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## Senegal

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### **Millet has many faces - an update from Senegal**

*What the USDA-CLUSA project accomplished under the Food for Progress program*

**Report Categories:**

Agricultural Situation

Trip Report

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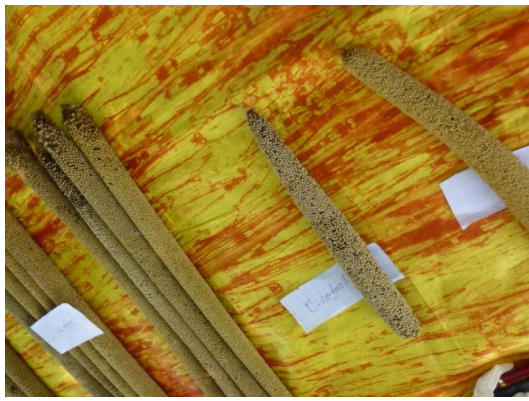
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**Report Highlights:**

Read how the millet project in Senegal financed by the U.S. Department of Agriculture (USDA) and managed by the Cooperative League of the USA (CLUSA) helped millet farmers improve yields and address food security. This hardy cereal plays a starring role in village life and Senegalese culture.



**Different varieties of millet.**

(Source: USDA-Dakar)

On November 5, 2013, Joani Dong, U.S Department of Agriculture (USDA), Regional Agricultural Attaché for West Africa, based at the U.S. Embassy Dakar visited three sites under the millet project, financed by the USDA Food for Progress (FFPr) program. They illustrated concrete accomplishments at the village level in Senegal, by the implementing NGO, Cooperative League of the USA (CLUSA), led by Amath Diop, Country Representative, based in Kaolack.

**Site visits.** The visit to the region of Kaolack commenced with farmers in the village of Keur Niéné who experimented with growing biofortified millet on 10

hectares of land provided by Yaajendee, a partner organization. The special variety contains iron and zinc to help fight anemia in children and women. Farmers spoke of incorporating what they learned from CLUSA which resulted in dramatic production increases. This was followed by a visit to a women's producer organization called Takku Liguey Taiba Nianguene which demonstrated how each member pooled savings of 100 FCA per person per week (\$.41 ) to enable them "to save for change." Similar groups are said to have saved as much as 500,000 FCFA (over a \$1,000) in 4 months, principally to buy more millet after harvest when prices are low to sell later at higher prices. Lastly, a visit was made to a millet processing enterprise Ootalkoom of Gandiaye which produced thiakry, thiéré, sankhal and arraw used in special dishes. This is where the USDA-CLUSA millet project advised them on using a better quality millet that yielded less waste after processing and garnered higher prices for better quality product. CLUSA also provided help designing attractive packaging as well as trained the group on how to market their products in local markets and stores as an affordable and nutritious cereal.

**USDA Food for Progress program's role.** For the past three years, the USDA has financed the millet program run by CLUSA in Senegal, West Africa, specifically in the Senegalese regions of Kaolack, Kaffrine and Fatick which represent 46 percent of the country's cultivated surface and provide 51 percent of national production as of 2012/2013 official data [from the Ministry of Agriculture - *Direction de l'agriculture de la Prevision et des Statistiques agricoles (DAPS)*]. The project area encompassed 184 villages in 24 rural communities

Under the Food for Progress Program, USDA donated 4,200 tons of American crude degummed soybean oil that sold in April 2010 for \$3.6 million in Senegal. Another \$1.0 million was provided to cover ocean freight for a total of \$4.6 million dedicated toward the program. The program was signed in 2009, and once the product was sold and funds released, operations started in earnest in 2010. The program was extended until January 2014 to make up for the late start.

## Why millet?

- 1. Drought resistant and nutritious.** This amazing crop beats out other major staples such as rice and sorghum as the most drought resistant, vital to subsistent rural communities where soil fertility is poor and rain is fickle. As of campaign year 2012/2013, 835,771 hectares of millet were planted in Senegal or 66 percent of 1.3 million hectares devoted to cereal production. Besides agronomic advantages, millet is rich in iron, phosphorus, calcium, iron, potassium, B-complex vitamins,



**Biofortified millet.**

(Source: USDA-Dakar)

magnesium and zinc.

