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01/02/2016

Circular

Sub: Awareness on storage of crops using solar driers-Reg.

This is bringing to your kind notice that our college is organizing Awareness on storage of crops using solar driers on 3^{rd} February 2016 from 9.30 a.m to 4.00 p.m in Adur Village, Anekal. You are cordially invited and your participation in full strength is expected, for the effective utilisation of the programme.

Copy to All HOD's, TPC, Office, TO, Transport

Awareness on storage of crops using solar driers

The world population is more than 6 billion and about 20-25 percent people does not have enough food to eat. It has been estimated that world as a whole more than 25-30 percent food grains and 30-50 percent vegetables, fruits etc. are lost before it reaches to the consumers. To overcoming spoiling problems of vegetables, food grains and fruit; various preserving methods are used and renewable sources are best for this purpose by which we can save energy for preservation and keeping the product in their natural flavour. A solar dryer is an enclosed unit, which is used to dry agricultural products. It is also required to keep the food safe from damage, birds, insects and unexpected rainfall. Solar dryers, also known as dehydrators, have been used throughout the ages to preserve grains, vegetables and fruits by removing moisture. Solar dryers can be made locally of any size and capacity and solar dryers are economical if cash crops are dried.

A Awareness programme was conducted for farmers in Adur village on 3rd February 2016 by our institution on storage of crops using solar driers. Nearly 26 farmers have participated. Our students and faculty explained about the various types of dryers.

Direct type dryers: In direct or natural convection type dryers, the agricultural product is placed in shallow layers in a blackened enclosure with a transparent cover. The solar radiations are directly absorbed by the product itself. The food product is heated up and the moisture from the product evaporates and goes out by the naturalconvection/circulation.

Indirect type dryers: In these dryers the food product is placed in a drying chamber. The air is heated in solar air heaters and then blown through the drying chamber. In some of the designs, dryers receive direct solarradiations and also heated air from solar air heaters. In these dryers manipulation of temperature, humidity and drying rate is possible to some extent.

Forced circulation type dryers: In these dryers, hot air is continuously blown over the food product. The food products itself is loaded or unload continuously or periodically. These kind of dryers are comparatively thermodynamically efficient, faster and can be used for drying large agricultural product. These dryers can be of Cross-flow type, concurrent flow type or counter-flowtype.

Principal