Proceedings of the 13th ISTRC Symposium, 2007
pp. 711 - 720

Vitamin A for Africa (VITAA): An entry point for promoting orange-fleshed sweetpotato to combat vitamin A-deficiency in sub-Saharan Africa

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Abstract. In sub-Saharan Africa, 640,000 children die each year from causes associated with Vitamin A deficiency. Improvement in Vitamin A intake would contribute to the Millennium Development Goal (MDG) of reducing by 20% the mortality rate of children less than five years of age. The VITAA partnership (Vitamin A for Africa) is dedicated to alleviating the suffering caused by vitamin A deficiency using orange-fleshed, beta-carotene-rich sweetpotato that meet African standards for taste and texture. A recent *ex ante* impact case study conducted by the International Potato Centre and Michigan State University suggested that 50 million children under six could benefit from the new varieties. The VITAA initiative is aimed at making orange-fleshed sweetpotatoes available on a large scale, demonstrating the potential of crop-based approaches in alleviating micronutrient deficiencies. VITAA member countries include: Tanzania, Uganda, Kenya, Ethiopia, Mozambique, South Africa and Ghana. VITAA objectives are to: complement development agencies' food supplementation/fortification efforts; increase the capacity of national agriculture, health and nutrition experts to incorporate sweetpotatoes in their national dietary recommendations; stimulate and promote micro-enterprise development using products made from orange-fleshed sweetpotatoes; teach house hold managers (women and children) the nutritional value and benefits of consuming orange-flesh sweetpotatoes. To-date a selected number of adaptable and acceptable varieties have been disseminated to major production zones in SSA countries through non governmental organizations (NGOs) and community based organizations (CBOs), with more releases expected. VITAA strength is based on the building of partnerships with a variety of stakeholders. This paper discusses progress to date and lessons learned.

Background

Vitamin A deficiency (VAD) does not kill its victims directly. It weakens the immune system leaving them susceptible to diseases such as measles, malaria, and diarrhea. Those most severely affected are young children and pregnant and lactating women. In sub-Saharan Africa, 3 million children under the age of five suffer from a vitamin A-related form of blindness known as exophthalmia, or dry eye, and many, many more are at risk. Two-thirds of those affected may die within months due to the collapse of the immune system. Worldwide, an estimated 250 million pre-school children may be deficient in vitamin A. Public health experts believe that addressing the problem could reduce overall mortality among children under six by more almost 25 percent. Studies also show dramatic reductions in maternal mortality when pregnant women receive vitamin A or beta-carotene supplements.

Over the past 25 years, public health agencies have addressed VAD by providing children with vitamin capsules that contain mega-doses of Vitamin A. The strategy has helped millions, but has proven expensive and, despite the best efforts of those involved, has left hundreds of thousands of children at risk.

As a complement to vitamin supplements, health experts have experimented with different methods that address the problem through diet. Many types of fruits and vegetables, as well as meat and milk, are rich in Vitamin A or beta-carotene, and, if consumed in sufficient quantity can eliminate or greatly reduce the impact of VAD. Most foods that are rich in Vitamin A, however, are too expensive for African consumers, are only seasonally available, or are unpalatable to young children. The exception is sweetpotato, a highly productive food crop that has few natural enemies and is widely grown in Eastern and Southern Africa.

The experience that sowed the seeds of VITAA came in the mid-1990s, when the Kenya Agricultural Research Institute (KARI), the International Center for Research on Women (ICRW), the NGO CARE International and CIP came together in a pilot project to find out whether orange-fleshed sweetpotato would appeal to African consumers. Until then it had been assumed that few would be willing to switch from the traditional white-fleshed varieties, which are high in starch and energy and have good cooking qualities because of their high dry matter content. To our delight, the project banished the myth of consumer un-acceptability; both women and children welcomed the taste and texture of the orange-fleshed sweetpotato (OFSP). Children in particular loved the sweetness and the orange like juiciness.

On 9 May 2001, an international group of 70 agriculturists, health experts and nutritionists launched what is believed to be the first crop-based initiative to attack the tragic consequences of vitamin A deficiency in Sub-Saharan Africa. The initiative is known as VITAA, or vitamin A for Africa. Working under the VITAA umbrella, 40 partner agencies from the health, nutrition and agricultural sectors agreed to work together to extend the impact of orange-fleshed sweetpotato in seven partner countries: Ethiopia, Kenya, South Africa, Tanzania, Uganda, Mozambique and Ghana. The VITAA goal is to create healthy rural populations through food-based approaches to nutrition focused on vitamin A.

