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Challenges for Agricultural Research”

Decentralised Post-harvest Technologies to Produce Value Added Crops from Neglected Plants

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Abstract

Land use systems described by a diverse range of cultivated species can only be successful if farmers have the opportunity to generate additional income from that kind of agriculture. Especially neglected crops, even when being cultivated on small scale areas and/or mixed cropping and rainforestation systems, enable new marketing chances. The poster presents research activities at the Naban River watershed in the Dai Autonomous Prefecture of Xishuangbanna, Yunnan province, Southwest China, where special crops like medicinal plants, herbs, spices and mushrooms were investigated to be alternative products to the farmers. These products need to be processed to achieve marketing- and transportation condition. Therefore simple processing such as drying and smoking (spices, mushrooms) or extraction (medicinal plants) has to be done, which could be performed on farm level, whereas the added value remains in the village. Up to now for these crops there is no substantiated knowledge available about how to optimise the processing parameters (e.g. temperature, duration, pre-processing). In both laboratory and field tests appropriate species are to be identified and optimised processing procedures are to be developed to be able to produce value added and marketable products. In addition there is to be assumed, how far renewable energy sources (e.g. solar dryers and extractors) can be used to increase economic and ecologic benefits. First results were presented from a cooperation project between Kassel University and TianZi Biodiversity Research and Development Centre, located at Jinghong / Southwest China, where spices have been processed by a combined smoking / drying — plant.

Keywords: China, neglected plants, processing