


中国柑橘品种

Citrus Varieties in China

中国柑橘学会 编著

Compiled by the Chinese Society of Citriculture



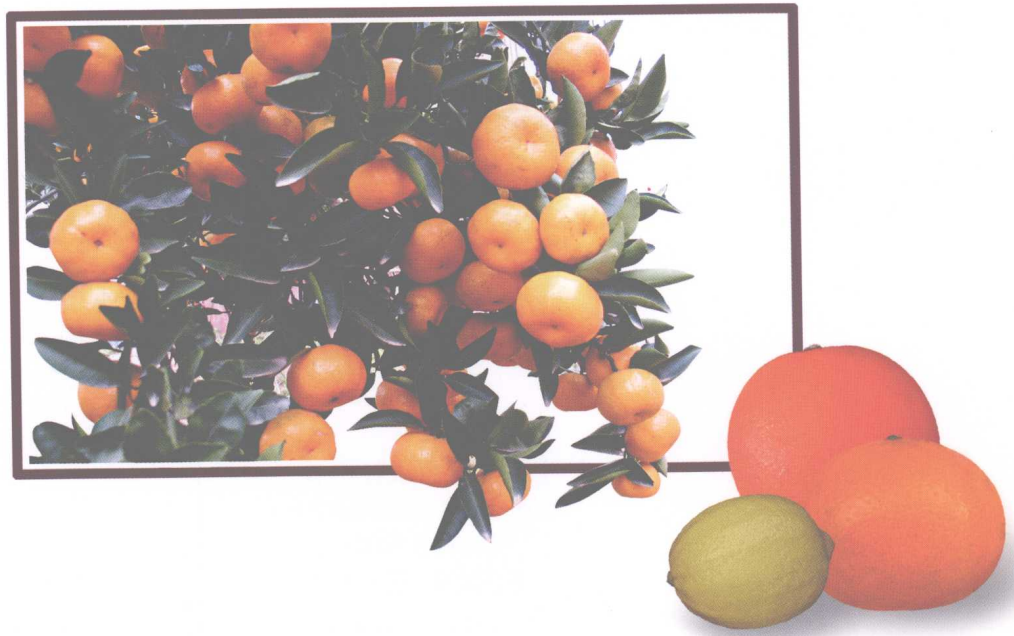
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序

柑橘是中国南方最重要的果树，在长江流域及其以南的广大区域，有 20 个省（自治区、直辖市）栽培柑橘，目前年产量达到 1 789.8 万 t 左右，总产仅次于苹果，排第二位。目前，中国生产的柑橘主要以鲜食为主，加工只占 5% 左右。中国栽培柑橘的历史悠久，据文献记载有 4 000 多年的历史。中国是许多柑橘类型的起源地，资源十分丰富。丰富的资源加上多样的气候为中国柑橘品种多样化提供了便利，成熟期在 8 月中旬至翌年 6 月；目前，经济栽培的类型主要有柑、橘、甜橙、柚子、金柑、柠檬以及枸橼等类型。除了鲜食和加工外，柑橘还广泛用作观赏和药材。

过去 10 年，中国柑橘产业发展十分迅速，品种更新很快，如今市场上琳琅满目的柑橘类型展现了柑橘品种改良的成绩。中国在发掘地方柑橘良种资源的同时，从国外引进了一些良种。为使国内外同行对中国目前栽培的柑橘品种有所了解，中国柑橘学会的专家历时 4 年，采用数码照相机对我国重要的柑橘品种资源以及品种进行了重新拍摄，编辑成此书，是中国柑橘界众多专家劳动的结晶。这是我国首次采用数码技术在相同的拍摄标准下对 100 多个柑橘品种类型进行拍摄，画面整齐一致，色泽纯正；该书文字简练，内容丰富，同时译成英文，方便了国外同行阅读，是一本很好的参考书。

我相信此书的出版，不仅仅是献给即将在中国召开的第 11 届国际柑橘学大会的一份厚礼，更重要的是对促进中国及世界柑橘产业的发展具有重要的意义。

陈耀邦

中国柑橘学会名誉理事长
中华人民共和国农业部原部长

2008 年 1 月于北京

PREFACE

Citrus is the most important fruit crop in south part of China; it is grown in 20 provinces (autonomous regions and municipalities) in the area of Yangtze River and the southern part to this river. The current annual production of citrus reached to 17.898 million tons, ranking the second in all the fruits in China, just behind apple. Citrus fruit in China is mainly consumed as fresh, and only about 5% is used for processing. China has a long history of citriculture, the record can trace back to 4 000 years; also, China is the very important origin place for many citrus types and varieties. The rich germplasm in China coupled with the long cultivation history has led to the harboring of variety diversity; the ripening season begin in the middle of August and ends in next June. Different types of citrus including Mandarin, Tangerine, Sweet orange, Pummelo, Kumquat, Lemon and Citron have been cultivating in China. Besides using as fresh fruits, citrus is also used for ornamental purpose and for Chinese medicine.

