



Deutsche Gesellschaft für
Technische Zusammenarbeit (GTZ) GmbH
德国技术合作公司

中德技术合作林业培训与进修项目示范教材

新疆林果生产

XINJIANG LINGUO SHENGCHAN
SHIYONG JISHU

实用技术

艾尼·亚生 主编



东北林业大学出版社

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图书在版编目 (CIP) 数据

新疆林果生产实用技术/艾尼·亚生主编. —哈尔滨: 东北林业大学出版社, 2004.7

中德技术合作林业培训与进修项目示范教材

ISBN 7-81076-624-4

I. 新… II. 艾… III. 果树园艺-技术培训-教材 IV. S66

中国版本图书馆 CIP 数据核字 (2004) 第 074836 号

责任编辑· 戴 千

封面设计: 彭 宇



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东北林业大学出版社出版发行

(哈尔滨市和兴路 26 号)

哈 尔 滨 工 大 印 刷 厂 印 装

开本 850 × 1168 1/32 印张 9.625 字数 241 千字

2004 年 7 月 第 1 版 2004 年 7 月 第 1 次印刷

印数 1—3 000 册

ISBN 7-81076-624-4

S·402 定价: 16.00 元

内 容 简 介

本书是新疆林果生产实用技术的培训教材。全书共分为六章，分别从育苗技术、建园、果园管理、果园病虫害防治、果品的采后处理和果品保鲜几个方面，对新疆林果生产实用技术进行了较为全面的介绍。全书内容既相互联系，组成了一本较为完整的新疆林果生产实用技术的系统教材，各章之间又相对独立，可作为单项技术的培训教材。

本教材既可作为从事果品种植与加工生产人员的培训教材，也可作为果品生产科技人员的技术读本。教材对从事经济林研究的人员也具有一定的参考价值，同时也可作为基层工作人员的自学教材。

Brief introduction

This book is a training textbook for practical techniques of fruit production in Xinjiang areas. The whole book is divided into six chapters. The content includes seedling technique, orchard construction, orchard management, orchard plant diseases and insect pests control, fruit collection and the method of fresh keeping. It gives a complete introduction of practical techniques about fruit production in Xinjiang areas.

The contents contacts mutually, constituting the practical technical system of fruit production in Xinjiang areas. Each chapter is independent and can be used as the single - item technical training material.

The book can be used as a training material for the farmer. It can also be used as a technical reading material for scientific researchers working on fruits production.

中德技术合作林业培训与进修项目示范教材

出版说明

中德技术合作林业培训与进修项目是中华人民共和国和德意志联邦共和国在林业领域的技术合作项目，项目的目标是由北京林业管理干部学院和地方林业院校的教师们利用培训与进修的方式向林业专业人员和管理人员传授现代林业知识与技能，以推动我国林业的可持续发展。

1999年9月中德技术合作林业培训与进修项目正式启动，5年来，项目为北京林业管理干部学院和选定的5所项目网络学校培训了数以百计的师资，这些师资目前正在各学校的教学、培训一线岗位上发挥着骨干的作用。为了更好地扩散项目引进的德国先进林业技术与教学经验，服务于区域林业建设，由项目协调委员会牵头成立了项目示范教材编委会，并组织各校接受过培训的教师，结合各项目网络学校的优势领域和当地特色，编写了6本项目示范教材。从2004年秋季起，陆续提供给各类林业职业院校和培训机构选用。此外，项目还资助了杨凌职业技术学院凤县林科教一体化实验示范基地面向林农编写的经济林生产实用教材。

在教材编写初期，项目办邀请了一批在相关学术领域有一定造诣的专家学者对此次出版的6本教材的大纲进行了严格的评审，以保证教材的质量。本系列教材从目前林业职业教育的特点出发，结合各项目网络学校多年职业教育、培训的经验，并吸收了德国先进的教育、培训理念，有很强的实用性，适于林业职业

院校和培训机构进行教学、培训使用。

希望各林业职业院校和培训机构积极推广和选用本系列教材，并在使用过程中，注意总结经验，及时提出修改意见和建议，使之不断完善和提高。

中德技术合作林业培训与进修项目
示范教材编委会

2004 年 6 月

Instruction

Demonstrative Teaching Material of Sino - German Cooperation Project: Basic and Further Training in the Forestry Sector

Sino - German Cooperation Project: Basic and Further Training in the Forestry Sector has been carried out in line with a cooperative agreement signed between the People' s Republic of China and Germany. Its major objective is that the docent staff of Beijing Forestry Management Staff College (BFMSC) and various regional Forestry Colleges transfer modern forestry knowledge and techniques to technicians and management staff in the forestry sector of China so as to ensure that its forestry can achieve sustainable development.