VITAA partnership provides community groups in the SSA countries with new orange-fleshed varieties that prevent vitamin A deficiency. VITAA recognizes orange-fleshed sweetpotatoes as a promising solution to vitamin A deficiency in Eastern and Southern Africa not just because they're rich in beta-carotene, but because they're easy to grow and affordable to the average consumer. Unlike Africa's traditional white-yellow fleshed sweetpotatoes, VITAA varieties are rich in beta-carotene, a micronutrient that the body uses to produce vitamin A. VITAA is coordinated by the International Potato Center, the CGIAR research center based in Lima, Peru.

VITAA works at the community level, targeting mother's groups and other producer organizations in areas where sweetpotatoes are already grown.

VITAA OFSP varieties are rich in beta-carotene that the body uses to produce vitamin A. A recent ex-ante impact case study conducted by economists from the International Potato Center (CIP) and Michigan State University strongly suggests that 50 million African children under the age of six could benefit from the new orange-fleshed varieties. A complementary field study conducted by CIP and the International Center for Research on Women (ICRW), a VITAA partner agency, noted that in western Kenya: orange-fleshed sweetpotatoes and sweetpotato-based food products were not only acceptable to both producers and consumers in terms of appearance, taste, and texture, but contributed to the alleviation of vitamin A deficiency. The new sweetpotatoes performed well with respect to yield and pest

resistance and also had high beta-carotene content. One of the principal findings from the study was that African mothers would readily accept the new varieties, dispelling the myth that African taste preferences precluded the use of orange-fleshed varieties. The study also demonstrated that the daily addition of as little as 100 grams of OFSP to the diet could prevent VAD in children, pregnant women and lactating mothers. A major bio-efficacy study conducted by South Africa's Medical Research Council earlier this year reached similar conclusions.

VITAA currently works with collaborating agencies in Ethiopia, Ghana, Kenya, Mozambique, South Africa, Tanzania, and Uganda. Each of these countries is working hard to introduce orange-fleshed varieties, but efforts are probably most advanced in Uganda, where a host of regional organizations and NGOs are promoting the adoption of the new VITAA sweetpotatoes at the community level.

Now the partnership is capitalizing on the opportunity revealed by these findings. Adaptive research activities are being advanced in Kenya, Mozambique, Ghana, Tanzania, South Africa, Ethiopia, Madagascar, DR. Congo, Rwanda, Zambia, Malawi, Burundi and Uganda, where the NARIs scientists are working with CIP's regional staff to screen several orange-fleshed varieties in order to access their suitability to different environments. In addition, NGOs and women's groups in all countries are participating in on-farm trials, exposing a growing number of producers and consumers to their first experience of the varieties.

Farmers also found that the new orange-fleshed varieties grow well, have acceptable root yields and are moderately resistant to stresses such as drought and insect pests. Results of the assessments indicate that all varieties tested had a great potential for acceptability although the first batch was highly attacked by sweetpotato virus disease (SPVD). The variation between rankings for the various attributes both within and between agro-ecologies by farmers was not much. The fact that OFSP varieties were liked by the consumers more so ranked high by children implies that these can be easily adopted among the farming communities in Africa. Markets of OFSP (roots, processed chips and vines) and multiplication and distribution of planting materials have continued to rise as a result of individual farmers' and community-based organizations' efforts. For instance, in Western Kenya, more than 18 million vine cuttings mainly of OFSP varieties have been distributed to farmers through partners in the region.

Potential of orange-fleshed sweetpotato in combating Vitamin A deficiency in SSA. The promotion of orange-fleshed sweetpotato is showing great promise as a key element in strategic partnerships to solve the problems of malnutrition and food insecurity in eastern and southern Africa. Sub-Saharan Africa (SSA) is the only region in the developing world where both the number and proportion of malnourished children has been consistently rising. According to projections in IFPRI's 2020 Vision project, the number of malnourished children is projected to rise from 33 million in 1997 to between 39 and 49 million in 2020, depending on the model used (Rosengrant *et al.*, 2001).