In the past decade, citrus industry developed quickly; a dozens of new cultivars have been released and cultivated to substitute the old ones. The diversified citrus fruits in the market could verify the achievement of variety improvement. Exploiting the local varieties and introducing good varieties from abroad further enriched the citrus germplasm in China. For introducing the currently cultivated cultivars or varieties in China, citrus experts in different areas of China under the organization of Chinese Society of Citriculture have taken 4 years to take photos of the cultivars with digital camera under the same standard to compile this book. It is the achievement of their hard work. The book includes more than 100 cultivars or varieties which is commercially cultivated or used. The book has true-to-type color and uniform pictures with brief introduction to each cultivar both in Chinese and in English; it is knowledgeable as a reference book.

I believe the publishing of this book is not just to celebrate the 11th International Citrus Congress that will be held in China soon, but also, it will greatly promote the sustainable development of citrus industry.

CHEN Yaobang

The honorary Chairman of Chinese Society of Citriculture,
the former Minister of Agriculture of P. R. China

Jan 2008
Beijing



前言

中国是世界柑橘主要的发源地。中国柑橘已有 4 000 多年的栽培历史，经过长期的自然和人工选择，形成了丰富的柑橘资源宝库，现已拥有世界上最丰富的柑橘资源。

中国柑橘主要分布在湖南、江西、四川、广东、福建、湖北、广西、重庆、浙江等 20 个省（自治区、直辖市）。2006 年全国柑橘栽培面积 1 814.5 千 hm^2 ，居世界首位；总产量 1 789.8 万 t，居世界第二。主要的栽培种类有宽皮柑橘、橙、柚、杂柑及其他（枸橼、柠檬、檸檬、枳、金柑等）。

2008 年国际柑橘学大会在我国武汉市召开，为了让世界同行对中国柑橘栽培的种类和品种有所了解，为了我国柑橘事业的发展，2004 年中国柑橘学会决定编辑出版《中国柑橘品种》并成立了编委会。编委根据学会的要求，通力合作，广泛收集资料，认真拍摄标准图，认真撰写，于 2006 年完成初稿，随后分别通过各地编委审改并提出修改意见，2007 年初经修改补充形成送审稿，于 2007 年 11 月由编委审稿后作了修改补充完成终审稿。

全书包括中国柑橘概况和中国柑橘栽培品种两部分。收集柑橘栽培品种（品系）168 个，每个品种记述来源与分布、主要的植物学特性和果实性状、综合评价，并附标准图。这本书是比较全面地反映中国柑橘栽培品种和选育研究成果的第一本科学专著，可以作为广大柑橘从业人员和学生的参考书。

本书在编写过程中得到农业部种植业管理司和主产省（自治区、直辖市）的农业行政管理部门以及主产县的大力支持，中国主要的柑橘科研单位参与了柑橘图片的拍摄和样品提供，中国柑橘学会的广大会员为本书的出版提供了许多素材，在此一并致谢。

由于编写时间短，未能组织更广泛、更深入的调查，有的地方优良品种未能收入本书，有待以后进一步补充。此外，限于编著者水平，疏漏和不妥之处在所难免，敬请读者批评指正。

中国柑橘学会

2008 年 1 月 1 日

FOREWORD

China is the major origin place of citrus in the world. With an over 4000-year history of cultivation and long-term natural and artificial selection, China has harbored the most abundant citrus germplasm in the world.

In China, citrus are mainly distributed in the 20 provinces (autonomous regions and municipalities) of Hunan, Jiangxi, Sichuan, Guangdong, Fujian, Hubei, Guangxi, Chongqing and Zhejiang etc. In 2006 the national citrus acreage reached 1 814.5 thousand hectares, which took the lead in the world, with a total annual production of 17.898 million tons, ranked the second among the citrus producing countries. The principal cultivars are Loose-skin mandarins, Oranges, Pummelos, Hybrid citrus and others (Citrons, Lemons, Limonia, Trifoliate oranges and Kumquats etc.)

In 2008, the International Citrus Congress will be held in Wuhan, China. To introduce citrus varieties grown in China to the worldwide citrus community, the Chinese Society of Citriculture decided in 2004 to organize a committee to edit and publish this book "Citrus Varieties in China". With about 3 years effort, the committee members national-widely collected materials, took photos with digital camera, selected the most typical pictures and composed the illustration to each variety. The first draft was achieved in 2006 and the delivery draft came into being at the beginning of 2007. In November, 2007, the final approved draft was accomplished after amendment and supplement.

