

processing

REV2 | TRAINING MANUAL

the loaded issue

FIND OUT HOW YOUR EQUIPMENT WORKS



DRYERS
FOR AFRICA

WWW.DRYERSFORAFRICA.CO.ZA

DISCLAIMER

Haffenden Groves (Pty) Ltd t/a Dryers for Africa makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Haffenden Groves (Pty) Ltd t/a Dryers for Africa assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Haffenden Groves (Pty) Ltd t/a Dryers for Africa have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and the Buyer must conduct and complete all performance and other additional testing of the products, alone and together with, or installed in, any end-products. The buyer shall not rely on any data and performance specifications or parameters provided by Haffenden Groves (Pty) Ltd t/a Dryers for Africa. It is the Buyer's responsibility to independently determine the suitability of any products and to test and verify the same. The information provided by Haffenden Groves (Pty) Ltd t/a Dryers for Africa hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information rests entirely with the Buyer. Haffenden Groves (Pty) Ltd t/a Dryers for Africa does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether about such information itself or anything described by such information. Information provided in this document is proprietary to Haffenden Groves (Pty) Ltd t/a Dryers for Africa, and Haffenden Groves (Pty) Ltd t/a Dryers for Africa reserves the right to make any changes to the information in this document or to any products and services at any time without notice. You must accept that You and You Alone are Responsible for your safety and the safety of others in any endeavour in which you engage, you are Responsible for verifying its accuracy and applicability to your project. You are Responsible for knowing your limitations of knowledge and experience. If you do any work with "main power" such as 380 & 220 VAC power wiring, you should consult a Licensed Electrician.

Some illustrative photos do not depict safety precautions or equipment, in order to show the project steps more clearly. These projects are not intended for use by children. Use of these instructions is at your own risk. Haffenden Groves (Pty) Ltd t/a Dryers for Africa disclaim all responsibility for any resulting damage, injury, or expense. It is your responsibility to make sure that your activities comply with applicable laws.

Copyright © 2019 by Haffenden Groves (Pty) Ltd t/a Dryers for Africa

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher. For permission requests, write to the publisher, addressed "Attention: Permissions Coordinator," at the address below.

Haffenden Groves (Pty) Ltd t/a Dryers for Africa

No 10 Katoen Street, Msholzi, Mpumalanga, South Africa, 1240

Office: +27 13 750 0327

Email: support@dryersforafrica.co.za

Website: www.dryersforafrica.co.za

TRAINING MANUAL INDEX

DRYING + JUICING + PRESERVING + MAINTENANCE + MORE



ARTICLE

CHAPTER 1
INTRO TO FRUIT & VEG PROCESSING

CHAPTER 2
PROCESSING FACILITIES

CHAPTER 3
PRODUCTION PLANNING

CHAPTER 4
PRODUCTION METHODS

CHAPTER 5
PROCESSING EQUIPMENT

CHAPTER 6
QUALITY CONTROLS

CHAPTER 7
EQUATIONS


CHAPTER 8
MAINTENANCE

CHAPTER 9
SAFETY & CLEANING

CHAPTER 10
RECORDS & ADMINISTRATION

CHAPTER 11
OPERATION

CHAPTER 12
PRESERVATION METHODS

 10 KATOEN STREET,
R40 TO WHITE RIVER,
MSHOLOZI, WHITE RIVER,
MPUMALANGA,
SOUTH AFRICA

 WWW.DRYERSFORAFRICA.CO.ZA



article

Although there has been large industrialisation in the last 60 years, agriculture still occupies the prominent place of importance. Agriculture has provided us the food security but so far it has failed to provide us the nutritional security. Value addition is the process in which for the same volume of a primary product, a high price is realised by means of processing, packing, upgrading the quality or other such means. Value addition is one of the important components of nutritional security. Sometimes farmers get less price of a particular farm produce due to its surplus production. This problem can be solved by the crop diversification which creates an opportunity to earn more money from the different crops produce. Crop diversification and value addition are the two techniques for the profit maximisation and nutritional security. The most important problem now-a-days is to provide the remunerative price to the farmers for their farm produce. This problem can be solved by the value addition in different crops produce and can be marketed both inside and outside the country. This can also generate more employment for the rural people. Value added agriculture helps to increase the value of primary agricultural commodities through a particular production process. Small scales processing units, organic food processing, traditional crops production, agri-tourism and bio-fuels development are examples of various value-added projects that have supported to create new jobs in the rural areas. Value addition in agriculture is needed for the profitability of the farmers, to empower the farmers and weaker sections of the society, to provide safe, quality and branded food to the consumers, to reduce post-harvest losses, reduction in import and increasing exports, encourage the growth of subsidiary industries, to reduce the risk of marketing, to promote the crops diversification and to increase the financial stability of the farmers. Attentiveness to consumer demands in quality, variety and packaging are important. In order to be unique and novel, new product should be attempted. The product we develop should be one of its own kinds for which crop and variability indigenous to our country should be exploited. The product should be new and unusual like black or blue rose so that no one can compete in the market. Biotechnology can be utilised for the value addition especially in horticultural crops. The product we develop should have demand in the market. The product should have high value for low volume for ease of trading and distribution and the extracts such as spices and herbal plants can fulfil this requirement. Quality and quantity of the product should be maintained in the market. Ultimately market is the key for success of any product.

In the present era the whole world has become a single global market and there is too much competition in the market. Value addition and crops diversification has become key words in the agricultural trade. Product diversification is must for harnessing the full potential from present scenario of development. Value addition helps in the avoidance of post harvest losses, industrialisation, employment generation, export, extended availability of produce, foreign exchange earnings, product diversification, easy marketing etc. Agro-processing industries can play a significant role in achieving the objective of 'doubling the farm income'. The consumption of processed foods is synchronous with the rise in incomes as income elasticity of these foods is very high. Presently our country reached the status of 'lower middle-income' among the countries in the world and therefore, the share of processed food in the food basket of our population is bound to go up.

Urbanisation, diversification of diets, globalisation of diets, rising share of women in work force, nuclear families, changing policy perspectives including digitalisation and export opportunities propel growth of food processing sector. Agricultural innovations have a significant impact on agricultural performances and can be beneficial for both the producers and consumers. Processed foods were considered as rich people food for a long time and suffered heavy taxation, riddled with so many taxes including steep taxes for packaged products. This has been gradually changed with successive reduction in excise duties and state taxes to benefit farmers. Concept of cold chain was non-existent before the nineties and post-harvest losses were very high due to poor infrastructure facilities. Transport costs are relatively high leading scholars to conclude that importing from other countries is cheaper than transporting from one part of the country to another. Standards and protocols for food safety and laws for food safety were almost negligible.

The concept of food parks, agri-export zones, mega food parks, cold chains and human resource development have been initiated besides several incentive schemes. The main paradox in food processing industries is the dichotomy between organised and unorganised segment in regard to output and employment. While output and value added are higher in the organised segment, unorganised segment with one-fifth of output employs three times higher employment. Food processing sector creates lot of employment in comparison to the manufacturing sector as a whole. There is a need to infuse more technology in both the organised and unorganised segments with liberal provision of credit.