

Technology Boosts Passion Fruit Farming

Farmers group shows 125 acres of passion for increased crop yields.



Photo: Fintrac, Inc

Anna and David Maithya showcase their first harvest of yellow passion fruit from 75 vines that matured in just four and a half months. Their use of a water retention polymer maximized yield on the demo plot at their Unyaa farm in Kitui County, inspiring other smallholders to venture into the value chain.

“We have since been harvesting about 5 kilograms every week and we expect this to increase after the rainy season.”

— Ann Maithya,
Passion fruit farmer from Kitui County

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David and Anna Maithya were not satisfied with the level of productivity and income they had reached through fish and fruit farming, but were determined to make a better living in agribusiness.

USAID’s Kenya Agricultural Value Chain Enterprises (KAVES) program helped them achieve their goal. The couple learned about yellow passion fruit farming in November 2013, and dedicated a quarter-acre of their farmland for the demonstration crop. They adopted the water retention technology using the Belsap polymer from KAVES partner Bell Industries Kenya.

Belsap is a super absorbent polymer (SAP) for efficient use of water and fertilizer to enable seedling and crop establishment, particularly in water-stress environments. It may be used in both rain-fed and irrigated crops and it has the ability to release water and nutrients to plants on demand.

Since the technology optimized output from the short rains in November and December 2013, the crop matured in a record four and a half months, rather than the expected eight months’ maturity period.

The Maithyas were pleasantly surprised to harvest between 40 and 50 kilograms of passion fruit in March 2014 from their 75 vines. “We have since been harvesting about 5 kilograms every week and we expect this to increase after the rainy season,” explained a delighted Anna. She is the secretary of their farmers group.

The couple are both members of the Kamutai Self Help Group and are committed to the success of the fruit crop. They grew 10,000 seedlings and sold them off to all the 300 group members at average price of KES 4. So far, David and Anna have grown 5,000 seedlings and have distributed 3,000 of them to member farmers.

The group will grow passion fruit for commercial purposes on 125 acres of land under an irrigation system from a man-made Kambingu dam in the area. The county government and county engineer support their initiative and are in the process of completing the piping and irrigation drips infrastructure to each member’s farm. The group meets and evaluates one member’s farm each month farmers join from three Kitui County areas: Unyaa, Tungutu and Mbusyani.

In March 2014, David expanded his acreage and planted 260 seedlings on a quarter-acre using ultra-high density spacing and Belsap technology. He looks forward to a bumper harvest.

“Our biggest challenge is the lack of a steady source of water supply, but with assistance from the county government in completing the piping process, our passion fruit venture will be successful. I believe once all the 300 Kamutui Group members begin to harvest, we will stand a bigger chance of selling our collective yields to large-scale processors

and increase our incomes,” David said.

Kenya is a focus of the U.S. government’s global hunger and food security initiative, Feed the Future, which helps horticulture, grain and dairy farmers increase their productivity and adopt sustainable methods of farming.