The Project was formally launched in Sep. 1999. During the past five years, it has trained hundreds of teaching staff for the BFMSC and 5 regional networking forestry colleges, and these ever trainees of the project are now playing back - born roles on their training and education positions on the front of the forestry sector. To better diffuse the advanced technology and teaching experience introduced from Germany by the Project in order to meet the increasing demand of the regional forestry construction, the Steering Committee of the Project took the lead to organize the teaching staff trained by the Project to constitute an Editorial Committee, who has compiled a set of demonstrative teaching material of 6 courses by summarizing the academic strengths of each networking school and their local conditions. From the fall of 2004, it will be experimentally applied by various vocational forestry colleges and training insti-

tutions. Meanwhile the Project has also sponsored the Experimental and Demonstrative Site for Forestry Research and Education of Yangling Vocational & Technical College in Fengxian County for their compilation and edition of a series of practical teaching material on production of economic forests, targeting mainly at forestry farmers.

During the initial period of the editorial process, the Project invited a number of scholars and experts excelling in relevant fields to carefully revise the program of the 6 courses to ensure that this set would reach the expected quality. Departing from the characteristics of the current situation of forestry vocational education in China, combining the extensive experience in vocational training and education accumulated by the concerned networking colleges with the advanced educational and training concepts introduced from Germany, this series boasts of strong practicability for forestry vocational colleges as well as for training institutions .

We do hope that it can be adopted and spread by forestry vocational colleges and training institutions around the country, from whom, we warmly welcome any suggestions and opinions to make further publications even better.

Editorial Committee of Demonstrative Teaching Material,
Sino - German Cooperation Project:
Basic and Further Training in the Forestry Sector

June, 2004

前 言

本书是为适应新疆林果业生产的需要，在中德技术合作林业培训与进修项目的资助下，由新疆林业学校根据多年从事新疆林果生产的教学与培训实践编写而成的。

本书编写人员分工如下：主编艾尼·亚生（高级经济师），副主编于瑞德（高级讲师），参编人员有薛建民（讲师）、王娟（讲师）、杨曙辉（讲师）。全书由新疆维吾尔自治区农业科学院戴建研究员主审。

在编写教材的过程中，我们得到了东北林业大学陈祥伟教授、张彦东教授、赵雨森教授，黑龙江林业职业技术学院史义成副院长、刘晓春副教授等专家的大力支持和帮助。南京大学李建龙教授和中国林业科学院董凤祥副研究员对本书都提出了很多建设性的意见。

本书的编写和出版，得到了国家林业局人教司、北京林业管理干部学院、中德技术合作林业培训与进修项目办公室、新疆维吾尔自治区农业科学院和东北林业大学出版社等单位的大力支持和帮助。

对以上单位和个人表示衷心的感谢！

由于时间比较仓促，加之编者水平与经验有限，教材中难免会出现错误和不足之处，希望读者批评指正。

编 者

2004年5月

Preface

To meet the demand of the fruit production in Xinjiang areas, this book is written by the teachers, who have educational and practical experiences of fruits production for many years, in Xinjiang Forestry School and supported by Sino - German Technical Cooperation "Basic and Further Training in the Forestry Sector" project.

The chief editor of the book is Aini Yasheng, associate professor. Vice - chief editor is Yu Ruide, associate professor. Writers of the book include: Mr. Xue Jianmin (Lecturer), Mrs. Wang Juan (Lecturer) and Mrs. Yang Shuhui (Lecturer).

The book is reviewed and criticized by Professor Dai Jian, who is a researcher in Xinjiang Academy of Agricultural Science.

In writing the book, we have got a lots of help from the following experts: Professor Chen Xiangwei, Northeast Forestry University; Professor Zhang Yandong, Northeast Forestry University; Professor Zhao Yusen, Northeast Forestry University; Associate professor Shi Yicheng, Heilongjiang Forestry Vocational and Technical College; Associate professor Liu Xiaochun, Heilongjiang Forestry Vocational and Technical College.

We also got the help from Dr. Li Jianlong, professor, Nanjing University and Dr. Dong Fengxiang, associate researcher, Chinese Academy of Forestry.

We heartily appreciate the great efforts and efficient work from them.

Special thanks also give to the State Forestry Administration, Beijing Forestry Management Staff College, Sino - German Technical Cooperation "Basic and Further Training in the Forestry Sector" Project Office, Northeast Forestry University, Xinjiang Academy of Agricultural Science, Northeast Forestry University Press.

There would be some mistakes in this book because of our limited knowledge, and we sincerely hope to have the correction from our readers.

Authors

June, 2004

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