**2. Stand-ins, but not replacements.** There are alternate crops such as manioc, cassava, cowpea, sesame and bissap, but they have their limitations. Manioc (cassava) cannot be substituted as a staple since it is a tuber. Cowpeas can't be grown in big quantities, and they are subject to Maruca pod borer infestations. Sesame is not as versatile as millet. Bissap is harvested after millet and peanuts so there are problems with livestock trampling over unfenced fields. Sorghum is a major staple and drought resistant, but its deeper roots need better moisture retaining soil.

**3. Cultural roots.** Importantly, it has deep cultural roots. In this region, millet is the man's responsibility in the field while women help with post-harvest activities. The versatile and culturally rooted millet is eaten during major family and religious celebrations by all ethnic and religious groups. For

example, sweet porridges known as "bouillie," including "lakh" (made from sankhal or arraw) is offered when a bride visits her new husband's parents for the first time. Sweet millet porridges are served during breakfast for naming ceremonies of newborns. "Nakk"(made from arraw) is served to guests offering condolences at funerals. Ngallakh (made from thiakry) is eaten during Easter. Couscous (also known as thiére) is served with tomato and chicken is served on the eve of the Muslim New Year known as Tamkharit. In villages, millet flour, mixed with water and sugar create a drink to fight fatigue. A salty dish made of broken millet flavored with peanut sauce and limes are given to the sick to generate energy and appetite. Mature heads are roasted on an open fire, like corn-on-the-cob, and grains are eaten as a snack.

**The challenge.** The challenge is Senegalese production of millet lags given climate change, population pressures and need for more governmental and private sector involvement. This is where the USDA project came in – how to increase yields and market product. Typically, millet seeds are planted in May-June before the rains, and the crop is harvested in October. The rainy season usually starts in mid-June and runs through September or October. The "hungry season" occurs in August to mid-September when there are no stocks left, and millet has not yet been harvested. Food is scarce, and people go hungry. On average, a farmer may grow 700 kg./hectare, but the disastrous effects of the parasitic striga plant that feeds on millet roots and stunts growth can bring yields down to 200-300 kg./hectare.

**What CLUSA accomplished.** In the course of three years, CLUSA demonstrated how to increase from an average 700 kg./hectare to an average of 1,200 kg./hectare by using improved fertilizer, seeds and farming. The idea was that extra production would pay for quality inputs; provide extra millet to feed the family and share with others; have some to sell for cash to pay for expenses, i.e., associated with family and religious gatherings, schooling and medicine.

According to latest official DAPS data, in 2012/2013, Senegalese production was 661,673 tons with a government target of 1.0 million tons for 2013/14

CLUSA worked through producer organizations to teach 3,266 producer group leaders on how to strengthen producer organizations, i.e., literacy and math, cooperative governance, business planning and management. There were 12,656 producers trained in how to improve production, i.e., soil fertility management, when and how to plant, how to use conservation farming techniques; and how to use microcredit to purchase fertilizer. There were 67 millet seed producers who received training on seed multiplication, seed business planning and marketing. Finally, there were 9,564 millet farmers and 30 processors who learned how to improve market linkages such as processing techniques and business skills.



**Improved product and packaging.**  
(Source: USDA-Dakar)

**On the microcredit front.** There were a total of 423 loans granted – one per producer organization comprised of an average of 15-30 farmers. Typically, farmers made loans of about 45,000 FCFA each (about \$93), a manageable amount commensurate to the price of a 5-6 month old sheep during the rainy season that could be sold to cover the loan. There were 2,046 loans granted in year one, 3,516 in year two and 3,239 loans in year three for a total of 8,801 worth \$1,047,785. Interest was 13-15 percent, and payback was about 95 percent. CLUSA used funds supplied by FFPr to establish a guarantee fund of 40 million FCFA (\$83,000) to cover the three year program, part of which will be used to finalize the project. . Due to increases in yield, farmers sold part of their production to repay loans. Farmers sold more and earned more. Revenue from processed millet soared

**Conclusion.** This small USDA project accomplished mighty results in production, sales and marketing at the village level. Families and their futures were the big winners.