In SSA, three million children under the age of five suffer total or partial blindness caused by Vitamin A deficiency (VAD). Vitamin A is consumed directly in meat products, and is produced in the body if a person consumes sufficient quantities of a precursor known as ß-carotene. Otherwise, the body cannot produce sufficient Vitamin A. Vitamin A deficiency is particularly a problem among children under five and pregnant and/or lactating women. Serious VAD can lead to blindness; chronic deficiency reduces a child's immune system to fight off malaria and other diseases

Development and health agencies have reacted to this crisis by distributing Vitamin A capsules and fortifying processed and packaged foods. The results have been impressive. More than 12 million children

received Vitamin A supplements in 1997, and the total number of children suffering from blindness related to severe vitamin A deficiency has dropped. Nevertheless, many families, particularly in rural areas, do not have access to capsules or fortified foods. In these areas therefore, Vitamin A chronic deficiency is rife. In circumstances where use of capsules and fortified foods to mitigate the situation is not possible, the use of orange-fleshed sweetpotatoes seems feasible. Sub-Saharan Africa produces over 7 million tons of sweetpotato annually, about 5 percent of global production. Recent projections indicate that production will more than double by 2020, whereas production in other regions is expected to remain stable or take decreasing trends. Sweetpotato is an important household food security crop in eastern and southern Africa, particularly in densely populated, intensively cultivated mid-elevation farming areas. Although the crop is mainly cultivated for domestic consumption, both fresh roots and leaves are increasingly gaining market potential for cash income. Roots are commonly consumed fresh, mostly just boiled or roasted, and the range of common recipes is narrow. Most sweetpotato varieties grown in Africa have white- or yellow-coloured flesh, and supply little or no Vitamin A. Orange-fleshed varieties introduced from other parts of the world or bred locally have been readily accepted in pilot areas in East Africa, and preliminary results have shown that they contain sufficient levels ß-carotene to play an important role in eliminating VAD (Hagenimana *et al.*, 1999).

Ex-ante impact study. An impact case study conducted by economists working at Michigan State University and CIP suggests that orange-fleshed sweetpotato could significantly help prevent vitamin A malnutrition in sub-Saharan Africa and could eventually benefit some 50 million African children.

According to the study, in countries such as Rwanda, Burundi and Uganda, where sweetpotato production is already high, full adoption of orange-fleshed sweetpotato could resolve vitamin A deficiency completely for 85 to 95 % of children most at risk in addition to significant benefits for childbearing women.

Even in countries that are not major sweetpotato producers, such as Ethiopia, a third of the population would enjoy partial benefits from enhanced beta-carotene intake as a result of switching from white- to orange-fleshed varieties.

Fortification of food crops such as sweet potato with higher levels of micronutrients – a process known as bio-fortification can be a powerful tool in combating nutritional deficiencies. However, there is a lot of optimism that it will benefit large numbers of people in the years to come. IFPRI and the International Center for Tropical Agriculture, head HarvestPlus, a new CGIAR initiative working to fortify major developing country staples, such as beans, cassava, maize, rice, wheat, and sweetpotato. The VITAA experience serves as a model for these efforts, providing concrete evidence of the effectiveness of food-based approaches in tackling micronutrient malnutrition.

Adaptive research on orange-fleshed varieties. A series of adaptive research and pilot extension activities have been conducted to provide the project withinformation in several key areas. To-date the stage for large-scale diffusion of the new varieties has been set with the target of scale-up by 2005. Activities done in collaboration with farmers mainly women groups include: a) studies that further define role of the new varieties in the family diet; b) efforts to establish micro-enterprises and micro-credit schemes; c) the testing of on-farm processing techniques, including the enrichment of local weaning foods; d) pilot testing of rural seed multiplication and distribution systems, and e) the provision of superior breeding lines. To-date ten to twenty OFSP varieties with high dry matter have been accepted consumers in the region. Fourty new clones

are being tested widely in all VITAA partner countries for adaptability and acceptability

Before the VITAA initiative, it had been assumed that few consumers would be willing to turn away from the traditional white-fleshed varieties, which are high in starch and energy and have good cooking qualities because of their high dry matter content. To our delight, the OFSPs were acceptable to both adults and children. Children in particular loved their sweetness and the orange like juiciness.

The partnership is now capitalizing on the opportunity revealed by these findings. Adaptive research activities are being advanced in Kenya and Uganda, where KARI and the National Agricultural Research Organization (NARO) scientists are working with CIP's regional staff to screen several orange-fleshed varieties for their suitability to different environments. In addition, NGOs and women's groups in both countries are participating in on-farm trials, exposing a growing number of producers and consumers to their first experience of the varieties. A number of orange-fleshed varieties are currently being multiplied and cleaned for viruses by CIP at Muguga Plant Quarantine Services in Kenya for distribution to different sub-Saharan countries.

