



Research Summary Sheet

Valorization of the green waste parts from sweet potato

Context and Challenges

At present, most sweet potato leaves are discarded as waste in China. Only a fraction of sweet potato leaves was consumed as a fresh or quick-frozen vegetable. Owing to the limited processing, storage and transportation opportunities, the nutrient loss from the fresh or quick-frozen sweet potato leaves is extremely high.

Results and Applications

Using sweet potato leaves as raw materials, it is processed by a new type drying and milling technology, which can better retain the heat sensitive components in sweet potato leaves. Sweet potato leaf powder product is rich in nutritional and functional components, such as protein, polyphenols, dietary fiber, etc. It can be used as a solid beverage, or can be added into other food products such as steam bread, bread, cake, etc.

Sweet potato leaf polyphenols can be produced of sweet potato leaves as raw material, using ultrasonic assisted ethanol solvent extraction technology, membrane separation purification technology and freeze-drying technology. Sweet potato leaf polyphenols are a powdery product with the purity of more than 90%. This product has strong antioxidant, anti-cancer, anti-mutation, antibacterial, hypoglycemic and other biological activities, and can be widely used in food, medicine, cosmetics and other fields.





Breakthroughs, benefits and added value

Owing to the low moisture content (less than 10%), the new products developed would not only reduce transportation and storage costs but would also have extended shelf lives. In addition, our new products possess high nutritional and functional properties and can be widely used in food, medicine, cosmetics and other fields.

Further information on NoAW project: <http://noaw2020.eu>

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