



Sweet potato (*Ipomoea batatas*) is a potential alternative agriculture enterprise for small limited resource farmers. It is a drought tolerant crop and is therefore attractive to growers who are unable to buy crop insurance. However, there is lack of suitable varieties to adapt in the Delaware climate. Therefore, CARS at DSU has started to evaluate most promising varieties of sweet potato during the growing season of 2012 and 2013 in Smyrna Outreach and Research Center of DSU. This research has proved shown that all four varieties tested have performed well within 120 days of growing window in sandy loam soil of Delaware.

Sweet Potato as an Alternative Agriculture Enterprise in Delaware

Who cares and why?

Food security and poverty are global concerns of our times, adding to this is the challenge of providing safe and nutritious foods. Sweet potato has become a popular crop for millions of people in Africa, Latin America and south East Asia. It is a cheap source of carbohydrate and vitamins including vitamin A. In the USA, Louisiana and

North Carolina are the largest producers of sweet potato. However, it is becoming popular in other parts of the country including Delaware. For the 11 percent of those living below the poverty level in Delaware, the sweet potato should be recommended for its low cost and nutritious content.

What has the project done so far?

To develop suitable varieties in Delaware climate and soil, CARS of DSU started varietal trial during 2012 and 2013 growing season at SORC. There were four varieties planted on sandy loam soil with pH 5-6.5 on the tilled bed of 3' width covered with black plastic. And, variety V1 (A-193-217) showed the highest average yield (32051 kg ha⁻¹) over the two year period followed by cultivar V2 (Birmingham) (31024 kg ha⁻¹), V4 (TI-6008) (31005 kg ha⁻¹) and V6 (TUI-001) (29750 kg ha⁻¹) respectively; however, there was no statistically significant difference among them. All varieties did well during 120 days of growing period in Delaware. This research has demonstrated that sweet potato can be grown as alternative agriculture enterprises in Delaware. These four varieties are characteristically different for skin color, flesh color, taste and each individual can pick which they like.

Impact Statement

The Cooperative Extension at DSU is going will reach out to socially disadvantaged and minority populations with this information through fact sheets, field days and one-on-one farm visits. It is expected that sweet potato will become an alternative agriculture enterprise since they can grow well in Delaware under drought conditions, and is a cheap source of carbohydrates and many vitamins including A.



Carbohydrates stored
in roots



What research is needed?

Organic production system is needed in sweet potato production to address the organic sweet potato demand from diverse customers in the Delmarva regions.

Want to know more?

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Strategic Priority: Plant Health/Products/Production

Additional Links: <http://www.umes.edu/ard/Default.aspx?id=46285>

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