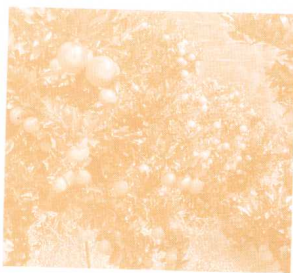
The book consists in two parts: the general situation and the cultivated varieties in China. It introduced 168 cultivars (including strains), respectively presenting the origin and distribution, the main botanic characteristics, fruit traits and the evaluating comments. Each cultivar had a typical picture of the fruits in different views. This book in fact is the first scientific monograph that wholly introduced the citrus varieties being grown in China, as also showed the citrus breeding progress and achievement in this country. It could be used as a reference for people who work in citrus industry, and for students.

It is grateful that the compiling work has received support and assistance from the Plant Industry Administration Department, Ministry of Agriculture of the P.R.China, the agricultural administration of main citrus producing provinces (autonomous regions and municipalities) and counties. The main citrus research institutes of citrus and many members of the Chinese Society of Citriculture made great contribution to the book, including providing samples and joining in the photographing. We would like to take this opportunity to thank them all.

Since the limited time and other reasons, some local elite varieties might be missed in this book and need further supplement in the future. Criticism and rectification to the careless omission and faultiness are respected and appreciated.

The Chinese Society of Citriculture

Jan 1, 2008



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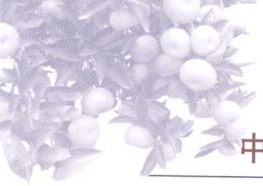
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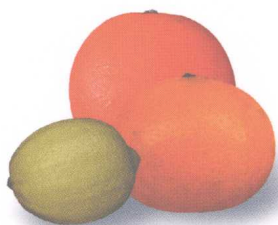


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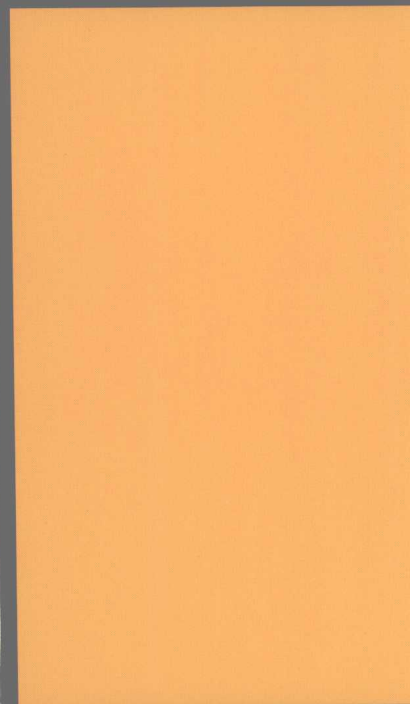


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第一部分 中国柑橘概况

Part I General Situation of Citrus Industry in China



一、中国柑橘简况

Brief Introduction

(一) 中国柑橘栽培历史悠久

The History of Citriculture in China

中国是世界上栽培柑橘历史最早的国家，迄今，已有四千多年的历史，如《禹贡》有“厥包橘柚锡贡”记载，说明在夏禹时代（约公元前 21 世纪），已有橘、柚（香橙）、枳（酸橙）的栽培，并把橘柚作贡品。春秋战国时期（公元前 770—前 221 年）记载“果之美者有江浦之橘，云梦之柚”，“蜀汉、江陵千树橘。”两千多年前屈原写的《离骚》中有《橘颂》一章。说明二千年前，四川、重庆、湖北、湖南一带，柑橘已盛行栽培。世界第一部柑橘专著，宋代韩彦直所著《橘录》（公元 1178 年），记载了浙江温州有 27 种柑橘，介绍繁殖技术、栽培技术、病虫害防治、采收、贮藏和加工等技术。充分说明中国柑橘栽培有悠久历史。

As a pioneer in growing citrus, China has a more than 4000-year long history of citrus production. It was recorded in “Yugong” written in the time of Xiayu (about 21st century B.C.) that Ju (Mandarin), You (Junos) and Zhi (Sour orange) were listed as tribute items, which indicated that citrus fruits were cultivated and used as tributes at that time. In Spring-Autumn and Warring-States Periods (from 770 B.C. to 221 B.C.) it was literarily described that “the most delicious fruits are ‘Ju’(Mandarins) from Jiangpu and ‘You’(Poumeloes) from Yunmeng” and that “there are thousands of trees of ‘Ju’ in Shuhan and Jiangling”. There is one chapter called “Ju Song” or “The Song of Mandarin” in the poem of “Li Sao” compiled 2 000 years ago by the famous poet Qu Yuan, indicating that citrus was widely cultivated in Sichuan, Chongqing, Hubei and Hunan at that time. The world’s first monograph of citrus, “Ju Lu”, written by Han Yanzhi in the Song Dynasty (1178 A.D.), recorded 27 citrus cultivars from Wenzhou, Zhejiang Province, together with technical description of citrus propagation, cultivation, disease and pest control, harvesting, storage and processing.