In Luwero district Uganda, children loved the taste, texture, and color of *Ejumula*, a deep orange variety, while adults preferred the lighter orange *Kakamega* variety, which is less sweet and has much appealing flavour. Additinally, these varieties grew well, had acceptable tuber yields were moderately resistant to stresses such as drought and insect pests (CHDC, 2001). These results imply that these varieties can be easily adopted in Luwero. According to children, *Ejumula* had a very attractive color, sweeter and less fibrous whereas for the adults, the most preferred variety was '*Kakamega*' (SPK004). It was flourier and not sugary like *Ejumula*. Field attributes like resistance to pests, drought tolerance and time to maturity were ranked high by the farmers. Similarly, all varieties were ranked above moderate for the tuber yield attributes. Throughout the five villages where the study was done, *Ejumula* and *Kakamega* (light orange/cream) were the most preferred varieties.

In addition to the above, farmers in Kenya, Tanzania and Uganda have evaluated other orange-fleshed and other preferred varieties.

Principles of the VITAA Work Plan. As a result of these highly promising results, representatives from the seven VITAA partner countries have agreed to promote orange-fleshed sweetpotato in each of the major production zones where white-fleshed varieties are most dominant. The work is mainly community-based and focuses on women decision makers. It also emphasizes nutrition education and micro-enterprise development. The partnership operates according to the following principles:

1. That orange-fleshed sweetpotatoes are now acceptable by African consumers and ready for full-scale development, and will also prove effective as an entry point for other food-based strategies aimed at reducing VAD in sub-Saharan Africa.

2. That VITAA varieties can empower local communities to help mothers and young children prevent VAD through their own labour and industry but also increase their incomes through value addition.

3. That VITAA provides a highly effective tool to address VAD among rural poor communities more especially children, pregnant women and lactating mothers.

4. That evidence exists that the VITAA varieties may also help to reduce the impact of anemia, measles, and malaria.

VITAA Agenda. VITAA's agenda consists of a coordinated set of activities in the major sweetpotato-producing countries of Eastern and Southern Africa. Its principal objective is to promote wide-scale production and use of

orange-flesh sweetpotato. The partnership program focuses on Uganda, Kenya, Ghana, Tanzania, South Africa, Mozambique and Ethiopia. Close linkages are also maintained with partner institutions in other countries through two regional root and tuber crops research networks: PRAPACE (ASARECA) and SARRNET (SACCAR). Project activities include: ex-ante impact assessment, participatory testing of varieties for adaptation and acceptability, community-based multiplication of planting materials, nutrition education, post-harvest processing for market and for home consumption, promotion through social marketing, monitoring of impact on nutrition and health, and capacity building. Principal beneficiaries are young children and their mothers, the two groups most at risk for Vitamin A Deficiency or VAD. Implementation strategies concentrate on women because of their central role in the production and marketing of sweetpotato and other food crops used in the family diet. Country work plans have been developed with key stakeholders to identify interventions with the highest potential pay-off.

VITAA Action Points. To make VITAA technology ready for full-scale deployment over the next five years, the partnership members have organized themselves around the following six-point action plan:

1. The establishment of a steering committee from all sectors of the Partnership. To-date, members include the Micronutrient Initiative, the International Center for Research on Women, the non-governmental organization Catholic Relief Services and CIP, along with one member from each participating country;
2. The development of national action plans. These include issues on health, nutrition and agriculture;
3. The development of a comprehensive, integrated regional action VITAA;
4. The completion of an efficacy and bio-availability study to confirm the uptake and efficiency of beta-carotene from sweetpotato for conversion into vitamin A in the body;
5. The establishment of communication and social marketing strategies to promote and increase the utilization of VITAA varieties. The envisaged outputs for VITAA include:

(i) Sweetpotato varieties with good agronomic and nutritional traits plus local acceptance;
(ii) Sustainable local seed multiplication and distribution systems;
(iii) Processed products based on new varieties;
(iv) Microenterprises based on OFSPs;
(v) Community- and household-based action plans for combating VAD with OFSPs;
(vi) Partnerships of trained of trained professionals committed to OFSP food-based approach to VAD;
(vii) OFSP information systems and databases;
(viii) Public education; and,
(ix) Monitor and and evaluate all project activities and measure impact.

