious OFSP. Over 90% of the children like the OFSP meal.
- Osun State's Youth Empowerment Scheme (O-YES) has encouraged its graduates to enter sweetpotato farming. The state has also invested in irrigation facilities to ensure dry season production.
- Supply management has shifted from project staff at the outset, to a system managed by producers.
- OFSP bread, produced with sweetpotato purée as a partial substitute for wheat flour has also been authorized to be on the menu and is served in 10 schools in one LGA.



What are the next steps?

O-MEALS plans to expand coverage to all schools in the state, and there are emerging opportunities to extend the program to other states in Nigeria. In 2017, the Federal Government of Nigeria included OFSP as an option on school menu for all states, and recently Abia State announced its intention to adopt it. The potential of HGSP is great not only in Nigeria, but elsewhere, if sustainable management systems, such as those used by O-MEALS can be adopted.



Fig. 3 Boy at AUD Elementary school eating OFSP, Osun state Nigeria (credit V. Atakos)