Impact Assessments, Monitoring and Evaluation. The IFPRI-CIP study completed in 2001 revealed that there is sufficient per capita production of sweetpotato tin SSA. And as such, the introduction and diffusion of OFSP varieties is most likely going to have positive consequencies for vitamin A defficient populations. From this study, up to 50 million children in the region could benefit significantly from the new OFSP varieties.

Planning and Constituency Building. Working from the results of the ex-ante assessment, project leaders have embarked on a program of constituency building. The objective is to garner support for the use of high vitamin A sweetpotato among national policy makers, as well as NGOs and development agencies working in agriculture, human health, and nutrition. This is intended to create dialog on how best to exploit the new varieties, determine where they complement existing nutrition programs, and chart out a course for their full exploitation.

Training. The sustainability of the initiative, following the research and implementation phase, can only be assured by building local capacity to exploit the new technologies. To the greatest extent possible, training programs have been and continue to be conducted in all major project areas, including impact assessment, seed multiplication, post harvest processing and marketing, micro-enterprise and micro-credit. Priority has always been given to the concept of training of trainers.

Social Marketing. To encourage adoption of new technologies, VITAA has also developed a social marketing strategy and action plan. Mothers and school-age children have been targeted with messages that create demand for the new varieties and associated food products. The social marketing component has also encouraged government, NGOs, and community-based organizations to take responsibility for the distribution of the high beta-carotene materials and for micro-enterprise development.

Selected key success stories from the fields: A case of Uganda

Innovation to tap high demand for orange fleshed sweetpotato program. *Nju ku Nju* literally meaning "house to house" is a code name of a program by Mr. Hakim Ssali, a resident of Kayunga district in Uganda, where he moves from house to house sensitizing farmers on the importance of OFSP. He ultimately sells the vines to farmers who get interested. Hakim picked interest in OFSP from his friend Mr. Rajab Setyabula a prominent progressive farmer from Luwero district.

Consequently, a promotion campaign in Kayunga town council was launched. Many people got interested and an estimated 30 bags each containing 900 vines were sold to farmers, schools, and a prison. By the end of 2003, sensitization and distribution of planting materials had covered 5 sub-counties in Kayunga district and 4 sub-counties in the neighbouring Mukono district. In 2004 the program was extended to Jinja and Kamuli districts.

The working strategy is to sensitize farmers about the potential benefits of OFSP and encourage them to start growing them. While moving house to house Sali carries along planting materials, which are sold to interested farmers. To encourage and make it affordable for most farmers only 45 vines are sold at U.shs 500= .30 cents of US $. These vines are sufficient to plant only 15 mounds. However, there are framers who get interested and can afford to buy more vines to establish bigger fields. These are allowed to buy a full bag of vines at U.shs 10000= US $ 6. The bag contains 900 vines which are sufficient to plant 300 mounds of a garden. After two months, "Nju ku Nju" goes back and buys planting materials from the farmers who started with a bag of vines. These are expected to produce over 20 bags of vine cuttings. The program strategically buys only 18 bags from the framers leaving the balance for more multiplication. At this time a farmer is paid U.shs 5.000/ per bag, thus getting a total earning of U.shs 90.000. The program sells these vines to the new farmers visited, and earns U.shs 180.000. This is the money he pays transport costs and other requirements for the program to run before getting a profit magin. Meanwhile the farmers who started with 45 vines will generate a minimum of 900 vines at the end of the two-month period and are at this time advised to expand their multiplication beds. They can benefit from the purchases of the vines by the program after second round of multiplication.

Using hired motorcycles, two farmers have been able to traverse many villages in the operation area. They move along with fresh roots, flour and juice samples as well as education materials like calendars, and posters. They have opened location offices in different districts, which serve as physical contact addresses as well as stores for planting materials.

With this strategy Mr. Hakim has achieved a lot. Though without proper records, Hakim estimates to have sensitised over 10,000

farmers. Through the profits he has made, he has purchased a 2 acre piece of land and meets school fees for his children. Many other people have benefited from the initiative. He estimates that about 40 farmers have already benefited selling planting material to him while are a lot more now eat orange fleshed sweetpotato in their households. He is also more hopeful since his initiative has attracted attention and interest from the office of the Special Presidential Assistant for the Underprivileged Youth.

Farmers train fellow farmers in OFSP production and utilization. Mrs. Joweria Sekiyanja is proud of her achievements during the year 2004. Her face beams with a smile as she narrates the achievements. "Last year I told you that I had paid schools fees for one of my children during one the school terms, but I have been able to pay school fees for four children throughout 2004" boasts Joweria. "As a wife who was entirely depending on my husband I feed proud for having made this" says a jolly Joweria. "I have began building a commercial house on the plot I bought last year using money from sales of sweetpotato fresh roots, vines as well as products" says Joweria. According to records available her group has sold planting materials worth over Ugshs. 19 millions (equivalent $11,100). She locally processes and sells juice, doughnuts, pancakes and cakes out of sweetpotato on a daily basis, an activity she says earns her at least Ughs. 5000 as profit daily. " I have opened a savings account on which I deposit at least shs. 1000 per day" says Joweria. Similar gains have been made by other women in her group and she believes that OFSP activities have improved livelihoods of many women in her village.

Joweria attributes the achievements to a number of factors. First she worked hard to expand her fields to 5 ha a decision she took at the beginning of the year. Second, she has participated in a number of workshops and exhibitions during which she has made contacts with key partners. These include: workshop for Jinja district members of parliament. National Agricultural Shows in Jinja, World Food Day celebrations in Masaka, National Trade show at Lugogo, and the Launching of Poverty reduction program by the president at Katoke Luwero.

"The workshop for Parliamentarians was important for me. Many MPs especially women MPs got interested in my work and later contacted me to train their women groups in their respective areas" Says Joweria. According to her records, she has trained over 30 groups on request of members of parliament and other organizations. "We also got a juice sieving machine as a prize during the national trade show", she reported. Recently she had yet another important opportunity where she interacted with the President of Uganda when he was launching a poverty reduction program in Katoke, Luwero. "The president spent 30 minutes asking me about the number of products I had exhibited despite a hurry move he made through other exhibitions" Joweria says with pride. She further asserts that the President later referred to and praised her work during the public address speech. The president then promised them a factory to expand on sweetpotato processing. She is hopeful that she will be successful because of the immense opportunities available.

Rural processing of orange-fleshed sweetpotato for food and income. Mr. Ekinyu Eugine is the chairman of a rural processing group based in Abuket village, in Soroti district, North Eastern Uganda. The group is called "Abuket Orange-fleshed Sweetpotato Processors Association". He acknowledges that he and his group are much better off since they began processing dried sweetpotato chips. His group was born out of a farmers' group originally supported by an NGO, SOCADIDO, in sweetpotato production. They were experiencing yield surpluses but had limited markets. To avoid wastage, they would process sweetpotato using traditional means into *Amukeke*. However, the *Amukeke* had quality problems. Sweetpotatoes used to be sliced using traditional knives into big

slices that took long to dry and would thereforeget mouldy. They were also dried on the ground resulting into a poor quality product. In addition, big slices were susceptible to storage weevils. To solve the above chain of problems, CIP together with its partners (particularly NARO and SOCADIDO) decided on piloting the rural based processing units made of groups with inteprenual interests and experiences. Thus Ekinyu's group was one of the two groups identified in Soroti district. The groups were trained in various aspects of quality processing and control of dried sweetpotato chips. A motorized chipper mounted with blades to slice sweetpotato into small chips that dried quickly was donated to the group through SOCADIDO during the launching of OFSP in Soroti district. The group went ahead and began processing sweetpotatoes into high quality chips. The group's first tone of dried chips was sold to Maganjo Grain Millers Co.

Women demand for "Babies Food" - orange fleshed sweetpotato in Hoima. Women in Hoima district are all out looking for a sweetpotato type called "Kirisabaana". The word "Kirisabaana" is a term in the local language meaning " that feeds children". In Hoima district, the orange-fleshed sweetpotato were introduced through Bulindi Agricultural Research and Development Centre, a National Agricultural Research Organization (NARO) zonal institute. The Centre Manager of the Intitute reported that the promotion of orange fleshed sweetpotatoes was the institute's first success story. He also reported that in collaboration with Hoima District Farmers' Association, OFSP were very successsful in the distrct , that they ahd even spread to neighbouring districts.

VITAA Scoops A 2003 CGIAR Partnership Award. VITAA with its partners, has managed to introduce and popularise OFSPs in the region. During the 2003 Annual General Meeting of the Consultative Group on International Agricultural Research (CGIAR) held in Nairobi, this VITAA effort was recognised. In this meeting, partners represented by individuals from Kenya and Uganda received the prestigious CGIAR award for the outstanding partnership and efforts to alleviate Vitamin A deficiency in Sub Saharan Africa.

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